

WERNER

Inventing Innovation...



Price List JANUARY 2025 PRICE LIST



Innovative Solutions,
Inherent Quality.

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21 Series General Purpose Relays



“Orange Marking Plate
for AC Relays”

“Green Marking Plate
for DC Relays”

Main Features & Information

- Mechanical life up to 10 million operations and 250,000 switching operations under full load
Provides electrical durability up to 1000 cycles.
- All models comply with CE standards.
- All models are available with 50Hz and 60Hz cycles.
- All fixed contacts are reinforced with AntiFuse technology.
- All models are designed for vibrating and even harsh working environments.
- Our products are available in DPDT and 4PDT.
- **12V, 24V, 110V and 220V** products are standard production WernerElectric products.
Additionally, **6V, 120V and 230V** products can be evaluated for your special order requests.

21 Series Relays & Sockets

WERNER ELEKTRIK'S

Relays & Sockets
GENERAL PURPOSE RELAYS

Relay	Features	Voltage		Type	Unit ₹	Features	Voltage		Type	Unit ₹	Std Pkg	Master Pkg
2 C/O						2 C/O						
	5A BASIC	DC	12	21.12.02.012	351.00	10A BASIC	DC	12	21.15.02.012	369.00	10	200
			24	21.12.02.024	351.00			24	21.15.02.024	369.00	10	200
			48	21.12.02.048	369.00			48	21.15.02.048	391.00	10	200
			110	21.12.02.110	391.00			110	21.15.02.110	391.00	10	200
			240	21.12.01.240	391.00			240	21.15.01.240	508.00	10	200
		AC	24	21.12.01.024	380.00		AC	24	21.15.01.024	391.00	10	200
			48	21.12.01.048	369.00			48	21.15.01.048	367.00	10	200
			110	21.12.01.110	369.00			110	21.15.01.110	391.00	10	200
			240	21.12.01.240	390.00			240	21.15.01.240	414.00	10	200
	5A With LED	DC	12	21.12.12.012	369.00		DC	12	21.15.12.012	393.00	10	200
			24	21.12.12.024	369.00			24	21.15.12.024	393.00	10	200
			48	21.12.12.048	390.00			48	21.15.12.048	405.50	10	200
			110	21.12.12.110	421.00			110	21.15.12.110	429.50	10	200
			240	21.12.12.240	509.00			240	21.15.12.240	445.70	10	200
		AC	24	21.12.11.024	394.00		AC	24	21.15.11.024	411.50	10	200
			48	21.12.11.048	394.00			48	21.15.11.048	411.50	10	200
			110	21.12.11.110	382.50			110	21.15.11.110	423.50	10	200
			240	21.12.11.240	405.50			240	21.15.11.240	447.50	10	200
	5A With LED & Diode	DC	12	21.12.22.012	419.50	10A With LED & Diode	DC	12	21.15.22.012	335.00	10	200
			24	21.12.22.024	419.50			24	21.15.22.024	335.00	10	200
			48	21.12.22.048	442.50			48	21.15.22.048	353.50	10	200
			110	21.12.22.110	472.00			110	21.15.22.110	377.00	10	200
	5A With LED, Check Button	AC	24	21.12.31.024	433.00	10A With LED, Check Button	AC					
			48	21.12.31.048	552.00			24	21.15.31.024	411.50	10	200
			110	21.12.31.110	552.00			110	21.15.31.110	444.00	10	200
			240	21.12.31.240	552.00			240	21.15.31.240	457.00	10	200
	5A With LED, Check Button, Diode	DC	12	21.12.42.012	491.00	10A With LED, Check Button, Diode	DC	12	21.15.42.012	372.00	10	200
			24	21.12.42.024	476.00			24	21.15.42.024	372.00	10	200
			48	21.12.42.048	483.00			48	21.15.42.048	386.00	10	200
			110	21.12.42.110	523.00			110	21.15.42.110	412.00	10	200

21 Series Relays & Sockets



General Purpose Relays

Relay	Features	Voltage		Type	Unit ₹
4 C/O					
	3A BASIC	DC	12	21.14.02.012	396.00
			24	21.14.02.024	396.00
			48	21.14.02.048	428.50
			110	21.14.02.110	482.80
			240	21.14.01.240	572.50
		AC	24	21.14.01.024	453.80
			48	21.14.01.048	446.50
			110	21.14.01.110	446.50
			240	21.14.01.240	497.00
	3A With LED	DC	12	21.14.12.012	472.50
			24	21.14.12.024	472.50
			48	21.14.12.048	484.30
			110	21.14.12.110	516.00
			240	21.14.12.240	654.00
		AC	24	21.14.11.024	494.30
			48	21.14.11.048	494.30
			110	21.14.11.110	508.70
			240	21.14.11.240	537.00
	3A With LED & Diode	DC	12	21.14.22.012	589.50
			24	21.14.22.024	589.50
			48	21.14.22.048	621.60
			110	21.14.22.110	662.00
	3A W th LED, Chec Button	AC	24	21.14.31.024	519.20
			48	21.14.31.048	494.00
			110	21.14.31.110	533.60
			240	21.14.31.240	547.80
	3A With LED, Check Button, Diode	DC	12	21.14.42.012	654.00
			24	21.14.42.024	654.00
			48	21.14.42.048	678.20
			110	21.14.42.110	734.80

Features	Voltage		Type	Unit ₹	Std Pkg	Master Pkg
4 C/O						
7A BASIC	DC	12	21.16.02.012	591.00	10	200
		24	21.16.02.024	591.00	10	200
		48	21.16.02.048	610.50	10	200
		110	21.16.02.110	644.30	10	200
		240	21.16.01.240	813.80	10	200
	AC	24	21.16.01.024	605.60	10	200
		48	21.16.01.048	595.80	10	200
		110	21.16.01.110	605.60	10	200
		240	21.16.01.240	663.70	10	200
	DC	12	21.16.12.012	629.50	10	200
		24	21.16.12.024	629.50	10	200
		48	21.16.12.048	647.40	10	200
		110	21.16.12.110	686.20	10	200
		240	21.16.12.240	872.00	10	200
	AC	24	21.16.11.024	658.60	10	200
		48	21.16.11.048	658.60	10	200
		110	21.16.11.110	678.20	10	200
		240	21.16.11.240	717.00	10	200
	DC	12	21.16.22.012	536.00	10	200
		24	21.16.22.024	536.00	10	200
		48	21.16.22.048	565.00	10	200
		110	21.16.22.110	603.00	10	200
	AC	24	21.16.31.024	692.60	10	200
		48	21.16.31.048	658.70	10	200
		110	21.16.31.110	712.00	10	200
		240	21.16.31.240	731.50	10	200
	DC	12	21.16.42.012	595.80	10	200
		24	21.16.42.024	595.80	10	200
		48	21.16.42.048	617.00	10	200
		110	21.16.42.110	669.30	10	200

21 Series Relays & Sockets



General Purpose Relays

Appearance	Socket	Features	Type	Unit ₹	Std Pkg	Master Pkg
	2 C/O	Din Rail Finger safe 250V 10A	71.12.02	122.00	10	200
	4 C/O	Din Rail Finger safe 250V 10A	71.14.00	144.30	10	200
	Accessories					
	Leaf Spring	Top Latch	71.03.01	33.30	10	200
	Wire Spring	Top Latch	71.02.01	14.50	10	200
	Clips	Din rails, 45mm	77.02.01	56.60	10	200

General Purpose Relays

Features:

Switching Power of 3A, 5A, 7A & 10A
No Cadmium
Blade & PC Board mounting
Built-in LED
DPDT & 4PDT
Compact & small in size

Over voltage category

III, as per EN IEC 60947-5-1

Approvals

Approbations and Declaration of conformity

CE

CE



Coil Specifications

DC Coil Ratings

Nominal Voltage (Vn)	Resistance (Ω) (Tolerance ± 10%)	Operating Range (V)			Rated Current Consumption of coil (mA)	Coil Power
		Drop-Out Voltage (Min.10% of Vn)	Vmin (80% of Vn)	Vmax (110% of Vn)		
6V	41	0.6	4.8	6.6	150	0.9W
12V	160	1.2	9.6	13.2	75	
24V	640	2.4	19.2	26.4	37.5	
48V	2640	4.8	38.4	52.8	19	
110V (100/110V)	11K	11	88	121	8.2	
120V (110/120V)	16K	12	96	132	7.5	
220V	54K	22	176	242	4.1	

AC Coil Ratings

Nominal Voltage (Vn)	Resistance (Ω) (Tolerance ± 10%)	Operating Range (V)			Rated Current Consumption of coil (mA)		Coil Power
		Drop-Out Voltage (Min.30% of Vn)	Vmin (80% of Vn)	Vmax (110% of Vn)	50Hz	60Hz	
24V	180	7.2	19.2	26.4	58.3	50	1.2VA (@60Hz) 1.4VA (@50Hz)
48V	640	14.4	38.4	52.8	29.2	25	
110V (100/110V)	3750	33	88	121	13	11	
120V (110/120V)	4430	36	96	132	12	10	
220V (200/220V)	12950	66	176	242	6.4	5.5	
230V	17000	69	184	253	-	-	
240V	18790	72	192	264	6	5	

Weight

Model No.	21.12 & 21.22 (DPDT)	21.14 & 21.24 (4PDT)
Weight (approx.)	35g	39g

21 Series Relays & Sockets

Model Number Structure - General Purpose Relays



21.14.31.120

Series	
21 Series General Purpose Relays	

Terminal Type	
1	Plug-in
2	PCB

Number of Poles & Contact Rating	
2	DPDT - 5A
4	4PDT - 3A
5	DPDT - 10A
6	4PDT - 7A

Features	
0	Basic
1	LED Indicator
2	LED+Diode (DC, polarity positive to pin A2/14)
3	LED+Lockable Test Button+Mechanical Indicator
4	LED+Lockable Test Button+Mechanical Indicator +Diode (DC, polarity positive to pin A2/14)

Coil Rating	
006	6V (Only DC)
012	12V (Only DC)
024	24V
048	48V
110	110V (100/110V)
120	120V (110/120V)
220	220V
230	230V (Only AC)
240	240V (Only AC)

Coil Type	
1	AC (50 / 60Hz)
2	DC

Contact Ratings

Model	Continuous Current	Maximum Switching Power	Rated Load		
			Voltage (V)	Res. Load	Ind. Load
DPDT	5A	1100VA AC 150W	220V AC	5A	2.5 A
			30V DC	5A	2.5 A
	10A	2500VA AC 370W	220V AC	10A	5A
			30V DC	10A	5A
4PDT	3A	1200VA AC 150W	220V AC	3A	1.5A
			30V DC	3A	1.5A
	7A	1750VA AC 125W	220V AC	7A	3.5A
			30V DC	7A	3.5A

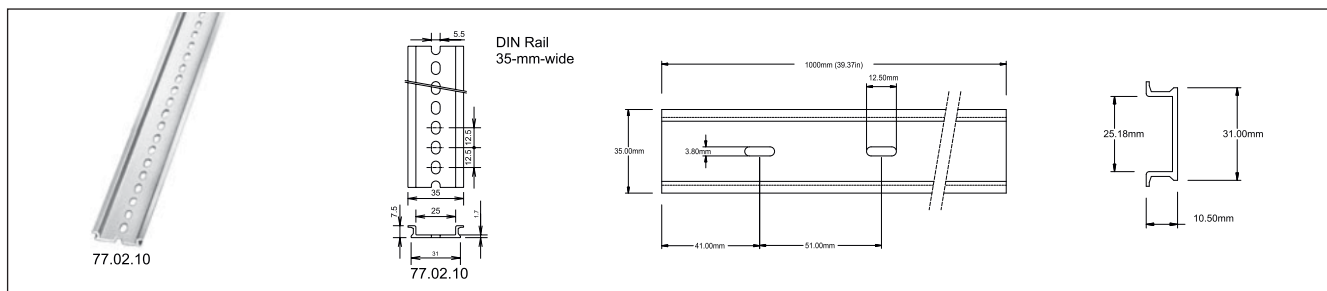
Specifications

Operating Temperature	Blade Terminal	DPDT	-25 to +45°C (No freezing)	
		4PDT	-25 to +55°C (No freezing)	
Operating Temperature	PC Board Terminal	DPDT	-25 to +45°C (No freezing)	
		4PDT	-25 to +55°C (No freezing)	
Contact Resistance		DPDT	30mΩ maximum	
		4PDT	50mΩ maximum	
Operating Humidity		—	45 to 85% RH (no condensation)	
Insulation Resistance		—	100 MΩ minimum (500V DC megger)	
Dielectric Strength		DPDT	Between live and dead parts: 2,200V AC, 1 minute	
			Between contact and coil: 2,200V AC, 1 minute	
		4PDT	Between contacts of different poles: 2,200V AC, 1 minute	
			Between contacts of the same pole: 1,000V AC, 1 minute	
Vibration Resistance		—	Damage limits: 10 to 60Hz, amplitude 0.5 mm	
			Operating extremes: 10 to 55Hz, amplitude 0.5 mm	
Shock Resistance		—	Damage limits: 1,000m/s²	
			Operating extremes: 200m/s²	
Mechanical Durability		AC	10,000,000 operations minimum	
		DC		
Electrical Durability		DPDT	500,000 operations minimum (220V AC, 5A)	
		4PDT	200,000 operations minimum (220V AC, 3A)	
Power Consumption (approx.)		DPDT	AC: 1.4 VA (50 Hz), 1.2 VA (60 Hz) DC: 0.9W	
		4PDT		
Operate Time		DPDT	20ms maximum	
		4PDT		
Release Time		DPDT	20ms maximum	
		4PDT		
Minimum Applicable Load		DPDT	5V DC, 1 mA (reference value)	
		4PDT	1V DC, 1 mA (reference value)	
Contact Material		DPDT	AgSnO2	
		4PDT	AgSnO2, AgNi	
Operating Frequency		—	Electrical: 2000 operations/hour maximum	
			Mechanical: 20,000 operations/hour maximum	

Measured at 20° C Operating temperature

Accessories

DIN Rails



DIN Rail No.	Material	Length	Weight	Width
77.02.10	Aluminum	1000 mm	200 g	35 mm

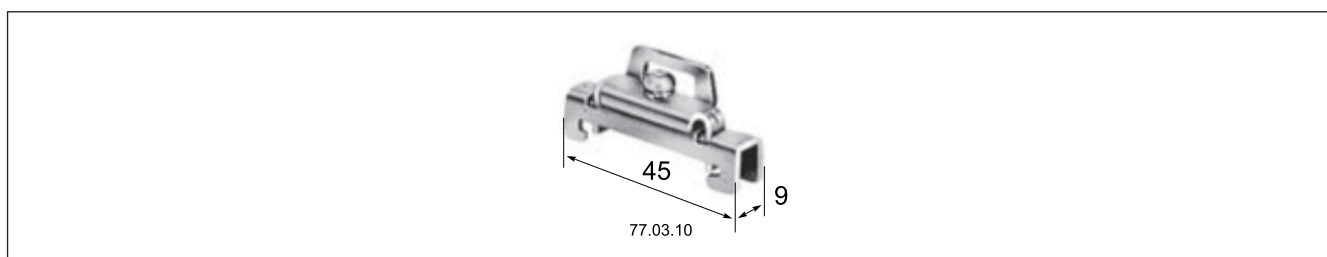
Sockets - Blade Terminal Models

Socket Specifications

Mounting Type		Terminal	Torque	Wire Size	Model No.	
					2 Poles	4 Poles
DIN Rail	With Finger-safe	M3 screws - coil M3.5 screws - contact	5.5 - 9in•lbs	up to 2 - 14AWG	71.12.01	71.14.01
	Without Finger-safe	M3 screws - coil M3.5 screws - contact	5.5 - 9in•lbs	up to 2 - 14AWG	71.12.00	71.14.00
PCB Mount Socket	—	—	—	—	71.22	71.24

Poles	2 Poles			4 Poles		
	No Finger-safe	Finger-safe	PCB	No Finger-safe	Finger-safe	PCB
Voltage	250V	250V	250V	250V	250V	250V
A	7	10	7	7	10	7

Mounting Clips



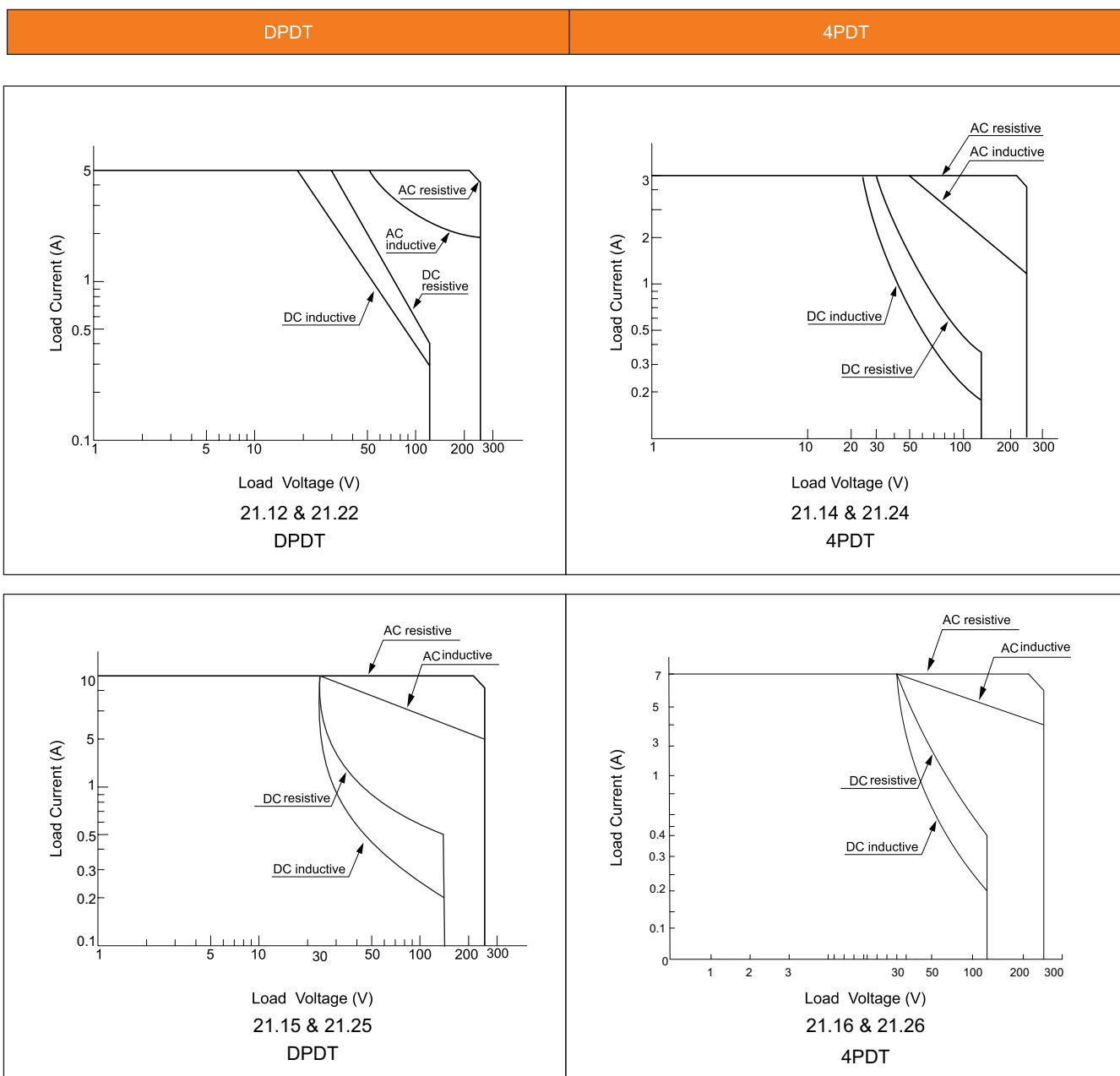
Mounting Clips No.	Rails	Width	Weight
77.03.10	77.02.10	45 mm	15.2 g

Applicable Clips

Appearance	Description	Relay	Suitable For DIN Mount Socket
	Leaf Spring (top latch)	21.12 & 21.22 (DPDT)	71.03.01
		21.14 & 21.24 (4PDT)	
	Wire Spring	21.12 & 21.22 (DPDT)	21.WC
		21.14 & 21.24 (4PDT)	

* For Suitable relay please check Sockets catalogue

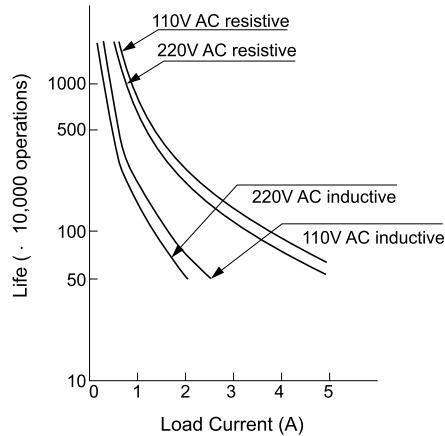
Switching Capacity



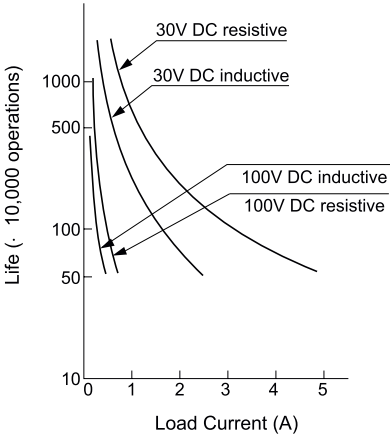
Electrical Characteristics

21.12 & 21.22 (DPDT)

AC

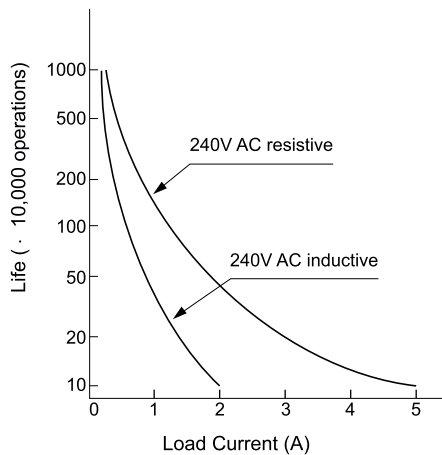


DC

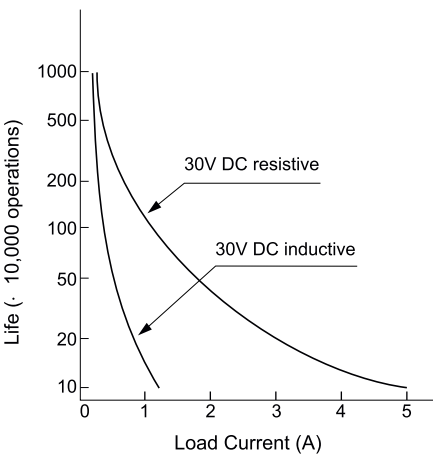


21.14 & 21.24 (4PDT)

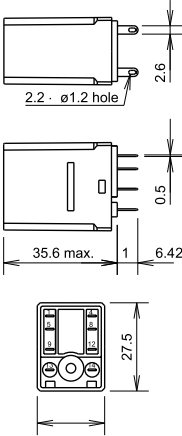
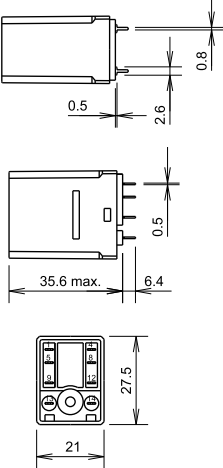
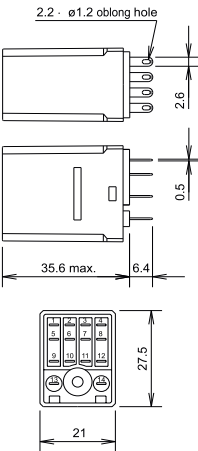
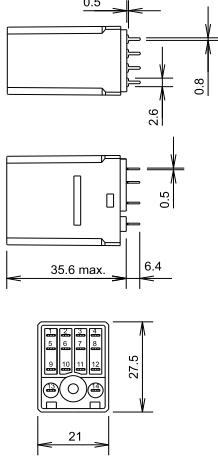
AC



DC

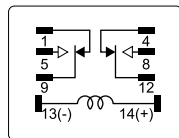


Dimensions

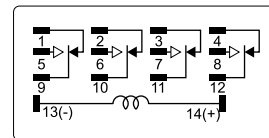
Blade Terminal	PC Board Terminal
21.12 (DPDT)	21.22 (DPDT)
 DPDT 	 DPDT 
21.14 (4PDT)	21.24 (4PDT)
 4PDT 	 4PDT 

Basic Type - Internal Connection (Bottom View)

DPDT

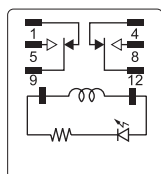


4PDT

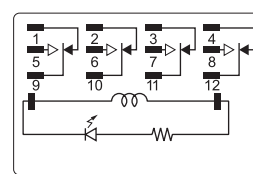


LED Type - Internal Connection (Bottom View)

DPDT

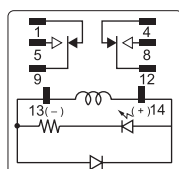


4PDT

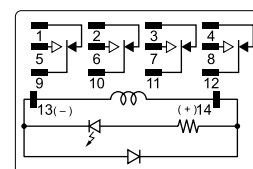


LED & Diode Type - Internal Connection (Bottom View)

DPDT



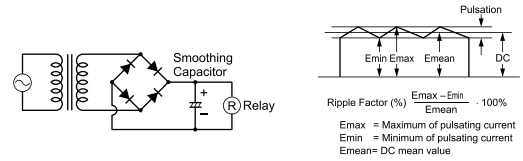
4PDT



* Measured below 24V AC/DC

Instructions

Apply rated voltage to the relay coil to ensure correct relay type. When using a power supply containing a ripple voltage, suppress the ripple factor within 6% however, a complete DC voltage is best for the coil power to make sure of stable relay operation. Pickup voltage and dropout voltage depend on the ripple factor when power is supplied through a rectification circuit. Include a smoothing capacitor for better operation.

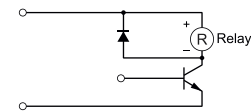


Special consideration should be taken when driving an element at the same time as the relay operation for the circuit design. Leakage current (I_o) flows through the relay coil while the relay is off. Leakage current causes coil release failure or adversely affects the vibration resistance and shock resistance. It is advisable to design a circuit as shown.



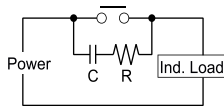
Connecting a diode to suppress at the back electromotive force prevents a high-voltage pulse which is generated when the relay coil is turned off, causing transistor to deteriorate or break, make sure the coil release time is slightly longer. To shorten the coil release time, connect a Zener diode which is slightly higher than the power voltage, between the collector and emitter of the transistor.

Back emf suppressing diode



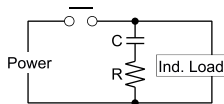
Protection

When an inrush current flows through the load, the contact may become welded. The contact ratings show maximum values, Make sure that these values are not exceeded. Contact a contact protection circuit, such as a current limiting resistor as a optional solution.



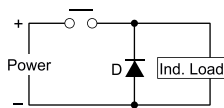
This protection circuit can be used when the load impedance is smaller than the RC impedance in an AC load power circuit.

R: Resistor of approximately the same resistance value as the load
C: 0.1 to 1 μF



This protection circuit can be used for both AC and DC load power circuits.

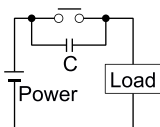
R: Resistor of approximately the same resistance value as the load
C: 0.1 to 1 μF



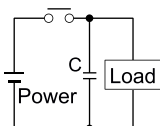
This protection circuit can be used for DC load power circuits. Use a diode with the following ratings.

Reverse withstand voltage: Power voltage of the load circuit x 10
Forward current: More than the load current.

Prevents



This protection circuit is very effective in arc suppression when opening the contact however, the capacitor is charged while the contacts are opened else the capacitor is discharged through the contacts, increasing the possibility of contact welding.



This protection circuit is very effective in arc suppression when opening the contact however, a current flows to charge the capacitor, causing contact welding when the contacts are closed.

Safety Precautions

Do not drop, shock or remove the relay cover to maintain the initial characteristics.
The relay cover cannot be removed from the base during normal operation.
Use the relay in environments free from dust, condensation, dioxide or hydrogen sulfide.

Make sure that the coil voltage does not exceed applicable coil voltage range.
Prevent usage of relays in the vicinity of strong magnetic field, as that may cause malfunctioning of relays.

Failure to turn off power before wiring, installation, removal and maintenance may cause electrical shock or fire hazard.

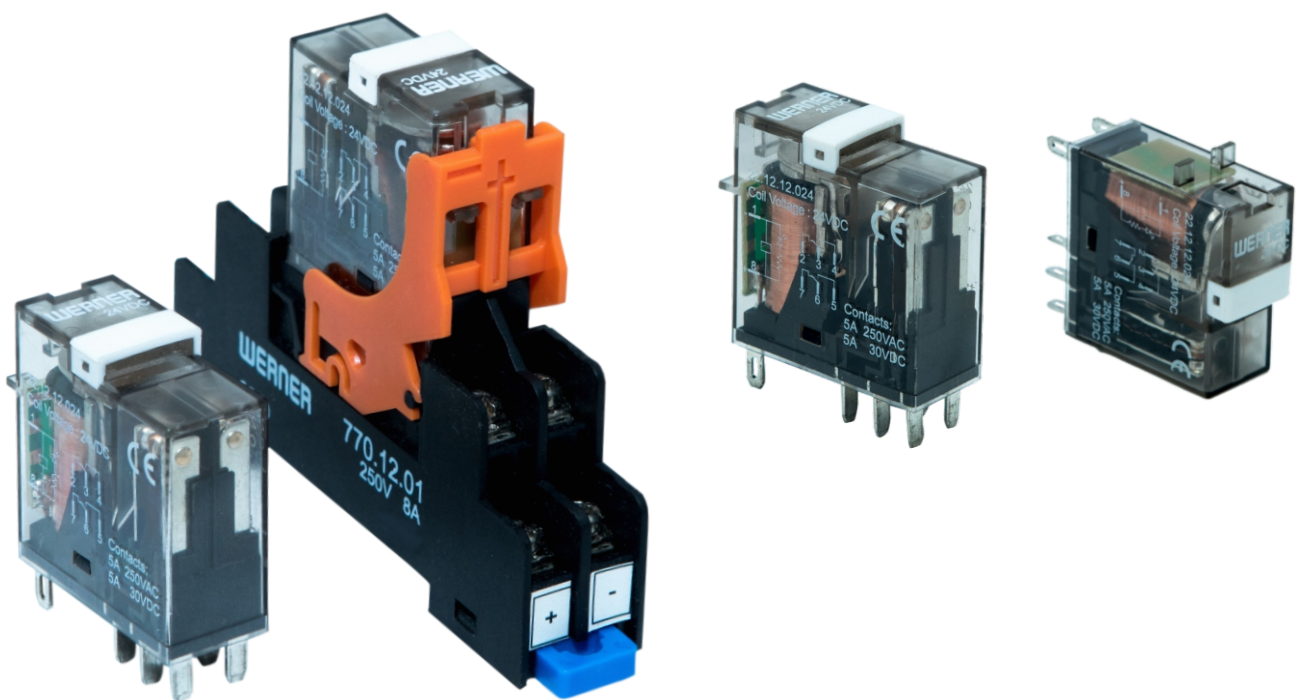
Attention on specifications and rated values to prevent electrical shock or fire hazard.
Use wires of the proper size to meet voltage and current requirements.

Tighten the terminal screws on the relay socket to the proper tightening torque.

Prevent using the check button as a switch.
The durability of the check button is a minimum of 200 operations.
It is advisable to apply a positive voltage to terminals of neighboring poles and a negative voltage to the other terminals of neighboring poles when using DC loads on 4PDT relays to prevent the possibility of short circuits.

A soldering iron of 30 to 60W would be recommended when soldering the relay terminals and the preferred time to complete soldering is within 4 seconds approximately.

22 Series Relays & Sockets



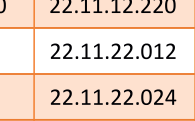
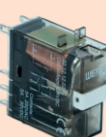
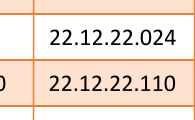
Main Features & Information

- Mechanical life up to 50 million operations and 200,000 under full load
Offers electrical durability up to one switching cycle.
- Operating temperature from **-40 to +70°C**.
- All models comply with **CE** standards
- All models are available with **50Hz** and **60Hz** cycles.
- Our products are available as **SPDT** and **DPDT**.
- **12V, 24V, 110V** and **220V** products are standard production.

22 Series Relays & Sockets

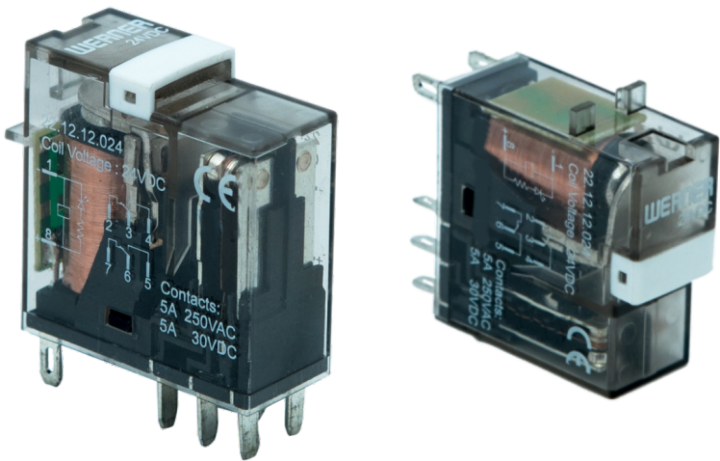


22 Series Relays & Sockets

Relay	Features	Voltage		Type	Unit ₹	Std Pkg	Master Pkg	Socket	Features	Type	Unit ₹	Std Pkg	Master Pkg						
1 C/O																			
	10A	DC	12	22.11.12.012	288.60	10	200		Din Rail	770.11.01	166.50	10	200						
	With LED		24	22.11.12.024	288.60	10	200		Without Finger Safe										
	Compact 12.7mm		110	22.11.12.110	288.60	10	200		250V 10A										
			220	22.11.12.220	288.60	10	200												
	10A	DC	12	22.11.22.012	322.00	10	200												
	With LED & Diode		24	22.11.22.024	322.00	10	200												
	Compact 12.7mm Width		110	22.11.22.110	322.00	10	200												
			220	22.11.22.220	322.00	10	200												
2 C/O																			
	8A	DC	12	22.12.12.012	297.50	10	200		Din Rail	770.12.01	194.20	10	200						
	With LED		24	22.12.12.024	297.50	10	200		Without Finger Safe										
	Compact 12.7mm		110	22.12.12.110	297.50	10	200		250V 10A										
			220	22.12.12.220	297.50	10	200												
	8A	DC	12	22.12.22.012	327.50	10	200												
	With LED & Diode		24	22.12.22.024	327.50	10	200												
	Compact 12.7mm Width		110	22.12.22.110	327.50	10	200												
			220	22.12.22.220	327.50	10	200												

22 Series Relays & Sockets

Model Number Structure - Relays



22.12.12.024

Series	
1	22 Series Relays

Terminal Type	
1	Blade

Number of Poles	
1	SPDT
2	DPDT

Types	
0	Basic
1	LED
2	LED & Diode

Voltage	
012	12V
024	24V
030	30VDC
110	110V
230	230V

Coil	
1	AC
2	DC

Relays

Features:

- Compact housing only 12.7mm wide
- Non-polarized LED indicator
- Excellent electrical and mechanical life
- Provided with nameplate
- Environmental friendly, RoHS directive compliant
- Diode type:
Diode reverse withstand voltage: 1000V
- High switching power (1-pole: 12 A)



Approvals

Approbations and Declaration of conformity

CE

CE

Overvoltage category

III, as per EN IEC 60947-5-1

Coil Features

AC Coil Ratings

Voltage (V)	Rated Current (mA)		Coil Resistance (Ω)	Coil Inductance (H) (reference value)		Operation Properties		
	AC 50Hz	AC 60Hz		Arm. OFF	Arm. ON	Released Voltage	Continuous Voltage	Operate Voltage
12V	87.8	75	62.5	0.17	0.38	30% min.	110% max	80% min.
24V	43.7	37.6	253	0.81	1.55			
110V	9.6	8.2	5566	13.33	26.83			
230V	4.4	3.8	27172	72.68	143.90			

±15% at 20°C

DC Coil Ratings

Voltage (V)	Rated Current (mA)	Coil Resistance (Ω)	Coil Inductance (H) (reference value)		Operation Properties		
			Arm. OFF	Arm. ON	Released Voltage	Continuous Voltage	Operate Voltage
12V	43.2	278	0.98	2.35	10% min.	110% max	80% min.
24V	21.6	1100	3.60	8.25			
30V	27	1730	4.50	10.30			
110V	5.8	22830	19.2	32.10			

±15% at 20°C

Contact Ratings

Maximum Contact Capacity						
Model	Continuous Current	Allowable Contact Power		Rated Load		
		Inductive Load	Resistive Load	Voltage	Ind. Load	Res. Load
SPDT	12A	1875VA AC 180W DC	3000VA AC 360W DC	250V AC	7.5 A	12 A
				30V DC	6A	12 A
				220V DC	–	0.5A
DPDT	5A	1000VA AC 120W DC	2000VA AC 240W DC	250V AC	2.5 A	5 A
				30V DC	2.5 A	5 A
				220V DC	–	0.2A

Specifications

Operating Temperature	SPDT	–40 to +70°C (No freezing)	
	DPDT	–40 to +70°C (No freezing)	
Contact Resistance	–	50mΩ maximum at 5V DC, 1A	
Operating Humidity	–	5% to 85% RH (No condensation)	
Insulation Resistance	–	1000MΩ minimum	
Dielectric Strength	SPDT	Between contact and coil:	5,000V AC, 1 minute
	DPDT	Between contacts of different poles:	3,000V AC, 1 minute
		Between contacts of the same pole:	1,000V AC, 1 minute
Vibration Resistance	–	Damage limits:	10 to 55Hz, amplitude 0.75 mm
		Operating extremes:	10 to 55Hz, amplitude 0.75 mm
Shock Resistance	–	Damage limits:	1,000m/s ² (100G)
		Operating extremes:	NO contact: 200m/s ² (20G) NC contact: 100m/s ² (10G)
Mechanical Durability	–	AC coil: 30,000,000 operations minimum DC coil: 50,000,000 operations minimum	
Electrical Durability	–	AC load: 200,000 operations minimum DC load: 100,000 operations minimum	
Power Consumption (approx.)	SPDT	AC: 1.1VA (50Hz), 1.2VA (60Hz)	DC: 0.9W
	DPDT	AC: 1.4 VA (50 Hz), 1.2 VA (60 Hz)	DC: 0.9W
Operate Time	SPDT	15ms maximum at 20°C	
	DPDT	15ms maximum at 20°C	
Release Time	SPDT	10ms maximum at 20°C (with diode: 20 ms maximum)	
	DPDT	10ms maximum at 20°C (with diode: 20 ms maximum)	
Minimum Applicable Load	–	24V DC, 30 mA 5V DC, 100 mA (reference value)	
Contact Material	–	Silver cadmium oxide	
Operating Frequency	–	Electrical:	1,800 operations/hour maximum
		Mechanical:	18,000 operations/hour maximum
Weight (approx.)	–	20g	

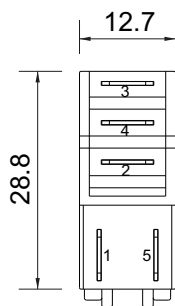
Model Number Selection

Types	Voltage	Model No.		Model No.	
		SPDT		DPDT	
		AC	DC	AC	DC
Basic	12V	22.11.01.012	22.11.02.012	22.12.01.012	22.12.02.012
	24V	22.11.01.024	22.11.02.024	22.12.01.024	22.12.02.024
	30V	-	22.11.02.030	-	22.12.02.030
	110V	22.11.01.110	22.11.02.110	22.12.01.110	22.12.02.110
	230V	22.11.01.230	-	22.12.01.230	-
LED	12V	22.11.11.012	22.11.12.012	22.12.11.012	22.12.12.012
	24V	22.11.11.024	22.11.12.024	22.12.11.024	22.12.12.024
	30V	-	22.11.12.030	-	22.12.12.030
	110V	22.11.11.110	22.11.12.110	22.12.11.110	22.12.12.110
	230V	22.11.11.230	-	22.12.11.230	-
LED & Diode	12V	22.11.21.012	22.11.22.012	22.12.21.012	22.12.22.012
	24V	22.11.21.024	22.11.22.024	22.12.21.024	22.12.22.024
	30V	-	22.11.22.030	-	22.12.22.030
	110V	22.11.21.110	22.11.22.110	22.12.21.110	22.12.22.110
	230V	22.11.21.230	-	22.12.21.230	-

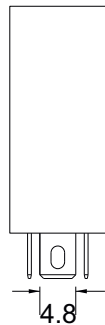
Dimensions

Blade Terminal

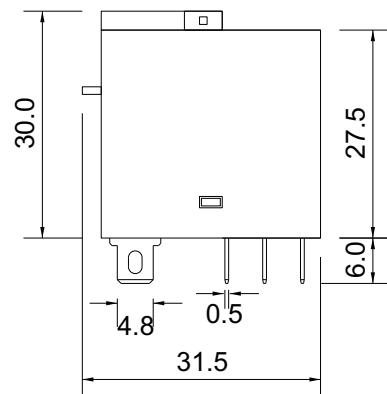
22.11 (SPDT)



BOTTOM VIEW

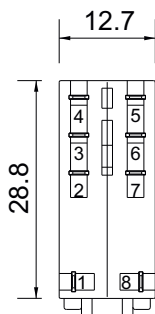


FRONT VIEW

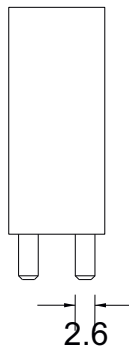


SIDE VIEW

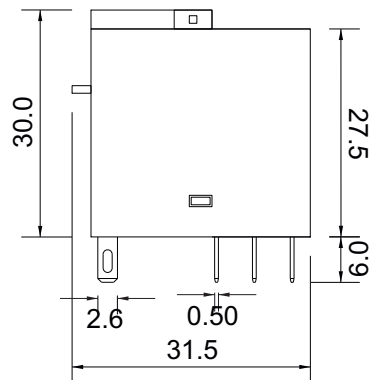
22.12 (DPDT)



BOTTOM VIEW



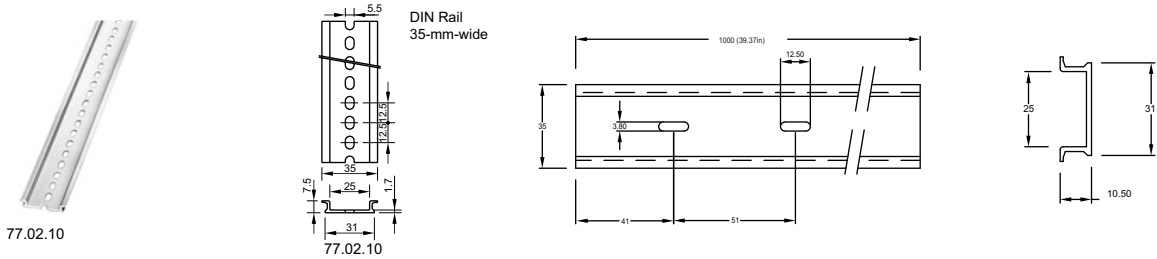
FRONT VIEW



SIDE VIEW

Accessories

DIN Rails



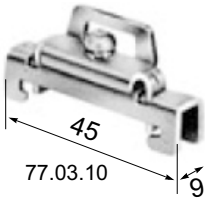
DIN Rail No.	Material	Length	Weight	Width
77.02.10	Aluminum	1000 mm	200 g	374" (9mm)

Socket Specification



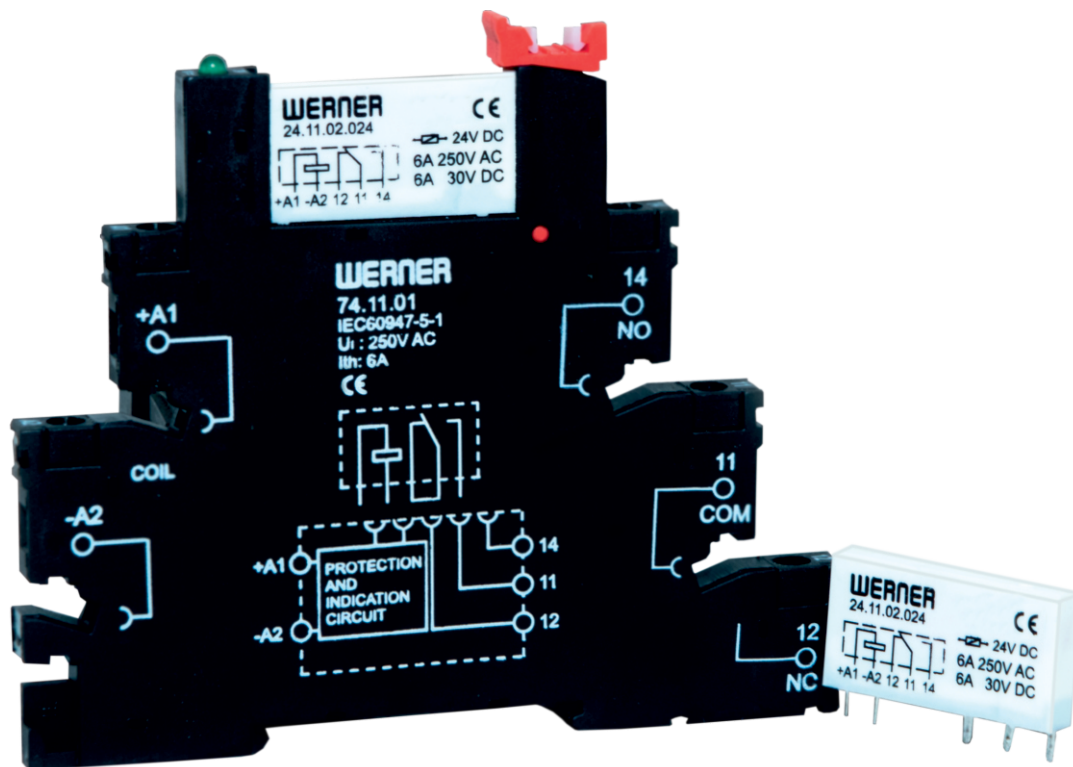
Mounting Type		Terminal	Torque	Wire Size	1 Pole	2 Poles
DIN Rail	Without Finger-safe	M3 screws	0.6 to 1.0 N.m	Up to 2.0mm ² (12AWG)	770.11.01	770.12.01

Mounting Clips



Mounting Clips No.	Rails	Width	Weight
77.03.10	77.02.10	45 mm	15.2 g

24 Series Ultra Slim Relays



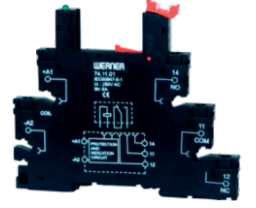
Main Features & Information

- All models are designed by applying maximum function minimum area design principles.
- All models were designed by applying snow modeling and finite element design methods.
- All models are designed to be suitable for vibrating and heavy-duty working environments.
- All models are suitable for use with 50Hz and 60Hz cycles.
- All models are manufactured for direct PC or socket mounting.
- Both relay and sockets are only 5mm wide.
- All models are designed for direct PC mounting or panel mounting via 77 Series sockets.
- All models are available in standard current ratings from 6V to 48V (DC).
- Products with SPST contacts can be used with continuous load current up to 8 Amperes.
- Products with SPDT contacts can be used with continuous load current up to 6 Amperes.
- All models provide dielectric strength up to 5,000V (AC).
- All models are completely closed, protected and leak-proof type products.

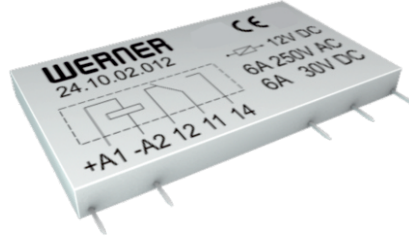
24 Series Ultra Slim Relays

24 Series Ultra Slim Relays and Sockets Price List

Relay	Features	Voltage	Product code	Unit Price ₹	Std Pkg	Socket	Features	Product code	Unit Price ₹	Std Pkg
SPDT										
	6A Ultra slim	DC	6	24.11.02.006	229.80	200				
			12	24.11.02.012	229.80	200				
			24	24.11.02.024	229.80	200				
			48	24.11.02.048	229.80	200				
							Ultra slim 10A	74.11.01	249.70	200



Product Selection Table



24.11.01.024

Seri
24 Serisi Ultra Slim Röleler

Terminal Tipi
1 Ultra slim

Kutupar
0 SPST
1 SPDT

Tip
0 Basic

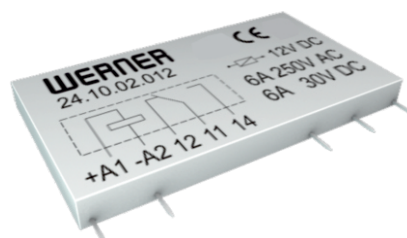
Voltaj
006 6V
012 12V
024 24V
048 48V

Bobin
1 AC
2 DC

Ultra Slim Relays

Features:

- Ultra Slim Relay
- High Dielectric strength of 5,000V AC
- Contact Capacity of 6A
- Only 15 mm height
- SPST & SPDT
- Recommended for interface application & Home appliance



Approvals

Approbations and Declaration of conformity

CE

CE

Overvoltage category

III, as per EN IEC 60947-5-1

DC Coil Ratings

Voltage	Rated Current (mA) AC 60Hz	Coil Resistance ($\Omega \pm 10\%$)	Power Consumption (watts)	Operation Properties		
				Continuous Voltage	Pickup Voltage	Dropout Voltage
6V	28.3	211	Abt. 0.217	160% max.	70% max.	5% min.
12V	14.2	847				
24V	7.1	3388				
48V	4.5	10617				

 $\pm 15\%$ at 20°C

Contact Rating

Model	Contact Form	Continuous Current Resistive load	Allowable Voltage
SPST	NO	6A	250 V DC
SPDT	NO	5A	30 V DC
	NC	5A	

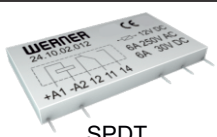
Specifications

Operating Temperature	–40 to +85°C (No freezing)	
Contact Resistance	100mΩ maximum at 6V DC, 1A	
Operating Humidity	45% to 85% RH (No condensation)	
Insulation Resistance	100MΩ minimum at 500V DC	
Dielectric Strength	Between contact and coil:	4,000V AC at 50/60 Hz for 1 minute
	Between Contacts:	1,000VAC at 50/60 Hz for one minute
Vibration Resistance	Damage limits:	10 to 55Hz, amplitude 1.5 mm
	Operating extremes:	10 to 55Hz, amplitude 1.5 mm
Shock Resistance	Damage limits:	100m/s ² (100G)
	Operating extremes:	1000m/s ² (100G)
Mechanical Durability	5x10 ⁷ Operations at No Load condition.	
Electrical Durability	(NO : 5x10 ⁴ , NC : 3x10 ⁴ Operations at Rated Resistive Load.	
Operate Time	10ms maximum at 20°C	
Release Time	5ms maximum at 20°C	
Contact Material	Silver Tin oxide alloy	
Operating Frequency	Electrical:	3600 operations/hour maximum
	Mechanical:	10,000 operations/hour maximum
Weight (approx.)	6g	

Socket Specification

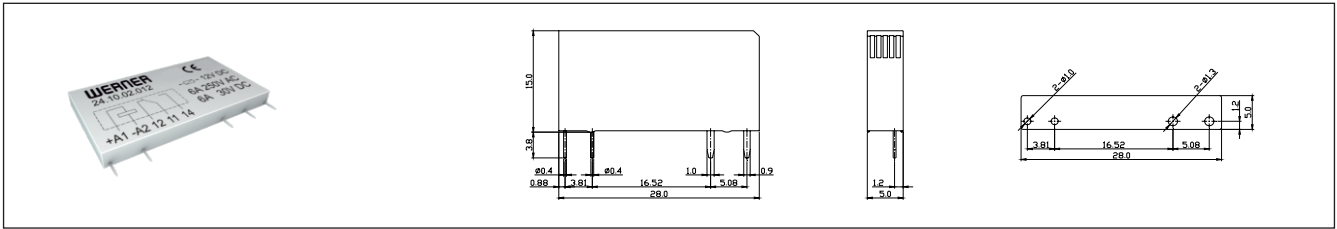
Mounting	Terminal type	Terminal	Torque	Wire Size	Model No.
					1 Pole
DIN Rail	With Finger-safe	M3 screws - coil M3.5 screws - contact	0.6 to 1.0 N.m	Up to 3.5mm ² (12AWG)	74.11.01
	With Finger-safe	With Spring Clamp	–	upto 1.5mm ²	74.11.02

Model Number Selection

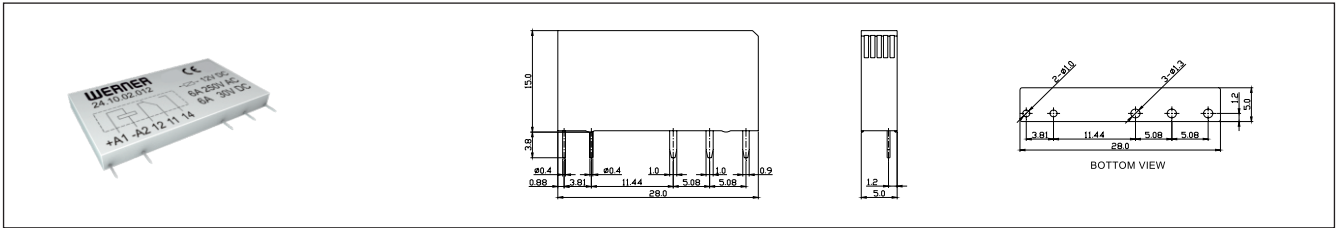
Appearance	Terminal Type	Types	Voltage	Model No.	
				AC	DC
 SPST	Ultra Slim	Basic	6V	24.10.01.006	24.10.02.006
			12V	24.10.01.012	24.10.02.012
			24V	24.10.01.024	24.10.02.024
			48V	24.10.01.048	24.10.02.048
 SPDT	Ultra Slim	Basic	6V	24.11.01.006	24.11.02.006
			12V	24.11.01.012	24.11.02.012
			24V	24.11.01.024	24.11.02.024
			48V	24.11.01.048	24.11.02.048

Dimensions

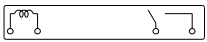
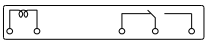
24.21(SPST)



24.22 (SPDT)

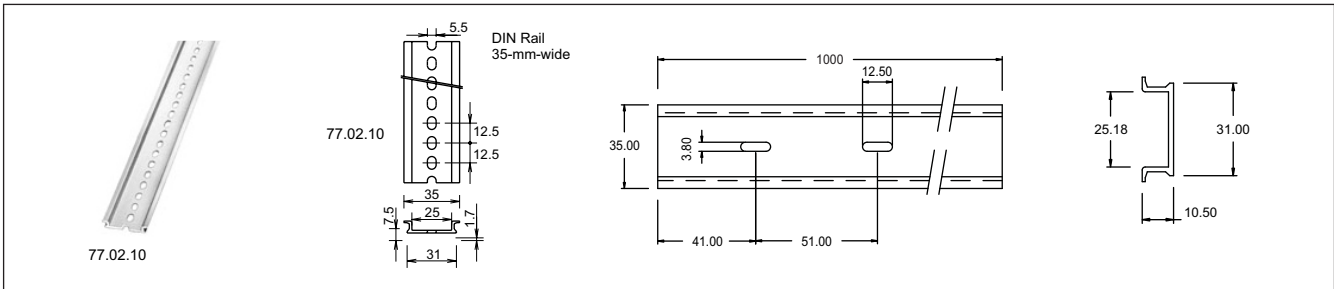


Internal Connection (Bottom View)

SPST	SPDT
	

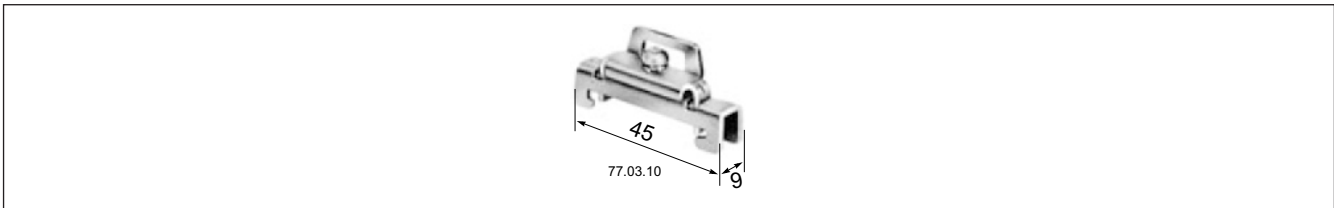
Accessories

DIN Rails



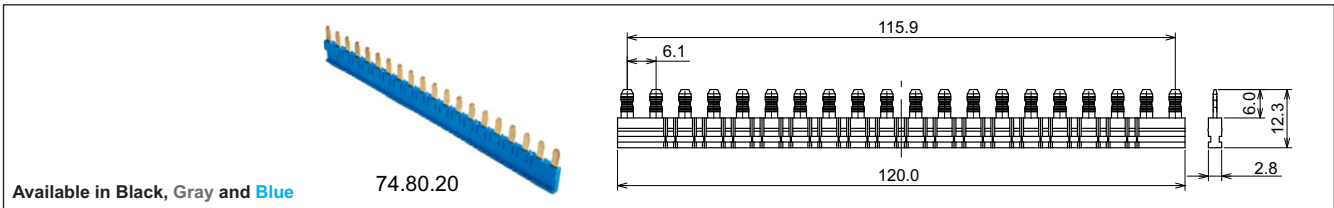
DIN Rail No.	Material	Length	Weight	Width
77.02.10	Aluminum	1000 mm	200 g	35 mm

Mounting Clips



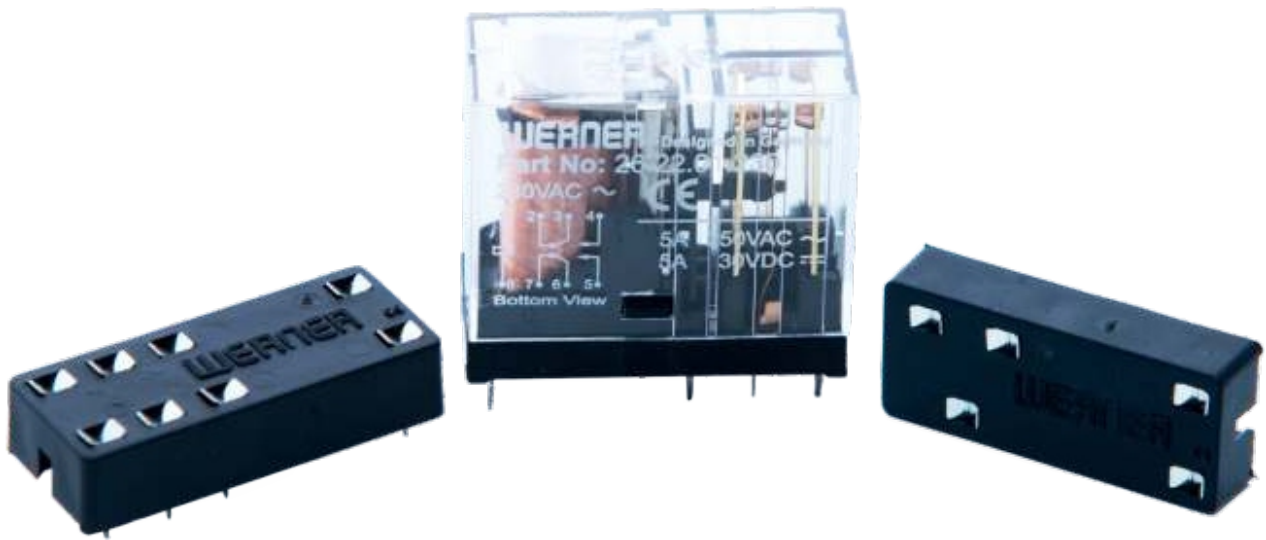
Mounting Clips No.	Rails	Width	Weight
77.03.10	77.02.10	45 mm	15.2 g

Jumper for 6mm Relay



Available in Black, Gray and Blue

26 Series PCB Relays & Sockets



Main Features & Information

- All models are suitable for PCB board, PCB socket or panel socket mounting.
- All models are designed by applying Maximum Function Minimum Area design principles.
- All models are designed by applying solid modeling and finite element design models.
- Available with SPDT, DPDT, SPST - NA and DPST - NA contact types.
- All models are suitable for use with 50Hz and 60Hz cycles.
- Up to 12 Amps continuous load current (SPST)
- Continuous load current (SPDT) up to 8 Amps
- All models have a dielectric strength of 5000VAC.

26 Series PCB Relays And Sockets



Model Number Structure - PC Board Relays

26.22.01.120

Series	
26 Series Relays	

Terminal Type	
2	PC Board

Number of Poles	
1	SPDT
2	DPDT
3	SPST-NO
4	DPST-NO

Types	
0	Basic

Voltage	
006	6V
012	12V
024	24V
048	48V
110	110V
120	120V
220	220V
240	240V

Coil	
1	AC
2	DC

26 Series PCB Relays and Sockets Price List

Relay	Features	Voltage		Type	Unit ₹	Std Pkg	Master Pkg	Socket	Features	Type	Unit ₹	Std Pkg	Master Pkg
1 C/O													
	10A Basic Compact & Small	DC	12	26.21.02.012	100.00	50	200		PCB Type 250V 12A	SK-G2R1	16.60	100	200
			24	26.21.02.024	100.00	50	200						
			110	26.21.02.110	100.00	50	200						
			220	26.21.02.220	100.00	50	200						
		AC	12	26.21.01.012	100.00	50	200						
			24	26.21.01.024	275.30	50	200						
			110	26.21.01.110	275.30	50	200						
			220	26.21.01.220	275.30	50	200						
2 C/O													
	8A Basic Compact & Small	DC	12	26.22.02.012	113.20	50	200		PCB Type 250V 12A	SK-G2R2	18.80	100	200
			24	26.22.02.024	113.20	50	200						
			110	26.22.02.110		50	200						
			220	26.22.02.220		50	200						
		AC	12	26.22.01.012	325.20	50	200						
			24	26.22.01.024	325.20	50	200						
			110	26.22.01.110	325.20	50	200						
			220	26.22.01.220	325.20	50	200						

PC Board Relays

Features:

PC Board Relays
Dielectric strength of 5,000V AC
Compact and small
Contact Capacity of 5A & 10A
SPDT, DPDT, SPST-NO & DPST-NO



Approvals

Approbations and Declaration of conformity

CE

CE

Overvoltage category

III, as per EN IEC 60947-5-1

AC Coil Ratings

Voltage	Rated Current (mA) AC 60Hz	Coil Resistance (Ω)	Power Consumption (VA)	Operation Properties		
				Continuous Voltage	Pickup Voltage	Dropout Voltage
6V	150	16	Approx. 0.90	110% max. at 70°C (158°F)	80% max.	30% min.
12V	75	65				
24V	37.50	260				
110V	10.60	4600				
120V	7.50	6500				
220V	4.1	25000				
240V	5.30	30000				

±15% at 20°C

DC Coil Ratings

Voltage	Rated Current (mA)	Coil Resistance (Ω)	Power Consumption (MW)	Operation Properties		
				Continuous Voltage	Pickup Voltage	Dropout Voltage
6V	88.20	68	Approx. 530	110% max. at 70°C (158°F)	70% max.	15% min.
12V	43.60	275				
24V	21.80	1,100				
48V	11.50	4,170				
110V	4.80	22,900				

±15% at 20°C

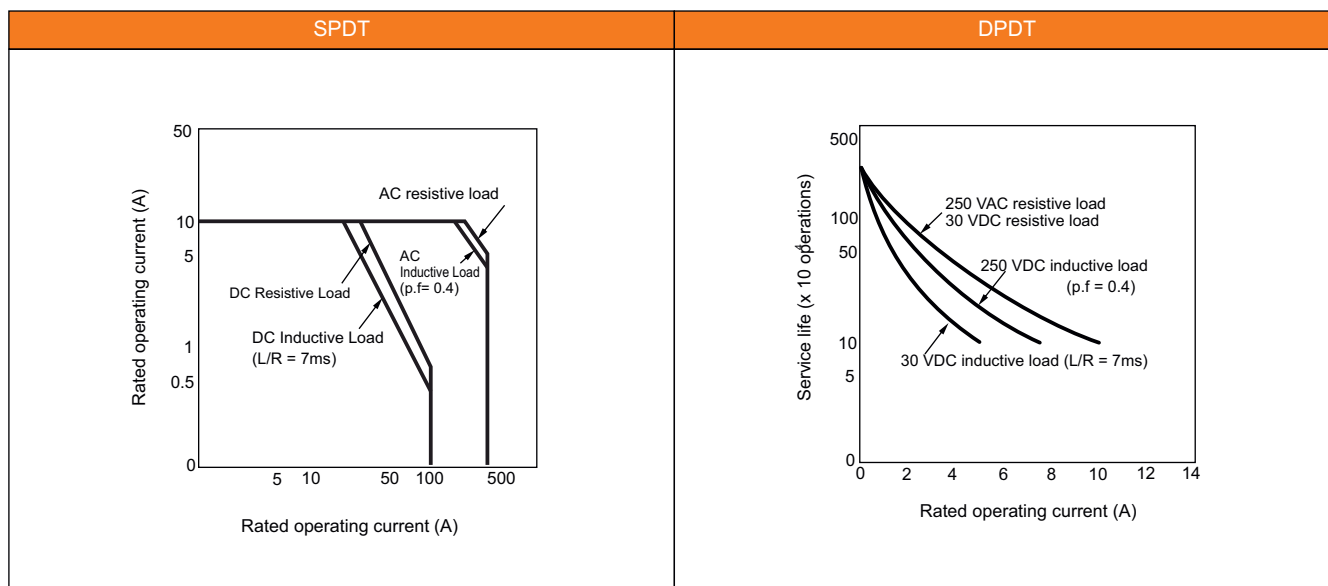
Weight

Model No.	26.21 (SPDT)	26.22 (DPDT)	26.23 (SPST-NO)	26.24 (DPST-NO)
Weight (approx.)	17g	18g	15g	16g

Specifications

Operating Temperature	SPDT	–35 to +85°C (No freezing)
	DPDT	–35 to +85°C (No freezing)
Contact Resistance	–	100mΩ
Operating Humidity	–	5% to 85% RH
Insulation Resistance	–	1000MΩ minimum (at 500 VDC)
Dielectric Strength	–	5,000 VAC, 50/60 Hz for 1 minute between coil and contacts
	–	1,000 VAC, 50/60 Hz for 1 minute across contacts of same pole
	–	3,000 VAC, 50/60 Hz for 1 minute between contact sets, 2-pole non-latching
	–	1,000 VAC, 50/60 Hz for 1 minute between set and reset coils of dual coil latching
Vibration Resistance	–	10 to 55 Hz; 1.50 mm (0.06) double amplitude
	–	10 to 55 Hz; 1.50 mm (0.06) double amplitude
Shock Resistance	–	1,000 m/s ² (approx. 100G)
	–	200 m/s ² (approx. 20 G) when energized, 100 m/s ² (approx. 10 G) when de-energized
Mechanical Durability	–	10,000,000 operations min. DC: 20,000,000 operations min. (at 18,000 operations/hour)
Electrical Durability	–	100,000 operations min. (at 1,800 operations /hr) at rated load. See "Characteristics Data"
Operate Time	SPDT	15ms maximum
	DPDT	15ms maximum
Release Time	SPDT	AC: 10 ms max.; DC: 5 ms max.
	DPDT	AC: 10 ms max.; DC: 5 ms max.
Contact Ratings	SPDT	10A, 30 VDC (Resistive), 250 VAC (General use)
	DPDT	5A, 30 VDC (Resistive), 250 VAC (General use)
Contact Material	–	Silver cadmium oxide
Operating Frequency	–	Electrical: 1,800 operations/hour (under rated load)
	–	Mechanical: 18,000 operations/hour

Electrical Characteristic Diagrams

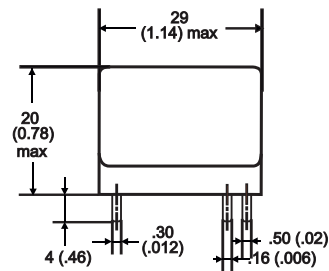
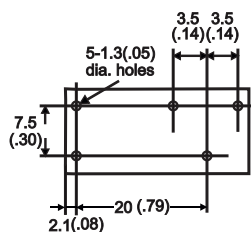


Dimensions

26.21(SPDT)



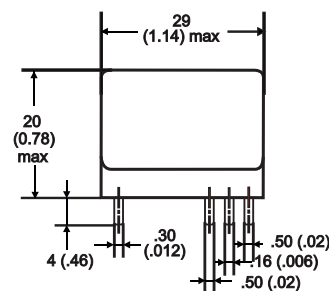
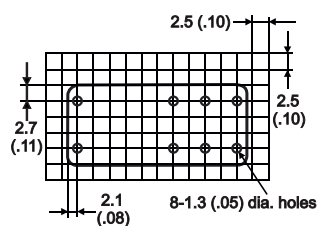
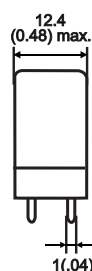
SPDT



26.22(DPDT)



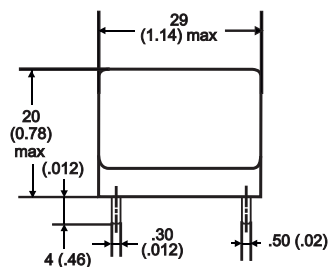
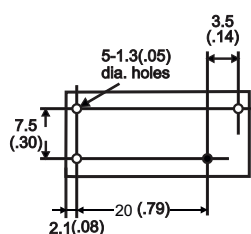
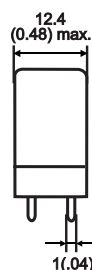
DPDT



26.23(SPST-NO)



SPST-NO

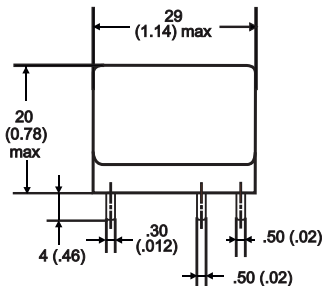
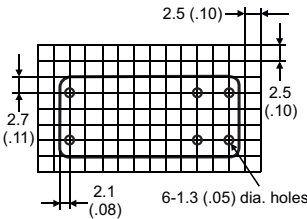


Dimensions

26.24(DPST-NO)

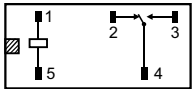


DPST-NO

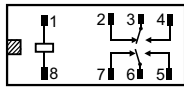


Internal Connection (Bottom View)

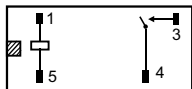
SPDT



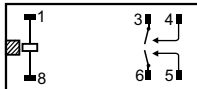
DPDT



SPST-NO

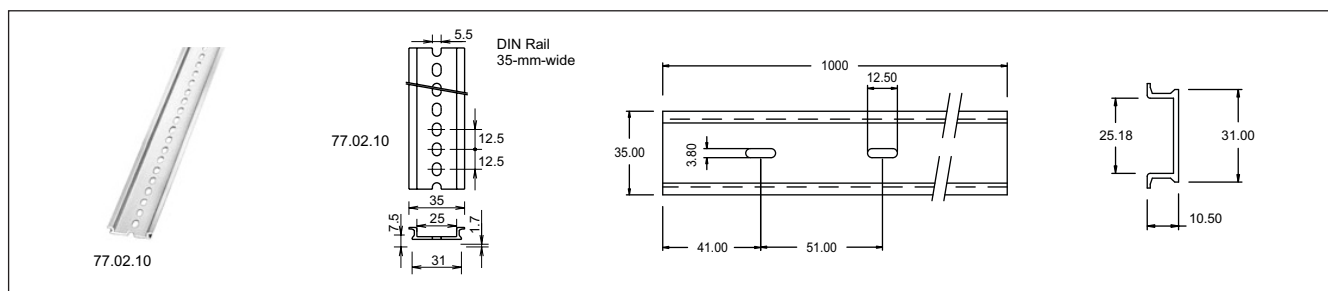


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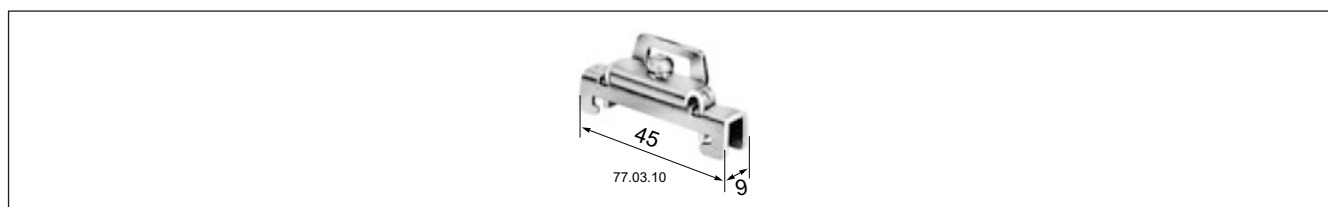
Accessories

DIN Rails



DIN Rail No.	Material	Length	Weight	Width
77.02.10	Aluminum	1000 mm	200 g	35 mm

Mounting Clips



Mounting Clips No.	Rails	Width	Weight
77.03.10	77.02.10	45 mm	15.2 g

Applicable Clips

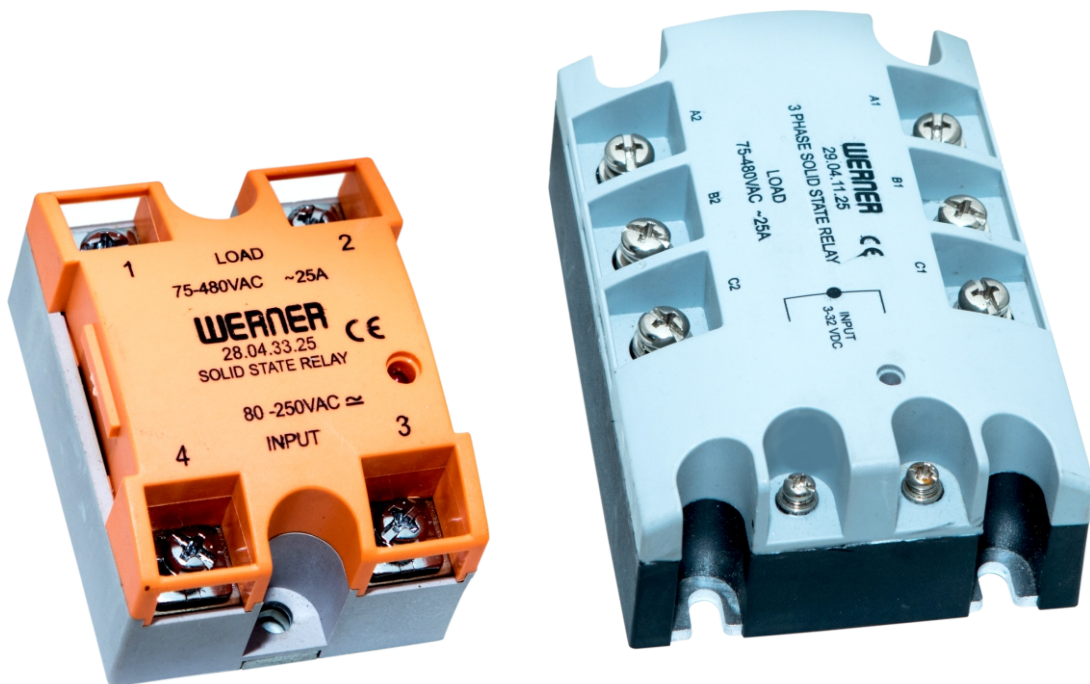
Appearance	Description	Relay	Suitable For DIN Mount Socket	Suitable For Feed through Sockets	Suitable For PCB Mount Socket
	Wire Spring	Suitable for all WERNER's 26 Series Relays	—	—	75.02.02

* For suitable relay please check Sockets catalogue

Socket Specification

Mounting	Terminal type	Terminal	Torque	Wire Size	Model No.	
					1 Pole	2 Poles
DIN Rail	With Finger-safe	M3 screws - coil M3.5 screws - contact	0.6 to 1.0 N.m	Up to 3.5mm ² (12AWG)	75.11.01	75.12.01
	With Spring Clamp	—	—	upto 1.5mm ²	75.11.05	75.12.05
PCB Mount Socket	PC Board	—	—	—	75.21	75.22

28 & 29 Series Solid State Relays



Main Features & Information

- Wide Range of General Purpose Solid State Products
- Relays with Applicable Loads from 2 to 100 A
- Finger guard for added safety.
- LED indicator allows monitoring.
- All models have the same compact design to ensure an even installation spacing. dimensions. Internal varistor
- Effectively absorbs external fluctuations.

28 Serisi Solid State Röleler

28 Series Solid State Relays Price List

Appearance	Assembly	Control voltage	Load Current	Load Voltage	Product Code	Unit Price ₹	Std Pkg
	04	3-32 VDC	2A	24-240VAC	28.04.22.02	4301.00	200
	04	3-32 VDC	5A	24-240VAC	28.04.22.05	4301.00	
	04	3-32 VDC	10A	24-240VAC	28.04.22.10	4301.00	
	04	3-32 VDC	20A	24-240VAC	28.04.22.20	4301.00	
	04	3-32 VDC	25A	24-240VAC	28.04.22.25	4301.00	
	04	3-32 VDC	30A	24-240VAC	28.04.22.30	4301.00	
	04	3-32 VDC	40A	24-240VAC	28.04.22.40	4585.00	
	04	3-32 VDC	50A	24-240VAC	28.04.22.50	4585.00	
	04	3-32 VDC	60A	24-240VAC	28.04.22.60	4585.00	
	04	3-32 VDC	70A	24-240VAC	28.04.22.70	5611.00	
	04	3-32 VDC	75A	24-240VAC	28.04.22.75	5611.00	
	04	3-32 VDC	80A	24-240VAC	28.04.22.80	5611.00	
	04	3-32 VDC	90A	24-240VAC	28.04.22.90	5611.00	
	04	3-32 VDC	100A	24-240VAC	28.04.22.100	5611.00	
	04	80-250 VAC	2A	24-240VAC	28.04.32.02	4769.00	200
	04	80-250 VAC	5A	24-240VAC	28.04.32.05	4769.00	
	04	80-250 VAC	10A	24-240VAC	28.04.32.10	4769.00	
	04	80-250 VAC	20A	24-240VAC	28.04.32.20	4769.00	
	04	80-250 VAC	25A	24-240VAC	28.04.32.25	4769.00	
	04	80-250 VAC	30A	24-240VAC	28.04.32.30	5564.00	
	04	80-250 VAC	40A	24-240VAC	28.04.32.40	5564.00	
	04	80-250 VAC	50A	24-240VAC	28.04.32.50	5564.00	
	04	80-250 VAC	60A	24-240VAC	28.04.32.60	5564.00	
	04	80-250 VAC	70A	24-240VAC	28.04.32.70	5564.00	
	04	80-250 VAC	75A	24-240VAC	28.04.32.75	6134.00	
	04	80-250 VAC	80A	24-240VAC	28.04.32.80	6134.00	
	04	80-250 VAC	90A	24-240VAC	28.04.32.90	6134.00	
	04	80-250 VAC	100A	24-240VAC	28.04.32.100	6134.00	

28 Series Solid State Relays

Model Number Structure - Relays



28.04.22.05

Series	
28 Series Solid State Relays	

Mounting Type	
01	Type 1
02	Type 2
03	Type 3
04	Type 4

Control Voltage	
2	3-32 VDC
3	80-250 VAC
4	5-30 VDC

Load Current	
02	2A
05	5A
10	10A
16	16A
20	20A
25	25A
30	30A
40	40A
50	50A
60	60A
70	70A
75	75A
80	80A
90	90A
100	100A

Load Voltage	
2	24-240VAC
3	75-480VAC
4	12-250VDC
5	12-400VDC

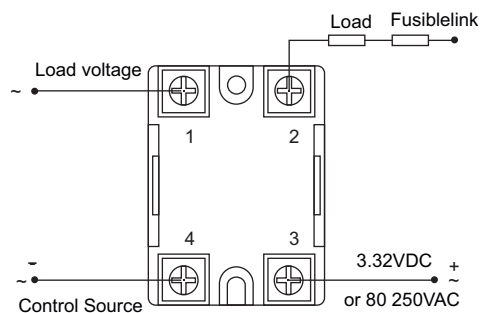
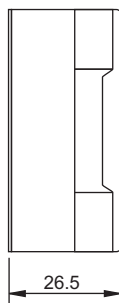
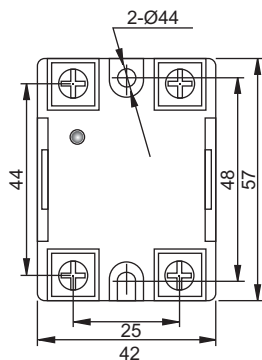
Type 4

Appearances



Model No.	28.04.2* **	28.04.3* **
Guarantee close voltage	1 VDC	30 VAC
Guarantee open voltage	3 VDC	80 VAC
Load mini current	0.05A	
Control voltage	3-32 VDC	80-250 VAC
Control current	4-20 mA	3-20 mA
Reverse voltage	32 VDC	NO
Breakover voltage	$\leq 1.6 \text{ VAC}$	
Output leakage current	$\leq 5 \text{ mA}$	
Load voltage	24-240VAC 75-480VAC	
Load max current	10A, 20a, 25A, 30A, 40A, 50A, 60A, 70A, 75A, 80A, 90A, 100A	
Frequency range	50-60 Hz	
Operating temperature	-20-70°C	
Load current safty factor	resistive load 50-60% Inductive load 30-40%	
Medium withstand voltage	2500 VAC	
Insulating resistance	100MΩ	
Switching time	10ms	

Dimensions



29 Series Solid State Relays

29 Series Solid State Relays Price List

Appearance	Assembly	Control voltage	Load Current	Load Voltage	Product Code	Unit Price ₹	Std Pkg
	04	3-32 VDC	10A	75-480VAC	29.04.11.10	2587.00	200
	04	3-32 VDC	20A	75-480VAC	29.04.11.20	2587.00	
	04	3-32 VDC	25A	75-480VAC	29.04.11.25	3330.00	
	04	3-32 VDC	30A	75-480VAC	29.04.11.30	3576.00	
	04	3-32 VDC	40A	75-480VAC	29.04.11.40	3824.00	
	04	3-32 VDC	50A	75-480VAC	29.04.11.50	4049.00	
	04	3-32 VDC	60A	75-480VAC	29.04.11.60	4319.00	
	04	3-32 VDC	70A	75-480VAC	29.04.11.70	4948.00	
	04	3-32 VDC	80A	75-480VAC	29.04.11.80	5624.00	
	04	3-32 VDC	90A	75-480VAC	29.04.11.90	6748.00	
	04	3-32 VDC	100A	75-480VAC	29.04.11.100	7873.00	
	04	80-250 VAC	10A	75-480VAC	29.04.21.10	2587.00	200
	04	80-250 VAC	20A	75-480VAC	29.04.21.20	2926.00	
	04	80-250 VAC	25A	75-480VAC	29.04.21.25	3331.00	
	04	80-250 VAC	30A	75-480VAC	29.04.21.30	3576.00	
	04	80-250 VAC	40A	75-480VAC	29.04.21.40	3824.00	
	04	80-250 VAC	50A	75-480VAC	29.04.21.50	4317.00	
	04	80-250 VAC	60A	75-480VAC	29.04.21.60	4317.00	
	04	80-250 VAC	70A	75-480VAC	29.04.21.70	4947.00	
	04	80-250 VAC	80A	75-480VAC	29.04.21.80	5622.00	
	04	80-250 VAC	90A	75-480VAC	29.04.21.90	6747.00	
	04	80-250 VAC	100A	75-480VAC	29.04.21.100	7871.00	

29 Series Solid State Relays

Model Number Structure - Relays



29.04.21.90

Series	
29 Series Solid State Relays	

Mounting Type	
01	Type 1
02	Type 2
03	Type 3
04	Type 4
05	Type 5

Control Voltage	
1	3-32 VDC
2	80-250 VAC

Load Current	
10	10A
16	16A
20	20A
25	25A
30	30A
40	40A
50	50A
60	60A
70	70A
80	80A
90	90A
100	100A

Load Voltage	
1	24-480VAC

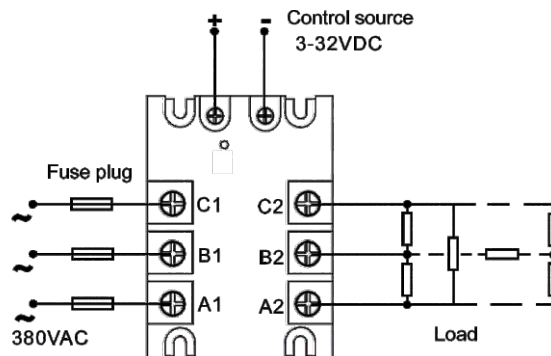
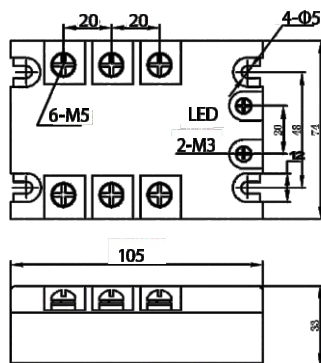
Solid State Relay

Appearances



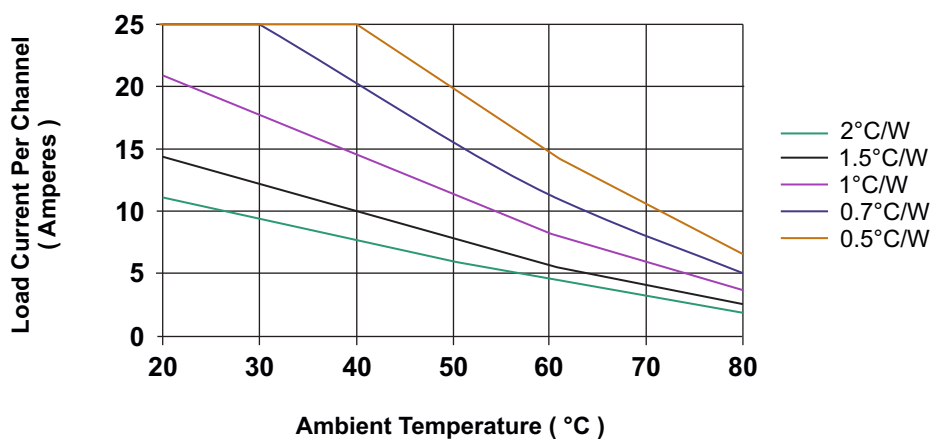
Model No.	29.04.11.**	29.04.21.**
Gurantee close voltage	1 VDC	30 VAC
Gurantee open voltage	3 VDC	80 VAC
Load mini current	0.05A	
Control voltage	3-32 VDC	80-250 VAC
Control current	10-30 mA	8-30 mA
Reverse voltage	32 VDC	NO
Breakover voltage	$\leq 1.6 \text{ VAC}$	
Output leakage current	$\leq 5 \text{ mA}$	
Load voltage	24-480VAC	
Load max current	10A, 20A, 25A, 30A, 40A, 50A, 60A, 70A, 80A, 90A, 100A	
Frequency range	50-60 Hz	
Operating temperature	-20-70°C	
Load current safty factor	resistive load 50-60% Inductive load 30-40%	
Medium withstand voltage	2500 VAC	
Insulating resistance	100MΩ	
Switching time	10ms	

Dimensions

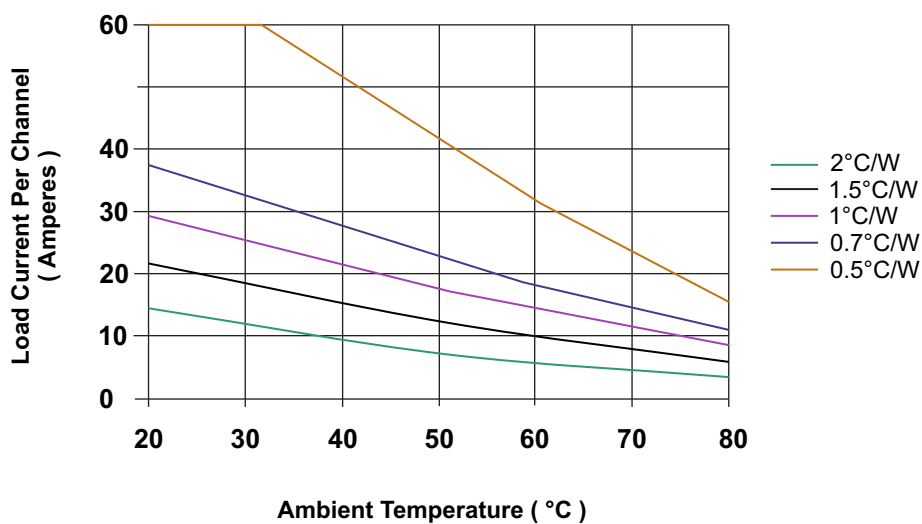


Thermal Derate Curve

DERATE CURVES
29 Series IP20 25A

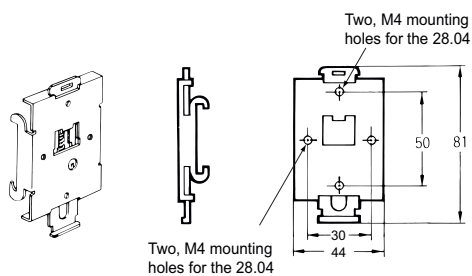


DERATE CURVES
29 Series IP20 60A

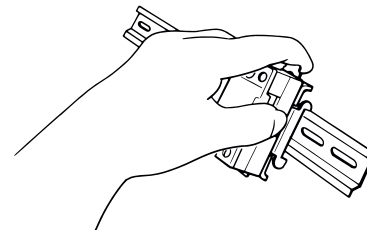


One-touch Mounting Plate

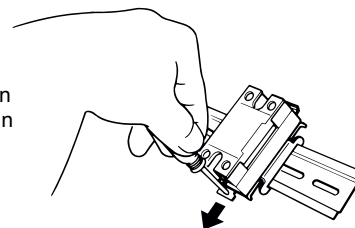
The One-touch Mounting Plate is used to mount the SSR to a DIN Track.



To mount the Relay to DIN Track, first mount it to the One-touch Mounting Plate and then attach it to the DIN Track as shown in the diagram.



To remove the Relay from the DIN Track, pull down on the tab with a screwdriver in the direction of the arrow.



- When a Relay is mounted to DIN Track, use it within the rating for a Relay without a heat sink.

45 Series ø22mm Buttons & Signal Lamps



Main Features & Information

- Compact light weight structure...
- IP20 finger protected terminals.
- High Brightness LED
- low heat and long life.
- Matted lens surface to reduce light reflection.
- Wide viewing lens angle.

45 Series Ø22mm Buttons & Signal Lamps

WERNER ELEKTRIK'S
SWITCHES

45 Series
Pilot Lights

Signal Lamps with Contact Block Price List

Voltage	Colour	Type	Unit—LP ₹	Std Pkg (nos.)	Master Pkg
12VAC/DC 50/60 Hz	Red	45.*.00.02.12	144.00	5	200
	Amber	45.*.00.03.12	144.00	5	
	Yellow	45.*.00.04.12	144.00	5	
	Green	45.*.00.05.12	144.00	5	
	Blue	45.*.00.06.12	144.00	5	
	White	45.*.00.09.12	144.00	5	
24VAC/DC 50/60 Hz	Red	45.*.00.02.24	144.00	5	
	Amber	45.*.00.03.24	144.00	5	
	Yellow	45.*.00.04.24	144.00	5	
	Green	45.*.00.05.24	144.00	5	
	Blue	45.*.00.06.24	144.00	5	
	White	45.*.00.09.24	144.00	5	
110VAC/DC 50/60 Hz	Red	45.*.00.02.11	144.00	5	
	Amber	45.*.00.03.11	144.00	5	
	Yellow	45.*.00.04.11	144.00	5	
	Green	45.*.00.05.11	144.00	5	
	Blue	45.*.00.06.11	144.00	5	
	White	45.*.00.09.11	144.00	5	
230VAC/DC 50/60 Hz	Red	45.*.00.02.23	144.00	5	
	Amber	45.*.00.03.23	144.00	5	
	Yellow	45.*.00.04.23	144.00	5	
	Green	45.*.00.05.23	144.00	5	
	Blue	45.*.00.06.23	144.00	5	
	White	45.*.00.09.23	144.00	5	

90— Dome



91— Flat Flush



92— Flat Flush Marking Type



93— Flat Flush Extended Type



Replace “ * ” by the following codes

45 Series Ø22mm Buttons & Signal Lamps

Unibody Pilot Lights

Voltage	Colour	Type	Unit—LP ₹	Std Pkg (nos.)	Master Pkg
12VAC/DC	Red	45.*.00.02.12	122.00	5	800
50/60 Hz	Amber	45.*.00.03.12	122.00	5	
	Yellow	45.*.00.04.12	122.00	5	
95—Flat Flush	Green	45.*.00.05.12	122.00	5	
	Blue	45.*.00.06.12	122.00	5	
	White	45.*.00.09.12	122.00	5	
24VAC/DC	Red	45.*.00.02.24	155.00	5	800
50/60 Hz	Ambe	45.*.00.03.24	155.00	5	
	Yellow	45.*.00.04.24	155.00	5	
96— Dome	Green	45.*.00.05.24	155.00	5	
	Blue	45.*.00.06.24	155.00	5	
	White	45.*.00.09.24	155.00	5	
110VAC/D C	Red	45.*.00.02.11	155.00	5	800
50/60 Hz	Ambe	45.*.00.03.11	155.00	5	
	Yellow	45.*.00.04.11	155.00	5	
97—Flat Flush Marking Type	Green	45.*.00.05.11	155.00	5	
	Blue	45.*.00.06.11	155.00	5	
	White	45.*.00.09.11	155.00	5	
230VAC/D C	Red	45.*.00.02.23	155.00	5	800
50/60 Hz	Ambe	45.*.00.03.23	155.00	5	
	Yellow	45.*.00.04.23	155.00	5	
98—Flat Flush Extended Type	Green	45.*.00.05.23	155.00	5	
	Blue	45.*.00.06.23	155.00	5	
	White	45.*.00.09.23	155.00	5	

Replace “ * ” by the following codes

95— Flat Flush



96—Dome



97— Flat Flush Marking Type



98— Flat Flush Extended Type



45 Series Ø22mm Buttons & Signal Lamps

Push Buttons - Non illuminated

Model	Contact	Colour	Type	Price (₹)	Std Pkg	Master Pkg
	1NC	Red	45.10.01.02	133.00	5	300
	1NO	Red	45.10.10.02	133.00	5	300
	1NO	Amber	45.10.10.03	133.00	5	300
	1NO	Yellow	45.10.10.04	133.00	5	300
	1NO	Green	45.10.10.05	133.00	5	300
	1NO	Blue	45.10.10.06	133.00	5	300
	1NO	White	45.10.10.09	133.00	5	300
	1NO	Black	45.10.10.00	133.00	5	300
	1NC	Red	45.11.01.02	144.00	5	300
	1NO	Red	45.11.10.02	144.00	5	300
	1NO	Amber	45.11.10.03	144.00	5	300
	1NO	Yellow	45.11.10.04	144.00	5	300
	1NO	Green	45.11.10.05	144.00	5	300
	1NO	Blue	45.11.10.06	144.00	5	300
	1NO	White	45.11.10.09	144.00	5	300
	1NO	Black	45.11.10.00	144.00	5	300

Model	Contact	Colour	Type	Price (₹)	Std Pkg	Master Pkg
	1NC	Red	45.13.01.02	177.00	5	300
	1NO	Red	45.13.10.02	177.00	5	300
	1NO	Amber	45.13.10.03	177.00	5	300
	1NO	Yellow	45.13.10.04	177.00	5	300
	1NO	Green	45.13.10.05	177.00	5	300
	1NO	Blue	45.13.10.06	177.00	5	300
	1NO	White	45.13.10.09	177.00	5	300
	1NO	Black	45.13.10.00	177.00	5	300

Push Buttons - Illuminated

Model	Contact	Colour	Type	Price (₹)	Std Pkg	Master Pkg
	1NC	Red	45.14.01.02.*	308.50	5	300
	1NO	Red	45.14.10.02.*	308.50	5	300
	1NO	Amber	45.14.10.03.*	308.50	5	300
	1NO	Yellow	45.14.10.04.*	308.50	5	300
	1NO	Green	45.14.10.05.*	308.50	5	300
	1NO	Blue	45.14.10.06.*	308.50	5	300
	1NO	White	45.14.10.09.*	308.50	5	300
	1NC	Red	45.15.01.02.*	308.50	5	300
	1NO	Red	45.15.10.02.*	308.50	5	300
	1NO	Amber	45.15.10.03.*	308.50	5	300
	1NO	Yellow	45.15.10.04.*	308.50	5	300
	1NO	Green	45.15.10.05.*	308.50	5	300
	1NO	Blue	45.15.10.06.*	308.50	5	300
	1NO	White	45.15.10.09.*	308.50	5	300

Model	Contact	Colour	Type	Price (₹)	Std Pkg	Master Pkg
	1NC	Red	45.16.01.02.*	308.50	5	300
	1NO	Red	45.16.10.02.*	308.50	5	300
	1NO	Amber	45.16.10.03.*	308.50	5	300
	1NO	Yellow	45.16.10.04.*	308.50	5	300
	1NO	Green	45.16.10.05.*	308.50	5	300
	1NO	Blue	45.16.10.06.*	308.50	5	300
	1NO	White	45.16.10.09.*	308.50	5	300
	1NC	Red	45.17.01.02.*	316.00	5	300
	1NO	Red	45.17.10.02.*	316.00	5	300
	1NO	Amber	45.17.10.03.*	316.00	5	300
	1NO	Yellow	45.17.10.04.*	316.00	5	300
	1NO	Green	45.17.10.05.*	316.00	5	300
	1NO	Blue	45.17.10.06.*	316.00	5	300
	1NO	White	45.17.10.09.*	316.00	5	300

Replace “ * ” by the following codes

12 for 24VAC/DC

24 for 24VAC/DC

11 for 110VAC/DC

23 for 230VAC/DC

Note: Pushbutton, Selector Switches, Key Selector Switches, E-Stop Switches Actuator are with Contact Blocks

45 Series Ø22mm Buttons & Signal Lamps

SelectorSwitch – Non Illuminated / Illuminated

Model	Operation	Contact	Type	Price (₹)	Std Pkg	Master Pkg
	Maintained 	1NO	45.30.10.00	270.00	5	300
	Spring Return 	1NO	45.31.10.00	270.00	5	300
	Maintained 	2NO	45.32.20.00	349.50	5	300
	Spring Return 	2NO	45.35.20.00	349.50	5	300
	Spring Return left to centre 	2NO	45.34.20.00	349.50	5	300
	Spring Return Right to Centre 	2NO	45.33.20.00	349.50	5	300

Model	Operation	Contact	Type	Colour	Price (₹)	Std Pkg	Master Pkg
	Maintained 	1NC	45.36.01.02.*	Red	449.50	5	300
		1NO	45.36.10.\$.*	Others	449.50	5	300
	Spring Return 	1NC	45.37.01.02.*	Red	449.50	5	300
		1NO	45.37.10.\$.*	Others	449.50	5	300
	Maintained 	1NO+1NC	45.38.11.02.*	Red	538.50	5	300
		2NO	45.38.20.\$.*	Others	538.50	5	300
	Spring Return to centre 	1NO+1NC	45.41.11.02.*	Red	538.50	5	300
		2NO	45.41.20.\$.*	Others	538.50	5	300
	Spring Return left to centre 	1NO+1NC	45.40.11.02.*	Red	538.50	5	300
		2NO	45.40.20.\$.*	Others	538.50	5	300
	Spring Return Right to Centre 	1NO+1NC	45.39.11.02.*	Red	538.50	5	300
		2NO	45.39.20.\$.*	Others	538.50	5	300

Selector Switch - Key Type

Model	Operation	Contact	Type	Price (₹)	Std Pkg	Master Pkg
		1NO	45.44.10.00	344.00	5	300
		1NO	45.43.10.00	344.00	5	300
		1NO	45.42.10.00	344.00	5	300
Momentary		1NO	45.45.10.00	355.00	5	300
		2NO	45.49.20.00	425.00	5	300
		2NO	45.50.20.00	425.00	5	300
		2NO	45.46.20.00	425.00	5	300
Momentary		2NO	45.54.20.00	425.00	5	300

Emergency Stop Buttons

Model	Contact	Type	Price (₹)	Std Pkg	Master Pkg
 Pushlock Turn Reset + Push Pull Non-Illuminated	1NC	45.87.01.02	340.00	5	250
 Pushlock Turn Reset + Push Pull Illuminated	1NC	46.86.01.02.*	528.00	5	250
 Pushlock Turn Reset Non-Illuminated ø40 mm Pushlock Turn Rest	1NC	45.88.01.02	336.00	5	250
 Pushlock Turn Reset Non-Illuminated ø40 mm Pushlock Printed Turn Rest	1NC	45.89.01.02	370.00	5	250

45 Series ø22mm Buttons & Signal Lamps

Twin Head Push Button

Type	Contact	Colour	Model	Price (₹)	Std Pkg	Master Pkg
	1NC + 1NO	Red - Green	45.18.11.02.00	344.00	5	250
		Black - Blue	45.18.11.03.00	344.00	5	
		Green - Green	45.18.11.04.00	344.00	5	
		Yellow - Black	45.18.11.05.00	344.00	5	

Twin Head Push Button - Illuminated

Type	Contact	Colour	Voltage	Model	Price (₹)	Std Pkg	Master Pkg
	1NC + 1NO	Red - Green	LED Bulb BA9S Type	45.28.11.02.#	477.00	5	250
		Black - Blue	12 - 12V AC/DC, 24 - 24V AC/DC 11 - 110V AC/DC 23 - 230V AC/DC	45.28.11.03.#	477.00	5	
		Green - Green		45.28.11.04.#	477.00	5	
		Yellow - Black		45.28.11.05.#	477.00	5	

Replace “ # ”

Illuminated Buzzer

Colour	Type	Price/Pics (₹)	Std Pkg	Master Pkg
Red	45.09.02.*#.**	322.00	10	800
Amber	45.09.03.*#.**	322.00	10	
Yellow	45.09.04.*#.**	322.00	10	
Green	45.09.05.*#.**	322.00	10	
Blue	45.09.06.*#.**	322.00	10	
White	45.09.09.*#.**	322.00	10	
Black (only Buzzer)	45.09.00.*#.**	322.00	10	

Note:-

Functions (*)

- 0 - Steady
- 1 - Flashing

Buzzer Type (#)

- 1 - With Short Beep
- 2 - With Long Beep
- 3 - With Continuous Beep

Voltage Type (**)

- 24 - 24 VAC / DC
- 23 - 230 VAC



45 Series ø22mm Buttons & Signal Lamps

Metallic Framed Buttons

Model	Contact	Colour	Product code	Price (₹)	Std Pkg
Straight Type 	1NC	Red	45.110.01.02	556.00	300
	1NO	Red	45.110.10.02	556.00	300
	1NO	Amber	45.110.10.03	556.00	300
	1NO	Yellow	45.110.10.04	556.00	300
	1NO	Green	45.110.10.05	556.00	300
	1NO	Blue	45.110.10.06	556.00	300
	1NO	White	45.110.10.09	556.00	300
	1NO	Black	45.110.10.00	556.00	300
Salient Type 	1NC	Red	45.111.01.02	711.00	300
	1NO	Red	45.111.10.02	711.00	300
	1NO	Amber	45.111.10.03	711.00	300
	1NO	Yellow	45.111.10.04	711.00	300
	1NO	Green	45.111.10.05	711.00	300
	1NO	Blue	45.111.10.06	711.00	300
	1NO	White	45.111.10.09	711.00	300
	1NO	Black	45.111.10.00	711.00	300

Model	Contact	Colour	Product code	Price (₹)	Std Pkg
Mushroom Buttons 	1NC	Red	45.113.01.02	927.00	300
	1NO	Red	45.113.10.02	927.00	300
	1NO	Amber	45.113.10.03	927.00	300
	1NO	Yellow	45.113.10.04	927.00	300
	1NO	Green	45.113.10.05	927.00	300
	1NO	Blue	45.113.10.06	927.00	300
	1NO	White	45.113.10.09	927.00	300
	1NO	Black	45.113.10.00	927.00	300

Metallic Frame Selector Switch

Model	Study shape	Contact	Product code	Price (₹)	Std Pkg
2 Position 	Permanent L R	1NO	45.130.10.00	476.00	300
	Spring L R	1NO	45.131.10.00	476.00	300
3 Position 	Permanent L C R	2NO	45.132.20.00	577.00	300
	Spring L C R	2NO	45.135.20.00	577.00	300
	Spring L C R	2NO	45.134.20.00	577.00	300
	Spring Type	2NO	45.133.20.00	577.00	300

Metallic Frame Switch Selector Switch

Model	Study shape	Contact	Product code	Price (₹)	Std Pkg
2 Position 	0° L KR	1NO	45.144.10.00	1193.00	300
	0° KL - R	1NO	45.143.10.00	1193.00	300
	0° KL - KR	1NO	45.142.20.00	1193.00	300
Instant Return	0° KL < R	1NO	45.145.20.00	1193.00	300
3 Position 	0° L - KC - R	2NO	45.149.20.00	1466.00	300
	0° KL - C - KR	2NO	45.150.20.00	1466.00	300
	0° KL - KC - K	2NO	45.146.20.00	1466.00	300
Instant Return	0° L > KC < R	2NO	45.154.20.00	1466.00	300

45 Series ø22mm Buttons & Signal Lamps

Accessories

Product Type	Product code	Unit price (₹)
 Label Holder	45.01.60	35.00
 Emergency Stop Label	45.01.63	43.00
 Button Protection (Ellipse)	45.02.07	240.00
 Button Protection (Round)	45.02.08	240.00
 Button Cover	45.03.50	360.00
 NO	45.05.10	75.00
 NC	45.05.01	75.00
 Double Contact Block (NO-NC)	45.05.11	145.00
 2NO	45.05.20	145.00
 2NC	45.05.02	145.00

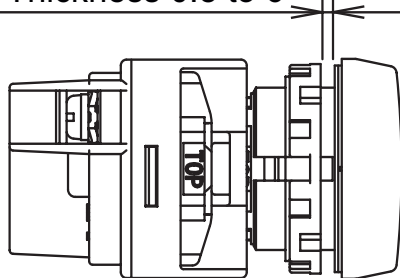
Product Type	Colour	Voltage	Product code	Unit price (₹)
 LED bulb BA9S Type	Red	Replace " # "	45.06.02.#	45.00
	Amber		45.06.03.#	45.00
	Yellow	12V AC/DC, 24V AC/DC 110V AC/DC 230V AC/DC	45.06.04.#	45.00
	Green		45.06.05.#	45.00
	Blue		45.06.06.#	45.00
	White		45.06.09.#	45.00

Dimensions - Indicators

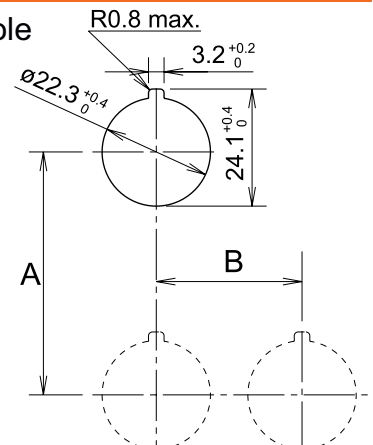
• Flush Full Voltage



Panel Thickness
Panel Thickness 0.8 to 6



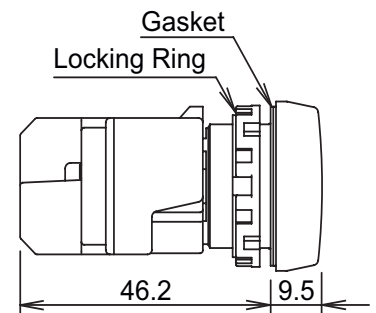
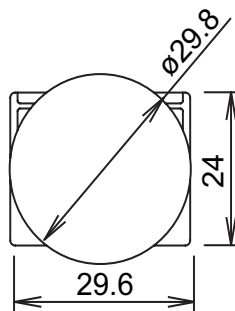
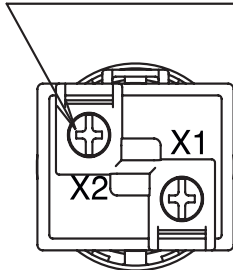
Mounting Hole



A (mm) X B (mm)

30 min. X 30 min.

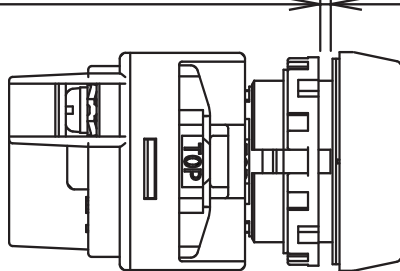
M3.5 Terminal Screw



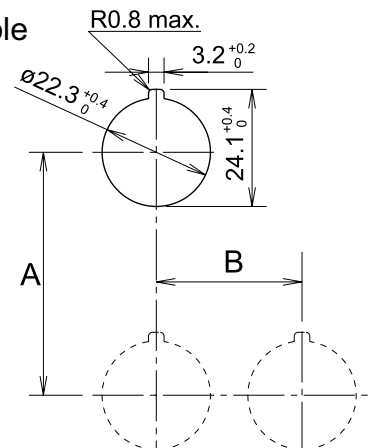
• Flush Marking Type Full Voltage



Panel Thickness 0.8 to 6



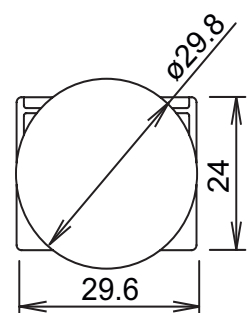
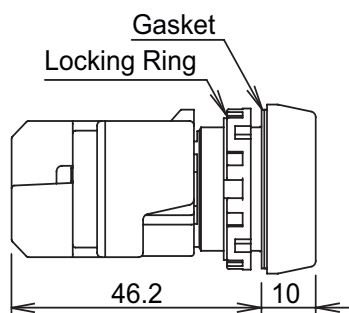
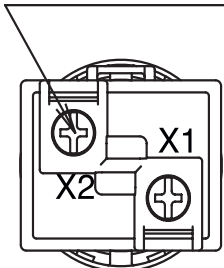
Mounting Hole



A (mm) X B (mm)

30 min. X 30 min.

M3.5 Terminal Screw

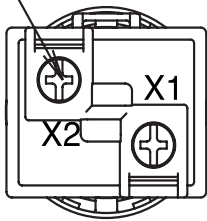


Dimensions - Indicators

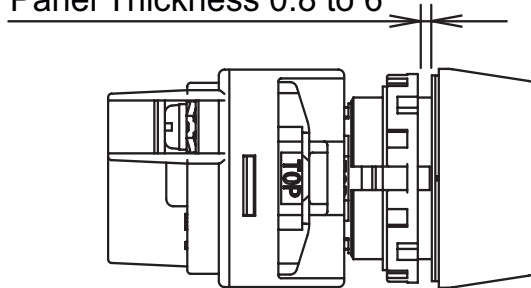


•Extended Full Voltage

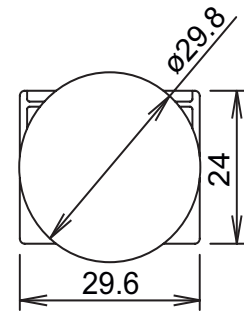
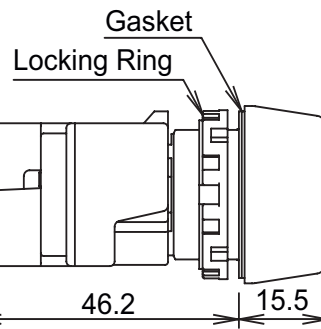
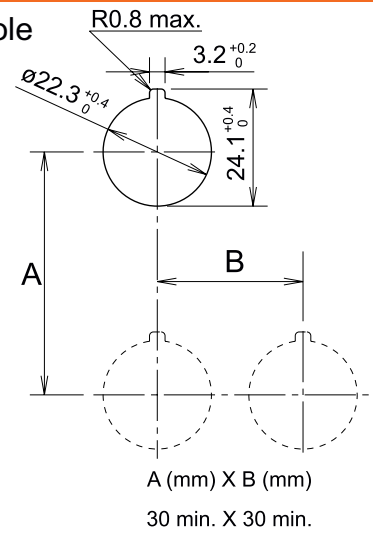
M3.5 Terminal Screw



Panel Thickness 0.8 to 6

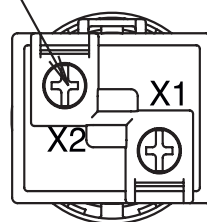


Mounting Hole

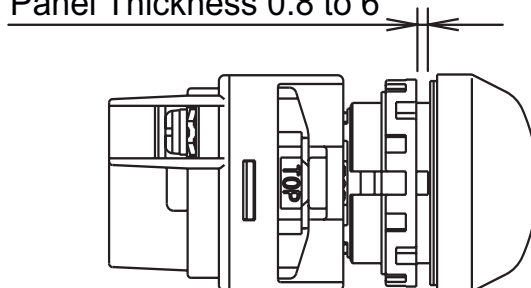


•Dome Full Voltage

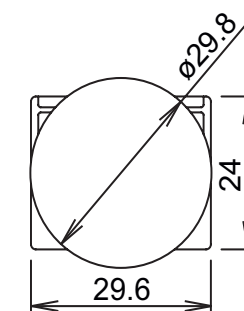
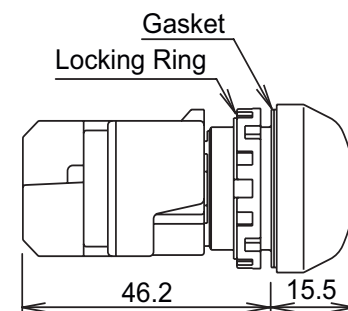
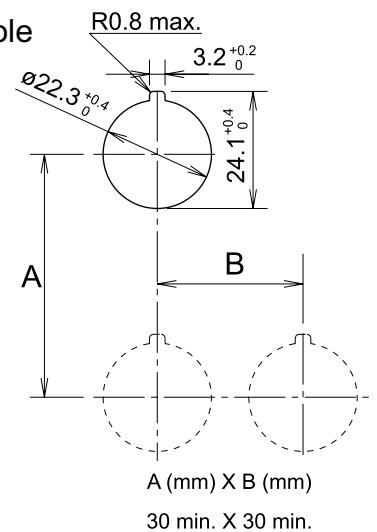
M3.5 Terminal Screw



Panel Thickness 0.8 to 6



Mounting Hole



45 Series ø22mm Buttons & Signal Lamps

Model Number Structure - Unibody Indicators



45.95.02.24.01

Series

45 Series Switches and Indicators ø22

Operation Type Unibody

95	Flush
96	Dome
97	Flush (With Marked)
98	Extended (Flat)
09	Flush with Buzzer

Colour

02	Red
03	Amber
04	Yellow
05	Green
06	Blue
09	White

Lens Colour for Buzzer

02B	Red
04B	Yellow
05B	Green
00B	Black

Buzzer

00	Without Buzzer
01	24V AC/DC (only)

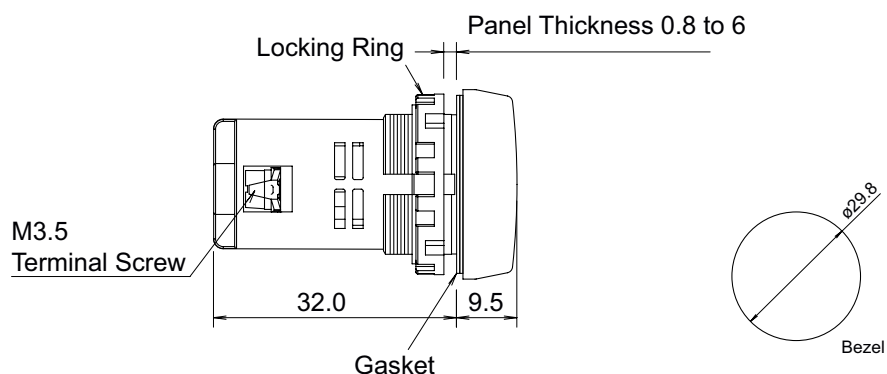
Voltage

12	12V AC/DC
24	24V AC/DC
110	110V AC
230	230/240V AC

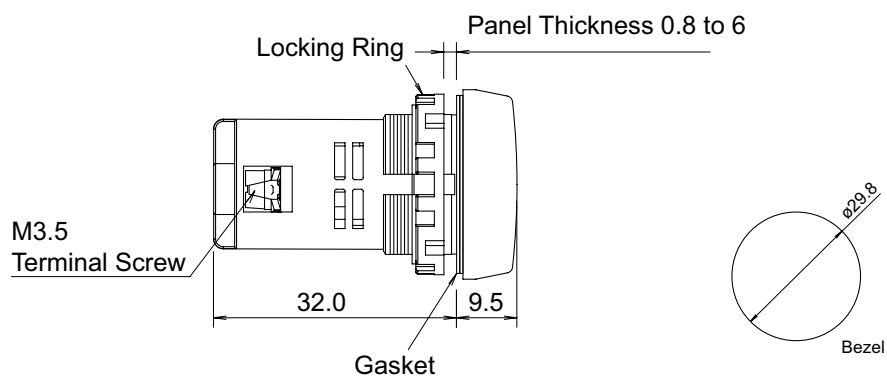
Dimensions - Unibody Indicators



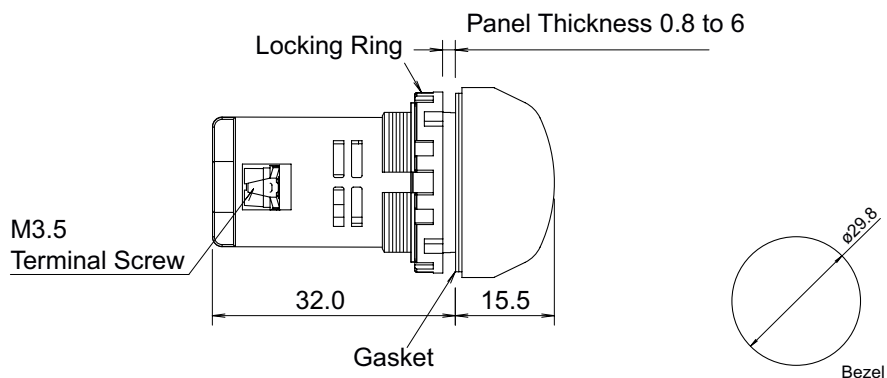
- **Flush Type Uni body**



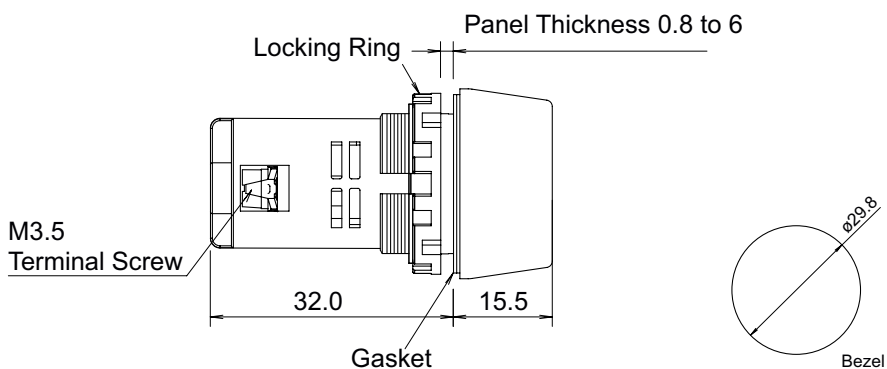
- **Flush Marking Type Uni body**



- **Dome Type Uni body**



- **Extended Type Uni body**



45 Series ø22mm Buttons & Signal Lamps

Model Number Structure - Pushbutton



45.10.11.02.12

Series

45 Series Switches and Indicators ø22

Operation Type

10	Non-Illuminated Flush	Momentary
11	Non-Illuminated Extended	Momentary
12	Non-Illuminated Extended with full shroud	Momentary
13	Non-Illuminated Mushroom	Momentary
14	Illuminated Flush	Momentary
15	Illuminated Extended	Momentary
16	Illuminated Extended with Full Shroud	Momentary
17	Illuminated Mushroom	Momentary
20	Non-Illuminated Flush	Maintained
21	Non-Illuminated Extended	Maintained
22	Non-Illuminated Extended with full shroud	Maintained
23	Non-Illuminated Mushroom	Maintained
24	Illuminated Flush	Maintained
25	Illuminated Extended	Maintained
26	Illuminated Extended with Full Shroud	Maintained
27	Illuminated Mushroom	Maintained

Voltage

(Illuminated Types Only)

12	12V AC/DC
24	24V AC/DC
11	110V AC/DC
23	230/240V AC/DC

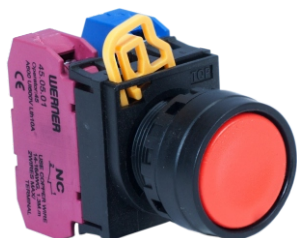
Colour

02	Red
03	Amber
04	Yellow
05	Green
06	Blue
09	White
00	Black *

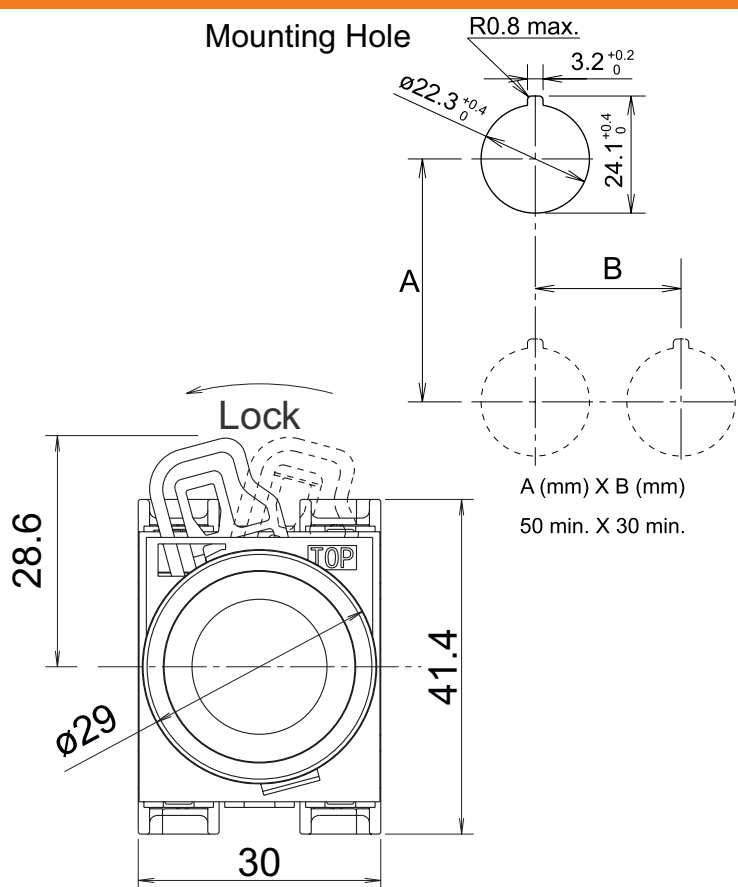
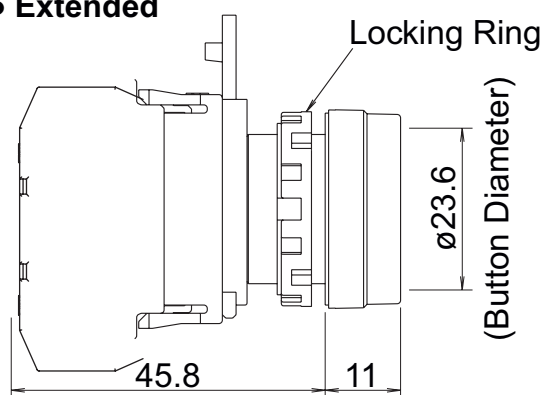
Contact

00	No Contacts
10	1NO
01	1NC
11	1NO-1NC
20	2NO
02	2NC
22	2NO-2NC
30	3NO
03	3NC
40	4NO
04	4NC
12	1NO-2NC
21	2NO-1NC
13	1NO-3NC
31	3NO-1NC
Please contact your WERNER representative for more contact arrangement.	

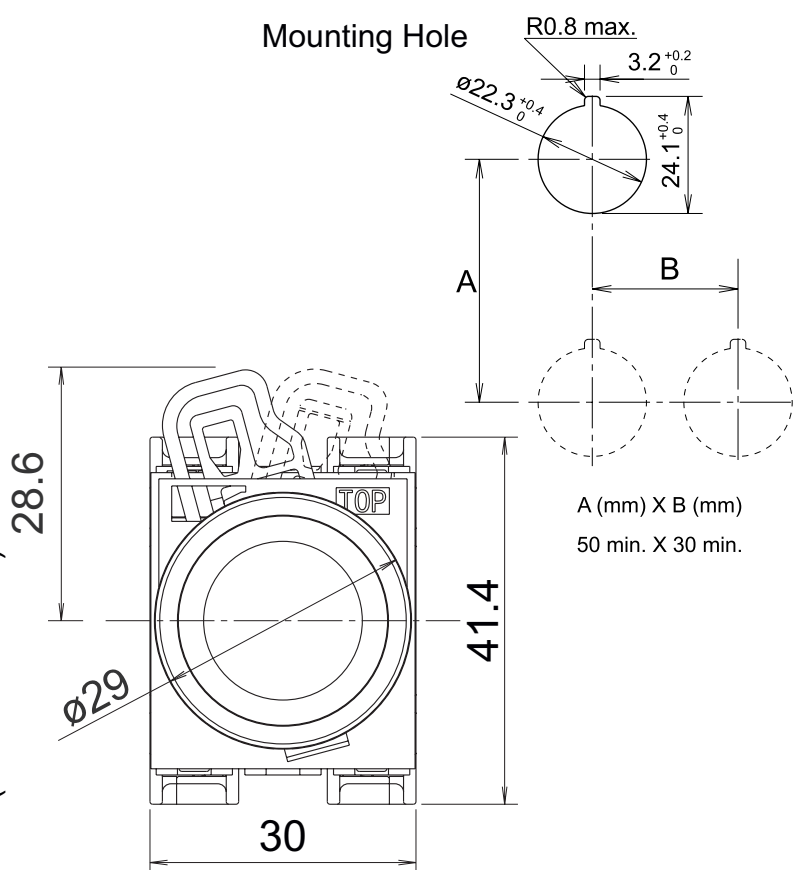
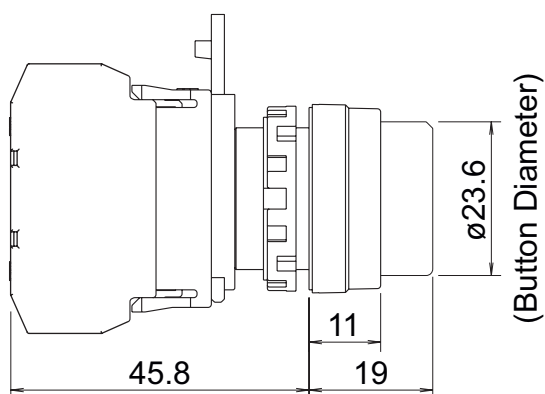
Dimensions - Pushbuttons



• Extended

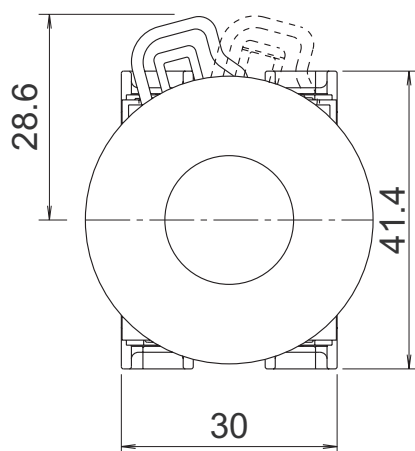


• Extended with Full Shroud

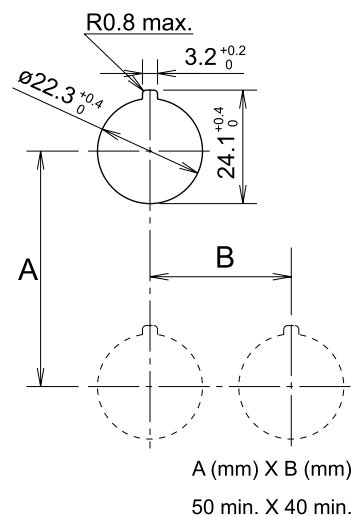


All dimensions in mm.

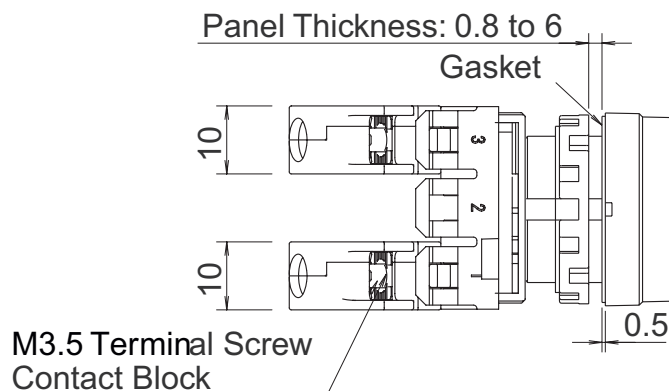
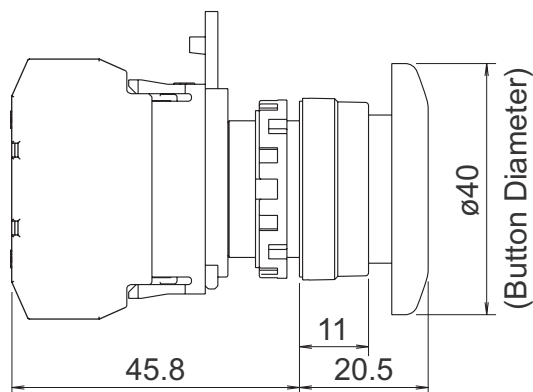
Dimensions - Pushbuttons



Mounting Hole

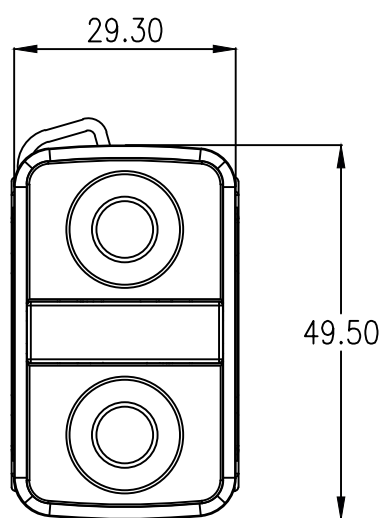
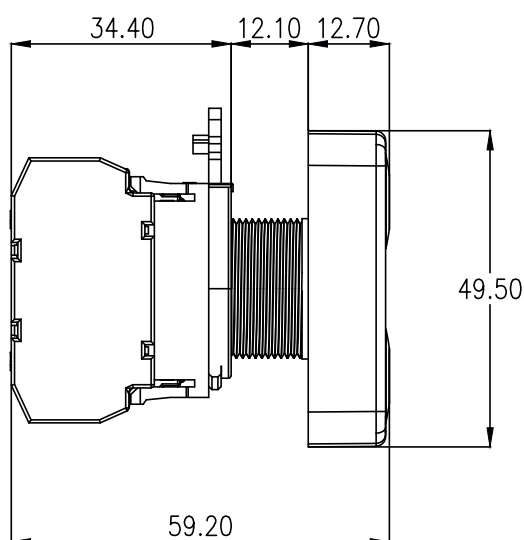


• Mushroom

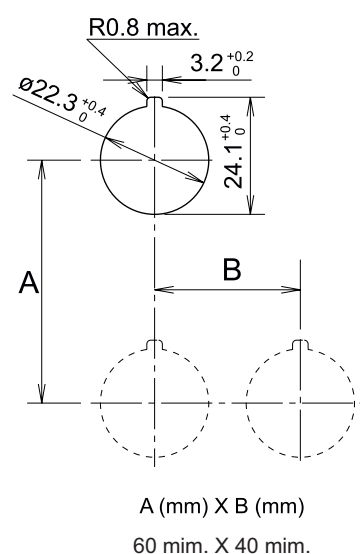


All dimensions in mm.

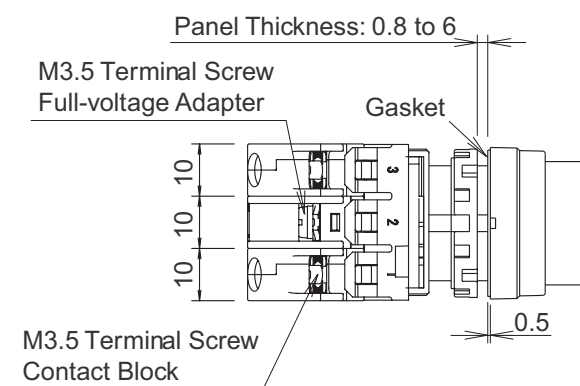
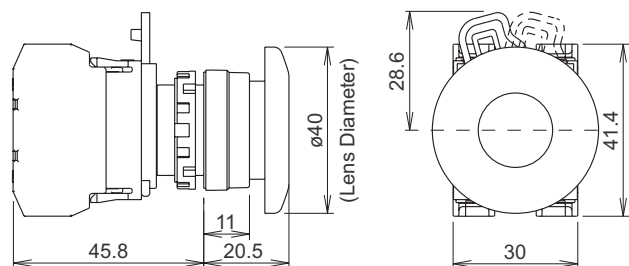
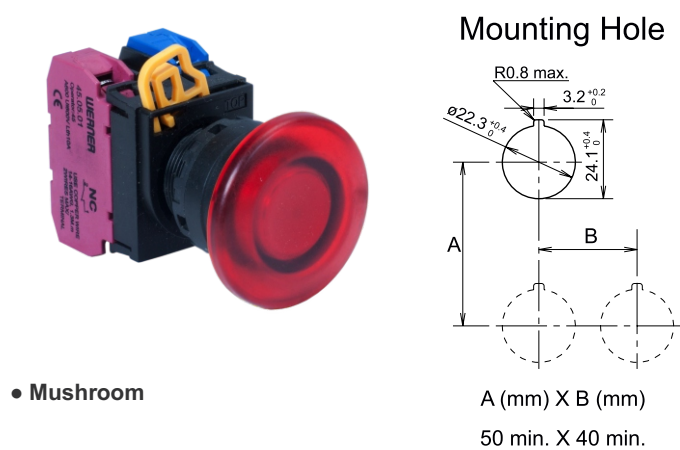
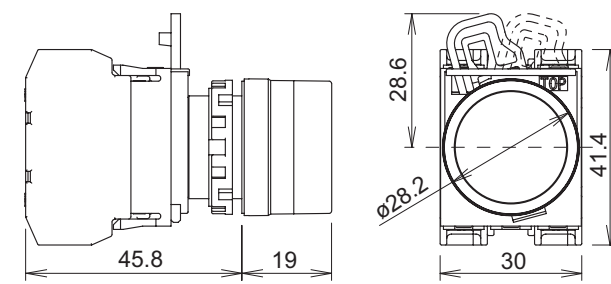
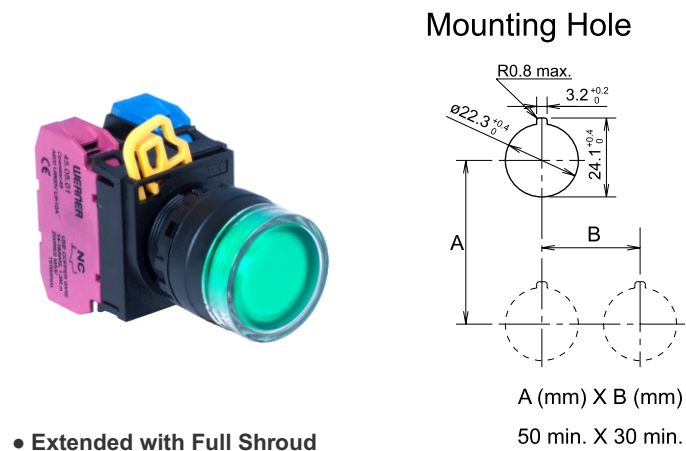
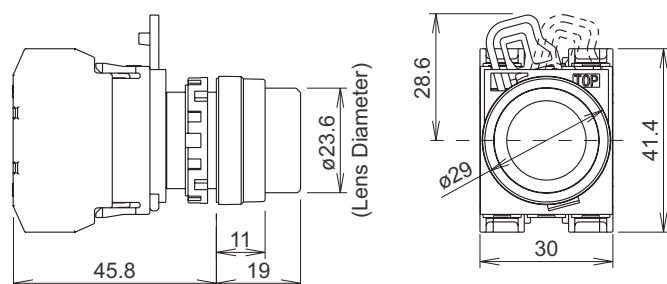
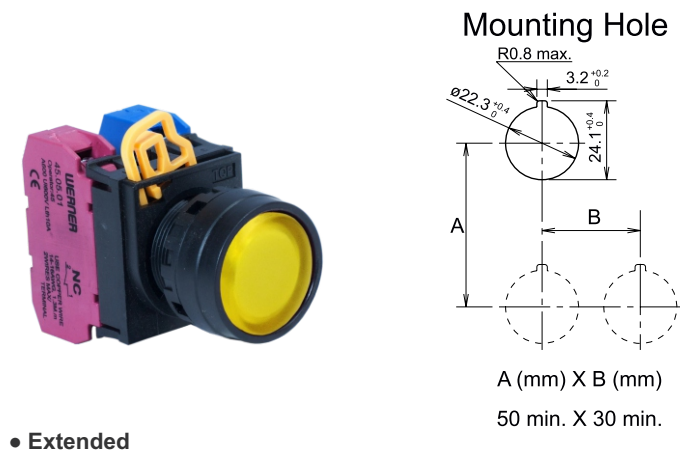
• Twin Head Illuminated / Non Illuminated



Mounting Hole



Dimensions - Illuminated Pushbuttons



45 Series ø22mm Buttons & Signal Lamps

Model Number Structure - Illuminated & Non-Illuminated Selector Switch

Model Number Structure - Illuminated & Non-Illuminated Selector Switch



45.36.21.09.12

Series
45 Series Switches and Indicators ø22

Non-Illuminated Selector Switch Type	Position
30 Maintained	90° 2 Positions
31 Spring Return from Right	
32 Maintained	45° 3 Positions
33 Spring Return from Right	
34 Spring Return from Left	
35 Spring Return from 2 ways	

Illuminated Selector Switch Type	Position
36 Maintained	90° 2 Positions
37 Spring Return from Right	
38 Maintained	45° 3 Positions
39 Spring Return from Right	
40 Spring Return from Left	
41 Spring Return from 2 ways	

Voltage
12 12V AC/DC
24 24V AC/DC
11 110V AC/DC
23 230/240V AC/DC

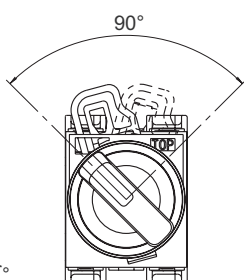
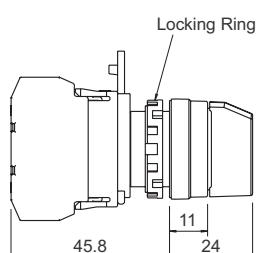
Colour
00 Red
02 Amber
03 Yellow
04 Green
05 Blue
06 White
09 Black *

Contact	
00	No Contacts
10	1NO
01	1NC
11	1NO-1NC
20	2NO
02	2NC
22	2NO-2NC
30	3NO
03	3NC
40	4NO
04	4NC
12	1NO-2NC
21	2NO-1NC
13	1NO-3NC
31	3NO-1NC
Please contact your <i>WERNER</i> representative for more contact arrangement.	

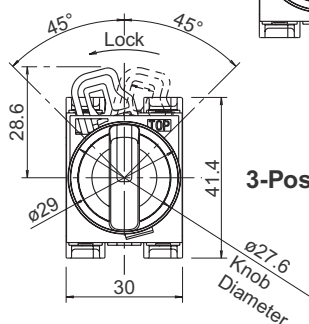
Non-Illuminated Selector Switches are in black only.

Dimensions - Selector Switch

• Non-Illuminated Selector Switch



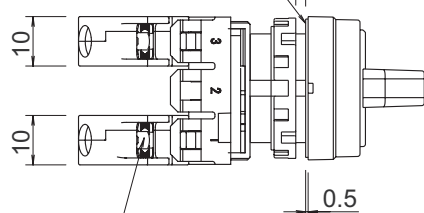
2-Position



3-Position

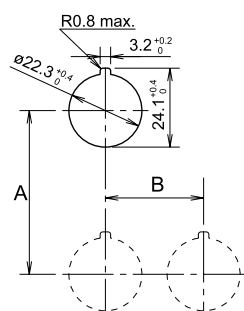
Panel Thickness: 0.8 to 6

Gasket



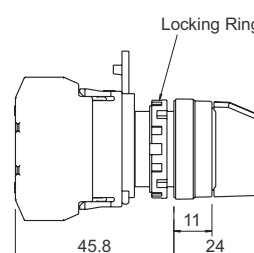
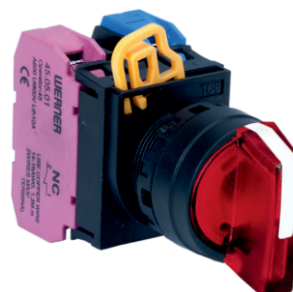
M3.5 Terminal Screw
Contact Block

Mounting Hole

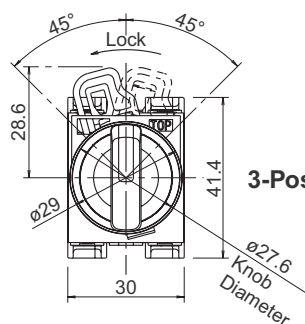


A (mm) X B (mm)
50 min. X 30 min.

• Illuminated Selector Switch



2-Position

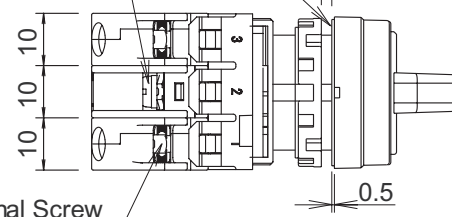


3-Position

Panel Thickness: 0.8 to 6

M3.5 Terminal Screw
Full-voltage Adapter

Gasket



M3.5 Terminal Screw
Contact Block

All dimensions in mm.

45 Series ø22mm Buttons & Signal Lamps

Model Number Structure - Key Selector Switch



45.42.11.00

Series

45 Series Switches and Indicators ø22

Colour

00 Black

Key Selector Switch Type

Retained at

Pos.

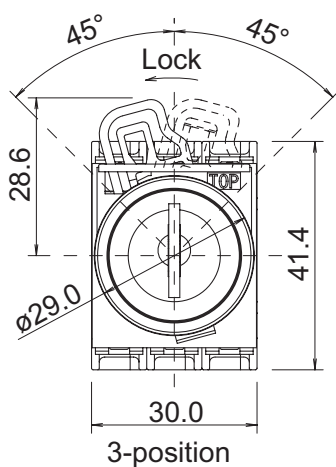
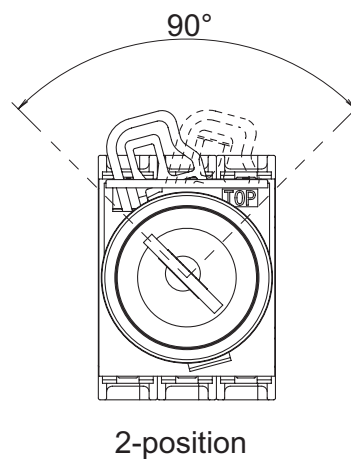
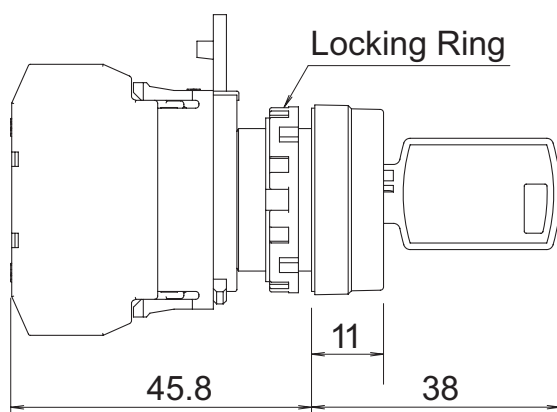
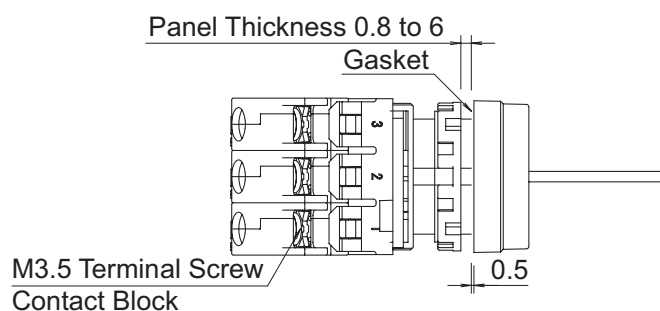
42	Maintained	N.A	90° - 2 Pos.
43	Maintained	R	
44	Maintained	L	
45	Spring Return from Right	R & L	
46	Maintained	N.A	45° - 3 Pos.
47	Maintained	R	
48	Maintained	L	
49	Maintained	R & L	
50	Maintained	C	
51	Maintained	C & R	
52	Maintained	C & L	
53	Spring Return from Right	R	
54	Spring Return from Right	R & L	
55	Spring Return from Right	R & C	
56	Spring Return from Left	L	
57	Spring Return from Left	L & R	
58	Spring Return from Left	L & C	
59	Spring Return from 2 ways	R & L	

Contact

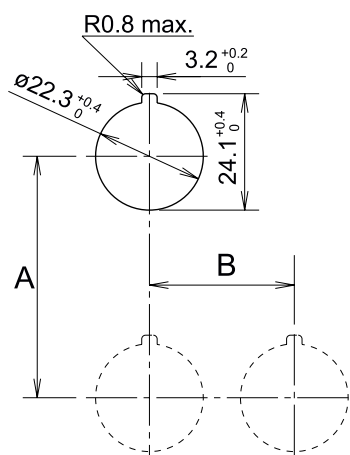
00	No Contacts
10	1NO
01	1NC
11	1NO-1NC
20	2NO
02	2NC
22	2NO-2NC
30	3NO
03	3NC
40	4NO
04	4NC
12	1NO-2NC
21	2NO-1NC
13	1NO-3NC
31	3NO-1NC

Please contact your **WERNER** representative for more contact arrangement.

Dimensions - Key Selector Switch



Mounting Hole

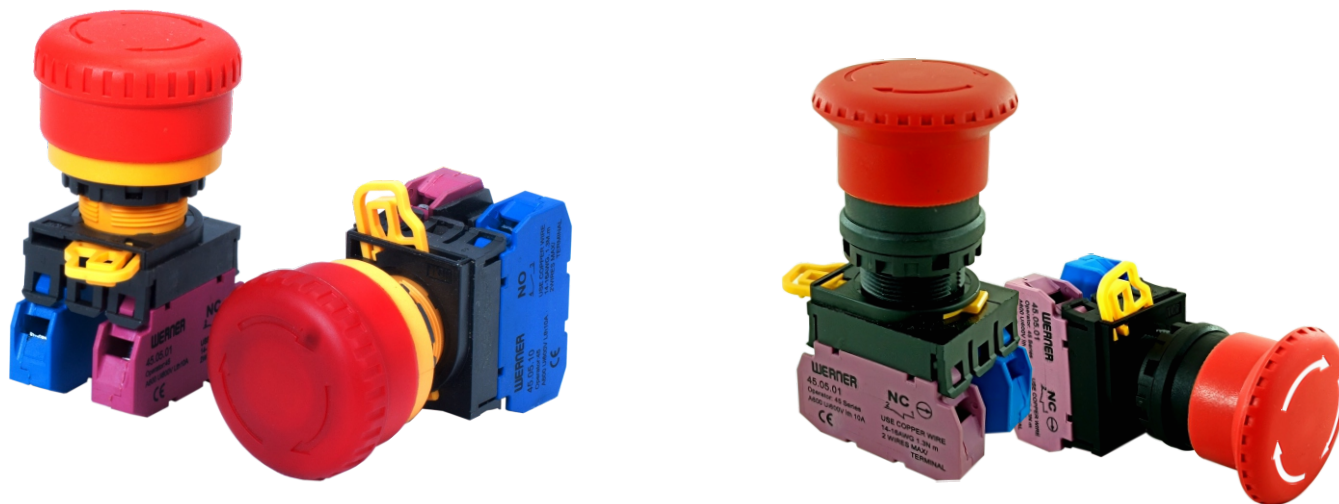


A (mm) X B (mm)

50 min. X 30 min.

45 Series ø22mm Buttons & Signal Lamps

Model Number Structure - Illuminated & Non-Illuminated Emergency Stop Switch



45.86.21.02.12

Series

45 Series Switches and Indicators ø22

Voltage

12	12V AC/DC
24	24V AC/DC
11	110V AC/DC
23	230V AC

Emergency Stop Switch

Operation

86	Illuminated ø40 mm Mushroom	Pushlock Turn Reset + Push Pull
87	Non-Illuminated ø40 mm Mushroom	Pushlock Turn Reset + Push Pull
88	Non-Illuminated ø40 mm Pushlock Turn Rest	Pushlock Turn Reset
89	Non-Illuminated ø40 mm Pushlock Printed Turn Rest	Pushlock Turn Reset

Colour

02	Red
----	-----

Contact

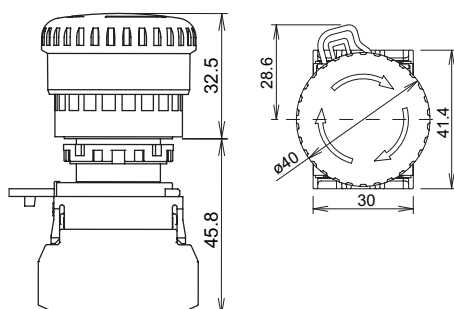
00	No Contacts
10	1NO
01	1NC
11	1NO-1NC
20	2NO
02	2NC
22	2NO-2NC
30	3NO
03	3NC
40	4NO
04	4NC
12	1NO-2NC
21	2NO-1NC
13	1NO-3NC
31	3NO-1NC

Please contact your **WERNER** representative for more contact arrangement.

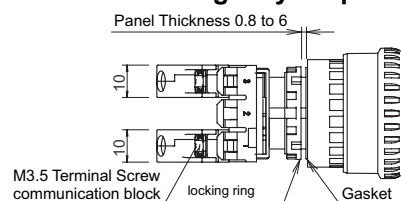
Emergency Stop Switches

Physical apperance	Button Type	Operation	Colour	To contact	Model number.
	ø40 mm Mushroom	push lock Reset + Push Pull	Red Only	1NO	45.87.10.02
				1NC	45.87.01.02
				1NO-1NC	45.87.11.02
				2NO	45.87.20.02
				2NC	45.87.02.02
	ø40 mm Mushroom	push lock Reset + Push Pull	Illuminated Red	2NO-2NC	45.87.22.02
				1NO	45.86.10.02.24
				1NC	45.86.01.02.24
				1NO-1NC	45.86.11.02.24
				2NO	45.86.20.02.24
	Non-Illuminated ø40 mm Pushlock Turn Rest	Pushlock Turn Rest	Red Only	2NC	45.86.02.02.24
				2NO-2NC	45.86.22.02.24
				1NO	45.88.10.02
				1NC	45.88.01.02
				1NO-1NC	45.88.11.02
	Non-Illuminated ø40 mm Pushlock Printed Turn Rest	Pushlock Turn Rest	Red Only	2NO	45.88.20.02
				2NC	45.88.02.02
				2NO-2NC	45.88.22.02
				1NO	45.89.10.02
				1NC	45.89.01.02
			Red Only	1NO-1NC	45.89.11.02
				2NO	45.89.20.02
				2NC	45.89.02.02
				2NO-2NC	45.89.22.02

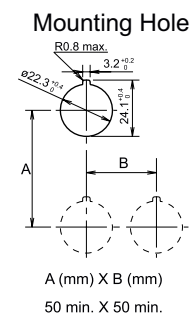
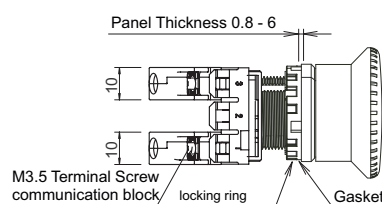
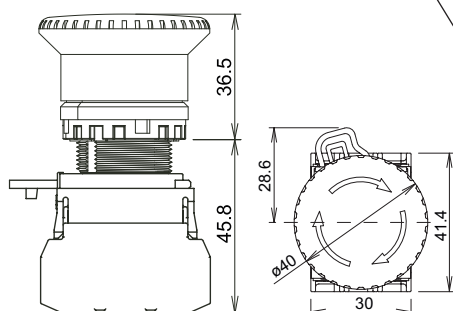
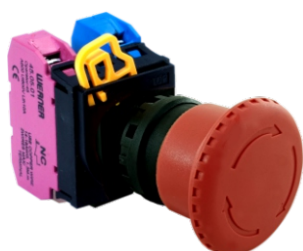
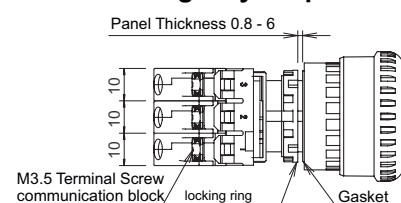
Dimensions - Emergency Stop Switches



- **Unilluminated Emergency Stop Switch**



- **Illuminated Emergency Stop Switch**



All dimensions are in mm.

45 Series ø22mm Buttons & Signal Lamps

Model Number Structure - Pushbutton



45.18.11.02.02.24

Series

45 Series Switches and Indicators ø22

Operation Type

18	Non-Illuminated Dual Head
28	Illuminated Dual Head

Contact

00	No Contacts
10	1NO
01	1NC
11	1NO-1NC
20	2NO
02	2NC
22	2NO-2NC
30	3NO
03	3NC
40	4NO
04	4NC
12	1NO-2NC
21	2NO-1NC
13	1NO-3NC
31	3NO-1NC

Please contact your **WERNER** representative for more contact arrangement.

Voltage

(Illuminated Types Only)

12	12V AC/DC
24	24V AC/DC
11	110V AC/DC
23	230/240V AC/DC
00	Without LED

Colour

02	Red
03	Amber
04	Yellow
05	Green
06	Blue
09	White
00	Black * Non-Illuminated

Colour

02	Red - Green
03	Black - Blue
04	Green - Green

45 Series ø22mm Buttons & Signal Lamps

Model Number Structure - Pushbutton



45.110.11.02.00

Series

45 Series Metal Switches ø22mm

Operation Type

110	Non-Illuminated Flush	Momentary
111	Non-Illuminated Extended	Momentary
112	Non-Illuminated Extended with full shroud	Momentary
113	Non-Illuminated Mushroom	Momentary
114	Illuminated Flush	Momentary
115	Illuminated Extended	Momentary
116	Illuminated Extended with Full Shroud	Momentary
117	Illuminated Mushroom	Momentary
118	Twin Head	Momentary
120	Non-Illuminated Flush	Maintained
121	Non-Illuminated Extended	Maintained
122	Non-Illuminated Extended with full shroud	Maintained
123	Non-Illuminated Mushroom	Maintained
124	Illuminated Flush	Maintained
125	Illuminated Extended	Maintained
126	Illuminated Extended with Full Shroud	Maintained
127	Illuminated Mushroom	Maintained

Voltage (Illuminated Types Only)

12	12V AC/DC
24	24V AC/DC
11	110V AC/DC
23	230/240V AC/DC
00	Non-Illuminated

Colour

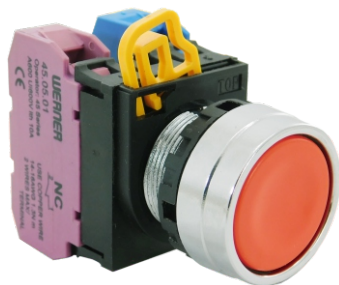
02	Red
03	Amber
04	Yellow
05	Green
06	Blue
09	White
00	Black *

Contact

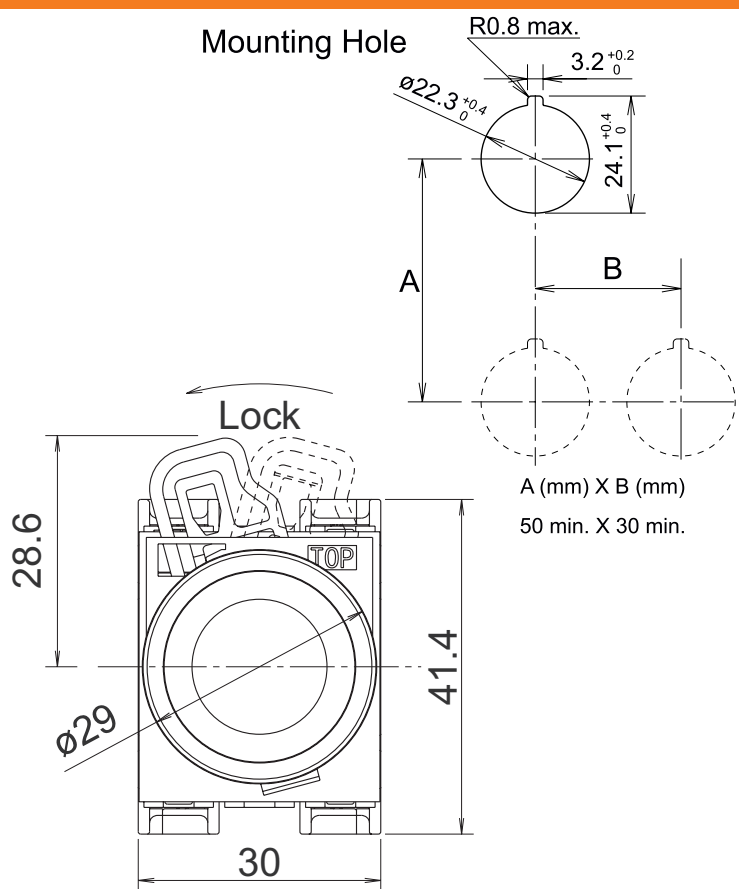
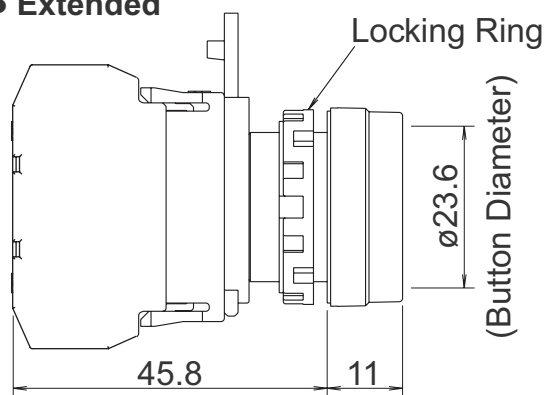
00	No Contacts
10	1NO
01	1NC
11	1NO-1NC
20	2NO
02	2NC
22	2NO-2NC
30	3NO
03	3NC
40	4NO
04	4NC
12	1NO-2NC
21	2NO-1NC
13	1NO-3NC
31	3NO-1NC

Please contact your **WERNER** representative for more contact arrangement.

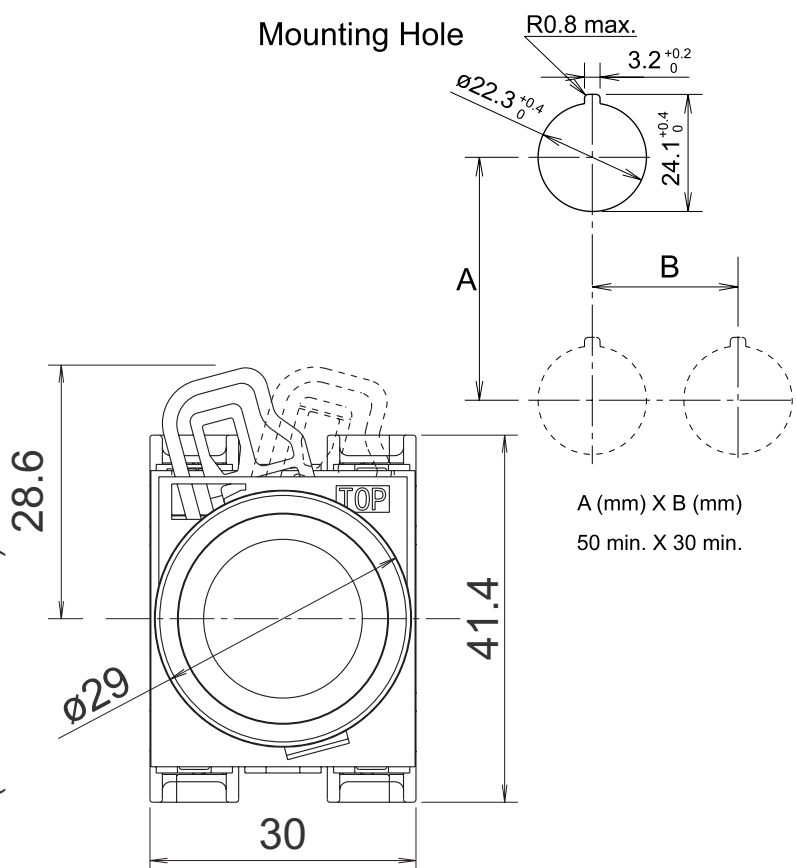
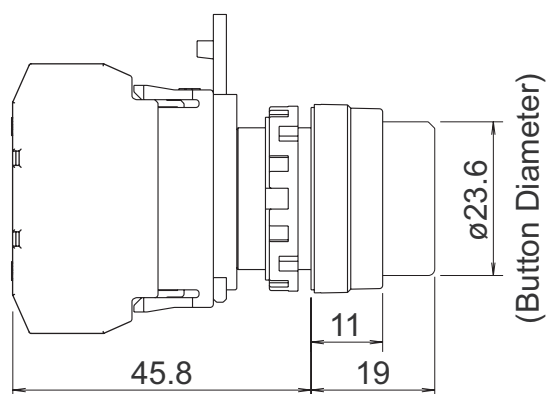
Dimensions - Pushbuttons



• Extended

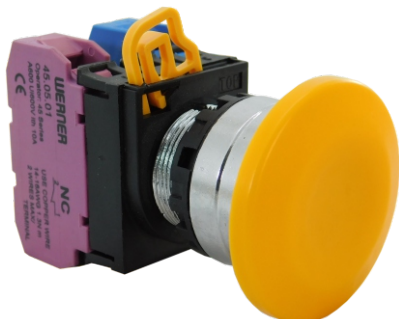


• Extended with Full Shroud

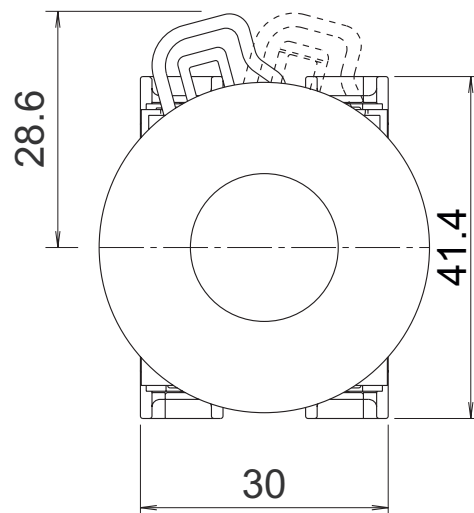
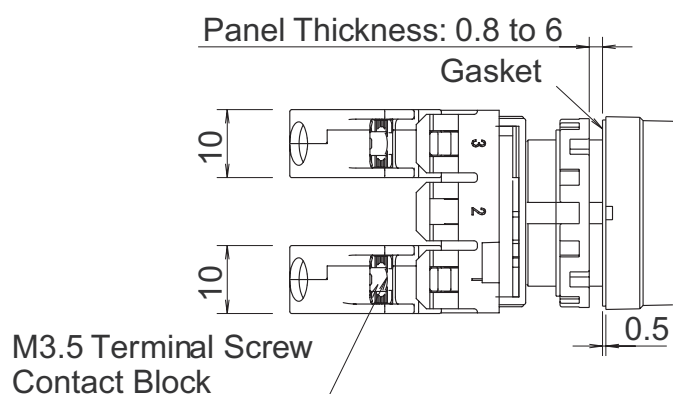
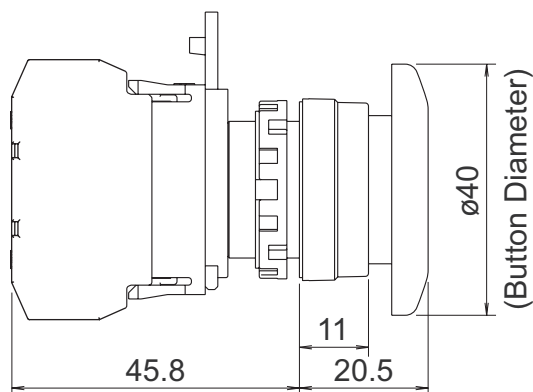


All dimensions in mm.

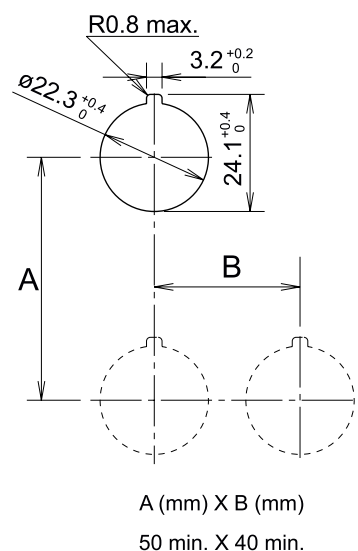
Dimensions - Pushbuttons



• Mushroom



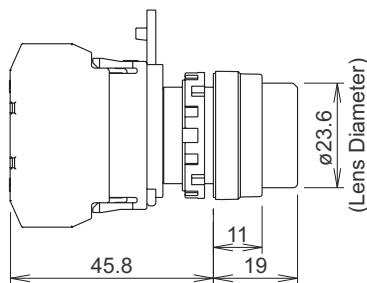
Mounting Hole



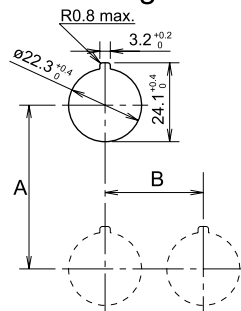
Dimensions - Illuminated Pushbuttons



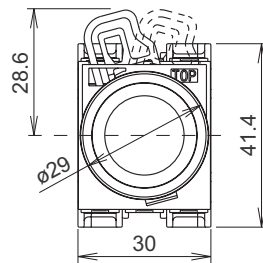
• Extended



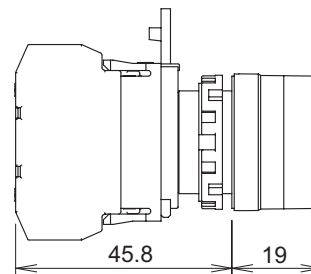
Mounting Hole



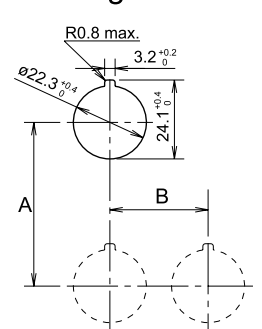
A (mm) X B (mm)
50 min. X 30 min.



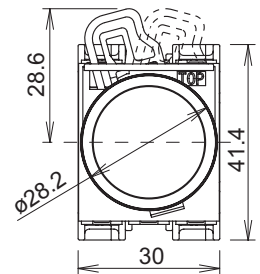
• Extended with Full Shroud



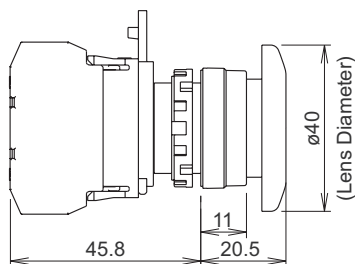
Mounting Hole



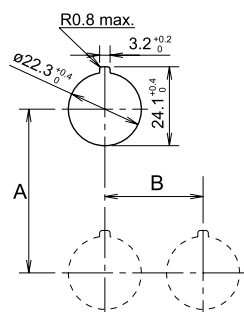
A (mm) X B (mm)
50 min. X 30 min.



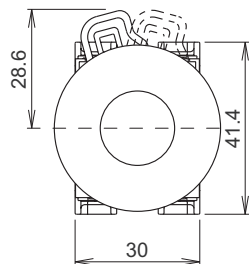
• Mushroom



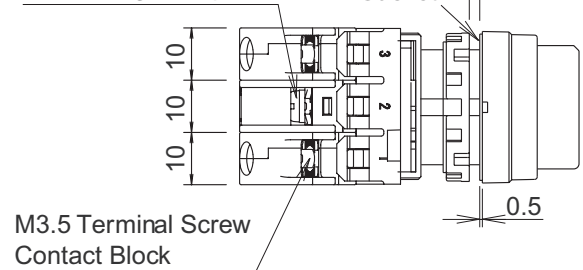
Mounting Hole



A (mm) X B (mm)
50 min. X 40 min.



Panel Thickness: 0.8 to 6
M3.5 Terminal Screw
Full-voltage Adapter



45 Series ø22mm Buttons & Signal Lamps

Model Number Structure - Illuminated & Non-Illuminated Selector Switch



45.130.11.00.00

Series
45 Series Metal Switches ø22mm

Non-Illuminated Selector Switch Type	Position
130 Maintained	90° 2 Positions
131 Spring Return From Right	
132 Maintained	45° 3 Positions
133 Spring Return From Right	
134 Spring Return From Left	
135 Spring Return From 2 ways	

Illuminated Selector Switch Type	Position
136 Maintained	90° 2 Positions
137 Spring Return From Right	
138 Maintained	45° 3 Positions
139 Spring Return From Right	
140 Spring Return From Left	
141 Spring Return From 2 ways	

Voltage (Illuminated Types Only)	
12	12V AC/DC
24	24V AC/DC
11	110V AC/DC
23	230/240V AC/DC
00	Non-Illuminated

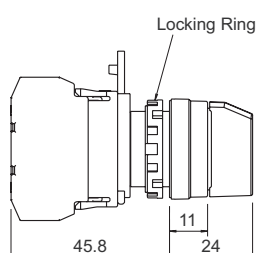
Colour	
00	Black
02	Red
03	Amber
04	Yellow
05	Green
06	Blue
09	White

Contact	
00	No Contacts
10	1NO
01	1NC
11	1NO-1NC
20	2NO
02	2NC
22	2NO-2NC
30	3NO
03	3NC
40	4NO
04	4NC
12	1NO-2NC
21	2NO-1NC
13	1NO-3NC
31	3NO-1NC
Please contact your <i>WERNER</i> representative for more contact arrangement.	

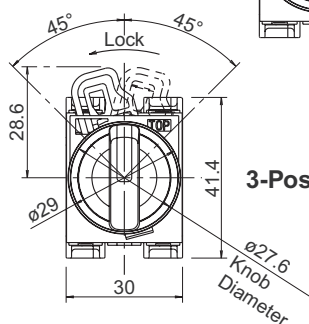
Non-Illuminated Selector Switches are in black only.

Dimensions - Selector Switch

• Non-Illuminated Selector Switch



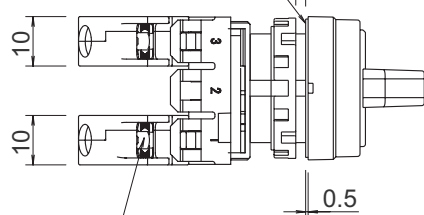
2-Position



3-Position

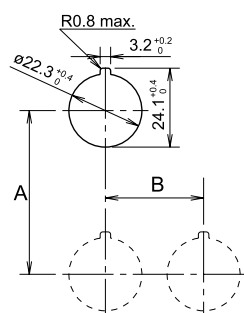
Panel Thickness: 0.8 to 6

Gasket



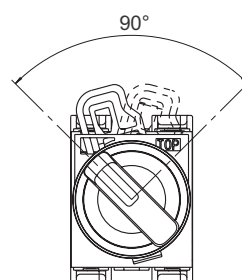
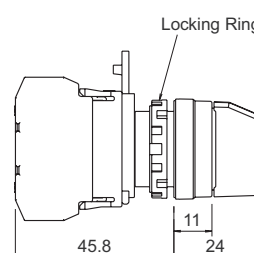
M3.5 Terminal Screw
Contact Block

Mounting Hole

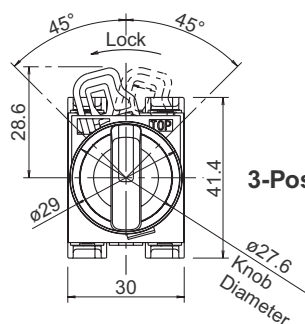


A (mm) X B (mm)
50 min. X 30 min.

• Illuminated Selector Switch



2-Position

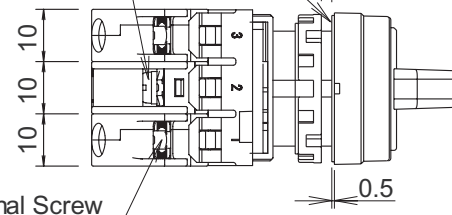


3-Position

Panel Thickness: 0.8 to 6

M3.5 Terminal Screw
Full-voltage Adapter

Gasket



M3.5 Terminal Screw
Contact Block

All dimensions in mm.

45 Series ø22mm Buttons & Signal Lamps



Model Number Structure - Key Selector Switch

45.142.11.00

Series

45 Series Metal Switches ø22mm

Colour

00 Black

Key Selector Switch Type

Retained at

Pos.

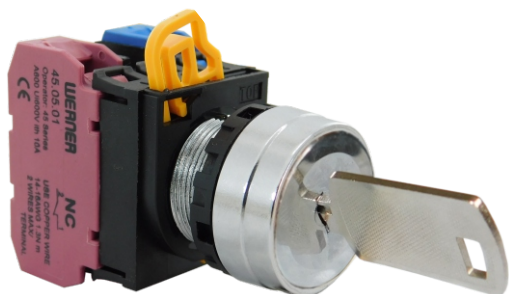
142	Maintained	N.A	90° - 2 Pos.
143	Maintained	R	
144	Maintained	L	
145	Spring Return From Right	R & L	
146	Maintained	N.A	45° - 3 Pos.
147	Maintained	R	
148	Maintained	L	
149	Maintained	R & L	
150	Maintained	C	
151	Maintained	C & R	
152	Maintained	C & L	
153	Spring Return From Right	R	
154	Spring Return From Right	R & L	
155	Spring Return From Right	R & C	
156	Spring Return From Left	L	
157	Spring Return From Left	L & R	
158	Spring Return From Left	L & C	
159	Spring Return From 2 ways	R & L	

Contact

00	No Contacts
10	1NO
01	1NC
11	1NO-1NC
20	2NO
02	2NC
22	2NO-2NC
30	3NO
03	3NC
40	4NO
04	4NC
12	1NO-2NC
21	2NO-1NC
13	1NO-3NC
31	3NO-1NC

Please contact your **WERNER** representative for more contact arrangement.

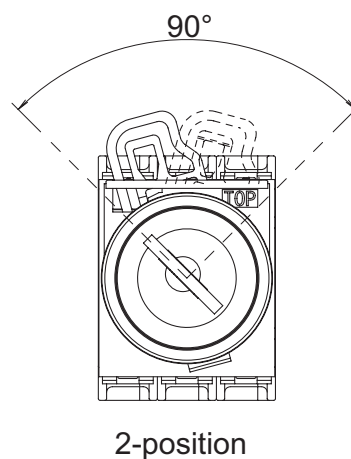
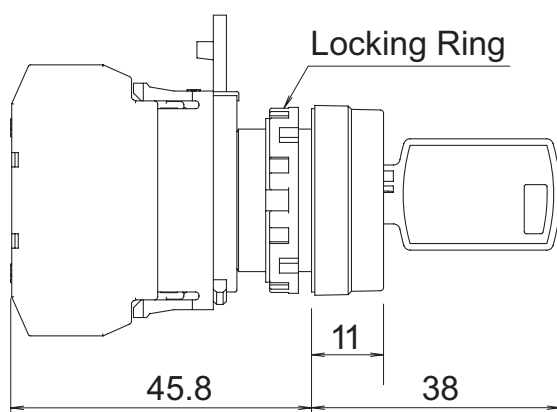
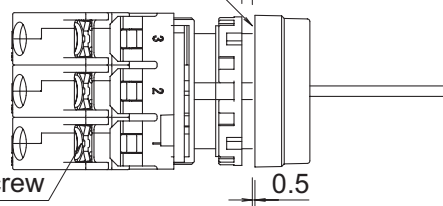
Dimensions - Key Selector Switch



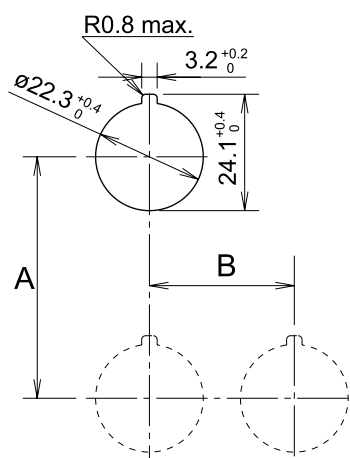
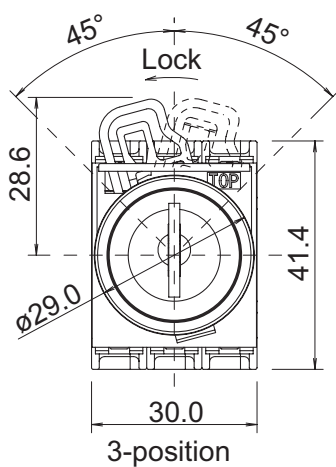
Panel Thickness 0.8 to 6

Gasket

M3.5 Terminal Screw
Contact Block



Mounting Hole

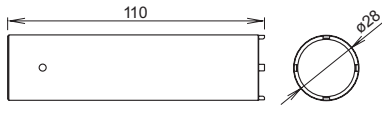
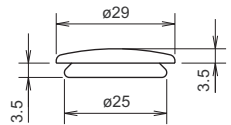
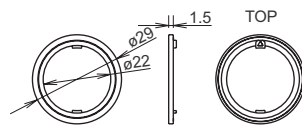
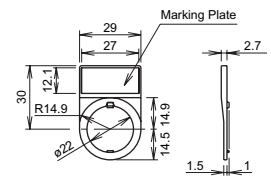
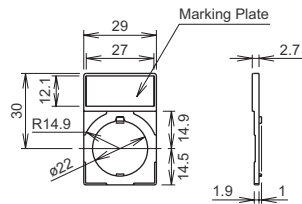
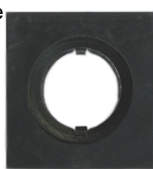
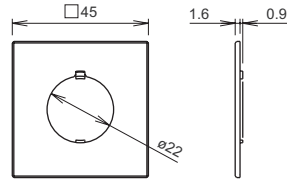
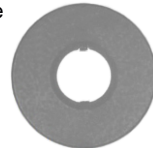
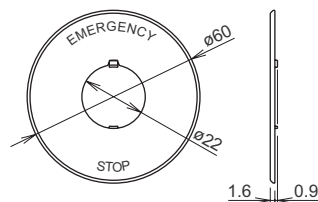
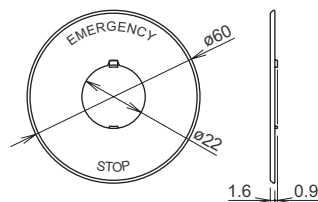


A (mm) X B (mm)

50 min. X 30 min.

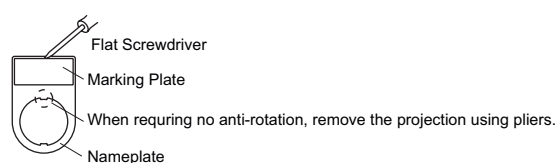
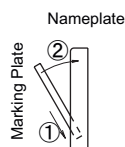
All dimensions in mm.

Accessories

Appearance	Part No.	Description & Dimensions (mm)
	44.02.01	Metallic tool used to tighten the plastic locking ring when installing the 45 series control unit in a panel. 
	44.02.06	Used for plugging unused mounting holes in the panel. Color: Black 
	44.01.53	Prevents rotation of switches in panel. Mainly used with selector switches when no nameplate is used. With waterproof gasket (IP65). Made of plastic (black). 
	44.01.60	Round bottom, Plastic (black) 1.5 mm thick 
	44.01.61	Square bottom, Plastic (black) 1.5 mm thick 
	44.01.62	Square, Plastic (black) 1.5 mm thick 
	44.01.63	Round, Yellow Color Blank 
	44.01.64	Round, Yellow Color, With "EMERGENCY STOP" text. 

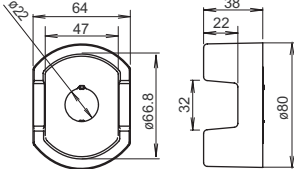
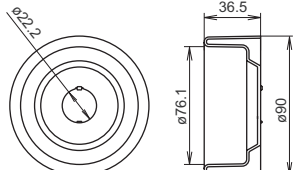
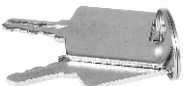
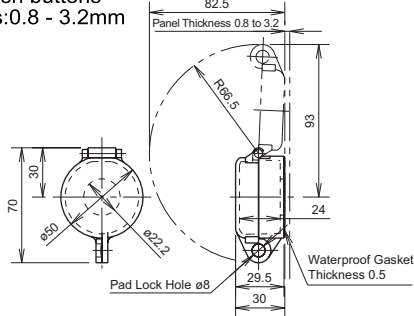
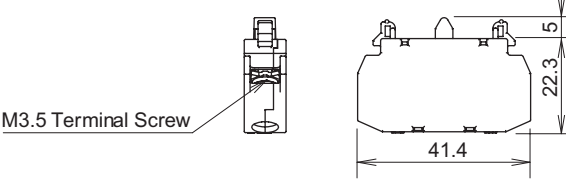
- Installing the marking plate on a nameplate

- To remove the marking plate, insert the flat screwdriver between the marking plate and nameplate.



Note: When using an nameplate, the mounting panel thickness is decreased by 1.5 mm.

Accessories

Appearance	Part No.	Description & Dimensions (mm)
EMO Switch Guard 	44.02.07	Ellipse shape yellow color ø22mm 
EMO Switch Guard 	44.02.08	Round shape yellow color ø22mm 
Spare Key 	44.01.52	
Padlock Cover 	44.03.50	Illuminated plastic cover used to protect push buttons or selector switches(IP65), Panel thickness:0.8 - 3.2mm 
Contact Block NO 	45.05.10	
Contact Block NC 	45.05.01	
Double Contact Block 	NO - NC 45.05.11 2NO 45.05.20 2NC 45.05.02	
		Note: Double contact blocks cannot be used on emergency stop switches.

Safety Precaution

General

- Failure to turn the power off may cause electrical shocks or fire hazard. Please turn off the power to the 45 series switches before starting installation, removal, wiring, maintenance, and inspection of the products
- Use the lamp holder tool when replacing lamps to avoid burning your hand.
- Failure to tighten the terminal screws may cause overheating or fire. In case of wiring, tighten the M3.5 terminal screws to a tightening torque of 1.0 to 1.3 N.m.

Panel Mounting

- Remove the contact block from the operator (for pilot light, remove the transformer or full voltage unit from the pilot light). Remove the locking ring from the operator into the panel cut-out from the front, tighten the locking ring from the back, then instal the contact block to the operator.

Removing and Installing the Contact Block



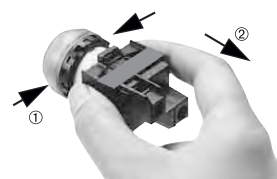
- ① Pull up the locking lever.
- ② Turn the lever to the left.
- ③ Pull out the contact block.

1. To remove the operator from the contact block, pull up the locking lever and turn it to the left. Then the operator can be pulled out.

2. To reinstall, place the TOP marking on the operator and the werner making on the contact block mounting adapter in the same direction, and insert the operator into the contact block mounting adapter. Then turn the locking lever to right



Removing the Full Voltage Unit



1. To remove the full voltage unit, squeeze the full voltage unit from both sides to disengage the latch as shown, and pull it out. Like the transformer unit, the full voltage unit can also be pulled out by inserting a flat screwdriver into the latch hole as shown.
2. To reinstall, place the TOP markings on the operator and the latch on the full voltage unit in the same direction, and insert the operator into the full voltage unit.

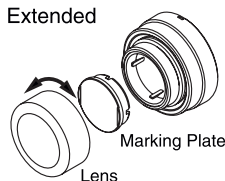
Notes for Panel Mounting

1. Use the optional locking ring wrench to mount the operator onto a panel. Tightening torque must not exceed 2.0 N · m. Do not use pliers. Excessive tightening will damage the locking ring.
2. For contact blocks and transformers housing LED and incandescent lamps, make sure not to press the lamps too hard, otherwise the lamp socket may be damaged.

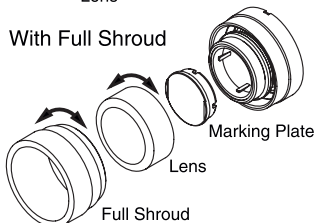
Insertion Order of Lens and Marking Plate

Illuminated Pushbutton

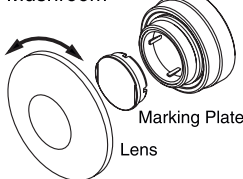
Extended



With Full Shroud

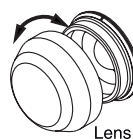


Mushroom

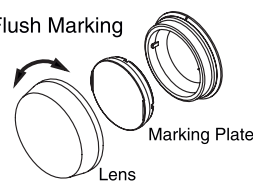


Pilot Light

Flush Extended Dome



Flush Marking



Removing and Installing the Transformer Unit

1. Insert a flat screwdriver (5 mm wide at maximum) into the latch hole on the transformer unit as shown in the photo below, and disengage the latch. Then pull out the operator.
2. To reinstall, place the TOP marking on the operator and the latch in the same direction, and push the operator into the transformer unit.



40 Series ø16mm Buttons & Signal Lamps



Main Features & Information

- Round, square and rectangular frame
It is suitable for all kinds of applications with its shapes..
- Standard 16mm (5/8) drill holes
Compact design to fit.
- Internal current limiting resistor for LEDs and contalens
- Double throw contacts provide seamless connection.
- Wide product variety.
- For the best possible connection
All contacts of the models are gold plated.
- Built-in snap action seamless switching and provides positioning.
- Elegant, stylish and forward-looking product design.
- They are ideal products for use in connection with PLCs.

40 Series ø16mm Buttons & Signal Lamps



Type	Colour	Part No.	Unit ₹	Std Pkg	Master Pkg
Round	Red	40.14.02.*1.#	720.30	10	200
	Amber	40.14.03.*1.#	720.30	10	
	Yellow	40.14.04.*1.#	720.30	10	
	Green	40.14.05.*1.#	720.30	10	
	Blue	40.14.06.*1.#	720.30	10	
	White	40.14.09.*1.#	720.30	10	
Square	Red	40.15.02.*1.#	720.30	10	200
	Amber	40.15.03.*1.#	720.30	10	
	Yellow	40.15.04.*1.#	720.30	10	
	Green	40.15.05.*1.#	720.30	10	
	Blue	40.15.06.*1.#	720.30	10	
	White	40.15.09.*1.#	720.30	10	
Rectangular	Red	40.15.02.*1.#	720.30	10	200
	Amber	40.15.03.*1.#	720.30	10	
	Yellow	40.15.04.*1.#	720.30	10	
	Green	40.15.05.*1.#	720.30	10	
	Blue	40.15.06.*1.#	720.30	10	
	White	40.15.09.*1.#	720.30	10	

Replace : **“*”**- IP Protection (1-IP40, 2-IP65)
“#”- Voltage (6-6V, 12-12V, 12-24VAC/DC
00 - No Voltage)



40 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Indicators



40.14.02.11.06

Series	
40	Series Switches and Indicators

Operation Type	
1	Indicators

Shape	
4	Round Illuminated
5	Square Illuminated
6	Rectangular Illuminated

Contact	
0	No Contacts

Voltage	
06	6V AC/DC
12	12V AC/DC
24	24V AC/DC

Lamp Type	
1	LED
2	Filament

Protection	
1	P40
2	IP65

Color	
2	Red
3	Amber
4	Yellow
5	Green
6	Blue
9	White

40 Series ø16mm Buttons & Signal Lamps

Replace : “*”- IP Protection (1-IP40, 2-IP65)
“#”- Voltage (6-6V, 12-12V, 12-24VAC/DC
00 - No Voltage)

Push Buttons - Non Illuminated

Type	Colour	SPDT Part No.	Unit—LP ₹	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Round	Red	40.21.12.*0.00	842.50	40.21.22.*0.00	987.00	10	200
	Amber	40.21.13.*0.00	842.50	40.21.23.*0.00	987.00	10	
	Yellow	40.21.14.*0.00	842.50	40.21.24.*0.00	987.00	10	
	Green	40.21.15.*0.00	842.50	40.21.25.*0.00	987.00	10	
	Blue	40.21.16.*0.00	842.50	40.21.26.*0.00	987.00	10	
	White	40.21.19.*0.00	842.50	40.21.29.*0.00	987.00	10	
Square	Red	40.22.12.*0.00	842.50	40.22.22.*0.00	987.00	10	200
	Amber	40.22.13.*0.00	842.50	40.22.23.*0.00	987.00	10	
	Yellow	40.22.14.*0.00	842.50	40.22.24.*0.00	987.00	10	
	Green	40.22.15.*0.00	842.50	40.22.25.*0.00	987.00	10	
	Blue	40.22.16.*0.00	842.50	40.22.26.*0.00	987.00	10	
	White	40.22.19.*0.00	842.50	40.22.29.*0.00	987.00	10	
Rectangular	Red	40.23.12.*0.00	842.50	40.23.22.*0.00	987.00	10	200
	Amber	40.23.13.*0.00	842.50	40.23.23.*0.00	987.00	10	
	Yellow	40.23.14.*0.00	842.50	40.23.24.*0.00	987.00	10	
	Green	40.23.15.*0.00	842.50	40.23.25.*0.00	987.00	10	
	Blue	40.23.16.*0.00	842.50	40.23.26.*0.00	987.00	10	
	White	40.23.19.*0.00	842.50	40.23.29.*0.00	987.00	10	



40 Series ø16mm Buttons & Signal Lamps

Replace : “*”- IP Protection (1-IP40, 2-IP65)
“#”- Voltage (6-6V, 12-12V, 12-24VAC/DC
00 - No Voltage)

Push Buttons - Illuminated

Type	Colour	SPDT Part No.	Unit—LP ₹	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Round	Red	40.24.12.*1.#	1109.00	40.24.22.*1.#	1253.00	10	200
	Amber	40.24.13.*1.#	1109.00	40.24.23.*1.#	1253.00	10	
	Yellow	40.24.14.*1.#	1109.00	40.24.24.*1.#	1253.00	10	
	Green	40.24.15.*1.#	1109.00	40.24.25.*1.#	1253.00	10	
	Blue	40.24.16.*1.#	1109.00	40.24.26.*1.#	1253.00	10	
	White	40.24.19.*1.#	1109.00	40.24.29.*1.#	1253.00	10	
Square	Red	40.25.12.*1.#	1109.00	40.25.22.*1.#	1253.00	10	200
	Amber	40.25.13.*1.#	1109.00	40.25.23.*1.#	1253.00	10	
	Yellow	40.25.14.*1.#	1109.00	40.25.24.*1.#	1253.00	10	
	Green	40.25.15.*1.#	1109.00	40.25.25.*1.#	1253.00	10	
	Blue	40.25.16.*1.#	1109.00	40.25.26.*1.#	1253.00	10	
	White	40.25.19.*1.#	1109.00	40.25.29.*1.#	1253.00	10	
Rectangular	Red	40.26.12.*1.#	1109.00	40.26.22.*1.#	1253.00	10	200
	Amber	40.26.13.*1.#	1109.00	40.26.23.*1.#	1253.00	10	
	Yellow	40.26.14.*1.#	1109.00	40.26.24.*1.#	1253.00	10	
	Green	40.26.15.*1.#	1109.00	40.26.25.*1.#	1253.00	10	
	Blue	40.26.16.*1.#	1109.00	40.26.26.*1.#	1253.00	10	
	White	40.26.19.*1.#	1109.00	40.26.29.*1.#	1253.00	10	



40 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Pushbuttons



40.24.12.21.06

Series	
40 Series Switches and Indicators	

Operation Type	
2	Push Button (Momentary)
3	Push Button (Maintained)
8	Mushroom Head (Momentary)
9	Mushroom Head (Maintained)
0	Accessories

Shape	
1	Round Non-Illuminated
2	Square Non-Illuminated
3	Rectangular Non-Illuminated
4	Round Illuminated
5	Square Illuminated
6	Rectangular Illuminated

Contact	
1	SPDT
2	DPDT

Voltage	
00	No Voltage
06	6V AC/DC
12	12V AC/DC
24	24V AC/DC

Lamp Type	
0	No Lamp
1	LED
2	Filament

Protection	
1	IP40
2	IP65

Color	
2	Red
3	Amber
4	Yellow
5	Green
6	Blue
9	White
0	Black

40 Series ø16mm Buttons & Signal Lamps

Selector - Non Illuminated

Replace : “*” - IP Protection (1-IP40, 2-IP65) “#” - Voltage (6-6V, 12-12V, 12-24VAC/DC
00 - No Voltage)

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Round	90° 2 Positions	Maintained		SPDT	40.41.10.*1	1421.00	10	200
				DPDT	40.41.20.*1	1421.00	10	
		Spring return from Right to left		SPDT	40.41.10.*2	1421.00	10	
				DPDT	40.41.20.*2	1421.00	10	
Round	45° 3 Positions	Maintained		DPDT	40.51.20.*1	1565.00	10	200
		Spring return from Left to Center		DPDT	40.51.20.*2	1565.00	10	
		Spring return from Right to Center		DPDT	40.51.20.*3	1565.00	10	
		Spring return two-way		DPDT	40.51.20.*4	1565.00	10	
Square	90° 2 Positions	Maintained		SPDT	40.42.22.*1	1421.00	10	200
				DPDT	40.42.23.*2	1421.00	10	
		Spring return from Right to left		SPDT	40.42.24.*1	1421.00	10	
				DPDT	40.42.25.*2	1421.00	10	
Square	45° 3 Positions	Maintained		DPDT	40.52.20.*1	1565.00	10	200
		Spring return from Left to Center		DPDT	40.52.20.*2	1565.00	10	
		Spring return from Right to Center		DPDT	40.52.20.*3	1565.00	10	
		Spring return two-way		DPDT	40.52.20.*4	1565.00	10	
Rectangular	90° 2 Positions	Maintained		SPDT	40.43.22.*1	1421.00	10	200
				DPDT	40.43.23.*2	1421.00	10	
		Spring return from Right to left		SPDT	40.43.24.*3	1421.00	10	
				DPDT	40.43.25.*4	1421.00	10	
Rectangular	45° 3 Positions	Maintained		DPDT	40.53.20.*1	1565.00	10	200
		Spring return from Left to Center		DPDT	40.53.20.*2	1565.00	10	
		Spring return from Right to Center		DPDT	40.53.20.*3	1565.00	10	
		Spring return two-way		DPDT	40.53.20.*4	1565.00	10	



40 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Selector Switch



40.52.10.11

Series	
40 Series Switches and Indicators	

Operation Type	
4	Selector Switch 90° - 2 Positions
5	Selector Switch 45° - 3 Positions

Shape	
1	Round Non-Illuminated
2	Square Non-Illuminated
3	Rectangular Non-Illuminated

Position	
1	Maintained
2	Spring Return From Right
3	Spring Return From Left
4	Spring Return Two Ways

Protection	
1	IP40
2	IP65

Color	
0	Black

Contact	
1	SPDT
2	DPDT

40 Serisi ø16mm Butonlar & Sinyal Lambaları

Selector - Non Illuminated

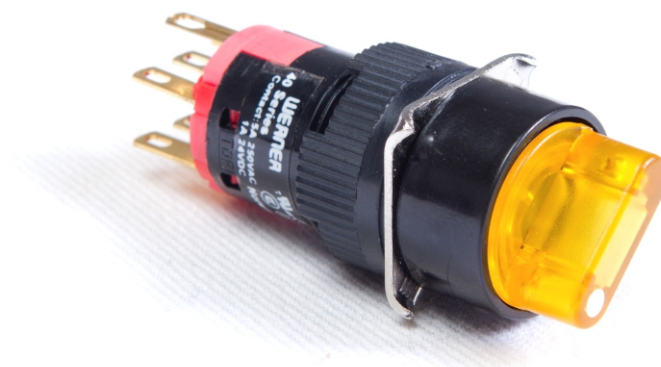
Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Round	90° 2 Positions	Maintained		SPDT	40.44.1\$.*11.#	1865.00	10	200
				DPDT	40.44.2\$.*21.#	1865.00	10	
		Spring return from Right to left		SPDT	40.44.1\$.*11.#	1865.00	10	
				DPDT	40.44.2\$.*21.#	1865.00	10	
Round	45° 3 Positions	Maintained		DPDT	40.45.2\$.*11.#	1865.00	10	200
		Spring return from Right to Center		DPDT	40.45.2\$.*21.#	1865.00	10	
		Spring return from Left to Center		DPDT	40.45.2\$.*31.#	1865.00	10	
		Spring return two-way		DPDT	40.45.2\$.*41.#	1865.00	10	
Square	90° 2 Positions	Maintained		SPDT	40.45.1\$.*11.#	1865.00	10	200
				DPDT	40.45.2\$.*21.#	1865.00	10	
		Spring return from Right to left		SPDT	40.45.1\$.*11.#	1865.00	10	
				DPDT	40.45.2\$.*21.#	1865.00	10	
Square	45° 3 Positions	Maintained		DPDT	40.55.2\$.*11.#	1865.00	10	200
		Spring return from Right to Center		DPDT	40.55.2\$.*21.#	1865.00	10	
		Spring return from Left to Center		DPDT	40.55.2\$.*31.#	1865.00	10	
		Spring return two-way		DPDT	40.55.2\$.*41.#	1865.00	10	
Rectangular	90° 2 Positions	Maintained		SPDT	40.46.1\$.*11.#	1865.00	10	200
				DPDT	40.46.2\$.*21.#	1865.00	10	
		Spring return from Right to left		SPDT	40.46.1\$.*11.#	1865.00	10	
				DPDT	40.46.2\$.*21.#	1865.00	10	
Rectangular	45° 3 Positions	Maintained		DPDT	40.56.2\$.*11.#	1865.00	10	200
		Spring return from Left to Center		DPDT	40.56.2\$.*21.#	1865.00	10	
		Spring return from Right to Center		DPDT	40.56.2\$.*31.#	1865.00	10	
		Spring return two-way		DPDT	40.56.2\$.*41.#	1865.00	10	



Replace : “*”- IP Protection (1-IP40, 2-IP65) “#”- Voltage (6-6V, 12-12V, 12-24VAC/DC, 00 - No Voltage) “\$”- Color (2- Red, 3-Amber, 4-Yellow, 5-Green, 6-Blue, 9-White)

40 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Illuminated Selector Switch



40.45.12.112.12

Series	
40 Series Switches and Indicators	

Operation Type	
4	Selector Switch 90° - 2 Positions
5	Selector Switch 45° - 3 Positions

Shape	
4	Round Illuminated
5	Square Illuminated
6	Rectangular Illuminated

Contact	
1	SPDT
2	DPDT

Color	
2	Red
3	Amber
4	Yellow
5	Green
6	Blue
9	White

Voltage	
06	6V AC/DC
12	12V AC/DC
24	24V AC/DC

Lamp Type	
1	LED
2	Filament

Position	
1	Maintained
2	Spring Return From Right
3	Spring Return From Left
4	Spring Return Two Ways

Protection	
1	IP40
2	IP65

40 Series ø16mm Buttons & Signal Lamps

Key Selector - Non Illuminated

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Round	90° 2 Positions	Maintained		SPDT	40.61.10.*11	1865.00	10	200
				DPDT	40.61.20.*11	1865.00	10	
				SPDT	40.61.10.*12	1865.00	10	
				DPDT	40.61.20.*12	1865.00	10	
				SPDT	40.61.10.*13	1865.00	10	
				DPDT	40.61.20.*13	1865.00	10	
		Spring return from Right to left		SPDT	40.61.10.*22	1865.00	10	
				DPDT	40.61.20.*22	1865.00	10	
Round	45° 2 Positions	Maintained		DPDT	40.71.20.*11	1865.00	10	200
				DPDT	40.71.20.*12	1865.00	10	
				DPDT	40.71.20.*13	1865.00	10	
				DPDT	40.71.20.*14	1865.00	10	
				DPDT	40.71.20.*15	1865.00	10	
				DPDT	40.71.20.*16	1865.00	10	
		Spring return from Right to Center		DPDT	40.71.20.*17	1865.00	10	
				DPDT	40.71.20.*22	1865.00	10	
				DPDT	40.71.20.*24	1865.00	10	
				DPDT	40.71.20.*26	1865.00	10	
		Spring return from Left to Center		DPDT	40.71.20.*33	1421.00	10	
				DPDT	40.71.20.*34	1865.00	10	
				DPDT	40.71.20.*37	1865.00	10	
		Spring Return two ways		DPDT	40.71.20.*44	1865.00	10	



Replace : "*" - IP Protection (1-IP40, 2-IP65)

40 Series ø16mm Buttons & Signal Lamps

Key Selector - Non Illuminated

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Square	90° 2 Positions	Maintained		SPDT	40.62.10.*11	1865.00	10	200
				DPDT	40.62.20.*11	1865.00	10	
				SPDT	40.62.10.*12	1865.00	10	
				DPDT	40.62.20.*12	1865.00	10	
				SPDT	40.62.10.*13	1865.00	10	
				DPDT	40.62.20.*13	1865.00	10	
		Spring return from Right to left		SPDT	40.62.10.*22	1865.00	10	
				DPDT	40.62.20.*22	1865.00	10	
Square	45° 2 Positions	Maintained		DPDT	40.72.20.*11	1865.00	10	200
				DPDT	40.72.20.*12	1865.00	10	
				DPDT	40.72.20.*13	1865.00	10	
				DPDT	40.72.20.*14	1865.00	10	
				DPDT	40.72.20.*15	1865.00	10	
				DPDT	40.72.20.*16	1865.00	10	
				DPDT	40.72.20.*17	1865.00	10	
		Spring return from Right to Center		DPDT	40.72.20.*22	1865.00	10	
				DPDT	40.71.20.*24	1865.00	10	
				DPDT	40.71.20.*26	1865.00	10	
		Spring return from Left to Center		DPDT	40.71.20.*33	1421.00	10	
				DPDT	40.72.20.*34	1865.00	10	
				DPDT	40.72.20.*37	1865.00	10	
		Spring Return two ways		DPDT	40.72.20.*44	1865.00	10	



Replace : “*”- IP Protection (1-IP40, 2-IP65)

40 Series ø16mm Buttons & Signal Lamps

Key Selector - Non Illuminated

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Rectangular	90° 2 Positions	Maintained		SPDT	40.63.10.*11	1865.00	10	200
				DPDT	40.63.20.*11	1865.00	10	
				SPDT	40.63.10.*12	1865.00	10	
				DPDT	40.63.20.*12	1865.00	10	
				SPDT	40.63.10.*13	1865.00	10	
				DPDT	40.63.20.*13	1865.00	10	
		Spring return from Right to left		SPDT	40.63.10.*22	1865.00	10	
				DPDT	40.63.20.*22	1865.00	10	
Rectangular	45° 2 Positions	Maintained		DPDT	40.73.20.*11	1865.00	10	200
				DPDT	40.73.20.*12	1865.00	10	
				DPDT	40.73.20.*13	1865.00	10	
				DPDT	40.73.20.*14	1865.00	10	
				DPDT	40.73.20.*15	1865.00	10	
				DPDT	40.73.20.*16	1865.00	10	
		Spring return from Right to Center		DPDT	40.73.20.*17	1865.00	10	
				DPDT	40.73.20.*22	1865.00	10	
				DPDT	40.73.20.*24	1865.00	10	
				DPDT	40.73.20.*26	1865.00	10	
		Spring return from Left to Center		DPDT	40.73.20.*33	1421.00	10	
				DPDT	40.73.20.*34	1865.00	10	
				DPDT	40.73.20.*37	1865.00	10	
		Spring Return two ways		DPDT	40.73.20.*44	1865.00	10	



Replace : “*” - IP Protection (1-IP40, 2-IP65)

40 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Key Selector Switch



40.62.10.111

Series	
40 Series	Switches and Indicators

Operation Type	
6	Key Selector Switch 90°- 2 Positions
7	Key Selector Switch 45°- 3 Positions

Shape	
1	Round Non-Illuminated
2	Square Non-Illuminated
3	Rectangular Non-Illuminated

Contact	
1	SPDT
2	DPDT

Color	
0	Black

Key Retained / Removable	
1	Key Removable at all sides
2	Key Retained at Right
3	Key Retained at Left
4	Key Retained at Right & Left
5	Key Retained at Center
6	Key Retained at Center & Right
7	Key Retained at Center & Left

Position	
1	Maintained
2	Spring Return From Right
3	Spring Return From Left
4	Spring Return Two Ways

Protection	
1	IP40
2	IP65

40 Series ø16mm Buttons & Signal Lamps

Replace : “*”- IP Protection (1-IP40, 2-IP65)

E-Stop - Non Illuminated

Type	Contact	Part No.	Color	Unit ₹	Std Pkg	Master Pkg
Pushlock Turn Reset	SPDT	40.08.12.*0	Red	1720.50	10	200
	DPDT	40.08.22.*0	Red	1865.00	10	



Buzzer

Terminal Style	Operating Voltage	Part No.	Unit ₹	Std Pkg	Master Pkg
Solder	12V DC ±10%	40.09.10.12	1720.50	10	200
	24V DC ±10%	40.09.10.24	1865.00	10	



Technical Data

Conventional free air thermal current I_{th}

5 A, as per EN IEC 60947-5-1

Switch rating

Switch rating AC with silver contact (gold plated), 250 VAC, 1A, services category AC-15, as per EN IEC 60947-5-1

Short-circuit protection

Series-connected blow-out fuse 5 A gL

Environmental conditions

Switching system

Self cleaning, double-break slow-make element with four-path contacts (contact opening width 2 x 1.5 mm). The slow-make elements are constructed as per EN IEC 60947-5-1.

Electrical characteristics

Conventional free air thermal current I_{th}

5 A, as per EN IEC 60947-5-1

the maximum current in continuous operation and at ambient temperature must not exceed the quoted maximum values.

Switch rating

Switch rating AC (inductive) with silver contact (gold plated), service category AC-13, as per EN IEC 60947-5-1

Switch rating AC (inductive) with silver contact (gold plated), service category AC-14, as per EN IEC 60947-5-1

Switch rating (non-inductive) with silver contact (gold-plated)

Switch rating DC with silver contact (gold plated), service category DC-13, as per EN IEC 60947-5-1

Recommended minimum operational data

Silver contact (Soldering terminal) 5V AC/DC, 1mA

Short-circuit protection

Series-connected blow-out fuse 10 A gL

Over voltage category

III, as per EN IEC 60947-5-1

Degree of pollution

3, as per EN IEC 60947-1

Material

Mushroom-head cap

Polyamide (PA)

Actuator housing

Polyetherimide (PEI), self-extinguishing

Switching element

Polyamide (PA), Polysulfon (PSU)

Material of contact

Silver (Ag)

Approvals

Approbations and Declaration of conformity

CE

CE

Mechanical characteristics

Terminals

Soldering terminal

max.wire-cross section 2 x 1.0mm²

max.wire-cross section of stranded cable

1 x 0.75 mm² also pluggable 2.8 x 0.5 mm

Actuating force

max. 65 N (measured on mushroom-head cap)

Unlock torque

15 Ncm

Actuating travel

5.5 mm

Rebound time

≤2 ms

Contact Ratings (Contact Block)

Rated Insulation Voltage		250V			
Rated Thermal Current		5A			
Operating Voltage (AC/DC)		12V	24V	110V	220V
AC 50/60 Hz	Resistive Load	—	—	1A	0.7A
	Inductive Load	—	—	0.9A	0.7A
DC	Resistive Load	1A	1A	0.3A	—
	Inductive Load	0.9A	0.9A	0.7A	—
Contact Material		Gold-plated silver			

- Minimum applicable load: 5V AC/DC, 1 mA
(applicable range may vary with operating conditions and load types)

Weight

Weight (approx.)	40.24	10g
	40.1	8g
	40.21	9g
	40.81	11g
	40.42	11g
	40.62	23g

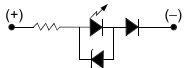
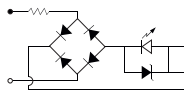
40 Series ø16mm Buttons & Signal Lamps

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Specifications

Operating Temperature		-20 to +70°C (no freezing)
Storage Temperature		-30 to +80°C
Operating Humidity		45 to 85% RH (no condensation)
Contact Resistance		50 mΩ maximum (Initial value)
Insulation Resistance		100 MΩ minimum
Dielectric Strength	Switch Unit	Between live and dead metal parts: 2,000V AC, 1 minute Between terminals of different poles: 2,000V AC, 1 minute Between terminals of the same pole: 1,000V AC, 1 minute Between contact and lamp terminals: 1,500V AC, 1 minute
	Illumination Unit	Between live part and ground: 2,000V AC, 1 minute
Vibration Resistance		Operating extremes: 5 to 65 Hz, amplitude 1mm
Shock Resistance		Damage limits: 500 m/s ² (50G) Operating extremes: 200 m/s ² (20G)
Mechanical Durability (minimum operations)		Momentary: 1,250,000 operations Maintained: 250,000 operations Pushlock Turn Reset: 100,000 operations Selector Switch: 250,000 operations Key Selector Switch: 250,000 operations
Electrical Durability (minimum operations)		Other than Maintained: 1000,000 operations Maintained: 100,000 operations (Switching frequency 1200 operations/h)
Degree of Protection		Enclosed (IP40) Waterproof, dust-tight (IP65)

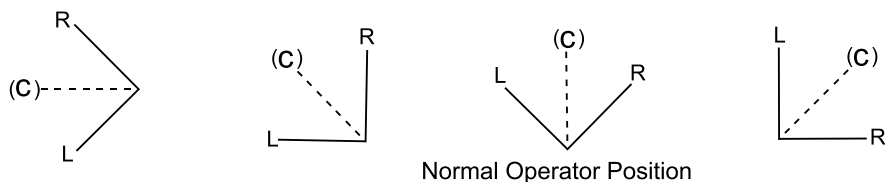
LED Lamp Ratings

Type No.	6V	12V	24V
Lamp Base	Exclusive for 40 series control units		
Voltage Range	6V DC ±5%	12V AC/DC ±10	24V AC/DC ±10%
Ranged Voltage	6V DC	12V AC/DC	24V AC/DC
Current Draw	—	9mA	9 mA
	8 mA	8 mA	8 mA
Color	Red		
	Amber		
	Yellow		
	Green		
	Blue		
	White		
Lamp Base Color	Same as illumination color		
Voltage Marking	Stamped on the base		
Life (reference value)	Approx. 100,000 hours (The luminance is reduced to 50% the initial intensity when used on complete DC.)		
Internal Circuit	   LED Chip  Protection Diode  Zener Diode		

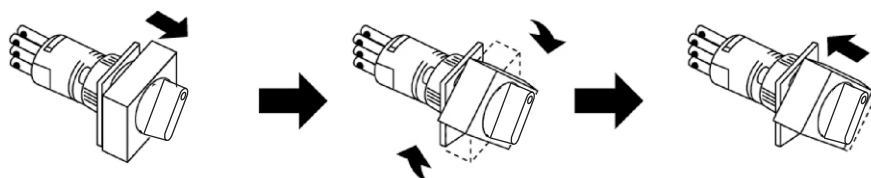
Selector Switches

Operator position can be changed by bezel rotating and locking system.
The bezel can be locked at every 45°.

3 Positions Types



How to change the operator position



1. Pull out the bezel to release the lock.
2. Rotate the bezel at 45° intervals.
3. Push in to lock the bezel.

Contact Operation

Position	Operation Type	Contact	Left ↙	Center ↑	Right ↗
90° 2 Positions	Maintained 	SPDT 	NO NC 	—	NO NC
	Spring return from right 	DPDT 	Left Contact NO NC Right Contact NO NC 	—	Left Contact NO NC Right Contact NO NC
45° 3 Positions	Maintained 	DPDT 	Left Contact NO NC Right Contact NO NC 	Left Contact NO NC Right Contact NO NC 	Left Contact NO NC Right Contact NO NC
	Spring return from right 				
	Spring return from left 				

Bezel rotation is prevented while mounting on a panel.

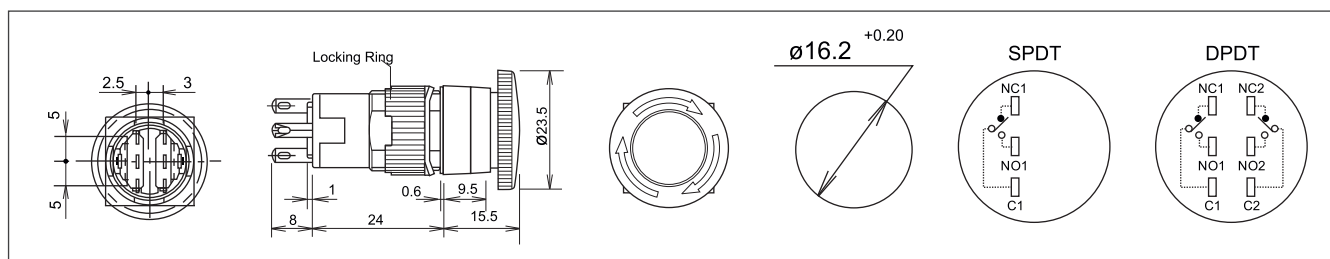
40 Series ø16mm Buttons & Signal Lamps

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Emergency Stop

Appearance	Operation Type	Contact	Color	Model No. IP40	Model No. IP65
 Round	Pushlock Turn Reset	SPDT	Red	40.08.12.10	40.08.12.20
	Pushlock Turn Reset	DPDT	Red	40.08.22.10	40.08.22.20

Dimensions - Emergency Stop



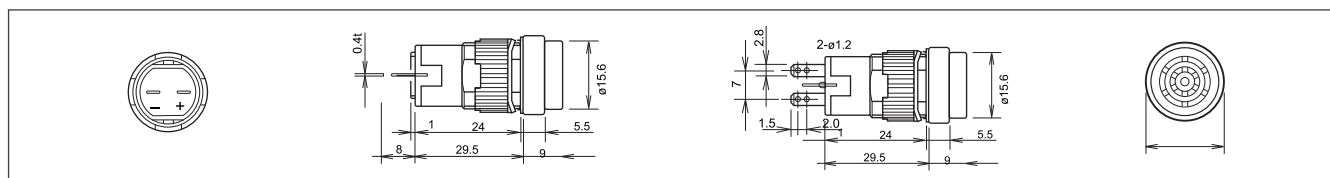
Buzzer

Shape	Terminal Style	Operating Voltage	Type No.
	Solder	12V DC $\pm 10\%$	40.09.10.12
		24V DC $\pm 10\%$	40.09.10.24

Specifications

Operating Voltage	12V DC $\pm 10\%$, 24V DC $\pm 10\%$
Insulation Voltage	60V DC
Current Draw	24 mA
Operating Temperature	-20 to +50°C (No freezing)
Operating Humidity	45 to 85% RH (No condensation)
Sound Pressure (at 0.1m)	Steady sound: 75dB (at the rated voltage)
Sound Frequency	3.5 kHz ± 800 Hz
Terminal Style	Solder terminal
Insulation Resistance	100m Ω minimum (500V DC)
Dielectric Strength	Between live and dead parts: 1,000V AC, 1 minute
Applicable Wire	$\phi 1$ or 0.75 mm ² max.
Weight (approx.)	6.5g
Degree of Protection	IP40 (Enclosed Type)

Dimensions - Buzzer

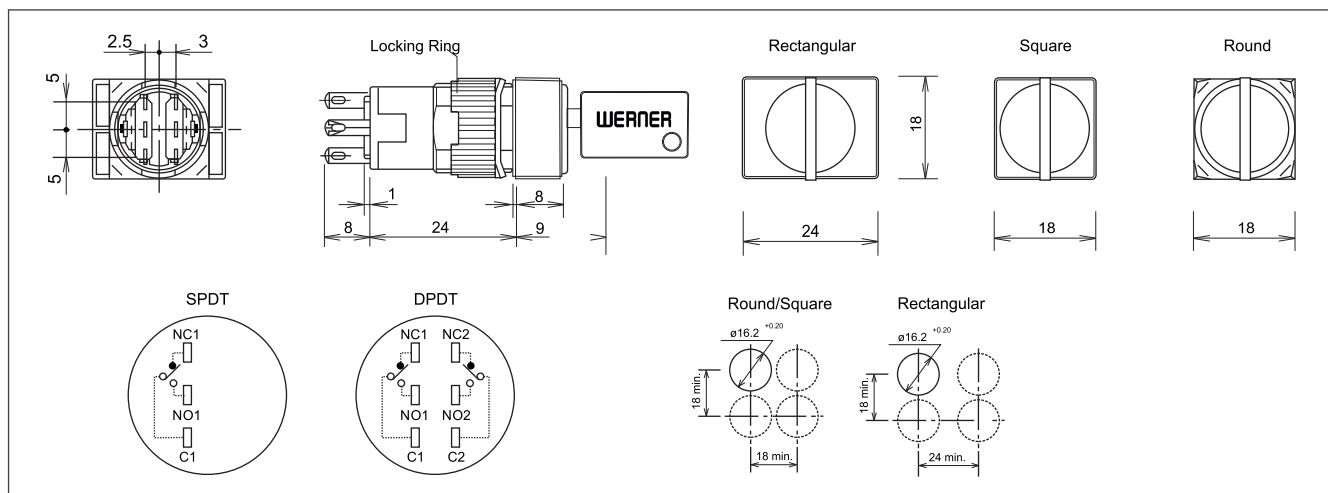


Buzzer dimensions are as similar as 40 Series Indicators.

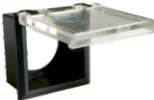
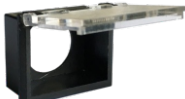
40 Series ø16mm Buttons & Signal Lamps

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Dimensions - Key Selector Switch



Flush bezels

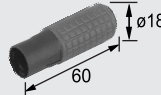
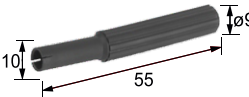
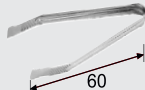
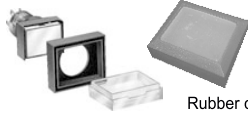
Shape			Panel Cut-out	Specification	Type No.	Remarks
 Round ø24mm			ø20.2mm	Metal (aluminum color)	40.03.10	• Degree of protection: IP65
 Round ø24mm			ø20.2mm	Plastic (black)	40.03.11	• Degree of protection: IP65
 Square 24x24mm			□ 20.2mm	Plastic (black)	40.03.21	• Degree of protection: IP65
 Rectangular 24x30mm			□ 20.2x26.2mm	Plastic (black)	40.03.31	• Degree of protection: IP65
	Square (90° open)	 Maintained	□ 20.2mm	Guard (polyarylate) Base Plastic (black)	40.03.22.11	• Degree of protection: IP65
		 Spring Return			40.03.22.12	
	Square (180° open)	 Maintained	□ 20.2mm	Guard (polyarylate) Base Plastic (black)	40.03.23.11	• Degree of protection: IP65
		 Spring Return			40.03.23.12	
	Rectangular (90° open)	 Maintained	□ 20.2x26.2mm	Guard (polyarylate) Base Plastic (black)	40.03.33.11	• Degree of protection: IP65
		 Spring Return			40.03.33.12	
	Rectangular (180° open)	 Maintained	□ 20.2x26.2mm	Guard (polyarylate) Base Plastic (black)	40.03.34.11	• Degree of protection: IP65
		 Spring Return			40.03.34.12	

All dimensions are in mm.

40 Series ø16mm Buttons & Signal Lamps

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Accessories

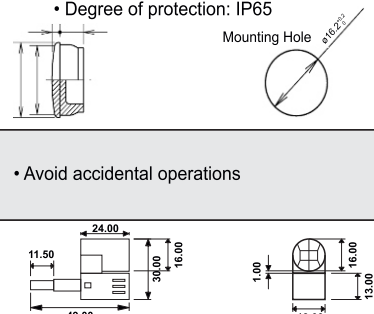
Shape		Material		Type No	Remarks / Dimensions
  Switch Guard	For Round/ Square units (90° open)	 Maintained	Guard (polyarylate) Base (polyacetal)	40.02.12.11	• Used to protect pushbuttons from inadvertent operation. • Degree of protection: IP65
	Rectangular units (90° open)	 Maintained		40.02.13.11	• Used to protect pushbuttons from inadvertent operation.
		 Spring Return		40.02.13.12	• Degree of protection: IP65
	For Round/ Square units (180° open)	 Maintained	Guard (polyarylate) Base (polyacetal)	40.02.02.11	• Used to protect pushbuttons from inadvertent operation.
	Rectangular units (180° open)	 Spring Return		40.02.02.12	• Degree of protection: IP65
		 Maintained		40.02.03.11	• Used to protect pushbuttons from inadvertent operation.
	 Spring Return	40.02.03.12	• Degree of protection: IP65		
			Locking Ring Wrench	Metal (nickel-plated brass)	40.02.01
		Lamp Holder Tool	Rubber	40.02.02	• Used to install and remove the LED lamps.
		Lens Removal Tool	Stainless steel	40.02.03	• Used to install and remove lenses and buttons.
 Spray cover	For round units	Translucent cover: elastomer Black part: polypropylene	40.02.31	• When mounting the control units with the dust covers installed. • Operating temperature: −10 to +55°C	
	For square units		40.02.32		
	For rectangular units		40.02.33		
 Rubber cover	For round & square units	Translucent cover: elastomer Black part: polypropylene	40.02.41	• When mounting the control units with the dust covers installed. • Operating temperature: −10 to +55°C	
	For rectangular units		40.02.42		
 Terminal cover		—	Translucent nylon (white)	40.02.4	• When wiring the terminals, insert the lead wires into the terminal cover holes before soldering. • Terminal cover is not attached and must be ordered separately.
 Socket	Solder Terminal	—	40.02.51	• Plugs on the rear of the 40 series control units	
	PC Board Terminal		40.02.52		
 Connector Lug		Crimp Terminal	Brass	40.02.53	

40 Series ø16mm Buttons & Signal Lamps

G21

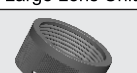
Accessories

Shape	Material	Type No	Remarks / Dimensions
 Mounting Hole Plug	Rubber	Nitril rubber (black)	40.02.6
 Protective Guard	–	Nylon	40.02.7
 Adapter	–	Black part: Nylon-66	40.00.230



ALL DIMENSION IN MILLIMETER (mm)

Accessories

Shape		Specification	Color	Type No	Shape		Specification	Color	Type No
 Lens	Round	Polyarylate	Red	40.01.11.2	 Lens	Rectangular (installed on square units)	Translucent Color lens	Red	40.01.43.12
			Amber	40.01.11.3				Amber	40.01.43.13
			Yellow	40.01.11.4				Yellow	40.01.43.14
			Green	40.01.11.5				Green	40.01.43.15
			Blue	40.01.11.6				Blue	40.01.43.16
			White	40.01.11.9				White	40.01.43.19
 Lens	Square	Polyarylate	Red	40.01.12.2			Opaque button	Red	40.01.43.22
			Amber	40.01.12.3				Amber	40.01.43.23
			Yellow	40.01.12.4				Yellow	40.01.43.24
			Green	40.01.12.5				Green	40.01.43.25
			Blue	40.01.12.6				Blue	40.01.43.26
			White	40.01.12.9				White	40.01.43.29
 Lens	Rectangular	Polyarylate	Red	40.01.13.2			Translucent Color lens	Red	40.01.41.12
			Amber	40.01.13.3				Amber	40.01.41.13
			Yellow	40.01.13.4				Yellow	40.01.41.14
			Green	40.01.13.5				Green	40.01.41.15
			Blue	40.01.13.6				Blue	40.01.41.16
			White	40.01.13.9				White	40.01.41.19
 Button	Round	Polyarylate	Red	40.01.21.2	Large Lens Unit		Opaque button	Red	40.01.41.22
			Amber	40.01.21.3				Amber	40.01.41.23
			Yellow	40.01.21.4				Yellow	40.01.41.24
			Green	40.01.21.5				Green	40.01.41.25
			Blue	40.01.21.6				Blue	40.01.41.26
			White	40.01.21.9				White	40.01.41.29
 Button	Square	Polyarylate	Red	40.01.22.2			Translucent Color lens	Red	40.01.42.12
			Amber	40.01.22.3				Amber	40.01.42.13
			Yellow	40.01.22.4				Yellow	40.01.42.14
			Green	40.01.22.5				Green	40.01.42.15
			Blue	40.01.22.6				Blue	40.01.42.16
			White	40.01.22.9				White	40.01.42.19
 Button	Rectangular	Polyarylate	Red	40.01.23.2	Large Lens Unit		Opaque button	Red	40.01.42.22
			Amber	40.01.23.3				Amber	40.01.42.23
			Yellow	40.01.23.4				Yellow	40.01.42.24
			Green	40.01.23.5				Green	40.01.42.25
			Blue	40.01.23.6				Blue	40.01.42.26
			White	40.01.23.9				White	40.01.42.29
 Marking Plate	Round	Acrylic	Red	40.01.31.2	 Locking Ring	Round	Opaque	Black	40.01.50
			Amber	40.01.31.3					
			Yellow	40.01.31.4					
			Green	40.01.31.5					
			Blue	40.01.31.6					
			White	40.01.31.9					
 Marking Plate	Square	Acrylic	Red	40.01.32.2	 Anti-rotation Ring	Square	Metal	Silver	40.01.51
			Amber	40.01.32.3					
			Yellow	40.01.32.4					
			Green	40.01.32.5					
			Blue	40.01.32.6					
			White	40.01.32.9					
 Marking Plate	Rectangular	Acrylic	Red	40.01.33.2	 Spare key		Brass with nickel plating	Black	40.01.52
			Amber	40.01.33.3					
			Yellow	40.01.33.4					
			Green	40.01.33.5					
			Blue	40.01.33.6					
			White	40.01.33.9					

Lamps

Operating Voltage	Current Draw		Color	Type No. For LED	Type No. For Filament Lamp
	AC	DC			
 6V DC $\pm 5\%$	—	8 mA	Red Amber Yellow Green Blue White	40.01.66.2 40.01.66.3 40.01.66.4 40.01.66.5 40.01.66.6 40.01.66.9	40.01.76.0
 12V DC $\pm 10\%$	9 mA	8 mA	Red Amber Yellow Green Blue White	40.01.62.2 40.01.62.3 40.01.62.4 40.01.62.5 40.01.62.6 40.01.62.9	40.01.72.0
 24V DC $\pm 10\%$	9 mA	8 mA	Red Amber Yellow Green Blue White	40.01.64.2 40.01.64.3 40.01.64.4 40.01.64.5 40.01.64.6 40.01.64.9	40.01.74.0

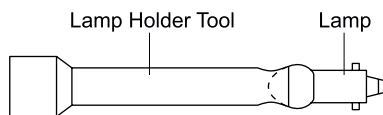
Safety Precautions

General

- Failure to turn the power off may cause electrical shocks or fire hazard. Please turn off the power to the 44 series control units before starting installation, removal, wiring, maintenance, and inspection of the products
- Use the lamp holder tool when replacing lamps to avoid burning your hand.
- Failure to tighten the terminal screws may cause overheating or fire. In case of wiring, tighten the M3.5 terminal screws to a tightening torque of 1.0 to 1.3 N.m.

Installing the Lamp to the Panel

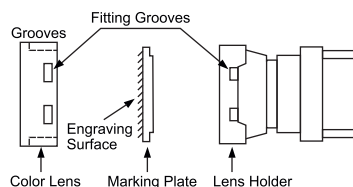
- Insert the lamp into the lamp holder tool, place the pins on the lamp base in the lamp socket push the lamp and turn to the right.



Replacement of Lens and Marking Plate

• Removal

- Using lens removal tool (40.02.03), remove the lens assembly (color lens, marking plate, lens holder, and spring) and pull it out. Remove the marking plate
- Disengage the latches between the color lens and lens holder to remove the marking plate.
- The marking plate must be engraved on the front side as shown below.



• Installation

Install the marking plate on the lens holder and press the color lens onto the lens holder to engage the latches. Place the spring on the lens holder and insert the lens holder into the housing.

• Pushbutton Replacement

Make sure pushbuttons are not locked. In case of illuminated or Non-Illuminated pushbutton switches. This could result in malfunctioning the pushbuttons.

Operation

Do not use a hitting or bouncing action to operate the button that may result in breakage of the lens.

Panel Mounting

use the optional locking ring wrench (40.02.01) to tighten the locking ring, when mounting the control units into a panel. Tightening torque must not exceed rated limited.

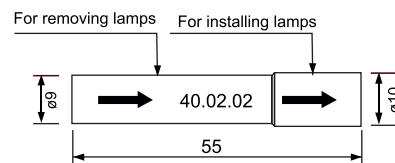
Replacing the LED Lamp

• Removal

Use the lamp holder tool (40.02.02) to remove lamps.

• Installation

Use the lamp holder tool (40.02.02) to install lamps. Use the correct side of the tool for removal or installation.

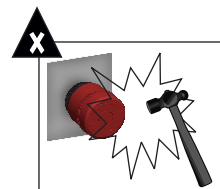


LED

The operating voltage of 6V DC is measured.

Handling

The 40 series switches may malfunction or cause failure due to excessive force or shock applied on them.



Do not apply torque in excess of 1.0 N.m to operate the selectors switches. Required operating force of switches is less than 0.1 N.m.

Make sure to operate the pushbuttons by hand. Do not tap on a pushbuttons to turn it Off and On, this may result in malfunctioning and damage.

41 Series ø16mm Buttons & Signal Lamps



Main Features & Information

- There are illuminated and Non-illuminated switches are available.
- Both for illuminated buttons and signal lights chip and filament.
- You can choose between light types.
- 16mm (5/8) shaft diameter, compact and finger-friendly.
- Internal interlaced motion, seamless switching and provides positioning.
- Stackable contacts; contacts individual you can add or in any application because you can extract it You can modularize it to be used.
- High performance solidstatePLCs and high for other electronic circuit applications reliability guarantee.
- Round, square and rectangular frame shapes It is suitable for use in many applications.

41 Series ø16mm Buttons & Signal Lamps

WERNER ELEKTRIK'S
SWITCHES
ANAHTARLAR

41 Series 16mm Signal Lamps

Type	Colour	Part No.	Unit ₹	Std Pkg	Master Pkg
Round	Red	41.14.02.*1.#	792.50	10	200
	Amber	41.14.03.*1.#	792.50	10	
	Yellow	41.14.04.*1.#	792.50	10	
	Green	41.14.05.*1.#	792.50	10	
	Blue	41.14.06.*1.#	792.50	10	
	White	41.14.09.*1.#	792.50	10	
Square	Red	41.15.02.*1.#	792.50	10	200
	Amber	41.15.03.*1.#	792.50	10	
	Yellow	41.15.04.*1.#	792.50	10	
	Green	41.15.05.*1.#	792.50	10	
	Blue	41.15.06.*1.#	792.50	10	
	White	41.14.09.*1.#	792.50	10	
Rectangular	Red	41.16.02.*1.#	792.50	10	200
	Amber	41.16.03.*1.#	792.50	10	
	Yellow	41.16.04.*1.#	792.50	10	
	Green	41.16.05.*1.#	792.50	10	
	Blue	41.16.06.*1.#	792.50	10	
	White	41.16.09.*1.#	792.50	10	

Replace : **"**"** - IP Protection (1-IP40, 2-IP65)
"#" - Voltage (6-6V, 12-12V, 12-24VAC/DC
 00 - No Voltage)



41 Series ø16mm Buttons & Signal Lamps

Push Buttons - Non Illuminated

Type	Colour	Pushbutton Momentary	Pushbutton Maintained	Unit ₹	Type	Colour	Pushbutton Momentary	Pushbutton Maintained	Unit ₹	Std Pkg	Master Pkg
Round SPDT	Red	41.21.12.*0.00	41.31.12.*0.00	927.00	Round DPDT	Red	41.21.22.*0.00	41.31.22.*0.00	1084.50	10	200
	Amber	41.21.13.*0.00	41.31.13.*0.00	927.00		Amber	41.21.23.*0.00	41.31.23.*0.00	1084.50	10	
	Yellow	41.21.14.*0.00	41.31.14.*0.00	927.00		Yellow	41.21.24.*0.00	41.31.24.*0.00	1084.50	10	
	Green	41.21.15.*0.00	41.31.15.*0.00	927.00		Green	41.21.25.*0.00	41.31.25.*0.00	1084.50	10	
	Blue	41.21.16.*0.00	41.31.16.*0.00	927.00		Blue	41.21.26.*0.00	41.31.26.*0.00	1084.50	10	
	White	41.21.19.*0.00	41.31.19.*0.00	927.00		White	41.21.29.*0.00	41.31.29.*0.00	1084.50	10	
	Black	41.21.10.*0.00	41.31.10.*0.00	927.00		Black	41.21.20.*0.00	41.31.20.*0.00	1084.50	10	
Type	Colour	Pushbutton Momentary	Pushbutton Maintained	Unit ₹	Type	Colour	Pushbutton Momentary	Pushbutton Maintained	Unit ₹	Std Pkg	Master Pkg
Square SPDT	Red	41.22.12.*0.00	41.32.12.*0.00	927.00	Square DPDT	Red	41.22.22.*0.00	41.32.22.*0.00	1084.50	10	200
	Amber	41.22.13.*0.00	41.32.13.*0.00	927.00		Amber	41.22.23.*0.00	41.32.23.*0.00	1084.50	10	
	Yellow	41.22.14.*0.00	41.32.14.*0.00	927.00		Yellow	41.22.24.*0.00	41.32.24.*0.00	1084.50	10	
	Green	41.22.15.*0.00	41.32.15.*0.00	927.00		Green	41.22.25.*0.00	41.32.25.*0.00	1084.50	10	
	Blue	41.22.16.*0.00	41.32.16.*0.00	927.00		Blue	41.22.26.*0.00	41.32.26.*0.00	1084.50	10	
	White	41.22.19.*0.00	41.32.19.*0.00	927.00		White	41.22.29.*0.00	41.32.29.*0.00	1084.50	10	
	Black	41.22.10.*0.00	41.32.10.*0.00	927.00		Black	41.22.20.*0.00	41.32.20.*0.00	1084.50	10	
Type	Colour	Pushbutton Momentary	Pushbutton Maintained	Unit ₹	Type	Colour	Pushbutton Momentary	Pushbutton Maintained	Unit ₹	Std Pkg	Master Pkg
Rectangular SPDT	Red	41.23.\$2.*0.00	41.33.\$2.*0.00	927.00	Rectangular DPDT	Red	41.23.12.*0.00	41.33.22.*0.00	1084.50	10	200
	Amber	41.23.\$3.*0.00	41.33.\$3.*0.00	927.00		Amber	41.23.13.*0.00	41.33.23.*0.00	1084.50	10	
	Yellow	41.23.\$4.*0.00	41.33.\$4.*0.00	927.00		Yellow	41.23.14.*0.00	41.33.24.*0.00	1084.50	10	
	Green	41.23.\$5.*0.00	41.33.\$5.*0.00	927.00		Green	41.23.15.*0.00	41.33.25.*0.00	1084.50	10	
	Blue	41.23.\$6.*0.00	41.33.\$6.*0.00	927.00		Blue	41.23.16.*0.00	41.33.26.*0.00	1084.50	10	
	White	41.23.\$9.*0.00	41.33.\$9.*0.00	927.00		White	41.23.19.*0.00	41.33.29.*0.00	1084.50	10	
	Black	41.23.\$0.*0.00	41.33.\$0.*0.00	927.00		Black	41.23.10.*0.00	41.33.20.*0.00	1084.50	10	



“*” - IP Protection (1-IP40, 2-IP65)

“\$” - Contact Block (1-1NO-1NC, 2-2NO-2NC, 3-3NO-3NC)

41 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Pushbuttons



41.26.15.11.12

Series	
41 Series Switches and Indicators	

Operation Type	
2	Pushbutton Momentary
3	Pushbutton Maintained

Style	
1	Round Non-Illuminated
2	Square Non-Illuminated
3	Rectangular Non-Illuminated
4	Round Illuminated
5	Square Illuminated
6	Rectangular Illuminated

Contact	
1	1NO-1NC
2	2NO-2NC
3	3NO-3NC

Operating Voltage	
00	No Voltage
06	6V
12	12V
24	24V

Lamp Type	
0	No Lamp
1	LED
2	Filament

Degree of Protection	
1	IP40
2	IP65

Colour	
0	Black*
2	Red
3	Amber
4	Yellow
5	Green
6	Blue
9	White

41 Series ø16mm Buttons & Signal Lamps

Selector - Non Illuminated

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Round	90° 2 Positions	Maintained		SPDT	41.41.10.*1	1563.00	10	200
				DPDT	41.41.20.*1	1722.00	10	
		Spring return from Right to left		SPDT	41.41.10.*2	1563.00	10	
				DPDT	41.41.20.*2	1722.00	10	
Round	45° 3 Positions	Maintained		DPDT	41.51.20.*1	1722.00	10	200
		Spring return from Left to Center		DPDT	41.51.20.*2	1722.00	10	
		Spring return from Right to Center		DPDT	41.51.20.*3	1722.00	10	
		Spring return two-way		DPDT	41.51.20.*4	1722.00	10	
Square	90° 2 Positions	Maintained		SPDT	41.42.22.*1	1563.00	10	200
				DPDT	41.42.23.*2	1722.00	10	
		Spring return from Right to left		SPDT	41.42.24.*1	1563.00	10	
				DPDT	41.42.25.*2	1722.00	10	
Square	45° 3 Positions	Maintained		DPDT	41.52.20.*1	1722.00	10	200
		Spring return from Left to Center		DPDT	41.52.20.*2	1722.00	10	
		Spring return from Right to Center		DPDT	41.52.20.*3	1722.00	10	
		Spring return two-way		DPDT	41.52.20.*4	1722.00	10	
Rectangular	90° 2 Positions	Maintained		SPDT	41.43.22.*1	1563.00	10	200
				DPDT	41.43.23.*2	1722.00	10	
		Spring return from Right to left		SPDT	41.43.24.*3	1563.00	10	
				DPDT	41.43.25.*4	1722.00	10	
Rectangular	45° 3 Positions	Maintained		DPDT	41.53.20.*1	1722.00	10	200
		Spring return from Left to Center		DPDT	41.53.20.*2	1722.00	10	
		Spring return from Right to Center		DPDT	41.53.20.*3	1722.00	10	
		Spring return two-way		DPDT	41.53.20.*4	1722.00	10	



Replace : "*" - IP Protection (1-IP40, 2-IP65)

41 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Selector Switch



41.43.10.11

Series	
41 Series Switches and Indicators	

Operation Type	
4	Selector Switch 90° - 2 Positions
5	Selector Switch 45° - 3 Positions

Shape	
1	Round Non-Illuminated
2	Square Non-Illuminated
3	Rectangular Non-Illuminated

Position	
1	Maintained
2	Spring Return From Right
3	Spring Return From Left
4	Spring Return Two Ways

Protection	
1	IP40
2	IP65

Color	
0	Black

Contact	
1	1NO-1NC
2	2NO-2NC
3	3NO-3NC

41 Series ø16mm Buttons & Signal Lamps

Selector - Illuminated

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Round	90° 2 Positions	Maintained		SPDT	41.44.1\$.*11.#	2051.00	10	200
				DPDT	41.44.2\$.*11.#	2051.00	10	
		Spring return from Right to left		SPDT	41.44.1\$.*21.#	2051.00	10	
				DPDT	41.44.2\$.*21.#	2051.00	10	
Round	45° 3 Positions	Maintained		DPDT	41.45.2\$.*11.#	2051.00	10	200
		Spring return from Right to Center		DPDT	41.45.2\$.*21.#	2051.00	10	
		Spring return from Left to Center		DPDT	41.45.2\$.*31.#	2051.00	10	
		Spring return two-way		DPDT	41.45.2\$.*41.#	2051.00	10	
Square	90° 2 Positions	Maintained		SPDT	41.45.1\$.*11.#	2051.00	10	200
				DPDT	41.45.2\$.*21.#	2051.00	10	
		Spring return from Right to left		SPDT	41.45.1\$.*21.#	2051.00	10	
				DPDT	41.45.2\$.*21.#	2051.00	10	
Square	45° 3 Positions	Maintained		DPDT	41.55.2\$.*11.#	2051.00	10	200
		Spring return from Right to Center		DPDT	41.55.2\$.*21.#	2051.00	10	
		Spring return from Left to Center		DPDT	41.55.2\$.*31.#	2051.00	10	
		Spring return two-way		DPDT	41.55.2\$.*41.#	2051.00	10	
Rectangular	90° 2 Positions	Maintained		SPDT	41.46.1\$.*11.#	2051.00	10	200
				DPDT	41.46.2\$.*21.#	2051.00	10	
		Spring return from Right to left		SPDT	41.46.1\$.*21.#	2051.00	10	
				DPDT	41.46.2\$.*21.#	2051.00	10	
Rectangular	45° 3 Positions	Maintained		DPDT	41.56.2\$.*11.#	2051.00	10	200
		Spring return from Left to Center		DPDT	41.56.2\$.*21.#	2051.00	10	
		Spring return from Right to Center		DPDT	41.56.2\$.*31.#	2051.00	10	
		Spring return two-way		DPDT	41.56.2\$.*41.#	2051.00	10	



Replace : “*” - IP Protection (1-IP40, 2-IP65)

“#” - Voltage (6-6V, 12-12V, 12-24VAC/DC, 00 - No Voltage)

“\$” - Color (2- Red, 3-Amber, 4-Yellow, 5-Green, 6-Blue, 9-White)

41 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Illuminated Selector Switch



41.46.14.112.12

Series	
41 Series Switches and Indicators	

Operation Type	
4	Selector Switch 90° - 2 Positions
5	Selector Switch 45° - 3 Positions

Shape	
4	Round Illuminated
5	Square Illuminated
6	Rectangular Illuminated

Contact	
1	SPDT
2	DPDT

Color	
2	Red
3	Amber
4	Yellow
5	Green
6	Blue
9	White

Voltage	
06	6V AC/DC
12	12V AC/DC
24	24V AC/DC

Lamp Type	
1	LED
2	Filament

Position	
1	Maintained
2	Spring Return From Right
3	Spring Return From Left
4	Spring Return Two Ways

Protection	
1	IP40
2	IP65

41 Series ø16mm Buttons & Signal Lamps

Key Selector - Non Illuminated

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Round	90° 2 Positions	Maintained		SPDT	41.61.10.*11	2051.00	10	200
				DPDT	41.61.20.*11	2051.00	10	
				SPDT	41.61.10.*12	2051.00	10	
				DPDT	41.61.20.*12	2051.00	10	
				SPDT	41.61.10.*13	2051.00	10	
				DPDT	41.61.20.*13	2051.00	10	
		Spring return from Right to left		SPDT	41.61.10.*22	2051.00	10	
				DPDT	41.61.20.*22	2051.00	10	
Round	45° 2 Positions	Maintained		DPDT	41.71.20.*11	2051.00	10	200
				DPDT	41.71.20.*12	2051.00	10	
				DPDT	41.71.20.*13	2051.00	10	
				DPDT	41.71.20.*14	2051.00	10	
				DPDT	41.71.20.*15	2051.00	10	
				DPDT	41.71.20.*16	2051.00	10	
		Spring return from Right to Center		DPDT	41.71.20.*17	2051.00	10	
				DPDT	41.71.20.*22	2051.00	10	
				DPDT	41.71.20.*24	2051.00	10	
				DPDT	41.71.20.*26	2051.00	10	
		Spring return from Left to Center		DPDT	41.71.20.*33	2051.00	10	
				DPDT	41.71.20.*34	2051.00	10	
				DPDT	41.71.20.*37	2051.00	10	
		Spring Return two ways		DPDT	41.71.20.*44	2051.00	10	



Replace : "H" - IP Protection (1-IP40, 2-IP65)

41 Series ø16mm Buttons & Signal Lamps

Key Selector - Non Illuminated

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Square	90° 2 Positions	Maintained		SPDT	41.62.10.*11	2051.00	10	200
				DPDT	41.62.20.*11	2051.00	10	
				SPDT	41.62.10.*12	2051.00	10	
				DPDT	41.62.20.*12	2051.00	10	
				SPDT	41.62.10.*13	2051.00	10	
				DPDT	41.62.20.*13	2051.00	10	
		Spring return from Right to left		SPDT	41.62.10.*22	2051.00	10	
				DPDT	41.62.20.*22	2051.00	10	
Square	45° 2 Positions	Maintained		DPDT	41.72.20.*11	2051.00	10	200
				DPDT	41.72.20.*12	2051.00	10	
				DPDT	41.72.20.*13	2051.00	10	
				DPDT	41.72.20.*14	2051.00	10	
				DPDT	41.72.20.*15	2051.00	10	
				DPDT	41.72.20.*16	2051.00	10	
		Spring return from Right to Center		DPDT	41.72.20.*17	2051.00	10	
				DPDT	41.72.20.*22	2051.00	10	
				DPDT	41.72.20.*24	2051.00	10	
				DPDT	41.72.20.*26	2051.00	10	
		Spring return from Left to Center		DPDT	41.72.20.*33	2051.00	10	
				DPDT	41.72.20.*34	2051.00	10	
				DPDT	41.72.20.*37	2051.00	10	
		Spring Return two ways		DPDT	41.72.20.*44	2051.00	10	



Replace : “*”- IP Protection (1-IP40, 2-IP65)

41 Series ø16mm Buttons & Signal Lamps

Key Selector - Non Illuminated

Type	Position	Operation	Retained at	Contact	DPDT Part No.	Unit ₹	Std Pkg	Master Pkg
Rectangular	90° 2 Positions	Maintained		SPDT	41.63.10.*11	2051.00	10	200
				DPDT	41.63.20.*11	2051.00	10	
				SPDT	41.63.10.*12	2051.00	10	
				DPDT	41.63.20.*12	2051.00	10	
				SPDT	41.63.10.*13	2051.00	10	
				DPDT	41.63.20.*13	2051.00	10	
		Spring return from Right to left		SPDT	41.63.10.*22	2051.00	10	
				DPDT	41.63.20.*22	2051.00	10	
Rectangular	45° 2 Positions	Maintained		DPDT	41.73.20.*11	2051.00	10	200
				DPDT	41.73.20.*12	2051.00	10	
				DPDT	41.73.20.*13	2051.00	10	
				DPDT	41.73.20.*14	2051.00	10	
				DPDT	41.73.20.*15	2051.00	10	
				DPDT	41.73.20.*16	2051.00	10	
				DPDT	41.73.20.*17	2051.00	10	
		Spring return from Right to Center		DPDT	41.73.20.*22	2051.00	10	
				DPDT	41.73.20.*24	2051.00	10	
				DPDT	41.73.20.*26	2051.00	10	
		Spring return from Left to Center		DPDT	41.73.20.*33	2051.00	10	
				DPDT	41.73.20.*34	2051.00	10	
				DPDT	41.73.20.*37	2051.00	10	
		Spring Return two ways		DPDT	41.73.20.*44	2051.00	10	



Replace : “*”- IP Protection (1-IP40, 2-IP65)

41 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Key Selector Switches



41.63.10.112

Series	
41 Series Switches and Indicators	

Operation Type	
6	90° 2 Positions
7	45° 3 Positions

Shape	
1	Round
2	Square
3	Rectangular

Contact	
1	1NO-1NC
2	2NO-2NC
3	3NO-3NC

Colour	
0	Black

Key Retained / Removable	
1	Key Removable at all sides
2	Key Retained at Right
3	Key Retained at Left
4	Key Retained at Right & Left
5	Key Retained at Center
6	Key Retained at Center & Right
7	Key Retained at Center & Left

Postions	
1	Maintained
2	Spring Return from Right
3	Spring Return from Left
4	Spring Return two Ways

Degree of Protection	
1	IP40
2	IP65

41 Series ø16mm Buttons & Signal Lamps

Replace : “*”- IP Protection (1-IP40, 2-IP65)

E-Stop - Non Illuminated

Type	Contact	Part No.	Color	Unit ₹	Std Pkg	Master Pkg
Pushlock Turn Reset	SPDT	41.08.12.*0	Red	1892.50	10	200
	DPDT	41.08.22.*0	Red	2051.00	10	



41 Series ø16mm Buttons & Signal Lamps

Model Number Structure - Indicators



41.14.04.11.06

Series	
41	Series Switches and Indicators

Operation Type	
1	Indicators

Shape	
4	Round Illuminated
5	Square Illuminated
6	Rectangular Illuminated

Contact	
0	No Contacts

Voltage	
06	6V AC/DC
12	12V AC/DC
24	24V AC/DC

Lamp Type	
1	LED
2	Filament

Protection	
1	IP40
2	IP65

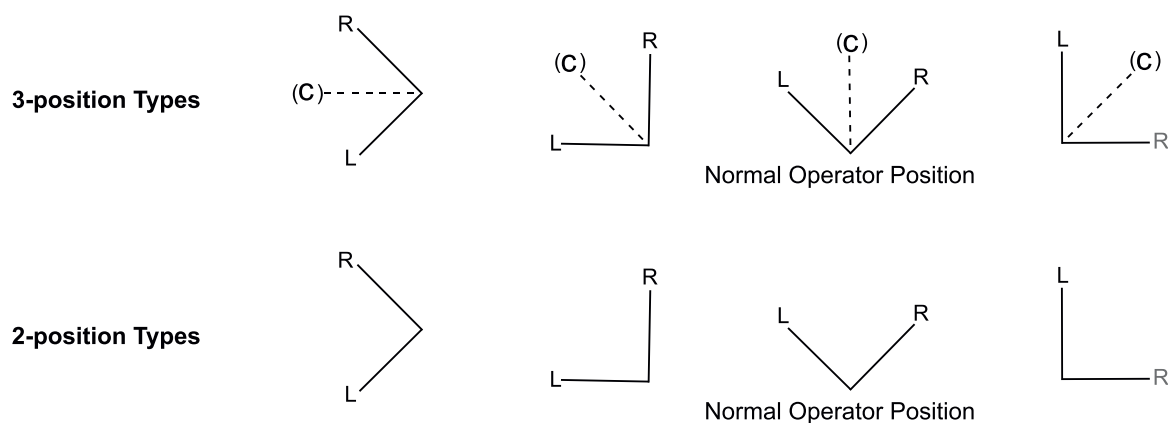
Color	
2	Red
3	Amber
4	Yellow
5	Green
6	Blue
9	White

Specifications

Operating Temperature		-20 to +70°C (no freezing)
Storage Temperature		-30 to +80°C
Operating Humidity		45 to 85% RH (no condensation)
Contact Resistance		25 mΩ or less (initial value)
Insulation Resistance		100 MΩ minimum (500V DC megger)
Dielectric Strength	Switch Unit	Between live and dead metal parts: 2,000V AC, 1 minute Between terminals of different poles: 2,000V AC, 1 minute Between terminals of the same pole: 1,000V AC, 1 minute Between contact and lamp terminals: 1,500V AC, 1 minute
	Illumination Unit	Between live part and ground: 2,000V AC, 1 minute
Vibration Resistance		Operating extremes: 5 to 65 Hz, amplitude 1mm
Shock Resistance		Damage limits: 500 m/s ² (50G) Operating extremes: 200 m/s ² (20G)
Mechanical Durability (minimum operations)		Momentary: 1,250,000 operations Maintained: 250,000 operations Pushlock Turn Reset: 100,000 operations Selector Switch: 250,000 operations Key Selector Switch: 250,000 operations
Electrical Durability (minimum operations)		Other than Maintained: 1000,000 operations Maintained: 100,000 operations (Switching frequency 1200 operations/h)
Degree of Protection		Enclosed (IP40) Waterproof, dust-tight (IP65)

Key Selector Switch Model Selection

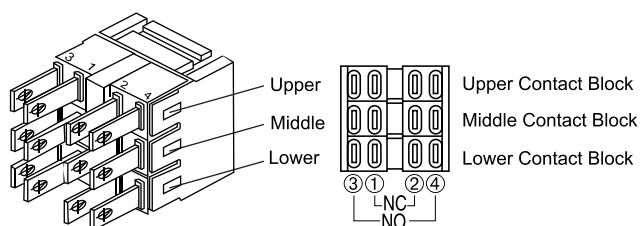
Operator position can be changed by WERNER's original bezel rotating and locking system. The bezel can be locked at every 45° and bezel rotation is prevented while mounting on a panel.



Contact Arrangement

Contact Arrangement

- 1NO-1NC: Middle
- 2NO-2NC: Upper & Lower
- 3NO-3NC: Upper, Middle & Lower



Dimensions

Round	Square	Rectangular
Pushbuttons	Pushbuttons	Pushbuttons
Key Selector Switches	Key Selector Switches	Key Selector Switches

All dimension are in mm.

Selector Switch Contact Arrangement

Positions		1NO-1NC		2NO-2NC		3NO-3NC	
90° 2 Positions	Left 	U	—	U	1   2 3   4	U	1   2 3   4
		M	1   2 3   4	M	—	M	1   2 3   4
		L	—	L	1   2 3   4	L	1   2 3   4
	Right 	U	—	U	1   2 3   4	U	1   2 3   4
		M	1   2 3   4	M	—	M	1   2 3   4
		L	—	L	1   2 3   4	L	1   2 3   4
45° 3 Positions	Left 	U	—	U	1   2 3   4	U	1   2 3   4
		M	—	M	—	M	1   2 3   4
		L	—	L	1   2 3   4	L	1   2 3   4
	Center 	U	—	U	1   2 3   4	U	1   2 3   4
		M	—	M	—	M	1   2 3   4
		L	—	L	1   2 3   4	L	1   2 3   4
	Right 	U	—	U	1   2 3   4	U	1   2 3   4
		M	—	M	—	M	1   2 3   4
		L	—	L	1   2 3   4	L	1   2 3   4

U: Upper Contact Blocks
M: Middle Contact Blocks
L: Lower Contact Blocks

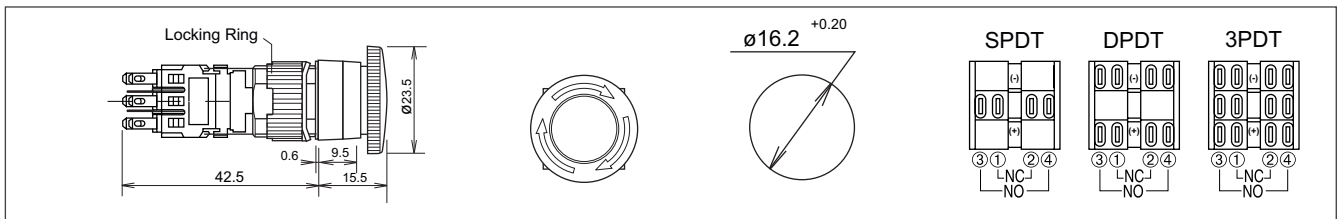
Note:

- Turn off the power to the 41 series control units before starting installation to prevent fire hazard.

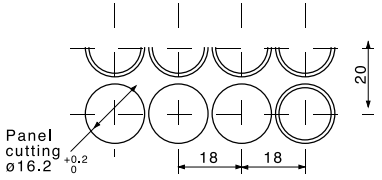
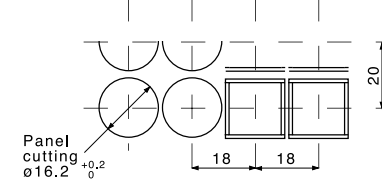
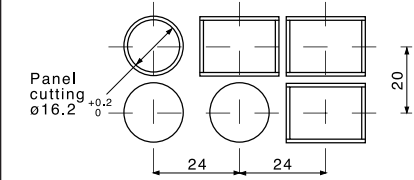
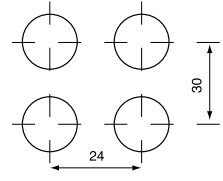
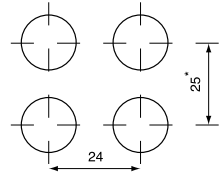
Emergency Stop

Appearance	Operation Type	Contact	Color	Model No.	
				IP40	IP65
 Round	Pushlock Turn Reset	1NO-1NC	Red	41.08.12.10	41.08.12.20
	Pushlock Turn Reset	2NO-2NC	Red	41.08.22.10	41.08.22.20
	Pushlock Turn Reset	3NO-3NC	Red	41.08.32.10	41.08.32.20

Dimensions - Emergency Stop



Mounting Space

Round	Square	Rectangular
Pushbutton When mounting near each other 	Pushbutton When mounting near Square Pushbutton 	Pushbutton When mounting near Rectangular Pushbutton 
Key Selector Switch When mounting near each other 	Key Selector Switch When mounting near other Key Selector Switches or Pushbuttons 	

Safety Precautions

Pushbutton Replacement

Make sure pushbuttons are not locked, In the case of illuminated or Non Illuminated pushbutton switches. This could result in malfunctioning the pushbuttons.

Contact block

Deformation or damage may occur If excessive force is applied when attempting to open the support legs for the contact block holder.

Handling

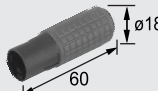
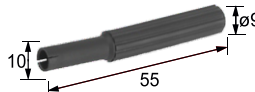
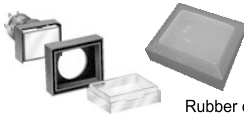
Do not apply torque in excess of 1.0 N.m to operate the selectors switches. Required operating force of switches is less than 0.1 N.m.

Make sure to operate the pushbuttons by hand. Do not tap on a pushbuttons to turn it Off and On, this may result is malfunctioning and damage.

Operation

Do not use a hitting or bouncing action to operate the button that may result in breakage of the lens.

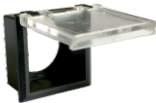
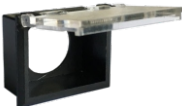
Accessories

Shape		Material		Type No	Remarks / Dimensions
  Switch Guard	For Round/ Square units (90° open)	 Maintained	Guard (polyarylate) Base (polyacetal)	41.02.12.11	• Used to protect pushbuttons from inadvertent operation. • Degree of protection: IP65
	Rectangular units (90° open)	 Maintained		41.02.13.11	• Used to protect pushbuttons from inadvertent operation. • Degree of protection: IP65
		 Spring Return		41.02.13.12	
	For Round/ Square units (180° open)	 Maintained  Spring Return	Guard (polyarylate) Base (polyacetal)	41.02.02.11	• Used to protect pushbuttons from inadvertent operation. • Degree of protection: IP65
	Rectangular units (180° open)	 Maintained  Spring Return		41.02.02.12	
				41.02.03.11	• Used to protect pushbuttons from inadvertent operation. • Degree of protection: IP65
	41.02.03.12				
	 Locking Ring Wrench		Metal (nickel-plated brass)	41.02.01	• Used to tighten the locking ring when installing 40 series control units into a panel. • Tighten the locking ring to a torque of 0.88 N-m maximum
 Lamp Holder Tool		Rubber	41.02.02	• Used to install and remove the LED lamps.	
 Lens Removal Tool		Stainless steel	41.02.03	• Used to install and remove lenses and buttons.	
 Spray cover	For round units	Translucent cover: elastomer Black part: polypropylene	41.02.31	• When mounting the control units with the dust covers installed. • Operating temperature: –10 to +55°C	
	For square units		41.02.32		
	For rectangular units		41.02.33		
 Rubber cover	For round & square units	Translucent cover: elastomer Black part: polypropylene	41.02.41	• When mounting the control units with the dust covers installed. • Operating temperature: –10 to +55°C	
	For rectangular units		41.02.42		
 Terminal cover	–	Translucent nylon (white)	41.02.4	• When wiring the terminals, insert the lead wires into the terminal cover holes before soldering. • Terminal cover is not attached and must be ordered separately.	
 Socket	Solder Terminal	–	41.02.51	• Plugs on the rear of the 40 series control units	
	PC Board Terminal		41.02.52		
 Connector Lug	Crimp Terminal	Brass	41.02.53		

41 Series ø16mm Buttons & Signal Lamps

H19

Flush bezels

Shape			Panel Cut-out	Specification	Type No.	Remarks
	Round ø24mm		ø20.2mm	Metal (aluminum color)	41.03.10	• Degree of protection: IP65
	Round ø24mm		ø20.2mm	Plastic (black)	41.03.11	• Degree of protection: IP65
	Square 24x24mm		□ 20.2mm	Plastic (black)	41.03.21	• Degree of protection: IP65
	Rectangular 24x30mm		□ 20.2x26.2mm	Plastic (black)	41.03.31	• Degree of protection: IP65
	Square (90° open)	Maintained	□ 20.2mm	Guard (polyarylate) Base Plastic (black)	41.03.22.11	• Degree of protection: IP65
		Spring Return			41.03.22.12	
	Square (180° open)	Maintained	□ 20.2mm	Guard (polyarylate) Base Plastic (black)	41.03.23.11	• Degree of protection: IP65
		Spring Return			41.03.23.12	
	Rectangular (90° open)	Maintained	□ 20.2x26.2mm	Guard (polyarylate) Base Plastic (black)	41.03.33.11	• Degree of protection: IP65
		Spring Return			41.03.33.12	
	Rectangular (180° open)	Maintained	□ 20.2x26.2mm	Guard (polyarylate) Base Plastic (black)	41.03.34.11	• Degree of protection: IP65
		Spring Return			41.03.34.12	

Lamps

Operating Voltage	Current Draw		Color	Type No. For LED	Type No. For Filament Lamp
	AC	DC			
 6V DC ±5%	—	8 mA	Red	41.01.66.2	41.01.76.0
			Amber	41.01.66.3	
			Yellow	41.01.66.4	
			Green	41.01.66.5	
			Blue	41.01.66.6	
			White	41.01.66.9	
 12V DC ±10%	9 mA	8 mA	Red	41.01.62.2	41.01.72.0
			Amber	41.01.62.3	
			Yellow	41.01.62.4	
			Green	41.01.62.5	
			Blue	41.01.62.6	
			White	41.01.62.9	
 24V DC ±10%	9 mA	8 mA	Red	41.01.64.2	41.01.74.0
			Amber	41.01.64.3	
			Yellow	41.01.64.4	
			Green	41.01.64.5	
			Blue	41.01.64.6	
			White	41.01.64.9	

43 Series Rotary Switches



Main Features & Information

- 43 Series products 440VAC, 50Hz and below or 240VDC It is suitable for use in voltage conditions of and below.
- 43 Series 6A, 10A, 16A, 20A, 25A, 32A, 40A and 63A It has eight current ratings.
- Open terminals for easy connection.
- For many types of machinery and panel uses suitable.
- Standart 4 delikli ön panel montajı
- Button/lever removable For all switching angles Suitable and spring return switches are available.
- Front assembly in 5 different colors (Black & Red, Black & White, Gray & Yellow, Gray & Black sleeves and Black Front plate & Aluminum Foil Black button products available.
- Please review the product data sheets for detailed information...

43 Series Rotary Switches

Price List

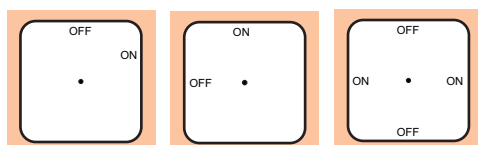
WERNER ELEKTRIK'S

ROTARY SWITCHES

43 Series

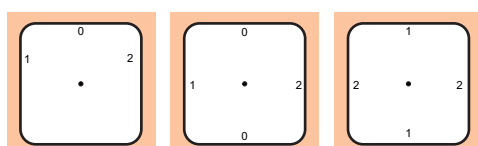
Note: All mentioned prices are for Standard Mounting & Knob. Kindly reach our branch offices for details of other mountings & knobs.

Cam Operated Rotary Switches [4 3 0 3 7]

Isolators Switches
(ON-OFF Switches)

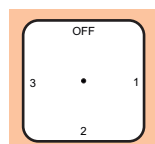
60° Operation	90° Operation	90° Operation Complete Rotation	Description	M.R.P. (₹) Per Unit							
Cat. No.: Program Code (First 5 digits), Next 5 digits in () # →				6A	10A	16A	20A	25A	32A	40A	63A
43001	43191	43195	1 Pole ON - OFF	166	283	383	399	422	527	677	788
43002	43192	43198	2 Pole ON - OFF	216	322	438	499	522	616	816	1010
43003	-	-	3 Pole ON - OFF	233	388	788	943	982	1093	1371	1965
-	43199	43197		233	388	510	655	682	760	954	1365
43004	43194	43196	4 Pole ON - OFF	288	433	549	799	827	888	1077	1626

Offered upto 12 Pole
\$ Motor Duty Switch (AC-3 Duty)

Changeover Switches
(Local - Remote, Auto - Manual Switches)

With Center OFF (60°)	With OFF (90°)	Without OFF (90°) with Complete Rotation	Description	M.R.P. (₹) Per Unit							
Cat. No.: Program Code (First 5 digits), Next 5 digits in () # →				6A	10A	16A	20A	25A	32A	40A	63A
43025	43151	43037	1 P 2W	216	355	483	510	527	594	788	1071
43026	43152	43038	2 P 2W	289	427	549	688	716	827	1082	1626
43027	43153	43039	3 P 2W	355	533	732	1032	1077	1165	1365	2181
43028	43154	43040	4 P 2W	438	621	843	1354	1415	1487	1643	2736

Phase Changeover (PS Series Switches)

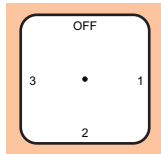


Cat. No.: Program Code (First 5 digits), Next 5 digits in () # →		Description	M.R.P. (₹) Per Unit			
			25A	32A	40A	63A
43060		1 P 3W with OFF	461	572	837	941

43 Series Rotary Switches

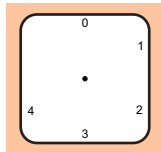
Multi Step Switches [4 3 0 3 7]

Multi Step Switches with OFF



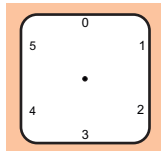
3 Way

Description	Cat. No. #	M.R.P. (₹) Per Unit							
		6A	10A	16A	20A	25A	32A	40A	63A
1 P 3W	43060	255	405	505	505				
2 P 3W	43080	355	471	616	616	849	915	1315	1482
3 P 3W	43100	510	638	1043	1043	1259	1376	1759	2286
4 P 3W	43131	655	816	1265	1265	1576	1731	2353	2747



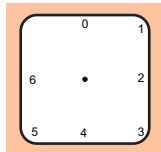
4 Way

1 P 4W	43061	299	366	732	855	893	988	1126	1526
2 P 4W	43081	510	682	961	910	943	1093	1609	1787
3 P 4W	43101	705	860	1376	1520	1576	1809	2048	2747
4 P 4W	43132	854	1276	1748	1820	1892	2020	2669	3202



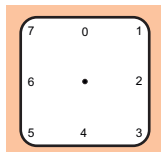
5 Way

1 P 5W	43062	327	477	777	777	1115	1132	1160	1637
2 P 5W	43082	594	893	1126	1126	1520	1787	1831	2292
3 P 5W	43102	788	1637	1953	1953	2153	2375	2652	3108



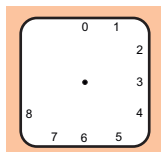
6 Way

1 P 6W	43063	427	594	816	***	1126	1154	1193	***
2 P 6W	43083	705	***	1193	***	***	2048	***	3840
3 P 6W	43103	982	***	2248	2442	2536	2730	***	3197



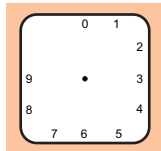
7 Way

1 P 7W	43064	438	671	882	1088	1132	1187	1232	1914
2 P 7W	43084	665	***	1171	1709	1776	**	2619	3035
3 P 7W	43104	1021	***	1892	2253	2336	***	3574	4207



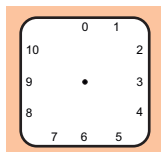
8 Way

1 P 8W	43065	794	732	877	1498	1554	***	1948	***
2 P 8W	43085	810	***	1598	***	***	***	***	***



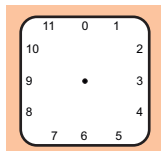
9 Way

1 P 9W	43066	510	***	***	***	***	***	***	***
2 P 9W	43086	921	***	2342	***	***	***	***	***



10 Way

1 P 10W	43067	594	882	1221	***	2653	***	***	***
2 P 10W	43087	949	***	***	***	***	***	***	***



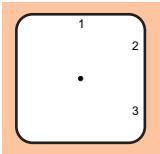
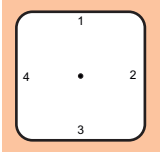
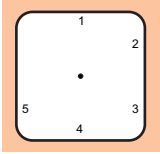
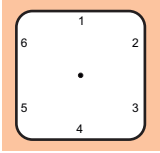
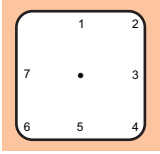
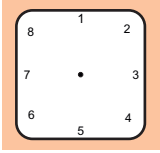
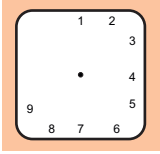
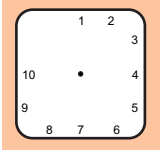
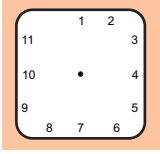
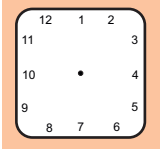
11 Way

1 P 11W	43068	705	***	1115	2797	2897	***	***	***
2 P 11W	43088	1076	***	***	***	***	***	***	***

***Prices are available on request.

43 Series Rotary Switches

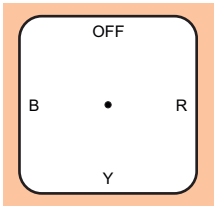
Multi Step Switches without OFF

	Description	Cat. No. #	M.R.P. (₹) Per Unit							
			6A	10A	16A	20A	25A	32A	40A	63A
 3 Way	1 P 3W W/O OFF	43049	238	388	516	621	655	682	1049	1187
	2 P 3W W/O OFF	43069	355	588	721	832	866	***	1315	1554
	3 P 3W W/O OFF	43089	510	732	1076	1209	1259	1376	***	2286
	4 P 3W W/O OFF	43120	655	816	1248	1543	1604	1709	3751	4140
 4 Way	1 P 4W W/O OFF	43050	272	422	621	755	788	827	1149	1593
	2 P 4W W/O OFF	43070	399	610	732	899	932	1021	1376	1787
	3 P 4W W/O OFF	43090	544	599	1171	2098	1487	1643	1798	2403
	4 P 4W W/O OFF	43121	755	816	1365	1731	1798	1914	2403	3208
 5 Way	1 P 5W W/O OFF	43051	327	438	671	854	888	***	***	***
	2 P 5W W/O OFF	43071	594	***	938	***	***	***	***	***
	3 P 5W W/O OFF	43091	788	***	1781	1876	1948	***	2264	3197
 6 Way	1 P 6W W/O OFF	43052	344	***	838	954	1132	1326	1276	1676
	2 P 6W W/O OFF	43072	688	***	1165	1698	1814	1753	1831	2342
	3 P 6W W/O OFF	43092	838	1537	1920	2031	2186	2109	2392	3197
 7 Way	1 P 7W W/O OFF	43053	427	***	***	1132	1171	***	***	***
	2 P 7W W/O OFF	43073	738	***	1265	1731	1798	***	***	***
	3 P 7W W/O OFF	43093	1021	***	2092	2619	2725	***	***	4301
 8 Way	1 P 8W W/O OFF	43054	438	793	949	1143	1187	1248	1382	2020
	2 P 8W W/O OFF	43074	782	***	1598	1809	1876	***	***	***
	3 P 8W W/O OFF	43094	1099	***	2281	2364	2453	2864	2864	4517
 9 Way	1 P 9W W/O OFF	43055	510	***	1515	***	***	***	***	***
	2 P 9W W/O OFF	43075	865	***	1387	***	***	***	***	***
 10 Way	1 P 10W W/O OFF	43056	549	843	1171	***	***	***	***	***
	2 P 10W W/O OFF	43076	960	***	***	***	***	***	***	***
 11 Way	1 P 11W W/O OFF	43057	1015	***	***	***	***	***	***	***
	2 P 11W W/O OFF	43077	1160	***	***	***	***	***	***	***
 12 Way	1 P 12W W/O OFF	43058	1071	***	1248	2886	2997	3191	***	***
	2 P 12W W/O OFF	43078	1254	***	***	***	***	***	***	***

***Prices are available on request.

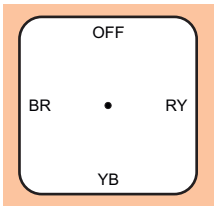
43 Series Rotary Switches

Instrumentation Selector Switches [4 3 0 3 7]



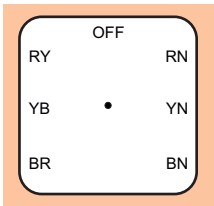
Ammeter Selector Switches (ASS)

Description	Cat. No.	Amps	M.R.P. (₹) Per Unit
Line Currents with OFF with CT	43325 ITYR	6A	355
Line Currents with OFF with CT	43325 ITYR	10A	377
Line Currents with OFF with CT	43325 ITYR	16A	544

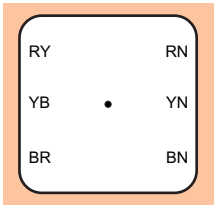


Voltmeter Selector Switches (VSS)

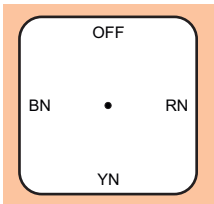
Description	Cat. No.	Amps	M.R.P. (₹) Per Unit
Voltage between Phases with OFF	43312 ITYR	6A	261
Voltage between Phases with OFF	43312 ITYR	10A	344
Voltage between Phases with OFF	43312 ITYR	16A	488



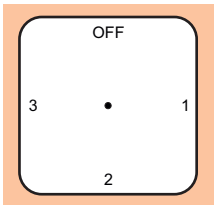
Description	Cat. No.	Amps	M.R.P. (₹) Per Unit
Voltage between Phases & Individual Phases to Neutral with OFF	43313 ITYR	6A	460
Voltage between Phases & Individual Phases to Neutral with OFF	43313 ITYR	10A	682
Voltage between Phases & Individual Phases to Neutral with OFF	43313 ITYR	16A	921



Description	Cat. No.	Amps	M.R.P. (₹) Per Unit
Voltage between Phase & Phase to Neutral without OFF	43314 ITYR	10A	677



Description	Cat. No.	Amps	M.R.P. (₹) Per Unit
Voltage between Phases & Phase to Neutral without OFF	43311 ITYR	6A	460
Voltage between Phases & Phase to Neutral with OFF	43311 ITYR	10A	460



Ammeter & Voltmeter Combined Switch

Description	Cat. No.	Amps	M.R.P. (₹) Per Unit
Voltage between Phases to Neutral & Current of that Phase	43338 ITYR	10A	721

Ordering Code

Example for :

25A 3 Pole

ON - OFF Switch

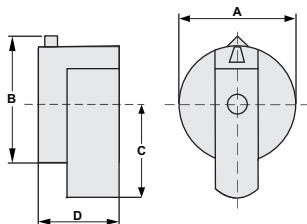
Series		Ampere	Program Code					Inscription	Knob Type	Colour Code		
4	3	25A	4	3	1	9	7	A	I	T	Y	R

Amper Selection

Ampere	6A	10A	16A	20A	25A	32A	40A	63A
--------	----	-----	-----	-----	-----	-----	-----	-----

Colour Combination Selections for Knobs

I-TYPE HANDLE



Black with Red



Black with White

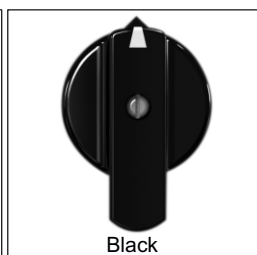


Grey with Yellow

TYPE-IT	A	B	C	D
6/10	28	38.5	22	21
16/20	28	38.5	22	21
25/32	37	50.5	29	25
40/63	50	70	42	33



Grey with Black



Black

Colour Combination Selection for Front Plate

Code - YR



Yellow Front Plate with Black & Red knob

Code - BW



Black Front Plate with Black & White knob

Code - GY



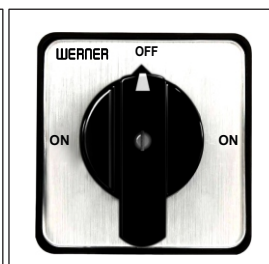
Grey Front Plate with Grey & Yellow knob

Code - GB



Grey Front Plate with Grey & Black knob

Code - AB



Black Front Plate & Aluminium Foil with Black knob

IEC/EN Ratings

AC Rating Code	Unit	6A	10A	16A	20A	25A	32A	40A	63A
Rated Operational Voltage (Ue)	V	440	440	690	690	690	690	690	690
Rated Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated impulse with stand Voltage(Uimp)	Kv	4	4	6	6	6	6	6	6
Rated Operational Current(Ie) AC21/AC1	A	6	10	16	20	25	32	40	63
Rated Uninterrupted Current (Ith)	A	8	12	20	25	32	40	50	80
Rated Operational Power									
AC23A "3 Ph, 415 V"	KW	2.2	3	7.5	7.5	11	15	18.5	22
	A	--	--	13	13	19	26	32	38
Ac3	KW	1.5	3	5.5	5.5	7.5	11	15	18.5
"3 Ph, 415 V"	A	--	--	10	10	13	19	26	32
Short Circuit Capacity									
Rated Fuse Short Circuit Current	KA	3	3	5	5	10	10	20	20
Fuse Size (Type gG/gM)	A	6	10	16	20	25	32	40	63
Terminal Cross Section									
Single/ Multiple	mm ²	0.7	0.7	1.5	1.5	1.5	2.5	2.5	4
	mm ²	0.5	0.5	4	4	4	6	10	16
Fine strand	mm ²	0.7	0.7	1	1	1	1.5	2.5	2.5
	mm ²	1.5	1.5	2.5	2.5	2.5	4	6	10
Terminal Cross Section	Metric	M3.5	M3.5	M3.5	M3.5	M4	M4	M5	M5
Terminal Tightening Torque	Nm	0.5	0.5	0.8	0.8	1.4	1.2	2	2

Rated Duty Cycle : Installation, Operation and maintenance are rated as 8-hour shifts. Suitable for Environment A (for Industrial Application) in good condition. Switch life in normal working circumstances: Electrical life 10,000 operations at 100% rated duty for 120 cycles/hour, Mechanical life 100,000 operations at 300 cycles/hour.

CE

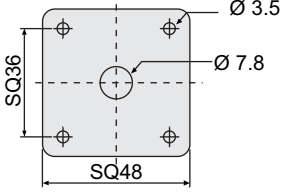
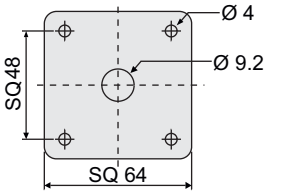
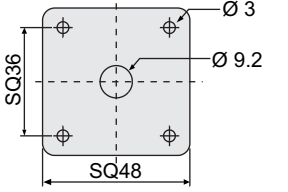
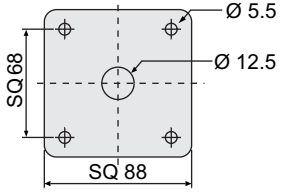
CE

Conformance to standards:

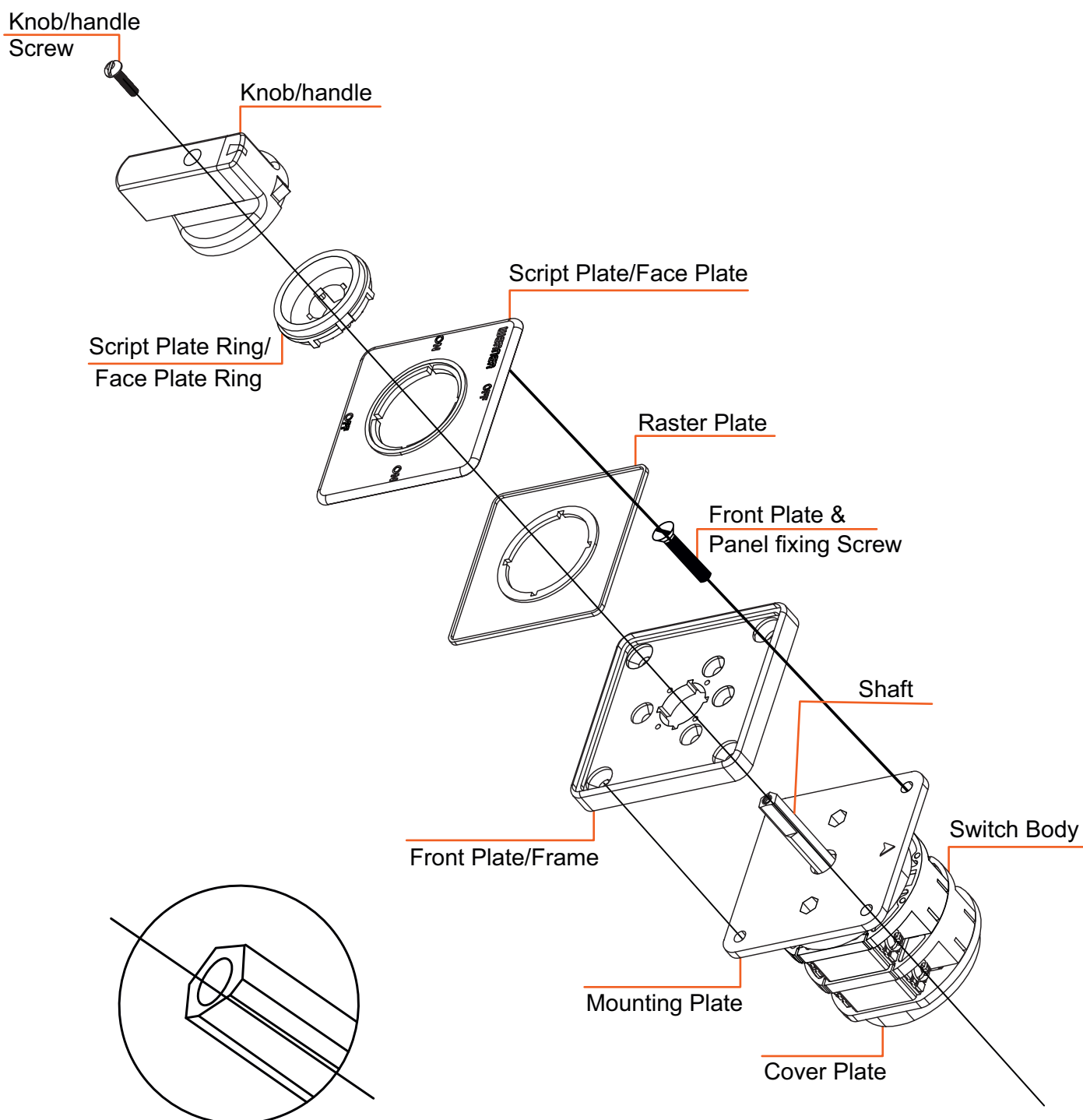
European: IEC-60947-1 : 1988

IEC-60947-3 : 1990

Accessories Front Plate

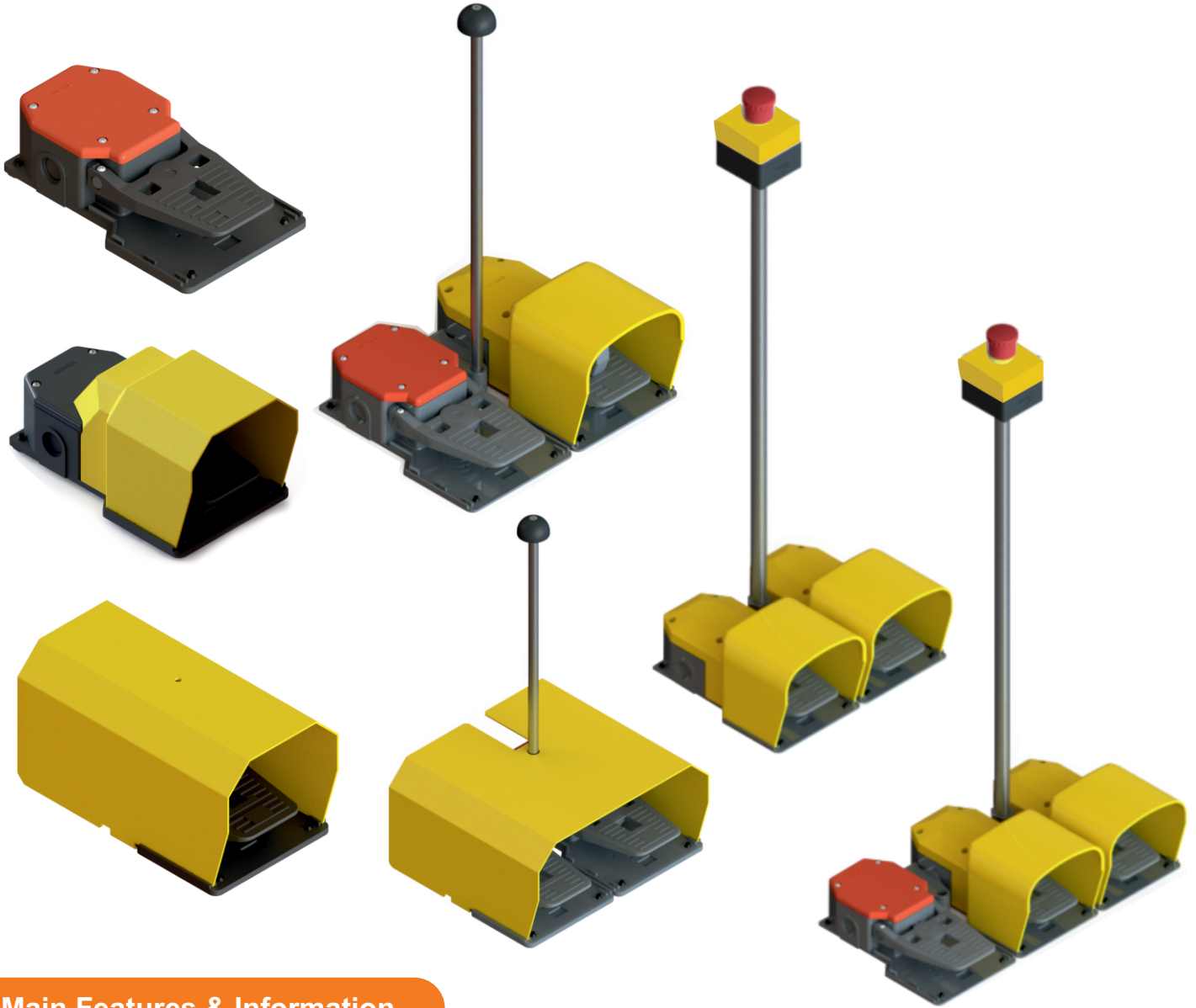
Standard Style	Frame Size	Standard Style	Frame Size
Current Ratings 6/10Amps		25/32Amps	
16/20Amps		40Amps&above	

Installation procedure- Standard Switch



***Ensure Shaft Mating Orientation with knob**

46 Series Foot Switches



Main Features & Information

- Protected and fully protected 46 Series Pedal Switches are available in production.
- Products with SPDT, DPDT, 3PDT and 4PDT contacts available.
- Bright and easy to see in the working environment
Except for yellow color products, grey, red, blue and smoked Product production in different colors is also available.
- All models to prevent slipping on the floor
It has a unique anti-slip base design.
- Pedals are made of die-cast aluminum.
- All products have IP67 protection class.
- Apart from oil and various chemicals, it is also protected against dust and moisture. Complete protection against

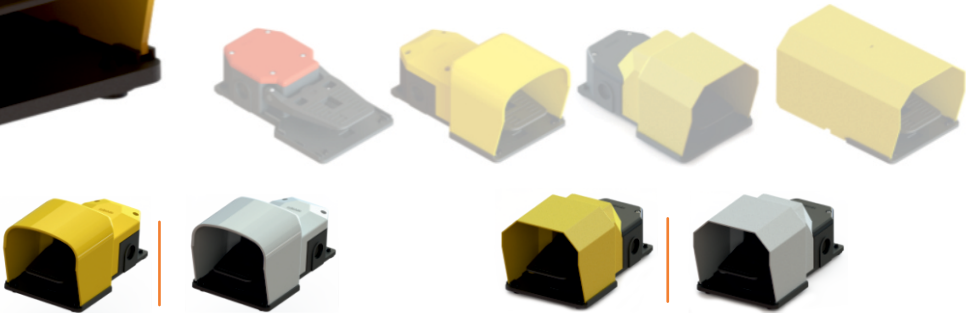
NOTE: For detailed technical information about the products, you can review the product data on the pages...

46 Series Foot Switches

46 Series Foot Switches

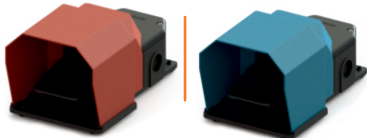
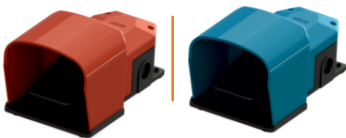


WERNER ELEKTRIK'S
FOOT SWITCHES



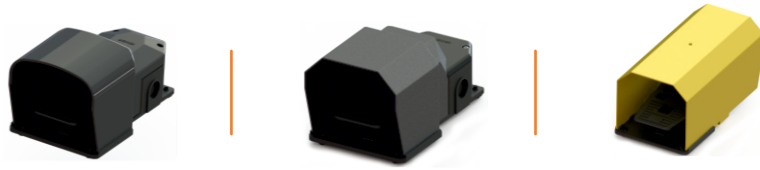
Activation Device	Contact switch	Thermoplastic ABS		Price ₹	Metal		Price ₹
 Free Moving Pedal	1NO+1NC (snap Action switch)	46.02.11.00.04	46.02.11.00.08	2100	46.01.11.00.04	46.01.11.00.08	2100
	2x(1NO+1NC) (snap Action switch)	46.02.22.00.04	46.02.22.00.08	2199	46.01.22.00.04	46.01.22.00.08	3100
 Safety Lever	1NO+1NC (snap Action switch)	46.02.11.10.04	46.02.11.10.08	1893	46.01.11.10.04	46.01.11.10.08	2700
	2x(1NO+1NC) (snap Action switch)	46.02.22.10.04	46.02.22.10.08	2277	46.01.22.10.04	46.01.22.10.08	3200
 Pedal Lock	1NO+1NC (snap Action switch)	46.02.11.20.04	46.02.11.20.08	1957	46.01.11.20.04	46.01.11.20.08	3600
	2x(1NO+1NC) (snap Action switch)	46.02.22.20.04	46.02.22.20.08	2342	46.01.22.20.04	46.01.22.20.08	2700
 2-Stage Without Safety Lever	2x(1NO+1NC) (snap Action switch 2-step)	46.02.33.30.04	46.02.33.30.08	2457	46.01.33.30.04	46.01.33.30.08	5075
 2-Stage With Safety Lever	2x(1NO+1NC) (snap Action switch 2-step)	46.02.33.40.04	46.02.33.40.08	2374	46.01.33.40.04	46.01.33.40.08	5672

46 Series Foot Switches



Activation Device	Contact switch	Thermoplastic ABS		Price ₹	Metal		Price ₹
 Free Moving Pedal	1NO+1NC (snap Action switch)	46.02.11.00.02	46.02.11.00.06	1813	46.01.11.00.02	46.01.11.00.06	2100
	2x(1NO+1NC) (snap Action switch)	46.02.22.00.02	46.02.22.00.06	2199	46.01.22.00.02	46.01.22.00.06	3100
 Safety Lever	1NO+1NC (snap Action switch)	46.02.11.10.02	46.02.11.10.06	1893	46.01.11.10.02	46.01.11.10.06	2700
	2x(1NO+1NC) (snap Action switch)	46.02.22.10.02	46.02.22.10.06	2277	46.01.22.10.02	46.01.22.10.06	3200
 Pedal Lock	1NO+1NC (snap Action switch)	46.02.11.20.02	46.02.11.20.06	1957	46.01.11.20.02	46.01.11.20.06	3600
	2x(1NO+1NC) (snap Action switch)	46.02.22.20.02	46.02.22.20.06	2342	46.01.22.20.02	46.01.22.20.06	2700
 2-Stage Without Safety Lever	2x(1NO+1NC) (snap Action switch 2-step)	46.02.33.30.02	46.02.33.30.06	2457	46.01.33.30.02	46.01.33.30.06	5075
 2-Stage With Safety Lever	2x(1NO+1NC) (snap Action switch 2-step)	46.02.33.40.02	46.02.33.40.06	2374	46.01.33.40.02	46.01.33.40.06	5672

46 Series Foot Switches



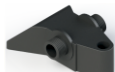
Activation Device	Contact switch	Thermoplastic ABS	Price ₹	Metal	Price ₹	Metal	Price ₹
 Free Moving Pedal	1NO+1NC (snap Action switch)	46.02.11.00.00	1813	46.01.11.00.00	2150	46.05.11.00.04	6171
	2x(1NO+1NC) (snap Action switch)	46.02.22.00.00	2199	46.01.22.00.00	3150	46.05.22.00.04	6670
 Safety Lever	1NO+1NC (snap Action switch)	46.02.11.10.00	1893	46.01.11.10.00	2750	46.05.11.10.04	7068
	2x(1NO+1NC) (snap Action switch)	46.02.22.10.00	2277	46.01.22.10.00	3250	46.05.22.10.04	7665
 Pedal Lock	1NO+1NC (snap Action switch)	46.02.11.20.00	1957	46.01.11.20.00	3650	46.05.11.20.04	6271
	2x(1NO+1NC) (snap Action switch)	46.02.22.20.00	2342	46.01.22.20.00	2750	46.05.22.20.04	6768
 2-Stage Without Safety Lever	2x(1NO+1NC) (snap Action switch 2-step)	46.02.33.30.00	2457	46.01.33.30.00	5175	46.05.33.30.04	6670
 2-Stage With Safety Lever	2x(1NO+1NC) (snap Action switch 2-step)	46.02.33.40.00	2374	46.01.33.40.00	5680	46.05.33.40.04	6670

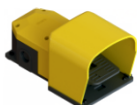
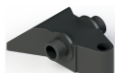
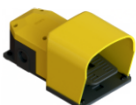
46 Series Foot Switches

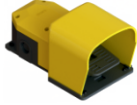
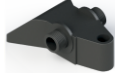
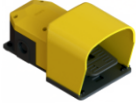
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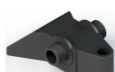
Assembly of modular foot switches

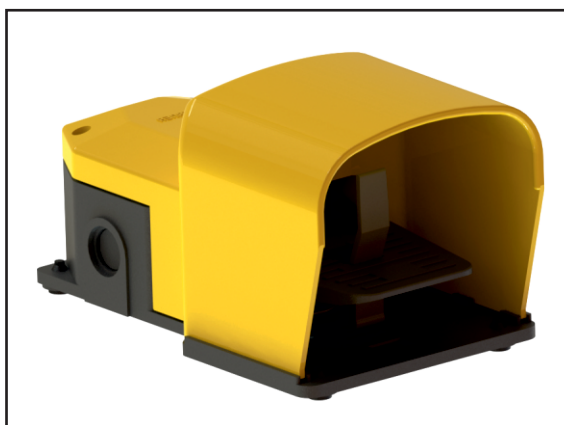
Combinations of Ready to order double foot switches

Type	1NO+1NC (snap action switch)	Joining Component	1NO+1NC (snap action switch)	Double foot switch	Price - ₹
					
ABS	Part No.: 46.02.11.00.XX	Part No.: 46.02.20	Part No.: 46.02.11.00.XX	Part No.: 46.2.12	5178
Metal	Part No.: 46.01.11.00.XX	Part No.: 46.02.20	Part No.: 46.01.11.00.XX	Part No.: 46.2.12	10356

Type	1NO+1NC (snap action switch)	Joining Component	2X 1NO+1NC (snap action switch)	Double foot switch	Price - ₹
					
ABS	Part No.: 46.02.11.00.XX	Part No.: 46.02.20	Part No.: 46.02.22.00.XX	Part No.: 46.2.12	5376
Metal	Part No.: 46.01.11.00.XX	Part No.: 46.02.20	Part No.: 46.01.22.00.XX	Part No.: 46.2.12	10853

Type	1NO+1NC (snap action switch)	Joining Component	2X 1NO+1NC (snap action switch 2-step)	Double foot switch	Price - ₹
					
ABS	Part No.: 46.02.11.00.XX	Part No.: 46.02.20	Part No.: 46.02.33.30.XX	Part No.: 46.2.12	5476
Metal	Part No.: 46.01.11.00.XX	Part No.: 46.02.20	Part No.: 46.01.33.30.XX	Part No.: 46.2.12	11053

Type	2X 1NO+1NC (snap action switch 2-step)	Joining Component	2X 1NO+1NC (snap action switch 2-step)	Double foot switch	Price - ₹
					
ABS	Part No.: 46.02.33.00.XX	Part No.: 46.02.20	Part No.: 46.02.33.30.XX	Part No.: 46.2.12	6173
Metal	Part No.: 46.01.33.00.XX	Part No.: 46.02.20	Part No.: 46.01.33.30.XX	Part No.: 46.2.12	12347



- Modular system consisting of plastic housing with plastic or metal protection in several colors.
- Protection degree IP67
- Different contact blocks.
- Different activation devices.
- The unit is operated through a non-skid pedal.
- An oil and chemical-resistant rubber membrane protects safely against dust and humidity (protection degree IP67).
- Stroke limitation avoids mechanical overloading.
- Plastic pedal switches, modular contact blocks inside allow various contact possibilities.
- 46 Series foot switches may also be mounted with Top or Complete protection against unintentional actuation.

Technical Data

Rated Voltage (50/60 Hz)	Foot Switch with Cover
General Data:	
Ambient temperature	-25 to +80 degree Celsius
Maximum operating frequency	3600 cycles/hour
Mechanical endurance	10 million operating cycles.
Technical Data:	
Housing	Double insulation
Base	Glass fiber reinforced techno polymer, self-extinguishing and shock proof
Cap	Techno polymer, self-extinguishing and shock proof & bears 800 N static load test proved.
	Steel, corrosion resistant, shock proof.
External metallic parts	Stainless steel
Cap screw tightening torque	0.8 to 1.2 Nm
Actuating force	16N
One threaded conduit entry	M20*1.5(standard), 1/2" BSP
Protection degree	IP 67
Cable Cross Section:	
Contact block combinations	min. 1*0.5 mm sq., Max. 2*2.5 mm sq.
Cable stripping length	8mm
Limit Switch:	
Housing	Housing is made of thermostable phenolic plastic crust, self-extinguishing and shock proof.
Degree of Protection	IP 40
Ambient temperature	-25 to +80 degree Celsius
Max. Actuation frequency a) Mechanical b) Electrical	240 times/min.
	20 times/min.
Life a) Mechanical b) Electrical	10,00,000 and above
	1,00,000 and above.
Max. Actuation speed	1.1m/s
Min. actuation speed	1.1mm/s
Vibration	1.10to 55Hz, amplitude 1.5mm
Insulation resistance	100MΩ DC500V
Contact resistance	Non connection wire 2dm Ω(initial value) 1000 VAC
With stand voltage	Every terminal 1500VAC

Stainless Steel

All the screws, springs and hinges are made of stainless steel which makes it ideal to be used in corrosive environments.

Sturdy Cap

Thermoset ABS plastic, self-extinguishing and shock proof & bears upto 800 N static load, test proved.

Available in both Metal & Plastic Protection

The outer protection of the foot switch are made with thermoset ABS plastic or powder coated steel .

Conduit entry with cable clamp

To hold the electrical cable tightly in its place and to avoid it from getting pulled away, a link brace has been provided at the cable incoming side.

Non-slip Pedal

Anti-slip pedal design make operation more effective convenient safe

Side openings

Multiple single pedals can be connected adjacently to each other by means of a unique joining component.

Foot Switch Stopper

Foot Switch Stopper for minimize the Non-slip pedal movement.

Non-slip Rubber Feet

The 46 series foot switches are equipped with four devoted Anti-skid bush.

Approvals

Approbations and Declaration of conformity

CE

CE

Features ►

46 Series Control Foot Switches are made of Strong housing.

The unit is operated through a non-skid pedal.

An oil and chemical-resistant rubber membrane protects safely against dust and humidity (protection degree IP67).

Stroke limitation avoids mechanical overloading.

Plastic pedal switches, modular contact blocks inside allow various contact possibilities.

46 Series foot switches may also be mounted with Top or Complete protection against unintentional actuation.

Depending on the environmental conditions and mechanical duty, differing versions of foot switches have been designed.

The robust 46 range switches are generally used in the engineering industry such as:

- Press machines.
- Punching machines.
- Bending machines.
- Sheet-steel processing.

Stylish design such as

- Top pedal protection.
- Complete pedal protection.
- Pedal protection with 440 mm carrying rod.
- Pedal protection with 660 mm carrying rod.
- Pedal protection with Emergency off.
- Pedal protection with key Emergency off.

Activation Devices ►



1. Free Movement



2. Safety Lever



3. Pedal lock



4. 2-step free movement



5. 2-step with Safety Lever

Assembly of modular foot switches

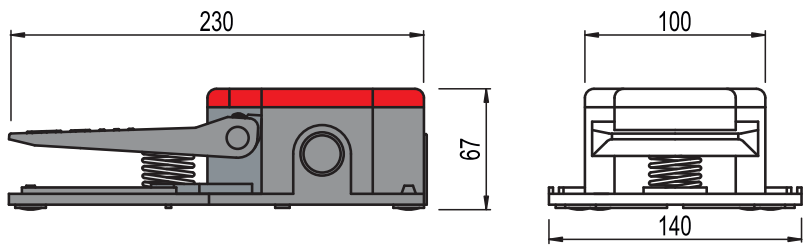
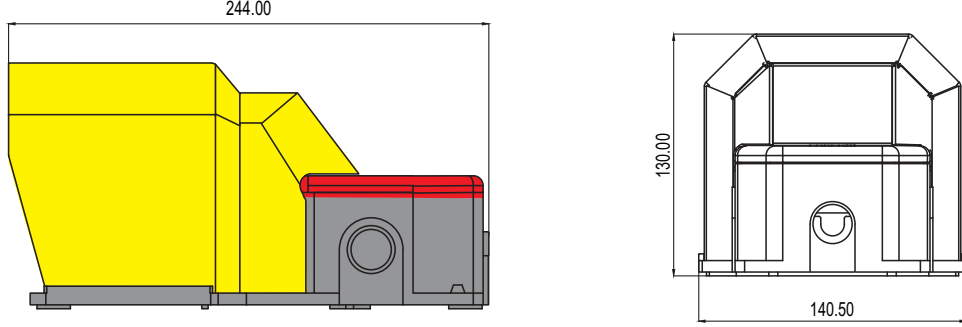
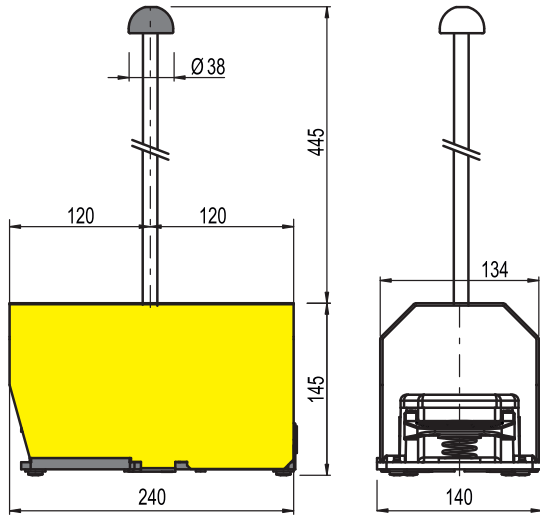
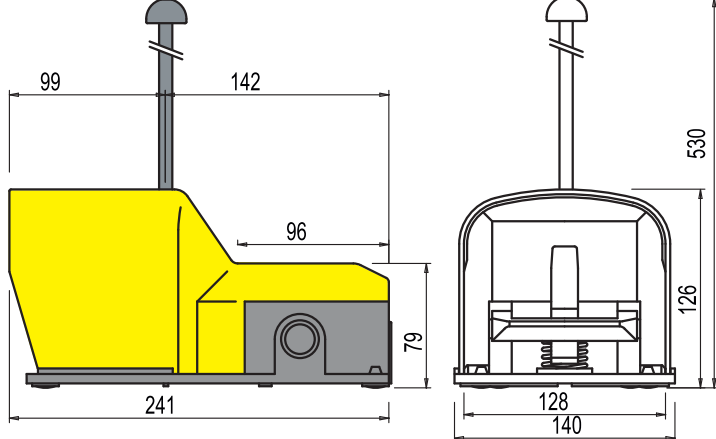
Knockout side openings are provided at the sides of all single foot switches (see page 3), intended for inserting the threaded portion of the joining component. By fixing the nuts of the joining components a tight cable feed-through for electrical links is created between the foot switches. Likewise, with the provided screws, the joining components permit the mechanical locking and the connection of two or even more foot switches as a solitary model.



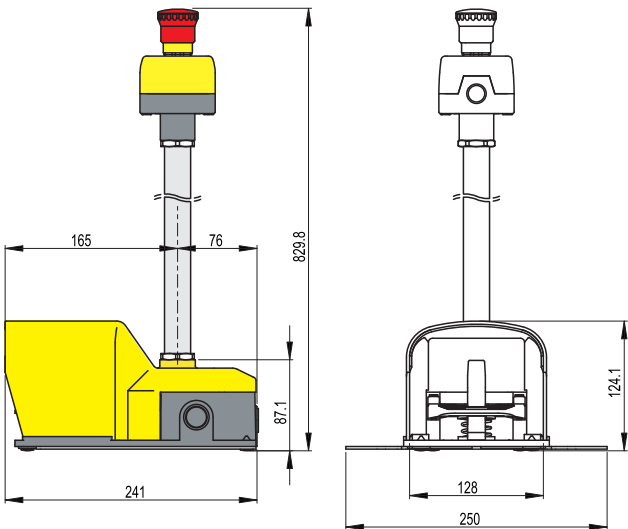
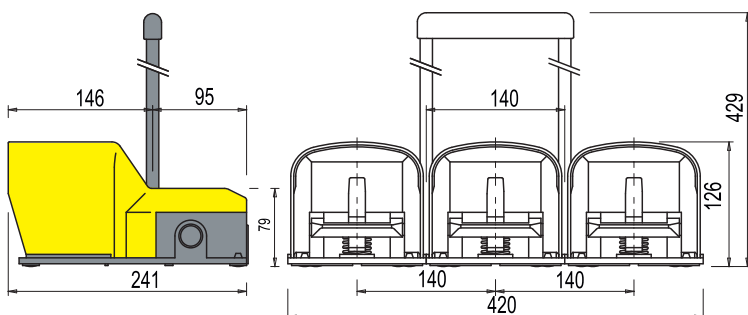
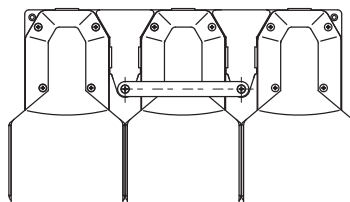
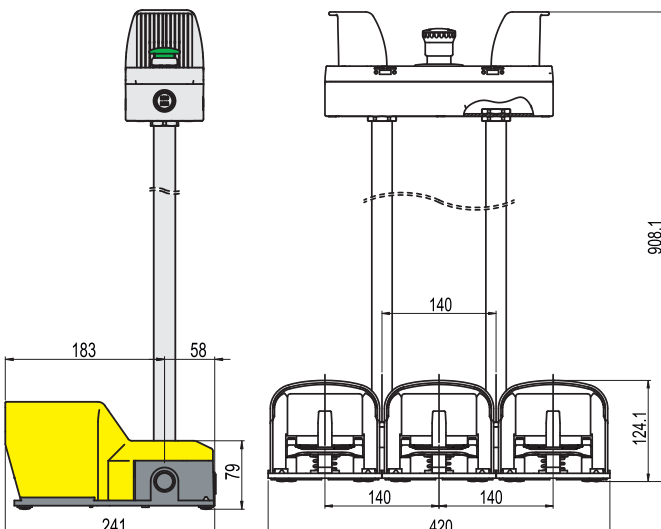
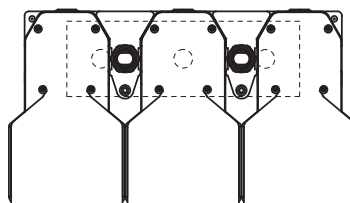
Other than the prospect of combining two or multiple single foot switches, the joining components make it conceivable to insert a metal tube that allow the electrical association between the foot contacts and the contacts of an emergency press button which is connected at the top of the same tube, assuring in this manner, an IP67 protection degree.



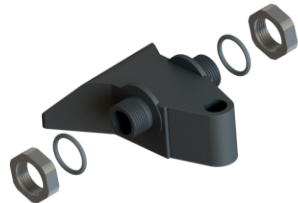
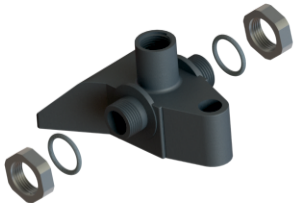
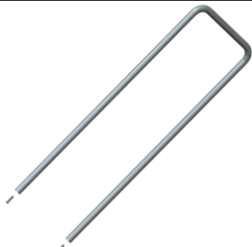
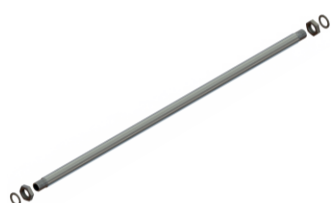
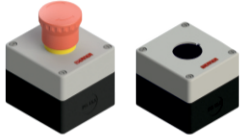
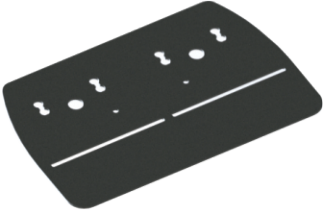
Model Number Structure Combination with Dimension

Part No. 46.04.11.00.02 Single Foot switch, open version-red cover, no devices, no accessories.	
Part No. 46.01.11.00.08 Single Foot switch, Metal cover no devices, no accessories.	
Part No. 46.05.11.00.04 Single Foot switch, Metal heavy duty, with 400mm metal carrying rod, protection hood with increased dimensions for safety shoes.	
Part No. 46.02.11.13.04 Single foot switch, ABS Yellow cover, with safety lever, with 400mm carrying rod.	

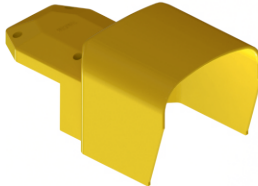
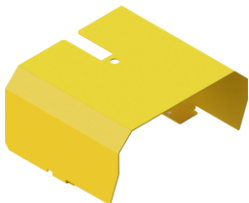
Model Number Structure Combination with Dimension

Part No. 46.03.11.10.04 Single Foot switch, ABS yellow cover (standard) provided with 660mm metal pipe, stabilizing plate and emergency stop button 1NC.	
Part No. 3x 46.02.11.10.04 Triple foot switch, ABS yellow cover, with 3x safety lever, with double carrying rod.	 
Part No. 3x 46.02.11.10.04 Triple foot switch, ABS yellow cover, with 3x safety lever, with 2x 740mm metal pipe, 3 way E-Stop.	 

Accessories

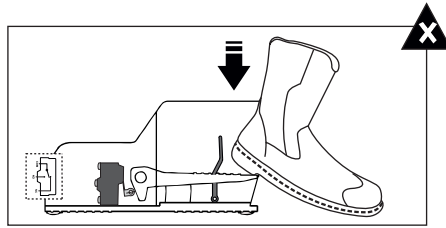
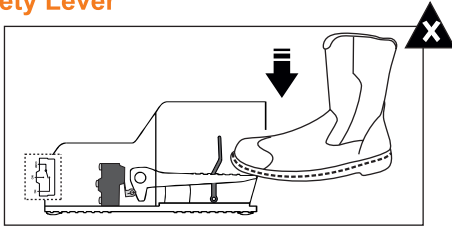
Part No.	Description	Part No.	Description
46.02.20	Joining component	46.02.30	Joining component
	Joining component for Foot switches with hole for carrying rod, with nuts, seals and self-tapping screws for the fixing of two single pedals. Protection Degree IP65.		Joining component for Foot switches with M18x1.5 threaded hole (for 46.02.41 or 46.02.42) with nuts, gaskets and self-tapping screws for joining two single pedals. Protection degree IP65.
46.02.31	Metal carrying rod set L=400mm	46.02.34	Double carrying set L=400mm
46.02.32	Metal carrying rod set L=600mm	46.02.35	Double carrying set L=600mm
	Metal carrying rod set (can be connected to 46.02.20 with a screw for rod fixing).		Double carrying rod kit with handle and self-tapping screws for fixing, to be combined with two 46.02.20
46.02.41	ø20mm metal tube set L=660mm	46.02.43	Emergency stop button set, 1NC
46.02.42	ø20mm metal tube set L=740mm	46.02.44	Emergency stop button set, 1NC+1NO
	ø20mm metal tube set with M18x1.5 threaded ends (for 46.02.43, 46.02.44, 46.02.45, 46.02.46) with metal nuts and gaskets.	46.02.45	Emergency stop button set, 2NC
		46.02.46	Housing set for F 22mm buttons
			Emergency stop button kit, rotary release, compliant with EN 60947-5-1 and EN ISO 13850, to combine with 46.02.41 or 46.02.42. Protection degree IP65.
46.02.61	Metal stabilizing plate	46.02.62	Metal stabilizing plate
	Metal stabilizing plate for single Foot switch.		Metal stabilizing plate for double Foot switch.

Accessories

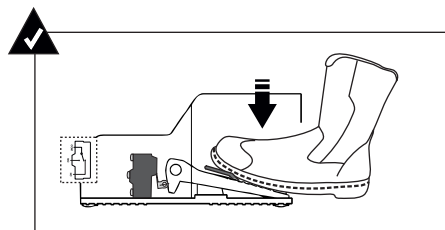
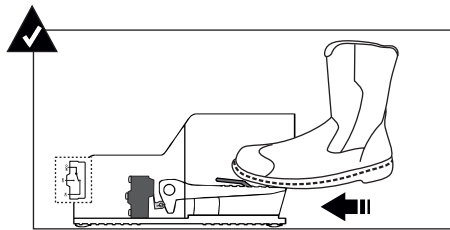
Part No.	Description	Part No.	Description
46.02.100.04	Cover yellow metal RAL-1023	46.02.1.04	Cover yellow ABS RAL-1023
46.02.100.02	Cover Red metal RAL-3020	46.02.1.02	Cover Red ABS RAL-3020
46.02.100.06	Cover Blue metal RAL-5017	46.02.1.06	Cover Blue ABS RAL-5017
46.02.100.08	Cover Grey metal RAL-7035	46.02.1.08	Cover Grey ABS RAL-7035
46.02.100.00	Cover Black metal RAL-9017	46.02.1.00	Cover Black ABS RAL-9017
	Covers Foot switch		Covers Foot switch
Part No.	Description	Part No.	Description
46.02.82	Double metal protection	46.02.63	Metal stabilizing plate
	Additional metal protections for open version series modular foot switches. In heavy-duty work environments, increased dimensions for safety shoes. Not feasible with 46.02.62		Metal stabilizing plate for triple Foot switch.
Part No.	Description	Part No.	Description
46.02.11.02	Cover half-red Polypropylene	46.02.50	Foot Switch Stopper
	Open version covers Foot switch		Foot Switch Stopper for minimize the Non-slip pedal movement.
Part No.	Description		
Cable gland-PG-11	Cable gland-PG-11		
	Cable entry with IP68 protection		

Operations

Safety Lever

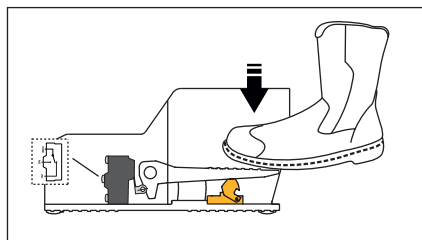


The safety lever takes care of the accidental actuation of the footswitch. say by chance, if the foot is not completely inserted into the switch, the safety lever halts the foot pedal from moving down further.

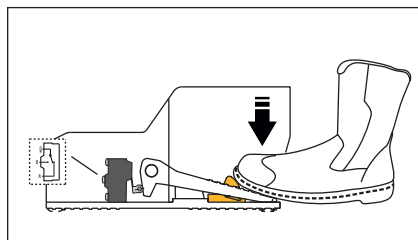


The operator has to be committed and insert his foot completely to lower the safety lever and then press down the pedal.

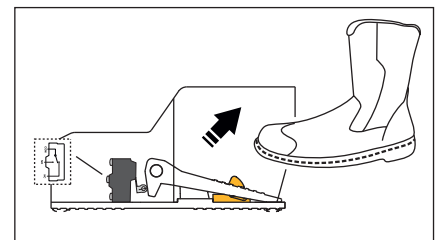
Pedal Actuator Locking



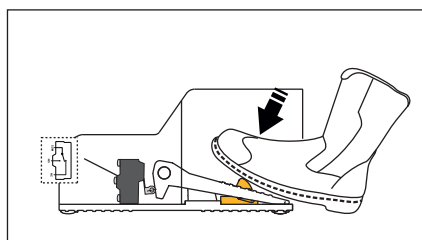
Placing the foot over pedal



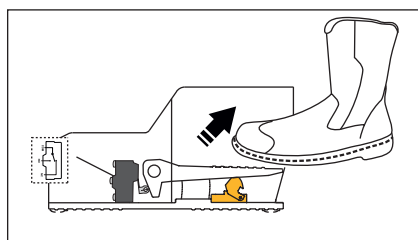
The pedal is pressed downward, switch is activated and the pedal is locked by the locking device mechanism



When the foot is taken off, the pedal is kept down by the locking device.

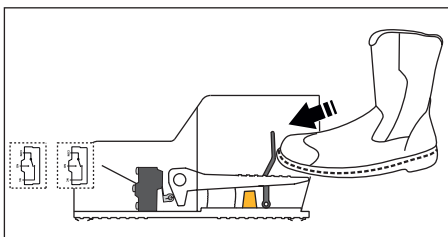


To unlatch the foot pedal press on the locking device.

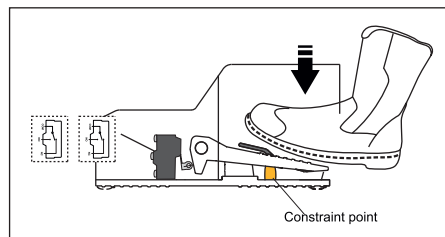


The foot pedal and the limit switch come back to their primary position once the foot is removed from the pedal.

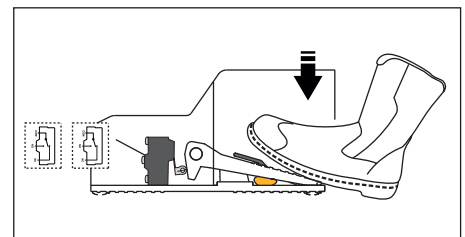
2-stage Actuating Force



46 series switch equipped with two shifted, snap action contact blocks (2* 1NO+1NC), 2-stage actuation force and safety lever.



The foot pedal is pressed down with gentle force (~18N), the foot pedal travels downward and halts at constraint point. One of the limit switches gets activated whilst the 2nd one retains its conditions.



When the foot pedal is pressed down with greater force (~180N), the second limit switch is also activated. So, both the limit switches are activated at this point.

48 Series Limit Switches



Başlıca Özellikler & Bilgiler

- Comparable to any limit switch
It has an extremely solid structure.
- Zinc die-cast body and glass fabric reinforced plastic head and cap.
- Excellent meltproof and drip proof
It has acetic properties.
- Extremely precise positioning is possible.
- Various actuator heads for almost all applications
Available in stock with different options.
- Wide range for trouble-free operation with unique head structure movement area.
- We use our 48 Series switches for many mechanical applications. You can choose to check it with peace of mind.

48 Series Limit Switches



General Purpose Limit Switches

Model	Actuator	Terminals	Type	Unit—LP ₹	Std Pkg (nos.)	Master Pkg
	Pin Plunger	W/o Gnd	48.11.00	1024.00	1	200
		With Gnd	48.11.11	1024.00	1	
	Sealed Roller Plunger (Horizontal)	W/o Gnd	48.15.00	1072.00	1	
		With Gnd	48.15.11	1221.00	1	
	Sealed Roller Plunger (Vertical)	W/o Gnd	48.16.00	1072.00	1	
		With Gnd	48.16.11	1221.00	1	
	Plastic Rod (point)	W/o Gnd	48.17.00	1024.00	1	
		With Gnd	48.17.11	1221.00	1	
	Roller Lever	W/o Gnd	48.18.00	1024.00	1	
		With Gnd	48.18.11	1221.00	1	
	Adjustable Roller Lever	W/o Gnd	48.20.00	1024.00	1	
		With Gnd	48.20.11	1221.00	1	
	Adjustable Rod lever	W/o Gnd	48.21.00	1533.00	1	
		With Gnd	48.21.11	1686.00	1	
	Spring Wire	W/o Gnd	48.22.00	1470.00	1	
		With Gnd	48.22.11	1655.00	1	
	Coil Spring Wire	W/o Gnd	48.23.00	1470.00	1	
		With Gnd	48.23.11	1655.00	1	
	Plastic Rod (Parallel)	W/o Gnd	48.24.00	2986.00	1	
		With Gnd	48.24.11	1655.00	1	
	Adjustable Roller Lev- er with 50mm rubber	W/o Gnd	48.25.00	2986.00	1	
		With Gnd	48.25.11	1839.00	1	

Features Overview

Robust construction, comparable to any limit switch!
Excellent dust proof and drip proof.
Durability Zinc die-cast body, glass mesh reinforced plastic hood!

Important points

Extremely precise position detection in these limit switches it is possible!

Various actuator tips for almost all applications available!

Unique head (tip) structure provides a wide range for trouble-free operation. Provides room to move!

Light, printing machines, door closing sensors applications and you can easily use it in many machine applications.



48 Series Limit Switches

Model Number Structure



48.22.00

Series

48 Series General Purpose Limit Switches

Ground Terminal

00	Without Ground Terminal
11	With Ground Terminal

Actuator

11	Pin Plunger
15	Sealed Roller Plunger (Horizontal)
16	Sealed Roller Plunger (Vertical)
17	Plastic Rod (Point)
18	Roller Lever
20	Adjustable Roller Lever
21	Adjustable Rod Lever
22	Spring Wire
23	Coil Spring Wire
24	Plastic Rod (Parallel)
25	Adjustable Roller Lever with 50mm Ø rubber roller

Technical Data

Economical, Miniature Limit Switch Boasting Rigid Construction

- Easy-to-wire conduit opening design.
- Cover, Box, and the Head mate with ridged surfaces to maintain strength.
- A unique Head structure provides a large OT for smooth operation
- Models with grounding terminals conform to the CE marking.
- Approved by CCC.
- Ideal for application in forming machines, light machines and printing machines.

Approvals

Approbations and Declaration of conformity

CE

CE

Ordering Information

Actuator		Without Ground Terminal	With Ground Terminal
Pin plunger		48.11.00	48.11.11
Sealed roller plunger (Horizontal)		48.15.00	48.15.11
Sealed roller plunger (Vertical)		48.16.00	48.16.11
Plastic rod (Point)		48.17.00	48.17.11
Roller lever		48.18.00	48.18.11
Adjustable Roller lever		48.20.00	48.20.11
Adjustable Rod lever		48.21.00	48.21.11
Spring Wire		48.22.00	48.22.11
Coil Spring Wire		48.23.00	48.23.11
Plastic rod (Parallel)		48.24.00	48.24.11
Adjustable Roller Lever with 50mm Ø rubber roller		48.25.00	48.25.11

Weight		Inrush Current	
Weight (approx).	290 g	NC	30 A max
		NO	20 A max

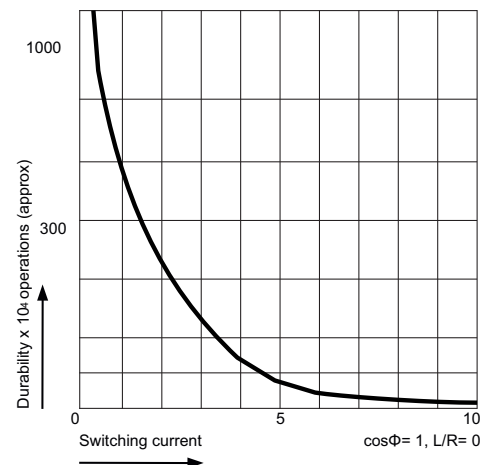
Contact Ratings				
Rated Voltage			AC	DC
			250V	30V
Load	Resistive Load	NO	5 A	3 A
		NC	5 A	3 A
Load	Inductive Load	NO	2 A	—
		NC	2 A	—

Note: Inductive loads have a power factor of 0.4 min (AC), and a time constant of 7.2 ms max (DC).

Specifications

Dielectric strength	1,500 VAC, 50/60 Hz for 1 min between terminals of the same polarity	
	2000 VAC, 50/60 Hz for 1 min between current-carrying metal parts and ground	
	2000 VAC, 50/60 Hz for 1 min between each terminal and non-current-carrying metal part	
Rated frequency		50/60 Hz
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Destruction	1,500 m/s ² min.
	Malfunction	400 m/s ² min.
Ambient operating temperature		-20°C to +60°C (No Freezing)
Ambient operating humidity		35% to 95%RH
Durability	Mechanical	12,000,000 operations min. (under rated conditions)
	Electrical	150V - AC See the following <i>Electrical Durability</i> .
Operating speed		5 mm/s to 0.5 m/s
Operating frequency	Mechanical	125 operations/min
	Electrical	35 operations/min
Insulation resistance		100 MΩ min. (at 500 VDC)
Contact resistance		25 mΩ max.
Degree of protection		IP65

Engineering Data AC 240VAC

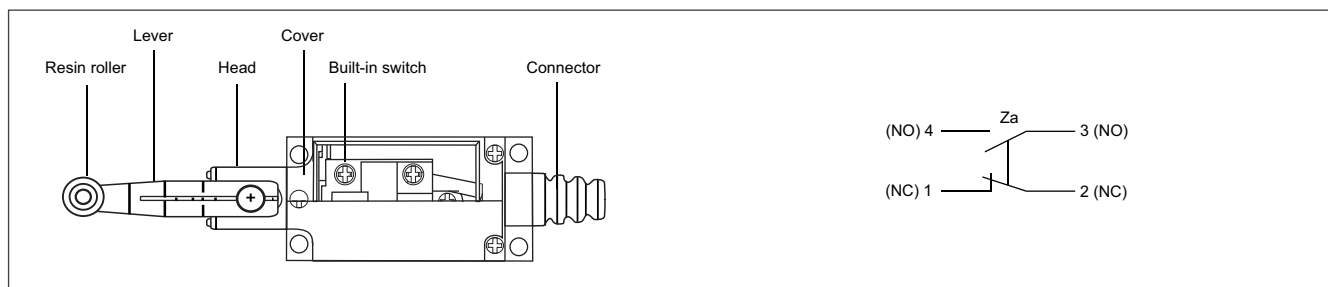


Electrical Durability

Operating temperature: -5°C to +60°C (No Freezing)
 Operating humidity: 40% to 70%RH
 Operating frequency: 30 operations/min

Structure

Contact Form



Operating properties	Abbrev	48.17.00	48.20.00	48.21.00	48.11.00	48.15.00
Release force	RF min.	1.28 N	0.98 N	0.98 N	1.47 N	1.47 N
Operating force	OF max.	1.47 N	7.35 N	7.35 N	8.83 N	8.83 N
Overtravel	OT min.	60°	60°	50°	4 mm	4 mm
Pretravel	PT max.	20°	20°	20°	20°	20°
Movement Differential	MD max.	20°	12°	12°	1 mm	1 mm
Operating position	OP	90±0.8mm	35±0.8mm	30±0.8 mm	30±0.8 mm	40±0.8 mm

Operating properties	Abbrev	48.16.00	48.18.00	48.23.00	48.22.00	48.24.00	48.25.00
Release force	RF min.	0.98 N	0.98 N	0.09 N	0.09 N	0.09 N	0.98 N
Operating force	OF max.	7.35 N	7.35 N	1.47 N	0.90 N	0.39 N	7.35 N
Overtravel	OT min.	60°	60°	60°	65°	60°	60°
Pretravel	PT max.	20°	20°	20°	15°	20°	20°
Movement Differential	MD max.	12°	12°	12°	12°	30°	12°
Operating position	OP	35±0.8mm	—	30±0.8mm	—	—	35±0.8mm

Note: 1. The above figures are initial values.

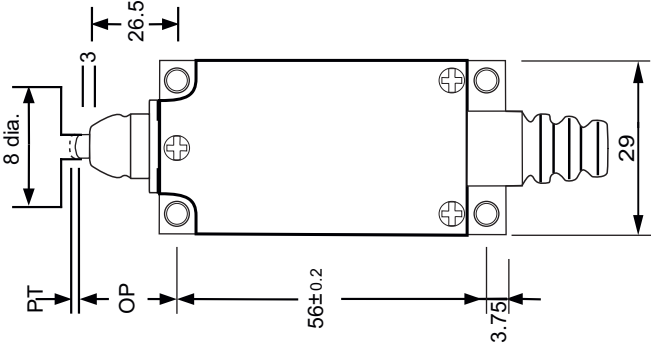
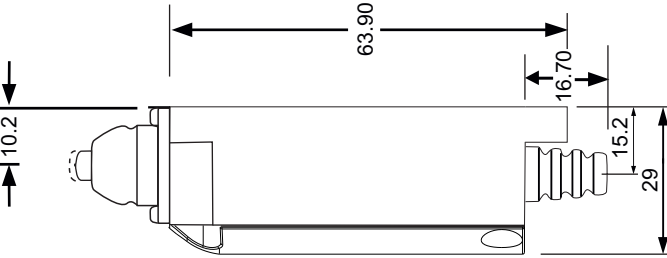
2. The characteristics may vary depending on the model. For further details, contact your **WERNER** sales representative.

Durability:

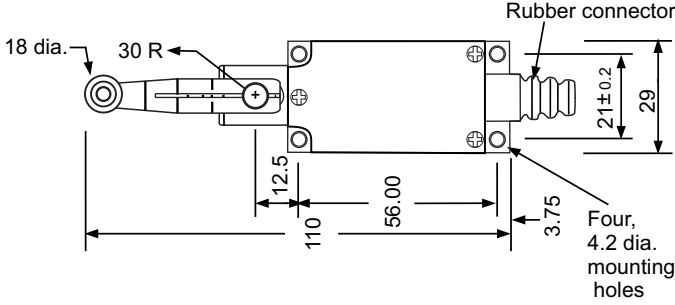
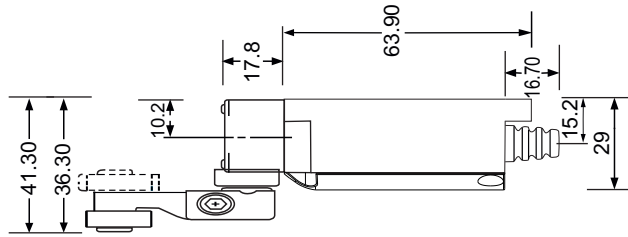
The values are calculated at an operating temperature of -5°C to +60°C, and an operating humidity of 40% to 70%RH. Contact your **WERNER** sales representative for more detailed information on other operating environments.

Dimensions and Operating Properties

Pin Plunger

		Front Elevation 
Actuator Pin Plunger		Side Elevation 
Without Ground	48.11.00	
With Ground	48.11.11	

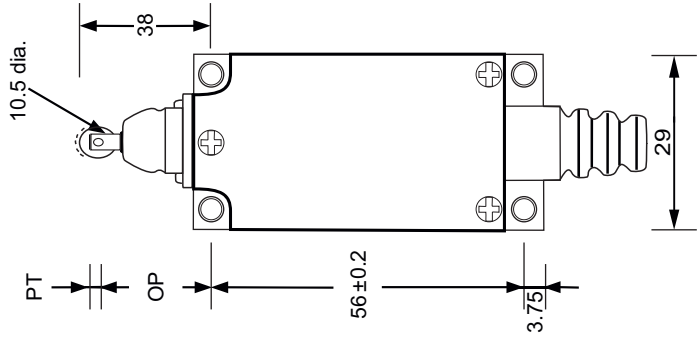
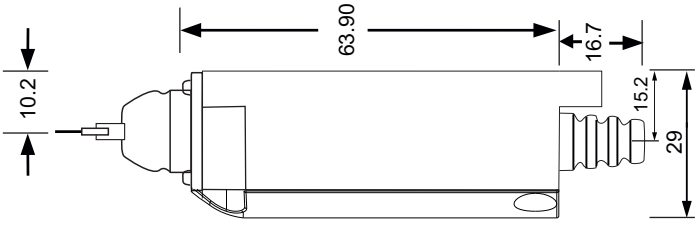
Roller Lever

		Front Elevation 
Actuator Roller Lever		Side Elevation 
Without Ground	48.18.00	
With Ground	48.18.11	

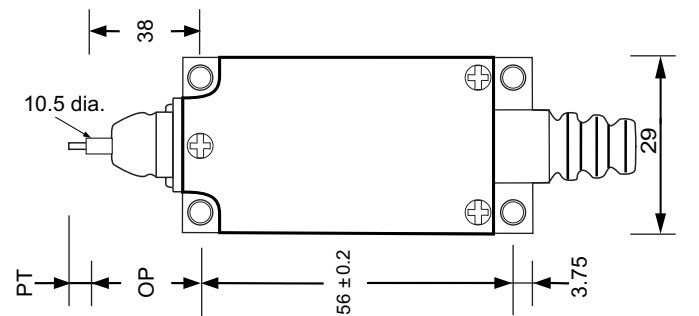
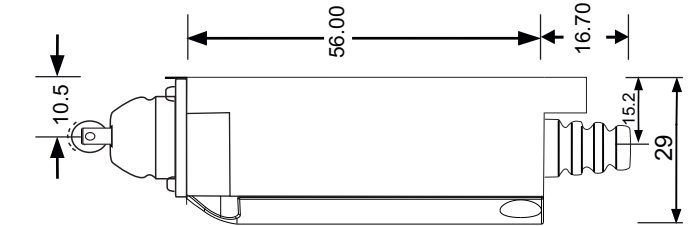
Undefined dimensions are similar to *roller lever* model.

Dimensions and Operating Properties

Sealed Roller Plunger (Horizontal)

		Front Elevation	
		Side Elevation	
Actuator	Sealed Roller Plunger (Horizontal)		
Without Ground	48.15.00		
With Ground	48.15.11		

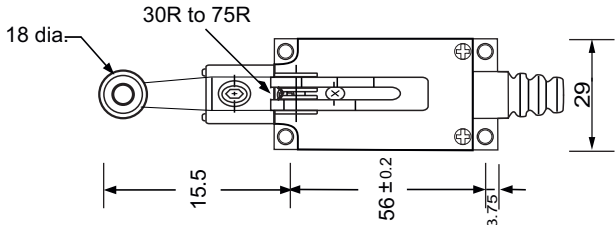
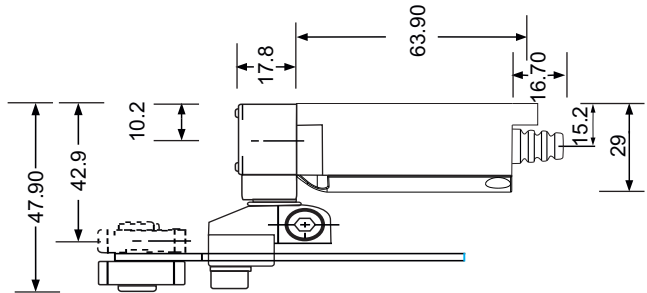
Sealed Roller Plunger (Vertical)

		Front Elevation	
		Side Elevation	
Actuator	Sealed Roller Plunger (Vertical)		
Without Ground	48.16.00		
With Ground	48.16.11		

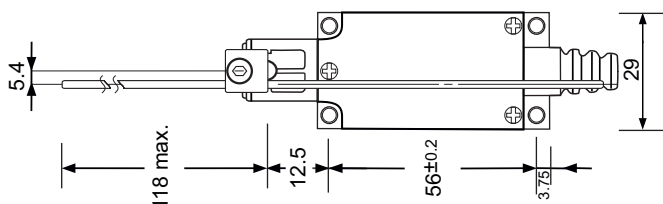
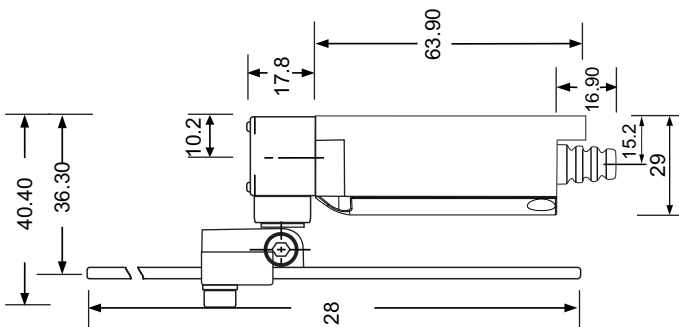
Undefined dimensions are similar to *roller lever* model.

Dimensions and Operating Properties

Adjustable Roller Lever

		Front Elevation 
Side Elevation 		
Actuator	Adjustable Roller lever	
Without Ground	48.20.00	
With Ground	48.20.11	

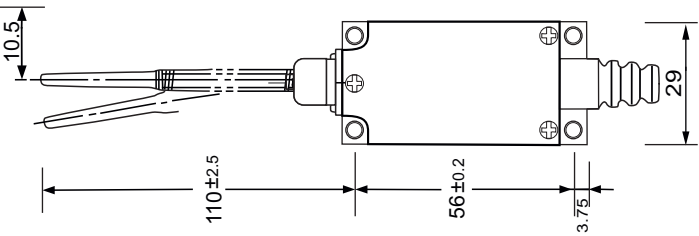
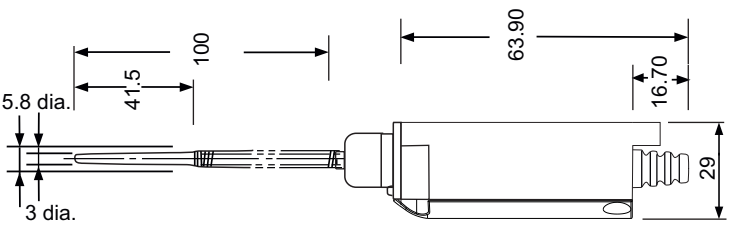
Adjustable Rod Lever

		Front Elevation 
Side Elevation 		
Actuator	Adjustable Rod	
Without Ground	48.21.00	
With Ground	48.21.11	

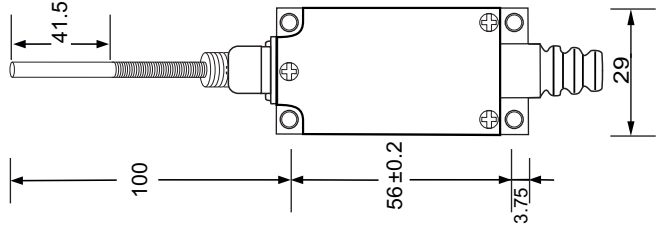
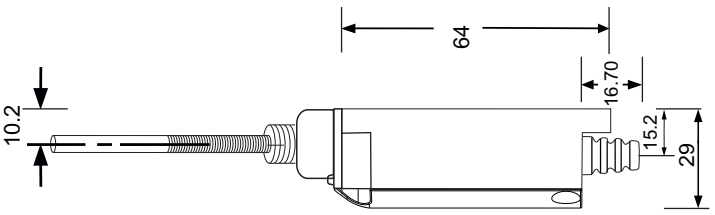
Undefined dimensions are similar to *roller lever* model.

Dimensions and Operating Properties

Plastic Rod (Point)

		Front Elevation	
		Side Elevation	
Actuator	Plastic Rod (Point)		
Without Ground	48.17.00		
With Ground	48.17.11		

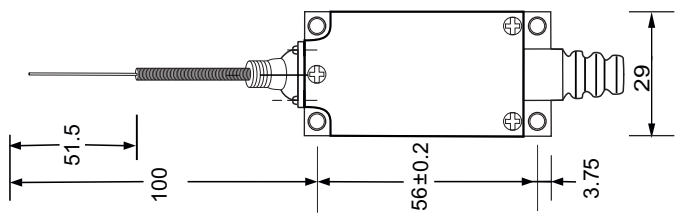
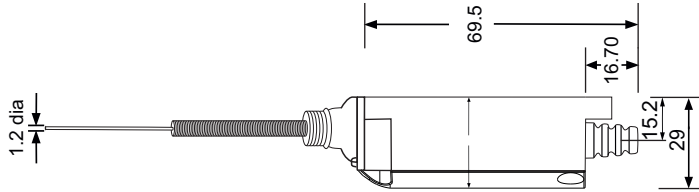
Plastic Rod (Parallel)

		Front Elevation	
		Side Elevation	
Actuator	Plastic Rod (Parallel)		
Without Ground	48.24.00		
With Ground	48.24.11		

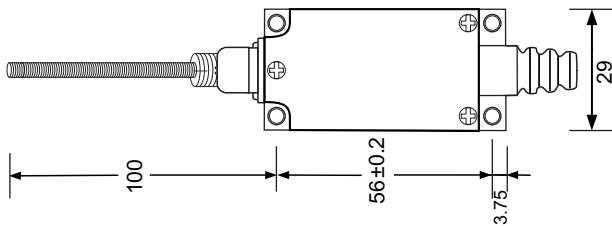
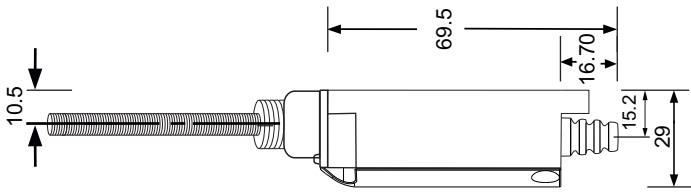
Undefined dimensions are similar to *roller lever* model.

Dimensions and Operating Properties

Spring Wire

		Front Elevation	
		Side Elevation	
Actuator	Spring Wire		
Without Ground	48.22.00		
With Ground	48.22.11		

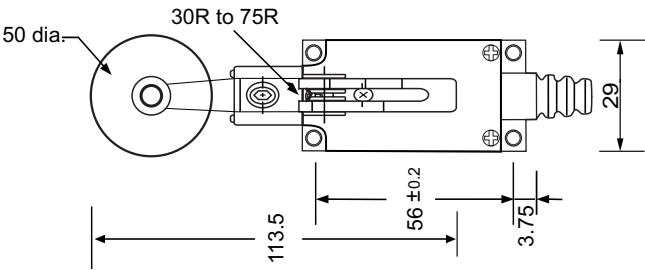
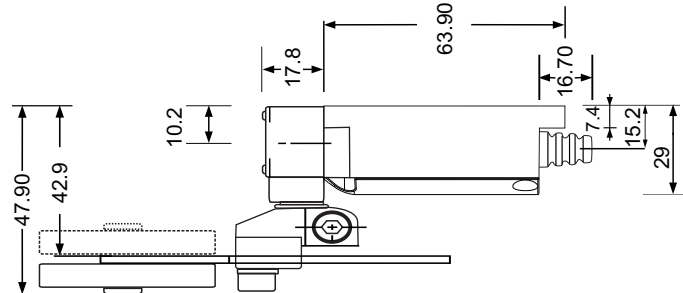
Coil Spring Wire

		Front Elevation	
		Side Elevation	
Actuator	Coil Spring Wire		
Without Ground	48.23.00		
With Ground	48.23.11		

Undefined dimensions are similar to *roller lever* model.

Dimensions and Operating Properties

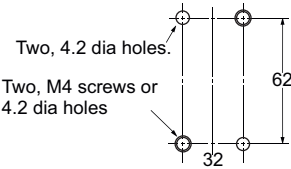
Adjustable Roller Lever with 50 mm Ø rubber roller

		Front Elevation	
		Side Elevation	
Actuator	Adjustable Roller Lever with 50 mm Ø rubber roller		
Without Ground	48.25.00		
With Ground	48.25.11		

Safety Precautions

Mounting

To mount the Limit Switch securely, be sure to use two M5 Allen head bolts and washers. The tightening torque applied to each bolt is 5.90 to 6.50 N·m. To mount the Limit Switch more securely, use two M4 screw holes on the rear panel and rear holes for positioning of WERNER's 48 Series General Purpose Limit Switch.



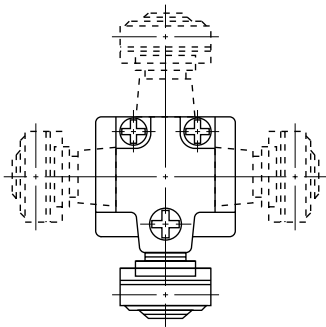
Actuator Position Change

(48.16.00, 48.20.00, 48.21.00)
To change the angle of the actuator, loosen the Allen-head bolt on the side of the actuator lever. Then the actuator can be set at any angle.



Head Direction Change

(48.18.00, 48.20.00, 48.21.00)
By removing one screw, Actuator heads can be rotated in any 90° directions as shown below.

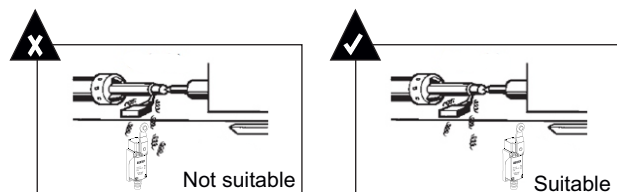


Undefined dimensions are similar to roller lever model.

Safety Precautions

Operating Instructions

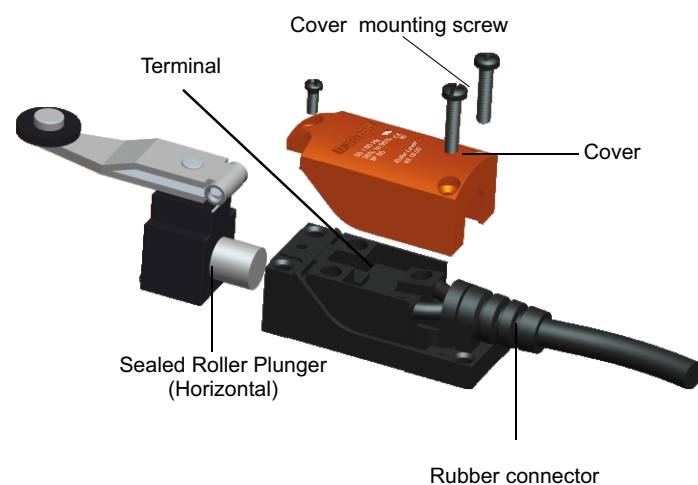
- Install Switches where they will not be directly subject to cutting chips, dust, or dirt. The Actuator and Switch must also be protected from the accumulation of cutting chips or sludge.



- If a Switch is used outdoor or where subject to special cutting oils or chemicals, Seal material may deteriorate. Appraise performance under actual application conditions and set suitable maintenance and replacement periods.
- 48 Series Limit Switches have physical contacts. Using them in environments containing silicon gas will result in the formation of silicon oxide (SiO_2). Contact interference can occur If silicon oxide accumulates on the contacts. If silicon oil, silicon filling agents or other silicon products are present near the Switch, suppress arcing with contact protective circuits or remove the source of silicon gas.

Wiring Procedure

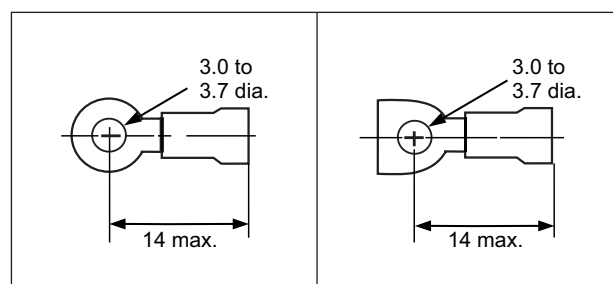
- Using a phillips screwdriver, loosen the cover mounting screws and remove the cover
- Remove the rubber connector from the box conduit and crimp a solderless terminal.
- Insert the solderless terminal through rubber connector into the Switch and tighten the terminal screws properly.
- Once wiring the Limit Switch, place the rubber connector into the groove of the box.
- Tighten the three mounting screws according to the tightening torque table.



Applicable Solderless Terminal

The following solderless terminals are suitable. Prevent using fork or any other type of terminals or an accidental disconnection may result.

Terminal with insulated grip

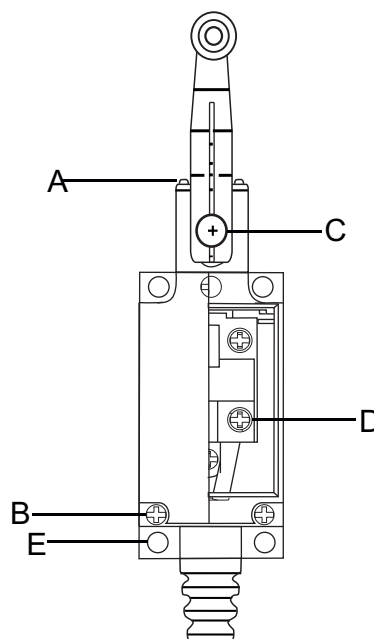


Tightening Torque

A loose screw may result in a malfunction. Below is the appropriate tightening torque for each screw.

	Type	Tightening torque
A	Head mounting screw	0.49 to 0.59 N·m
B	Cover mounting screw	0.49 to 0.59 N·m
C	Allen-head bolt	4.90 to 5.88 N·m
D	Terminal screw (M3 screw)	0.49 to 0.59 N·m
E	Switch mounting screw (M5 Allen-head bolt)	4.90 to 5.88 N·m

Note: Check the torque of each screw and each screw is tightened to the proper torque If the head direction has changed.



42 Series Micro Switches

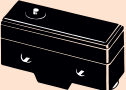
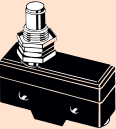
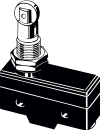
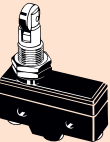
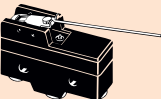


Main Features & Information

- Various for a wide range of applications actuators are available
- 15 A with high repeat accuracy a large switching capacity.
- Basic models in contact gap type.
- I A range of standard models for micro loads available.
- A set of Safety Terminal protective covers are molded terminal type model available.
- Precise positioning is possible.
- Various actuator heads for various applications Available in stock with options.
- We use our 42 Series micro switches in many mechanical applications. with peace of mind to control the application You can choose.

42 Series Micro Switches

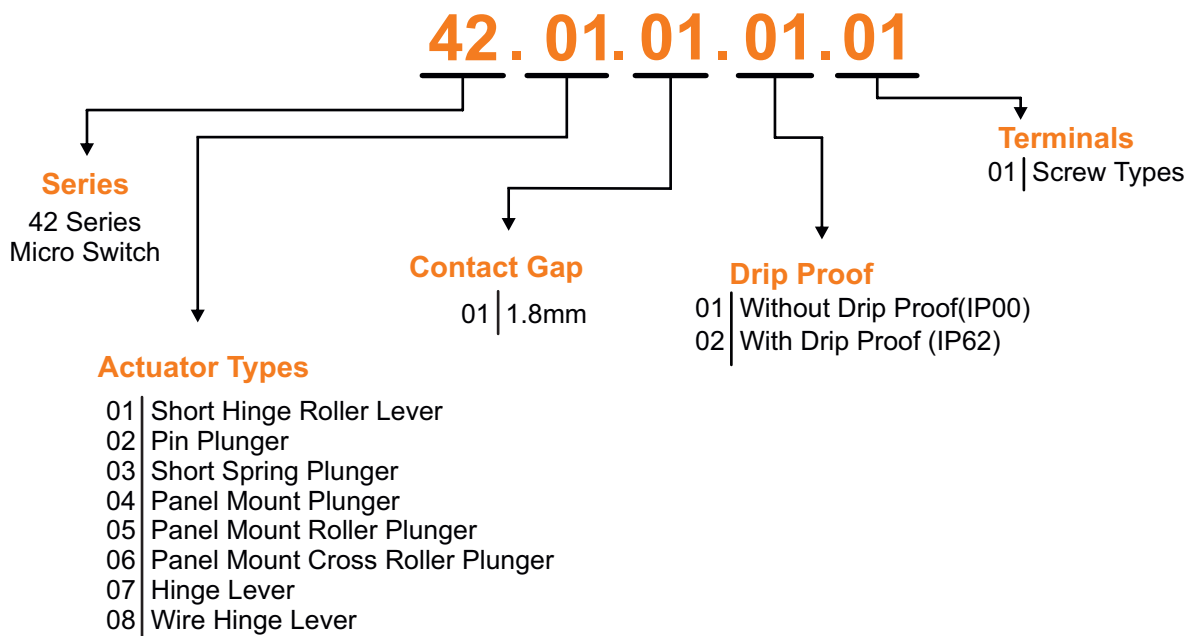


Appearance	Actuator	Product code	Unit Price ₹	Std Pkg	Std Pkg
	Short Hinge roller Sleeved	42.01.01.01.01	388.50	1	200
	Pin Piston	42.02.01.01.01	357.50	1	
	Short bow Recipro cating	42.03.01.01.01	476.00	1	
	Panel assembled Reciprocating	42.04.01.01.01	370.70	1	
	Panel Mounted roller Reciprocating	42.05.01.01.01	602.70	1	
	Panel assembled Cross roller Reciprocating	42.06.01.01.01	602.70	1	
	Hinge Sleeved	42.07.01.01.01	330.70	1	
	Phone Hinge Sleeved	42.08.01.01.01	339.60	1	



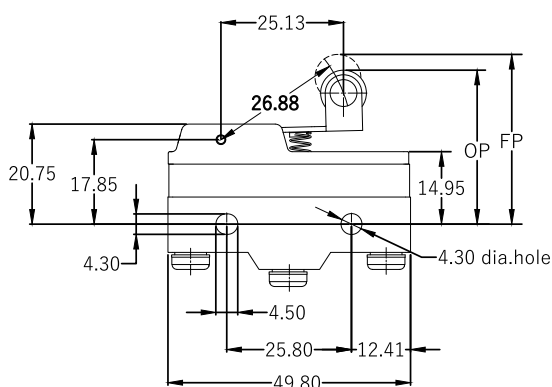
42 Series Micro Switches

Micro Switches Product Selection Table

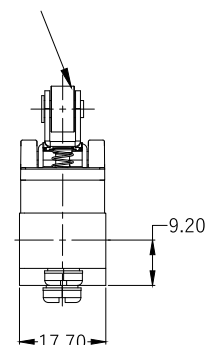


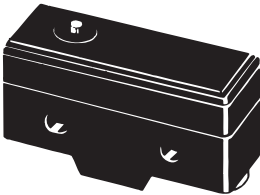
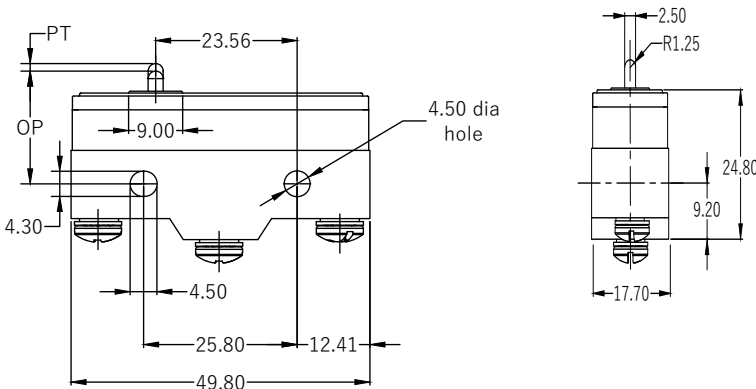
L3

Short Hinge Roller Lever



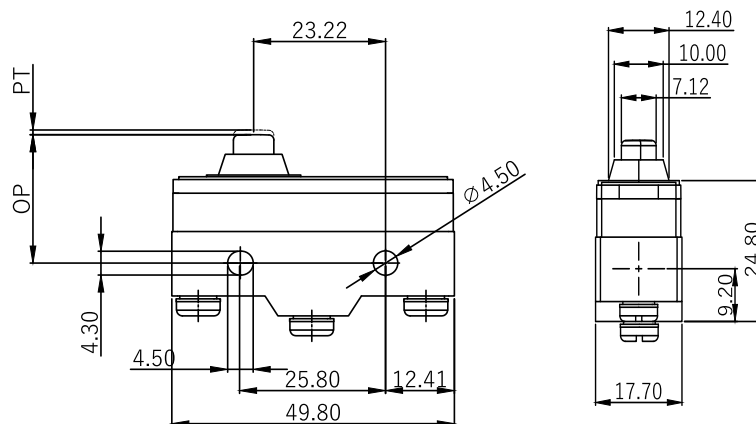
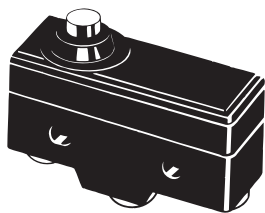
10.00mm dia x 3.90mm
(metallic roller)



Pin Plunger		
		
Operating Characteristics	42.02.01.01.01	Actuator
Operating force	OF	Pin Plunger
Release force	RF min.	
Pretravel	PT max.	
Overtravel	OT min.	
Movement Differential	MD max.	
Operating Position	OP	15.9±0.4 mm

Dimensions and Operating Properties

Short Spring Plunger



Operating Characteristics

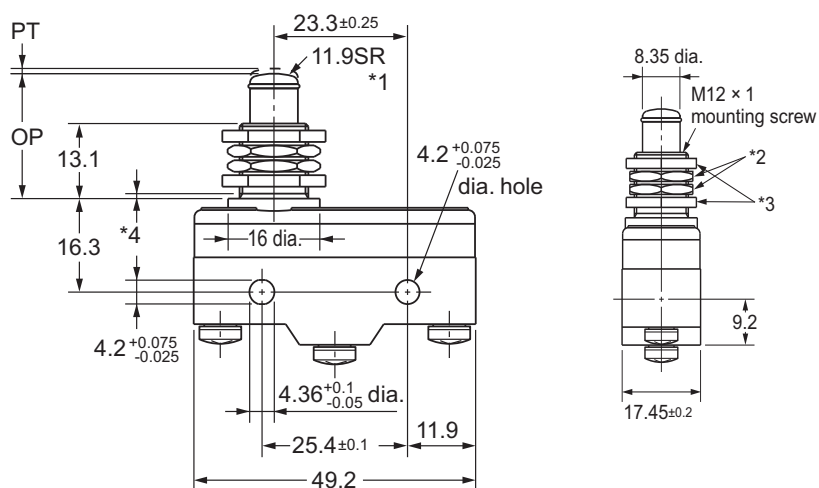
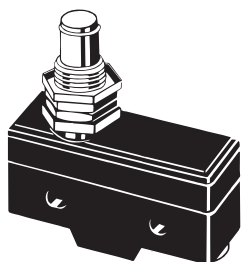
42.03.01.01.01

Actuator

Operating force	OF	6.13 to 7.85 N
Release force	RF min.	1.12 N
Pretravel	PT max.	0.8 mm
Overtravel	OT min.	1.6 mm
Movement Differential	MD max.	0.13 mm
Operating Position	OP	21.5±0.5 mm

Short Spring Plunger

Panel Mount Plunger



Operating Characteristics

42.04.01.01.01

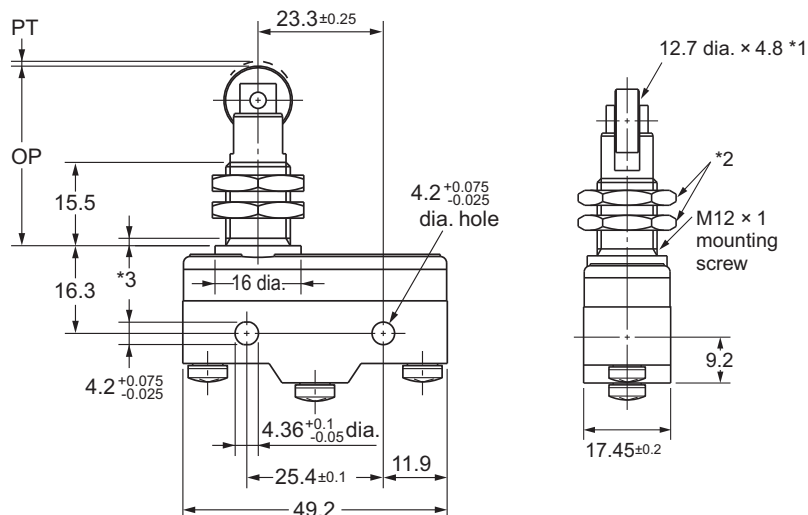
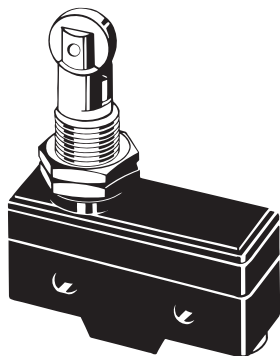
Actuator

Operating force	OF	6.13 to 7.85 N
Release force	RF min.	1.12 N
Pretravel	PT max.	0.8 mm
Overtravel	OT min.	5.5 mm
Movement Differential	MD max.	0.13 mm
Operating Position	OP	21.8±0.8 mm

Panel Mount Plunger

Dimensions and Operating Properties

Panel Mount Roller Plunger



Operating Characteristics

42.05.01.01.01

Actuator

Operating force	OF
Release force	RF min.
Pretravel	PT max.
Overtravel	OT min.
Movement Differential	MD max.

6.13 to 7.85 N
1.12 N
0.8 mm
3.58 mm
0.13 mm

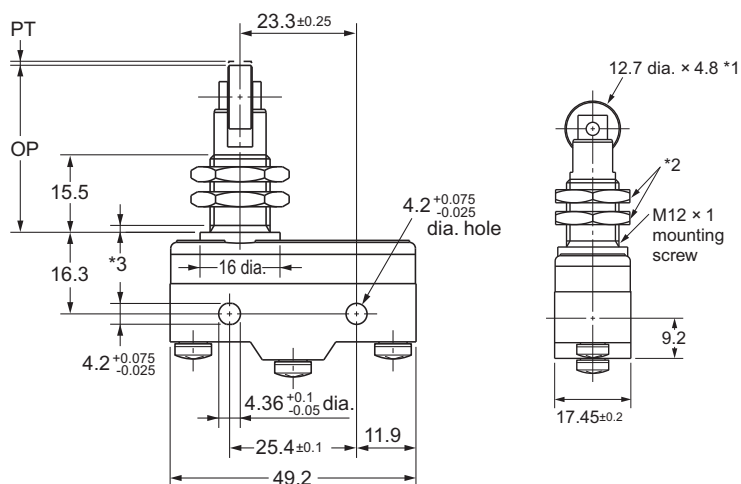
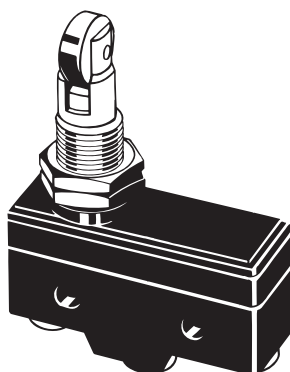
Panel Mount Roller Plunger

Operating Position

OP

33.4±1.2 mm

Panel Mount Cross Roller Plunger



Operating Characteristics

42.06.01.01.01

Actuator

Operating force	OF
Release force	RF min.
Pretravel	PT max.
Overtravel	OT min.
Movement Differential	MD max.

6.13 to 7.85 N
1.12 N
0.8 mm
3.58 mm
0.13 mm

Panel Mount Cross Roller Plunger

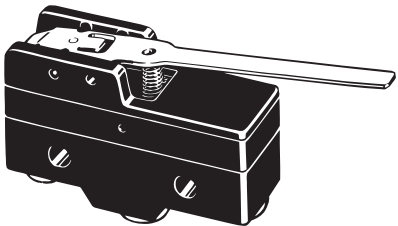
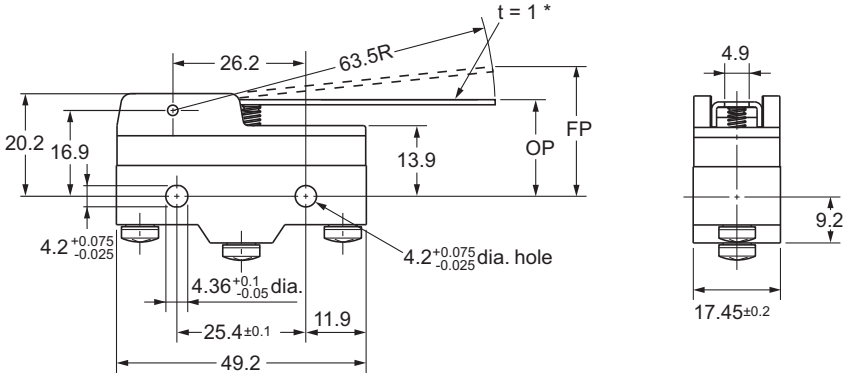
Operating Position

OP

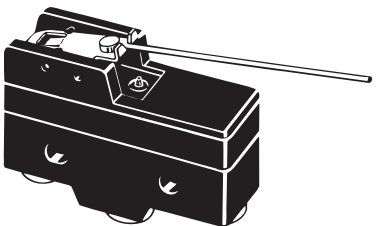
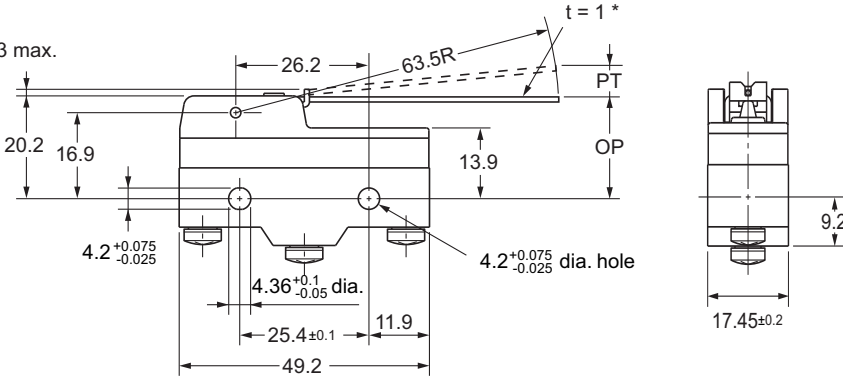
33.4±1.2 mm

Dimensions and Operating Properties

Hinge Lever

			
Operating Characteristics		42.07.01.01.01	Actuator
Operating force	OF max.	1.47 to 1.96 N	Hinge Lever
Release force	RF min.	0.92 N	
Overtravel	OT min.	5.6 mm	
Movement Differential	MD max.	1.27 mm	
Operating Position	FP max. OP	28.2 mm 19±0.8 mm	

Wire Hinge Lever

			
Operating Characteristics		42.08.01.01.01	Actuator
Operating force	OF	58.8 mN	Wire Hinge Lever
Release force	RF min.	4.90 mN	
Pretravel	PT max.	8.3 mm	
Overtravel	OT min.	5.6 mm	
Movement Differential	MD max.	0.65 mm	
Operating Position	OP	19±1 mm	

31 Series Stack Lights



Main Features & Information

- 5 heavy-duty cast aluminum base mounting on..
- Easy and flexible mounting for maximum visibility.
- 12V + 24V (AC and DC), 120V + 240V (AC) Available as.
- Standard equipment with integrated Buzzer Module.
- Basic bodies are available in stylish black and grey.
- 360° thanks to industry-specific oval lens shape visibility and conspicuousness.
- Six lens colors available (Red, Orange, Yellow, Green, Blue and White)
- Only high brightness multi-chip LEDs High visibility thanks to its use.
- Blinking LED models for maximum attention available.
- High-end materials and design methods used.

31 Series Stack Light

5 Tier



4 Tier



3 Tier



2 Tier



1 Tier

WERNER ELEKTRIK'S
SIGNAL TOWERS

Model No Selection			Steady - Model No.						
Housing Color	Mounting Style	*Tier	Without Buzzer	Price - ₹	With Short Beep	With Long Beep	With Continuous Beep	Price - ₹	* LED Color Code
Black Housing	 Direct Mount	1	31.11.00.01-*	1150	31.11.01.01-*	31.11.02.01-*	31.11.03.01-*	1150	R,Y,B,G,W
		2	31.21.00.01-*	1350	31.21.01.01-*	31.21.02.01-*	31.21.03.01-*	1350	RY, RG
		3	31.31.00.01-*	1680	31.31.01.01-*	31.31.02.01-*	31.31.03.01-*	1680	RYB, RYG
		4	31.41.00.01-*	1950	31.41.01.01-*	31.41.02.01-*	31.41.03.01-*	1950	RYBG
		5	31.51.00.01-*	2200	31.51.01.01-*	31.51.02.01-*	31.51.03.01-*	2200	RYBGW
	 Pole Mount with Base	1	31.12.00.01-*	1165	31.12.01.01-*	31.12.02.01-*	31.12.03.01-*	1165	R,Y,B,G,W
		2	31.22.00.01-*	1457	31.22.01.01-*	31.22.02.01-*	31.22.03.01-*	1457	RY, RG
		3	31.32.00.01-*	1748	31.32.01.01-*	31.32.02.01-*	31.32.03.01-*	1748	RYB, RYG
		4	31.42.00.01-*	2040	31.42.01.01-*	31.42.02.01-*	31.42.03.01-*	2040	RYBG
		5	31.52.00.01-*	2331	31.52.01.01-*	31.52.02.01-*	31.52.03.01-*	2331	RYBGW
	 Pole Mount With L-Bracket	1	31.13.00.01-*	1165	31.13.01.01-*	31.13.02.01-*	31.13.03.01-*	1165	R,Y,B,G,W
		2	31.23.00.01-*	1457	31.23.01.01-*	31.23.02.01-*	31.23.03.01-*	1457	RY, RG
		3	31.33.00.01-*	1748	31.33.01.01-*	31.33.02.01-*	31.33.03.01-*	1748	RYB, RYG
		4	31.43.00.01-*	2040	31.43.01.01-*	31.43.02.01-*	31.43.03.01-*	2040	RYBG
		5	31.53.00.01-*	2331	31.53.01.01-*	31.53.02.01-*	31.53.03.01-*	2331	RYBGW
	 Wall Mount With Swiveling	1	31.14.00.01-*	1332	31.14.01.01-*	31.14.02.01-*	31.14.03.01-*	1443	R,Y,B,G,W
		2	31.24.00.01-*	1776	31.24.01.01-*	31.24.02.01-*	31.24.03.01-*	1845	RY, RG
		3	31.34.00.01-*	1914	31.34.01.01-*	31.34.02.01-*	31.34.03.01-*	1970	RYB, RYG
		4	31.44.00.01-*	2203	31.44.01.01-*	31.44.02.01-*	31.44.03.01-*	2262	RYBG
		5	31.54.00.01-*	2497	31.54.01.01-*	31.54.02.01-*	31.54.03.01-*	2553	RYBGW

Model No Selection			Flashing - Model No.						
Housing Color	Mounting Style	Tier	Without Buzzer	Price - ₹	With Short Beep	With Long Beep	With Continuous Beep	Price - ₹	* LED Color Code
Black Housing	 Direct Mount	1	31.11.10.01-*	1831	31.11.11.01-*	31.11.12.01-*	31.11.13.01-*	1831	R,Y,B,G,W
		2	31.21.10.01-*	2123	31.21.11.01-*	31.21.12.01-*	31.21.13.01-*	2123	RY, RG
		3	31.31.10.01-*	2414	31.31.11.01-*	31.31.12.01-*	31.31.13.01-*	2414	RYB, RYG
		4	31.41.10.01-*	2706	31.41.11.01-*	31.41.12.01-*	31.41.13.01-*	2703	RYBG
		5	31.51.10.01-*	2997	31.51.11.01-*	31.51.12.01-*	31.51.13.01-*	2997	RYBGW
	 Pole Mount with Base	1	31.12.10.01-*	1387	31.12.11.01-*	31.12.12.01-*	31.12.13.01-*	1387	R,Y,B,G,W
		2	31.22.10.01-*	1679	31.22.11.01-*	31.22.12.01-*	31.22.13.01-*	1679	RY, RG
		3	31.32.10.01-*	1970	31.32.11.01-*	31.32.12.01-*	31.32.13.01-*	1970	RYB, RYG
		4	31.42.10.01-*	2262	31.42.11.01-*	31.42.12.01-*	31.42.13.01-*	2262	RYBG
		5	31.52.10.01-*	2553	31.52.11.01-*	31.52.12.01-*	31.52.13.01-*	2553	RYBGW
	 Pole Mount With L-Bracket	1	31.13.10.01-*	1387	31.13.11.01-*	31.13.12.01-*	31.13.13.01-*	1387	R,Y,B,G,W
		2	31.23.10.01-*	1346	31.23.11.01-*	31.23.12.01-*	31.23.13.01-*	1346	RY, RG
		3	31.33.10.01-*	1970	31.33.11.01-*	31.33.12.01-*	31.33.13.01-*	1970	RYB, RYG
		4	31.43.10.07-*	2262	31.43.11.01-*	31.43.12.01-*	31.43.13.01-*	2262	RYBG
		5	31.53.10.01-*	2553	31.53.11.01-*	31.53.12.01-*	31.53.13.01-*	2553	RYBGW
	 Wall Mount With Swiveling	1	31.14.10.01-*	1554	31.14.11.01-*	31.14.12.01-*	31.14.13.01-*	1554	R,Y,B,G,W
		2	31.24.10.01-*	1846	31.24.11.01-*	31.24.12.01-*	31.24.13.01-*	1846	RY, RG
		3	31.34.10.01-*	2136	31.34.11.01-*	31.34.12.01-*	31.34.13.01-*	2136	RYB, RYG
		4	31.44.10.01-*	2428	31.44.11.01-*	31.44.12.01-*	31.44.13.01-*	2428	RYBG
		5	31.54.10.01-*	2719	31.54.11.01-*	31.54.12.01-*	31.54.13.01-*	2719	RYBGW

Note: Please refer to our Signal Tower/Signal Light Catalogue on our website for complete part numbers.

31 Series Stack Light

Model No Selection			Steady - Model No.						
Housing Color	Mounting Style	*Tier	Without Buzzer	Price - INR	With Short Beep	With Long Beep	With Continuous Beep	Price -INR	* LED Color Code
Grey Housing	Direct Mount 	1	31.11.00.00-*	1150	31.11.01.00-*	31.11.02.00-*	31.11.03.00-*	1150	R,Y,B,G,W
		2	31.21.00.00-*	1350	31.21.01.00-*	31.21.02.00-*	31.21.03.00-*	1350	RY, RG
		3	31.31.00.00-*	1680	31.31.01.00-*	31.31.02.00-*	31.31.03.00-*	1680	RYB, RYG
		4	31.41.00.00-*	1950	31.41.01.00-*	31.41.02.00-*	31.41.03.00-*	1950	RYBG
		5	31.51.00.00-*	2200	31.51.01.00-*	31.51.02.00-*	31.51.03.00-*	2200	RYBGW
	Pole Mount with Base 	1	31.12.00.00-*	1165	31.12.01.00-*	31.12.02.00-*	31.12.03.00-*	1165	R,Y,B,G,W
		2	31.22.00.00-*	1457	31.22.01.00-*	31.22.02.00-*	31.22.03.00-*	1457	RY, RG
		3	31.32.00.00-*	1748	31.32.01.00-*	31.32.02.00-*	31.32.03.00-*	1748	RYB, RYG
		4	31.42.00.00-*	2040	31.42.01.00-*	31.42.02.00-*	31.42.03.00-*	2040	RYBG
		5	31.52.00.00-*	2331	31.52.01.00-*	31.52.02.00-*	31.52.03.00-*	2331	RYBGW
	Pole Mount With L-Bracket 	1	31.13.00.00-*	1165	31.13.01.00-*	31.13.02.00-*	31.13.03.00-*	1165	R,Y,B,G,W
		2	31.23.00.00-*	1457	31.23.01.00-*	31.23.02.00-*	31.23.03.00-*	1457	RY, RG
		3	31.33.00.00-*	1748	31.33.01.00-*	31.33.02.00-*	31.33.03.00-*	1748	RYB, RYG
		4	31.43.00.00-*	2040	31.43.01.00-*	31.43.02.00-*	31.43.03.00-*	2040	RYBG
		5	31.53.00.00-*	2331	31.53.01.00-*	31.53.02.00-*	31.53.03.00-*	2331	RYBGW
	Wall Mount With Swiveling 	1	31.14.00.00-*	1332	31.14.01.00-*	31.14.02.00-*	31.14.03.00-*	1443	R,Y,B,G,W
		2	31.24.00.00-*	1776	31.24.01.00-*	31.24.02.00-*	31.24.03.00-*	1846	RY, RG
		3	31.34.00.00-*	1914	31.34.01.00-*	31.34.02.00-*	31.34.03.00-*	1970	RYB, RYG
		4	31.44.00.00-*	2203	31.44.01.00-*	31.44.02.00-*	31.44.03.00-*	2262	RYBG
		5	31.54.00.00-*	2497	31.54.01.00-*	31.54.02.00-*	31.54.03.00-*	2553	RYBGW

Model No Selection			Flashing - Model No.						
Housing Color	Mounting Style	Tier	Without Buzzer	Price - INR	With Short Beep	With Long Beep	With Continuous Beep	Price -INR	* LED Color Code
Grey Housing	Direct Mount 	1	31.11.10.00-*	1831	31.11.11.00-*	31.11.12.00-*	31.11.13.00-*	1831	R,Y,B,G,W
		2	31.21.10.00-*	2123	31.21.11.00-*	31.21.12.00-*	31.21.13.00-*	2123	RY, RG
		3	31.31.10.00-*	2414	31.31.11.00-*	31.31.12.00-*	31.31.13.00-*	2414	RYB, RYG
		4	31.41.10.00-*	2706	31.41.11.00-*	31.41.12.00-*	31.41.13.00-*	2706	RYBG
		5	31.51.10.00-*	2997	31.51.11.00-*	31.51.12.00-*	31.51.13.00-*	2997	RYBGW
	Pole Mount with Base 	1	31.12.10.00-*	1387	31.12.11.00-*	31.12.12.00-*	31.12.13.00-*	1387	R,Y,B,G,W
		2	31.22.10.00-*	1679	31.22.11.00-*	31.22.12.00-*	31.22.13.00-*	1679	RY, RG
		3	31.32.10.00-*	1970	31.32.11.00-*	31.32.12.00-*	31.32.13.00-*	1970	RYB, RYG
		4	31.42.10.00-*	2262	31.42.11.00-*	31.42.12.00-*	31.42.13.00-*	2262	RYBG
		5	31.52.10.00-*	2553	31.52.11.00-*	31.52.12.00-*	31.52.13.00-*	2553	RYBGW
	Pole Mount With L-Bracket 	1	31.13.10.00-*	1387	31.13.11.00-*	31.13.12.00-*	31.13.13.00-*	1387	R,Y,B,G,W
		2	31.23.10.00-*	1346	31.23.11.00-*	31.23.12.00-*	31.23.13.00-*	1346	RY, RG
		3	31.33.10.00-*	1970	31.33.11.00-*	31.33.12.00-*	31.33.13.00-*	1970	RYB, RYG
		4	31.43.10.00-*	2262	31.43.11.00-*	31.43.12.00-*	31.43.13.00-*	2262	RYBG
		5	31.53.10.00-*	2553	31.53.11.00-*	31.53.12.00-*	31.53.13.00-*	2553	RYBGW
	Wall Mount With Swiveling 	1	31.14.10.00-*	1554	31.14.11.00-*	31.14.12.00-*	31.14.13.00-*	1554	R,Y,B,G,W
		2	31.24.10.00-*	1846	31.24.11.00-*	31.24.12.00-*	31.24.13.00-*	1846	RY, RG
		3	31.34.10.00-*	2136	31.34.11.00-*	31.34.12.00-*	31.34.13.00-*	2136	RYB, RYG
		4	31.44.10.00-*	2428	31.44.11.00-*	31.44.12.00-*	31.44.13.00-*	2428	RYBG
		5	31.54.10.00-*	2719	31.54.11.00-*	31.54.12.00-*	31.54.13.00-*	2719	RYBGW

Note: Please refer to our Signal Tower/Signal Light Catalogue on our website for complete part numbers.

31 Series Illuminated Columns (Signal Towers)

Model Number Structure - Stack Lights



31.52.00.00.24-RAG C

Series		Style		Functions		Housing Colour		Voltage		LED Colour (From Top)		Glass Colour (Optional)	
31 Series Stack Lights													
1	1Tier	1	Direct Mount	0	Steady	00	Grey	12	12V AC/DC	R	Red	C	Clear Glass
	2Tier	2	Pole Mount with Base	1	Flashing	01	Black	24	24V AC/DC	A	Amber	S	Similar Colour
	3Tier	3	Pole Mount with L-Bracket					11	110V AC	G	Green		
	4Tier	4	Wall Mount with Swiveling					23	230V AC	B	Blue		
	5Tier									W	White		
				Buzzer									
				0		Without Buzzer							
				1		With Short Beep							
				2		With Long Beep							
				3		With Continuous Beep							

31 Series Stack Light

Features:

Completely modular
Easy To Mount
Different Mounting Styles
Built-in buzzer module
Black & Grey Housing

Over voltage category

III, as per EN IEC 60947-5-1

Approvals

Approbations and Declaration of conformity

CE

CE



Specifications

Safety Standards	IEC60947-5-1, EN60947-5-1, UL508, C22.2 No.14		
Operating Temperature	-25 to +55°C (no freezing)		
Operating Humidity	45 to 85% RH (no condensation)		
Storage Temperature	-40 to +75°C (no freezing)		
Over voltage Category	III (IEC60664-1)		
Impulse withstand Voltage	800V (IEC60947-1)		
Insulation Resistance	100 MΩ minimum (500V DC)		
Dielectric Strength	Between live and dead parts: 1000V AC, 1 minute		
Pollution Degree	3		
Corrosion Immunity	Atmosphere free from corrosive gases		
Vibration Resistance	Operating extremes: 10 to 55Hz, amplitude 0.5 mm		
Shock Resistance	Operating extremes: 147 m/s ² , 6 shocks each in 6 axes		
Housing Color	Black, Gray		
Material	Housing: PC		
	Lens: PC		
	Pole: Aluminum		
	Pole base: PC		
Wire	22AWG		
Degree of Protection	Steady	Wall mount, Direct mount, Pole mount with base Pole mount with L-Bracket	IP 40
	Flashing/Alarm	Wall mount, Direct mount, Pole mount with base Pole mount with L-Bracket	IP 40

Contact Ratings

	Buzzer		LED	
	AC Contact Capacity (per alarm)	DC Contact Capacity, Transistor Capacity (per alarm)	AC Contact Capacity (per tier)	DC Contact Capacity, Transistor Capacity (per Tier)
Current Capacity	400 mA min	300 mA min	100 mA min	100 mA min
Dielectric Strength	35V AC min	35V min	35V AC min	35V min
Leakage Current	—	0.1mA max.	—	0.1mA max.

Functional Specification

Rated Insulation Voltage		60V		
Operating Voltage		24V AC/DC $\pm 10\%$		
Rated Voltage (Ue)		24V AC/DC		
LED Color Code		R (red), Y (yellow), G (green), B (blue), W (white)		
LED Life		Approx. 30,000 hours (until brightness is reduced to 50% of the initial value in a 25°C operating environment)		
Flashing Cycle (IEC60073)		Approx. 105 flashes per minute (1.75 Hz)		
LED	Illumination Color	R, Y	B, G	W
	Rated Current (per tier)	25mA	30mA	20mA
	Power Consumption (per tier)	0.6W	0.75W	0.5W
Buzzer	Alarm Cycle	Alarm 1: approx. 700 times per minute Alarm 2: approx. 35 times per minute		
	Current Draw	110mA max.		
	Inrush Current	AC: 400mA max. DC: 250mA max.		
	Alarm Volume	70 to 90dB, at 1m (volume adjustable)		
	Acoustic Frequency	Approx. 3.3kHz		



Stylish elliptical body and unique lens shape



Six lens color of red, amber, yellow, green, blue & clear



Visual alert modules with New Piezo Buzzer



A special flashing LED is also available



360° Visual Appearance

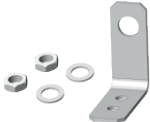
Accessories

Mounting Parts Let in

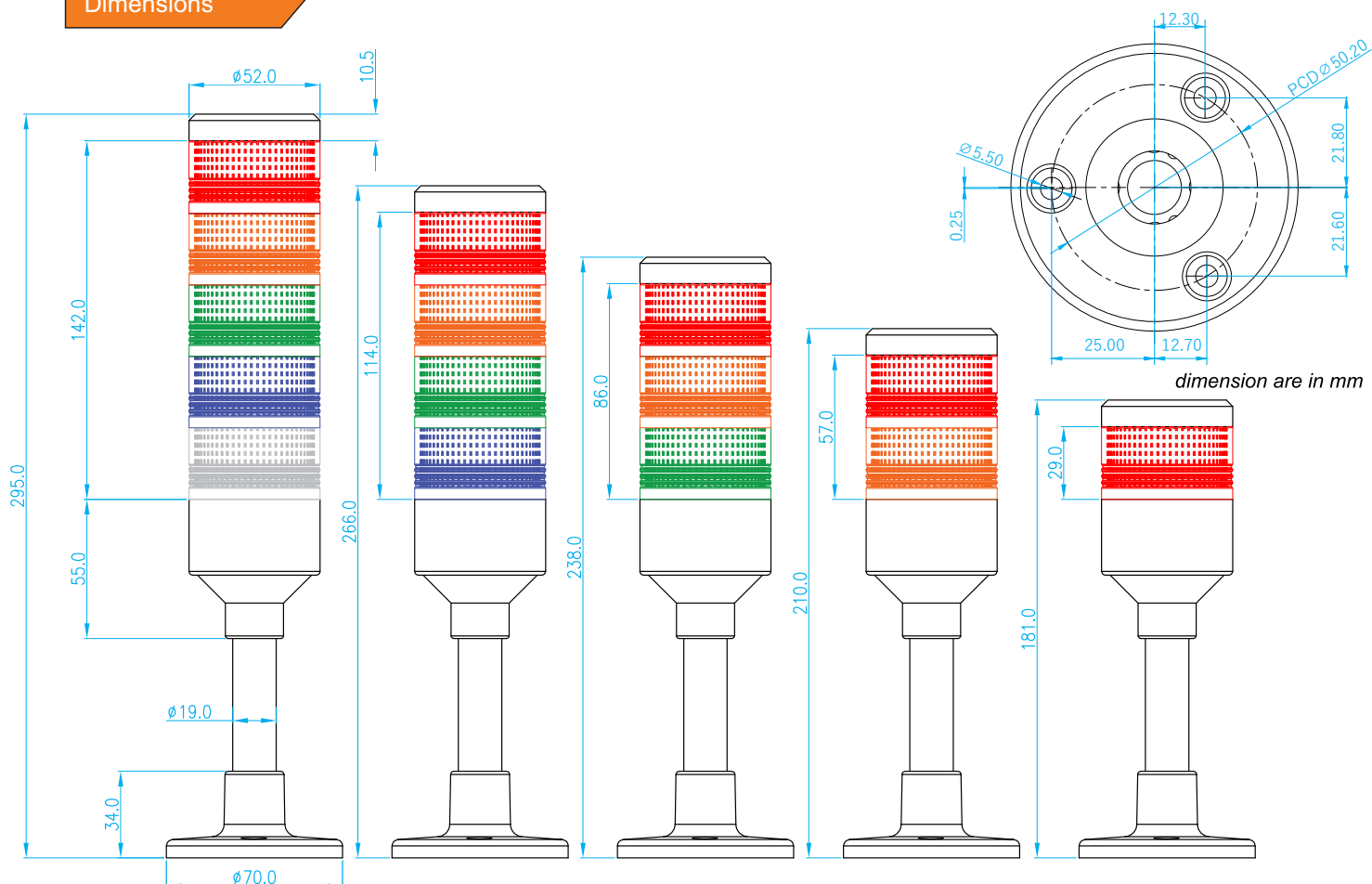
Mounting Style	Supplied Parts
1 : Direct Mount	M5 screw (4 pcs), M5 spring washer (4 pcs), M5 plain washer (4pcs), M5 nut (4 pcs), O-ring (4 pcs),gasket (1 pc)
2 : Pole Mount with Base	M5 screw (4 pcs), M5 spring washer (4 pcs), M5 plain washer (4 pcs), M5 nut (4 pcs), O-ring (4 pcs), gasket (1 pc)

Combination of LED & Lens

LED Color	Color Lens Type	Clear Lens Type
R : Red	Red Lens	Clear Lens
Y : Yellow	Yellow Lens	Clear Lens
B : Blue	Blue Lens	Clear Lens
G : Green	Green Lens	Clear Lens
W : White	White Lens	Clear Lens

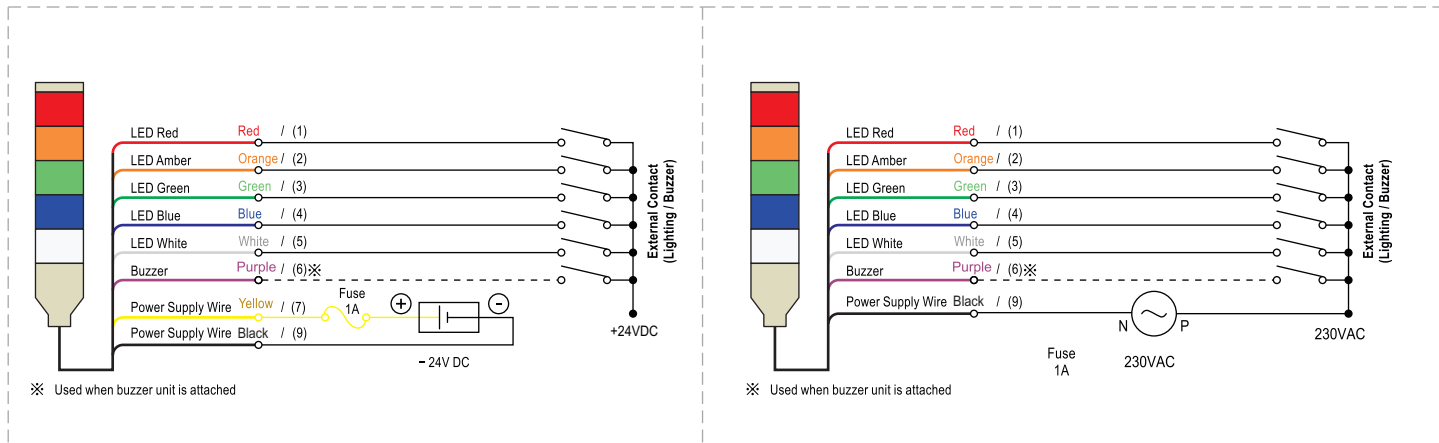
Description	Model No.		Style
	Black Housing	Grey Housing	
L - Bracket	31.08.00		

Dimensions



Wiring Examples

External Contact Classification Voltage Contact Relay



Safety Precautions

- Do not loosen any screws.
- Turn off the power to the 31 Series Stack Lights fore wiring, mounting, assembling or removing.
- Do not leave the 31 Series without a cap or unassembled.
- Make sure the wiring is done correctly else electrical shock or fire hazard may result.
- Do not mount the 31 Series upside-down or horizontally.
- Do not apply any chemicals that may corrode the plastic materials.
- Install the supplied gasket, or else the waterproof seal will be compromised
- The hexagon socket screw may become loose if the 31 Series is subjected to strong vibrations.
- Take measures to prevent loosening.
- DIRECT MOUNTING

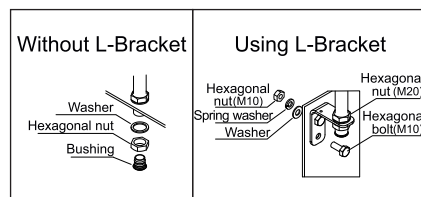
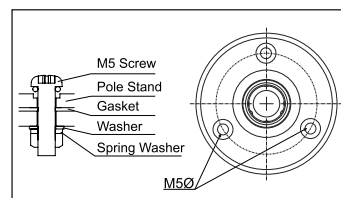
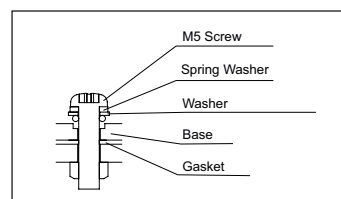
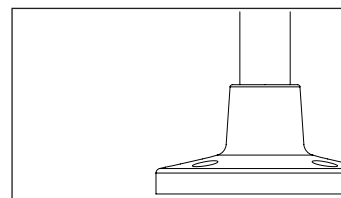
Recommended tightening torque:
2.5 to 2.8 N·m

- POLE MOUNTING WITH BASE

The pole mount type can be installed in four ways that has been mentioned in "Dimensions" section which is described below.
Recommended tightening torque: 2.5 to 2.8 N·m (M5 screw)

- POLE MOUNTING WITH L-BRACKET

Recommended tightening torque: 10 to 12 N·m (M10)
Recommended tightening torque: 24 to 27 N·m (M20)
Not using L- Bracket
Remove the hexagonal nut (M20), bushing, plain washer and L- Bracket from the 31 Series and install in the following order:
plain washer
hexagonal nut (M20)
and bushing.
Recommended tightening torque: 24 to 27 N·m (M20)



32 Series ø22mm Jumbo Signal Lamps



*“Clear and Easy recognition
distance and sides...”*

66mm Large Dome Lens



Main Features & Information

Higher Brightness

New type jumbo signal lamps high reaches brightness.

Short Depth Behind Panel

Jumbo signal lamps behind the panel
It has a depth of only 32mm.

Panel Mounting

Jumbo signal lamps are installed in panels only.
Can be mounted with locking ring.

Leakage Voltage

Jumbo signal lamps up to 5%
against low and leakage voltages
protected.

66mm Jumbo Lens in Six Different Colors...

32 Serisi ø22mm Jumbo Sinyal Lambalari

recognition from a
distance & from the sides..."



32 Series

WERNER ELEKTRIK'S
ø22mm Jumbo Dome Pilot Light



Voltage	Colour	Type	Unit—LP ₹	Std Pkg	Master Pkg
12VAC/DC 50/60 Hz	Red	32.01.02.12	1665.00	1	200
	Amber	32.01.03.12	1665.00	1	
	Yellow	32.01.04.12	1665.00	1	
	Green	32.01.05.12	1665.00	1	
	Blue	32.01.06.12	1665.00	1	
	White	32.01.09.12	1665.00	1	
24VAC/DC 50/60 Hz	Red	32.01.02.24	1665.00	1	200
	Amber	32.01.03.24	1665.00	1	
	Yellow	32.01.04.24	1665.00	1	
	Green	32.01.05.24	1665.00	1	
	Blue	32.01.06.24	1665.00	1	
	White	32.01.09.24	1665.00	1	
110VAC 50/60 Hz	Red	32.01.02.110	1665.00	1	200
	Amber	32.01.03.110	1665.00	1	
	Yellow	32.01.04.110	1665.00	1	
	Green	32.01.05.110	1665.00	1	
	Blue	32.01.06.110	1665.00	1	
	White	32.01.09.110	1665.00	1	
230VAC 50/60 Hz	Red	32.01.02.230	1665.00	1	200
	Amber	32.01.03.230	1665.00	1	
	Yellow	32.01.04.230	1665.00	1	
	Green	32.01.05.230	1665.00	1	
	Blue	32.01.06.230	1665.00	1	
	White	32.01.09.230	1665.00	1	



32 Series ø22mm Jumbo Signal Lamps

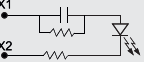
Product Selection Table



32.01.02.24

Series		Operation Type		Colour		Voltage	
32 Series		01 Dome		02 Red	12 12VDC		
ø22mm Jumbo Dome Indicators				03 Amber			
				04 Yellow		24 24VDC	
				05 Green		230 230VAC	
				06 Blue			
				09 White			

LED lamp Ratings

Type		6V	12V	24V	110V	230/240 V
Voltage Range	±10%	6V AC/DC	12V AC/DC	24V AC/DC	100/110V AC	230/240V AC
Rated Voltage		6V AC/DC	12V AC/DC	24V AC/DC	110V AC	230/240V AC
Current Draw	AC/DC	16mA (R,A,Y,W) 13mA (G,B)	20mA	20mA	20mA	20mA
Colour		Red				
		Amber				
		Yellow				
		Green				
		Blue				
		White				
Life (reference value)		Approx. 100,000 hours (The luminance is reduced to 50% the initial intensity when used on complete DC.)				
Internal Circuit		   LED Chip  Protection Diode  Zener Diode				

Specifications

Operating Temperature	-25 to +60°C (No freezing)
Storage Temperature	-40 to +80°C
Operating Humidity	45 to 85% RH (No condensation)
Insulation Resistance	100 MΩ minimum (500V DC megger)
Dielectric Strength	2000VDC For 1 minute
Vibration Resistance	Operating extremes: 5 to 55 Hz. amplitude 1 mm Damage limits: 30 Hz, amplitude 1.5 mm
Shock Resistance	Operating extremes: 100 m/s ² (15G) Damage limits: 1000 m/s ² (100G)
Degree of Protection	IP40 Front of Panel IP20 Back of Panel

Accessories

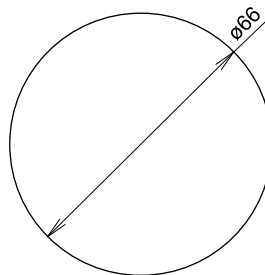
Appearance	Part No.	Description
	32.01.03	Jumbo Dome Lens with diffuser Available in specify a lens color code 02-Red, 03-Amber, 04-Yellow, 06-Blue, 09-White
	45.02.01	Metallic tool used to tighten the plastic locking ring when installing the 32 series control unit in a panel.
	45.95.LR	Tighten the indicator to mounting panel.

Mechanical Specification

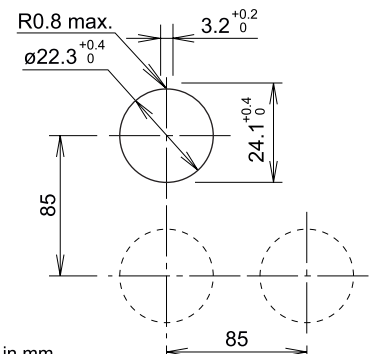
Panel Thickness 1 to 5

M3.5 Terminal Screw

Locking Ring
Rubber Gasket

0.5
34.4 50.5


Mounting Hole



All dimensions in mm.

66&67 Series Remote Controls

Single and Double Speed



single speed



Double Speed

Main Features & Information

- Various for a wide range of applications actuators are available
- 15 A with high repeat accuracy a large switching capacity.
- 1 Basic models in contact gap type.
- A range of standard models for micro loads available.
- A set of Security Terminal protective covers Molded terminal type model available.
- Precise positioning is possible.
- Various actuator heads for various applications Available in stock with different options.
- We use our 42 Series micro switches in many mechanical applications. peace of mind to control the app You can choose with

66 & 67 Series Remote Controls



WERNER ELEKTRIK'S

REMOTE CONTROLLERS

66 & 67 Series

Radio Remote—Dual Speed

150 Mts Radius

Radio Remote—Single Speed

Dual Speed Remote Controls

Single Speed Remote Controls

Emergency Type	No of Keys	Voltage	Type	Unit—LP ₹	Std Pkg (nos.)
Push Lock Turn Reset (E-Stop Switch)	8	24 DC	66.08.01.24	61273	1
		36 DC	66.08.01.36	61273	1
		48 DC	66.08.01.48	61273	1
		110 DC	66.08.01.110	61273	1
		120 AC	66.08.01.120	61273	1
		230 AC	66.08.01.230	61273	1
	12	24 DC	66.12.01.24	68931	1
		36 DC	66.12.01.36	68931	1
		48 DC	66.12.01.48	68931	1
		110 DC	66.12.01.110	68931	1
		120 AC	66.12.01.120	68931	1
		230 AC	66.12.01.230	68931	1
Keylock Switch	8	24 DC	66.08.02.24	62422	1
		36 DC	66.08.02.36	62422	1
		48 DC	66.08.02.48	62422	1
		110 DC	66.08.02.110	62422	1
		120 AC	66.08.02.120	62422	1
		230 AC	66.08.02.230	62422	1
	12	24 DC	66.12.02.24	70080	1
		36 DC	66.12.02.36	70080	1
		48 DC	66.12.02.48	70080	1
		110 DC	66.12.02.110	70080	1
		120 AC	66.12.02.120	70080	1
		230 AC	66.12.02.230	70080	1

Emergency Type	No of Keys	Voltage	Type	Unit—LP ₹	Std Pkg (nos.)
Push Lock Turn Reset (E-Stop Switch)	8	24 DC	67.08.01.24	30637	1
		36 DC	67.08.01.36	30637	1
		48 DC	67.08.01.48	30637	1
		110 DC	67.08.01.110	30637	1
		120 AC	67.08.01.120	30637	1
		230 AC	67.08.01.230	30637	1
	12	24 DC	67.12.01.24	42890	1
		36 DC	67.12.01.36	42890	1
		48 DC	67.12.01.48	42890	1
		110 DC	67.12.01.110	42890	1
		120 AC	67.12.01.120	42890	1
		230 AC	67.12.01.230	42890	1
Keylock Switch	8	24 DC	67.08.02.24	31784	1
		36 DC	67.08.02.36	31784	1
		48 DC	67.08.02.48	31784	1
		110 DC	67.08.02.110	31784	1
		120 AC	67.08.02.120	31784	1
		230 AC	67.08.02.230	31784	1
	12	24 DC	67.12.02.24	44040	1
		36 DC	67.12.02.36	44040	1
		48 DC	67.12.02.48	44040	1
		110 DC	67.12.02.110	44040	1
		120 AC	67.12.02.120	44040	1
		230 AC	67.12.02.230	44040	1



8 Button Remote Control Set

12 Button Remote Control Set



66 & 67 Series Remote Controls

Model Number Structure - Single & Dual Speed Remote Controller



66.67.12.01.24

Series	
67 Series Single Speed Wireless Controller	
66 Series Dual Speed Wireless Controller	

No. of Keys	
08	8 Keys
12	12 Keys

Operating Voltage	
24	24V DC Only
36	36V DC Only
48	48V DC Only
110	110V DC Only
120	120V AC Only
230	230V AC Only

Remote Type	
01	Pushlock Turn Reset
02	Keylock Switch

66 Series Dual Speed Wireless Controller

Features:

- Accurate in transmitting, receiving, decoding and controlling of all output relays.
- More than 150 hours of continuous operation with just two off-the-shelf "AA" alkaline batteries.
- Can cover up to 150 Meters distance between transmitter & receiver
- Upto 50 wireless controllers can be installed in a single location
- Light weight

Overvoltage category

III, as per EN IEC 60947-5-1

Approvals

Approbations and Declaration of conformity

CE

CE



Specifications - Transmitter

Frequency Range	422 & 438 MHZ
Channel Spacing	25KHz
Transmitting Range	150 Meters
Hamming Distance	6
Frequency Control	Quartz Crystal
Transmitting Power	0.3mW
Operating Temperature	- 25°C ~ + 70°C
Source Voltage	3.0V ("AA" x 2)
Current Drain	10~18mA
Weight (approx.)	300~320g.
Degree of Protection	IP 65

Specifications - Receiver

Modulation	Narrow Band FM
Decoding Reference	Quartz Crystal
Frequency Control	Synthesizer (PLL)
Sensitivity	-120dBm
Responding Time	40mS
Output Contact	250V @ 10A
Operating Temperature	- 25°C ~ +70°C
Source Voltage	AC 24V ~ 230V available
Power Consumption	7.7 Watts
Weight (approx.)	835g.
Degree of Protection	IP 65

66 Series Dual Speed Wireless Controller

Features:

- Accurate in transmitting, receiving, decoding and controlling of all output relays.
- More than 150 hours of continuous operation with just two off-the-shelf "AA" alkaline batteries.
- Can cover up to 150 Meters distance between transmitter & receiver
- Upto 50 wireless controllers can be installed in a single location
- Light weight

Overvoltage category

III, as per EN IEC 60947-5-1

Approvals

Approbations and Declaration of conformity

CE

CE



Specifications - Transmitter

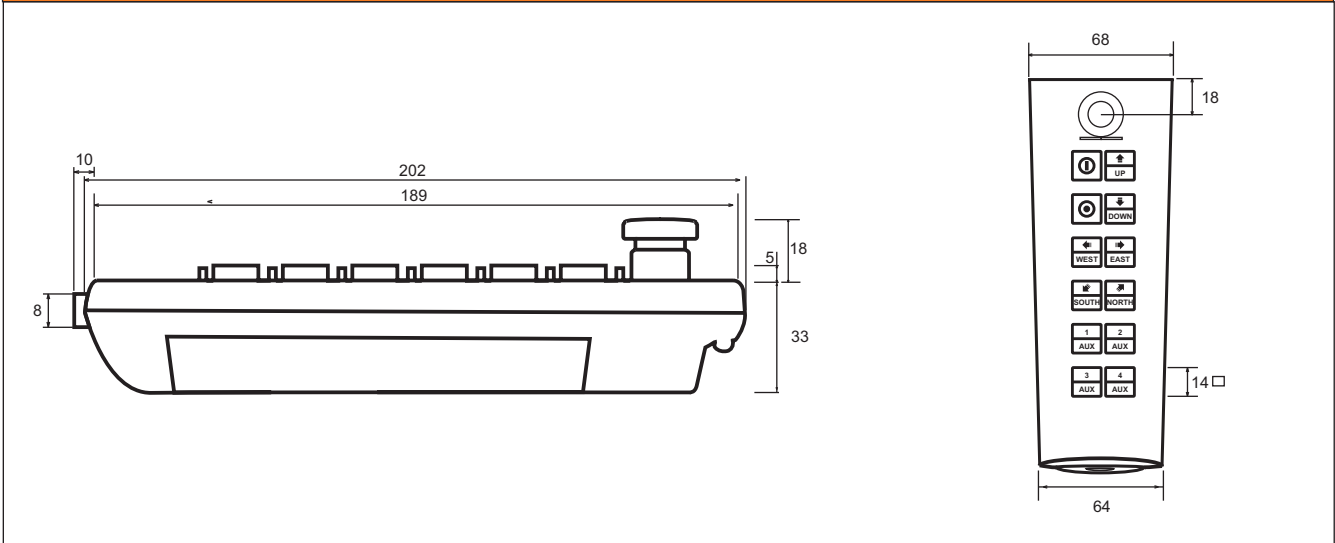
Frequency Range	422 & 438 MHZ
Channel Spacing	25KHz
Transmitting Range	150 Meters
Hamming Distance	6
Frequency Control	Quartz Crystal
Transmitting Power	0.3mW
Operating Temperature	- 25°C ~ + 70°C
Source Voltage	3.0V ("AA" x 2)
Current Drain	10~18mA
Weight (approx.)	300~320g.
Degree of Protection	IP 65

Specifications - Receiver

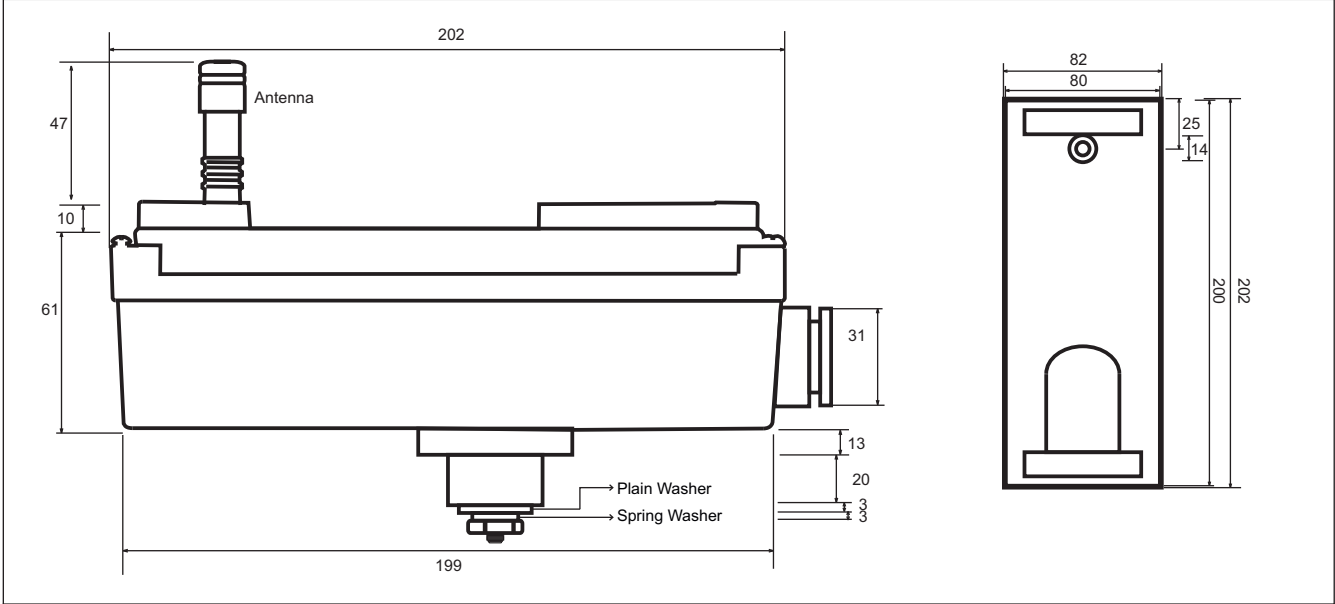
Modulation	Narrow Band FM
Decoding Reference	Quartz Crystal
Frequency Control	Synthesizer (PLL)
Sensitivity	-120dBm
Responding Time	40mS
Output Contact	250V @ 10A
Operating Temperature	- 25°C ~ +70°C
Source Voltage	AC 24V ~ 230V available
Power Consumption	7.7 Watts
Weight (approx.)	835g.
Degree of Protection	IP 65

Dimensions

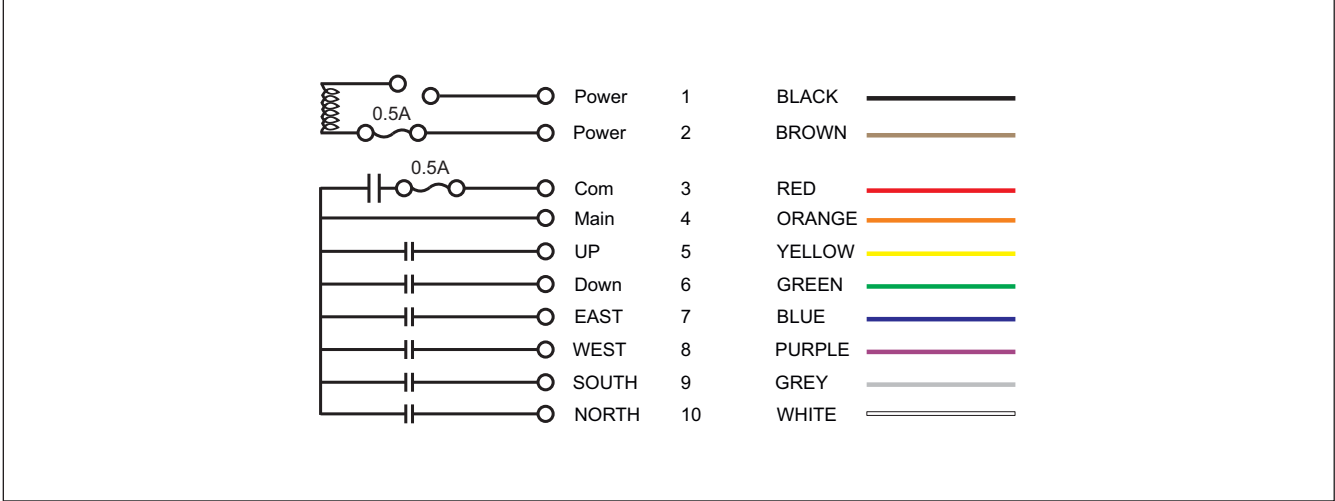
Transmitter Single Speed



Receiver Single Speed

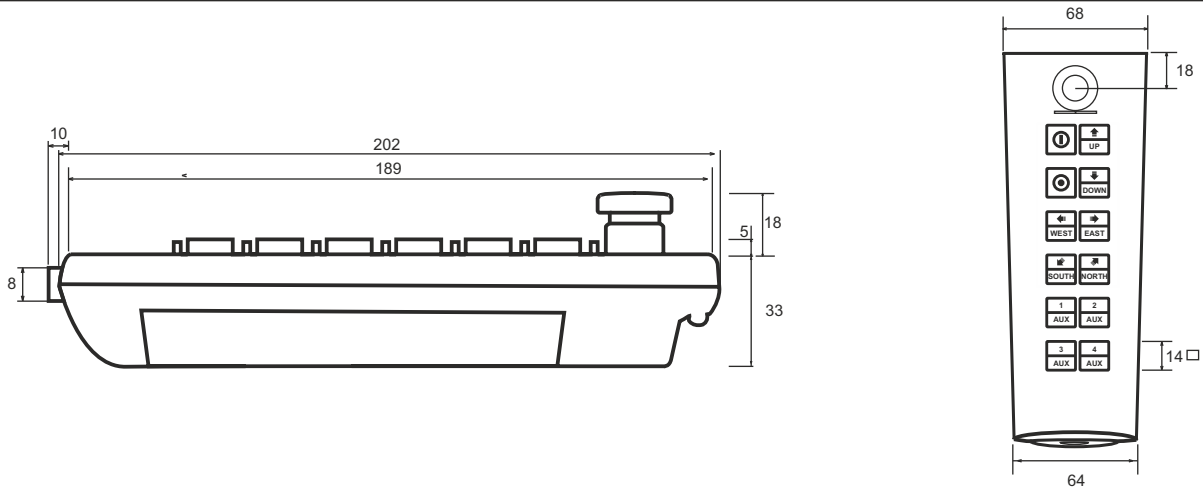


Wiring for Single Speed

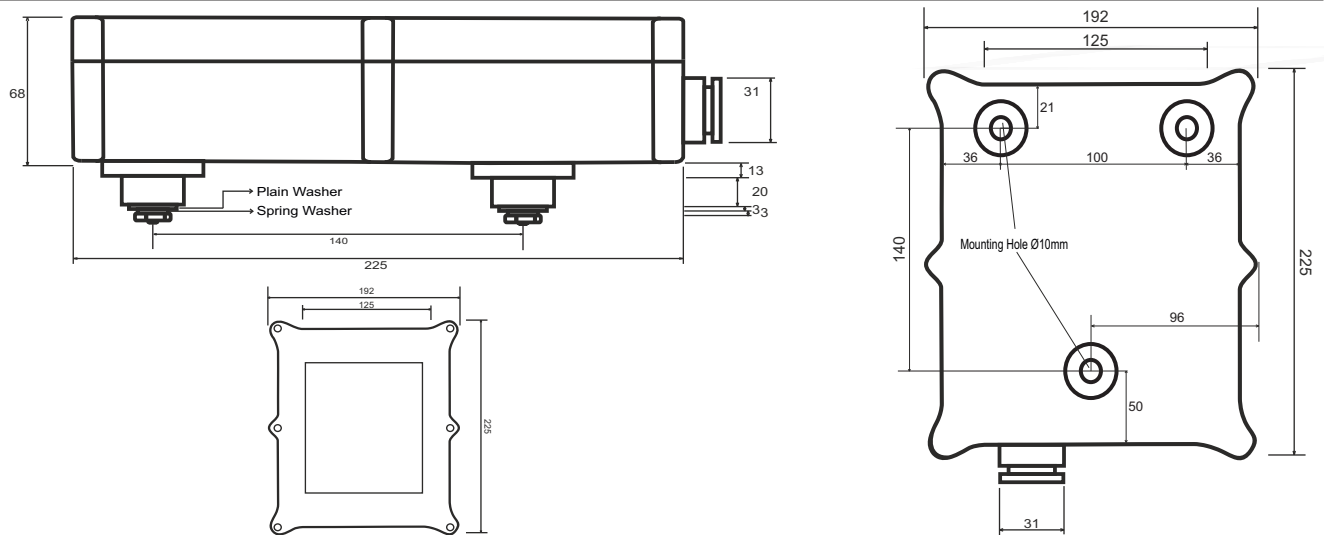


dimensions

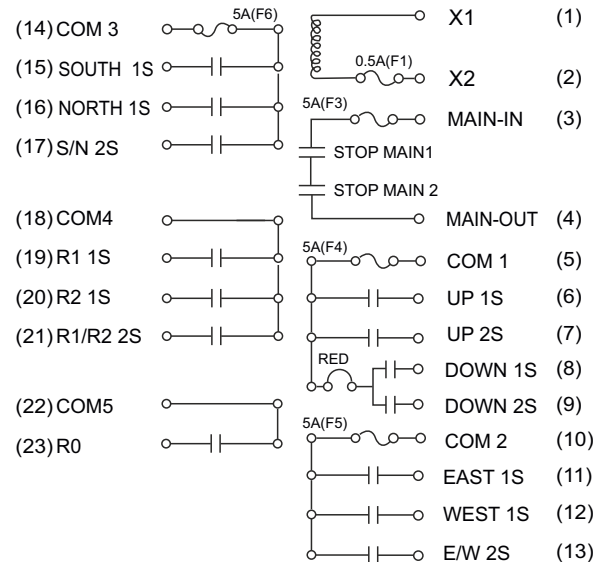
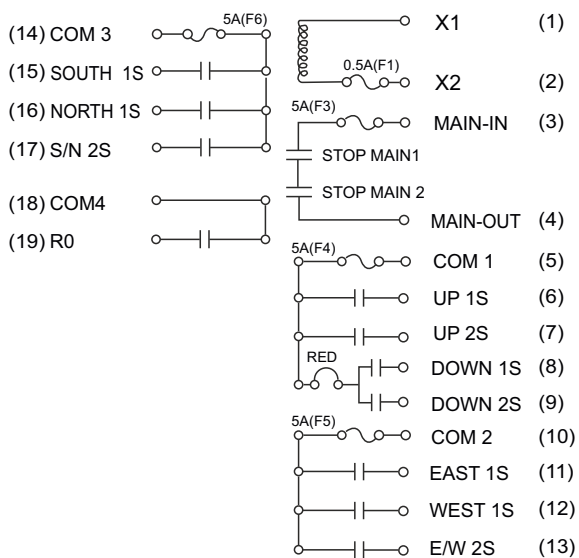
Transmitter Dual Speed



Receiver Single Speed



Wiring Dual Speed



77 Series DIN Rails

DIN Rail 35x7.5, 35x15

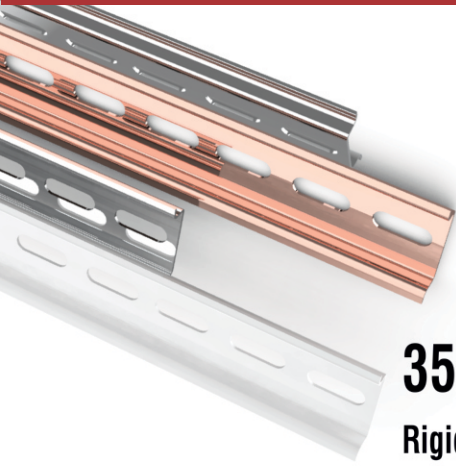


Main Features & Information

- Fix it to the board with just a few screws
You can install many components.
- Our DIN Rails can easily hold multiple blocks
in a row. Allows installation and removal
- Our DIN Rail dimensions are according to En60715.
- Custom length and custom hole sizes are available.
- Our Iron, Copper and Aluminum DIN Rail models
available in stocks.
- Maximum dimensional accuracy and
surface treatment.
- Suitable mounting hole sizes for M5 & M6.
- Region for more detailed information and ordering.
You can contact our representatives.

NOTE: For detailed technical information about the products, please refer to the product pages.
You can examine the data...

77 Serisi DIN Raylar



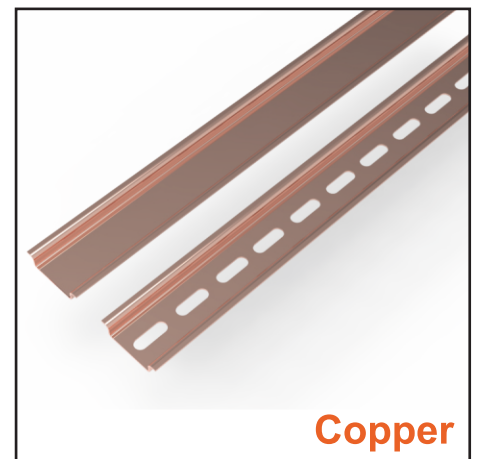
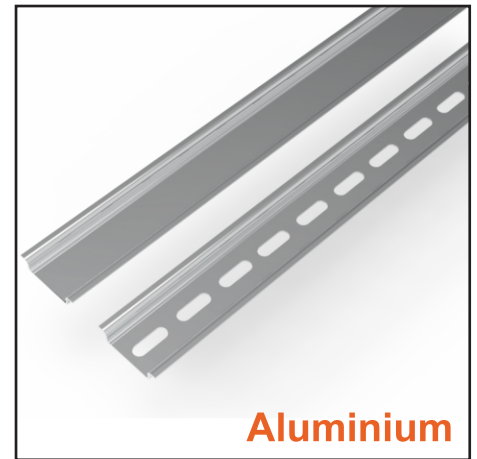
77 Series

35 x 7.5mm & 35 x 15mm

Rigid & Long Lasting

WERNER ELEKTRIK'S
DIN RAIL

Metrical	Model No.	Plating	Size in Mtr.	Unit ₹	Std Pkg (nos.)
Steel	77.03.11.*	Zinc Plated with Blue passivated 35 x 7.5mm	1mtr	100	50
	77.03.11.*	Zinc Plated with Blue passivated 35 x 7.5mm	2mtr	194	
	77.03.21.*	Zinc Plated with Yellow passivated 35 x 7.5mm	1mtr	100	
	77.03.21.*	Zinc Plated with Yellow passivated 35 x 7.5mm	2mtr	194	
Aluminium	77.02.31.*	Anodizing 35 x 7.5mm	1mtr	Upon request	
	77.02.31.*		2mtr		
Copper	77.01.31.*	Without plated 35 x 7.5mm	1mtr	Upon request	
	77.01.31.*		2mtr		
Steel	77.03.11.*	Zinc Plated with Blue passivated 35 x 15mm	1mtr	203	
	77.03.21.*	Zinc Plated with Blue passivated 35 x 15mm	2mtr	405	
	77.03.12.*	Zinc Plated with Yellow passivated 35 x 15mm	1mtr	249	
	77.03.22.*	Zinc Plated with Yellow passivated 35 x 15mm	2mtr	405	



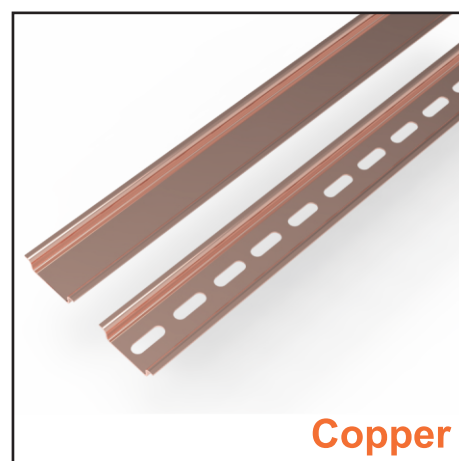
Note: Replace "*" for Type

- 01 - 35x7.5 M6 Perforated 18mm slot
- 02 - 35x7.5 M5 Perforated 25mm slot
- 03 - 35x7.5 M6 Perforated 15mm slot
- 04 - 35x7.5 Un-Perforated
- 05 - 35x15 M6 Perforated 15mm slot (Only for Steel)
- 06 - 35x15 M6 Perforated 18mm slot (Only for Steel)
- 07 - 35x15 Un-Perforated (Only for Steel)

77 Series DIN Rails

DIN Rails – Product Selection Table

DIN Rail 35x7.5, 35x15



77.02.13.01

Series
77 Series
Din Rail

Material

- 01 | Copper
- 02 | Aluminium
- 03 | Steel

Length

- 1 | 1meter
- 2 | 2meter

Plating

- 1 | Zinc Plated with Blue passivated
- 2 | Zinc Plated with Yellow passivated
- 3 | Anodizing (Only for Aluminium)
- 4 | Without plated (Only for Copper)

Types

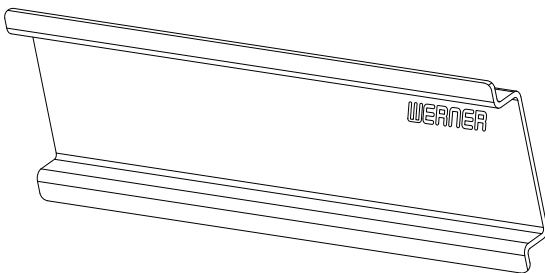
- 01 | 35x7.5 M6 Perforated 18mm slot
- 02 | 35x7.5 M5 Perforated 25mm slot
- 03 | 35x7.5 M6 Perforated 15mm slot
- 04 | 35x7.5 Un-Perforated
- 05 | 35x15 M6 Perforated 15mm slot (Only for Steel)
- 06 | 35x15 M6 Perforated 18mm slot (Only for Steel)
- 07 | 35x15 Un-Perforated (Only for Steel)

Specifications

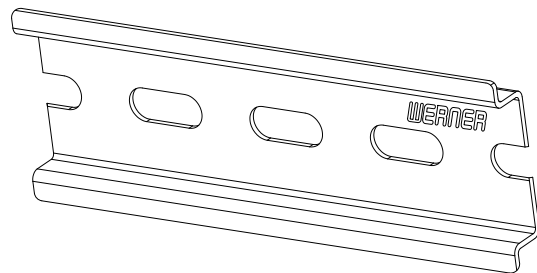
Description	Units	Steel Blue	Steel Yellow	Steel Copper	Copper	Aluminium+ Anodizing plated
Designed in accordance / similar to EN 60715		●	●	●	●	●
Base Metal-cold rolled low carbon steel according to DIN EN 10130		●	●	●	ETP grade copper	5052 Grade
Electroplated coating of zinc according to DIN EN 10130		●	●	●	Un-coated	Coated
Passivation according to DIN EN 12329		●	●	●		
Electroplated coating Fe/Zn8//B		●	●			
Electroplated coating Fe/Zn12//C		●	●			
Zinc Coating thickness	Micron	8 ~ 12	8 ~ 12	8 ~ 12		8 ~ 12
Passivation film thickness	nm	200-400	200-400			
Colour appearance		Light iridescence (Silver)	Iridescence (Yellow)	Iridescence copper	Copper coloured	Aluminium Coloured
NSS neutral salt spray White Rust (Minimum) Corrosion Stability	Hours	120	120	120		
NSS neutral salt spray Red Rust (Minimum) Corrosion Stability	Hours	240	240	240		
CE Compliances		●	●	●	●	●
May be used as grounding busbars (PE function) according to IEC 60947-7-2						
Standard length	Metre	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2
Availability in custom cut length	mm	●	●	●	●	●
Box Size (L x H x W)mm	1 metre / 20 pcs.	2 metre / 20 pcs.				
	1020 x 40 x 87	2010 x 40 x 90	●	●	●	●

Mechanical Specification

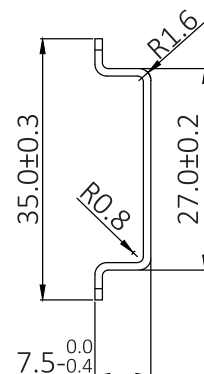
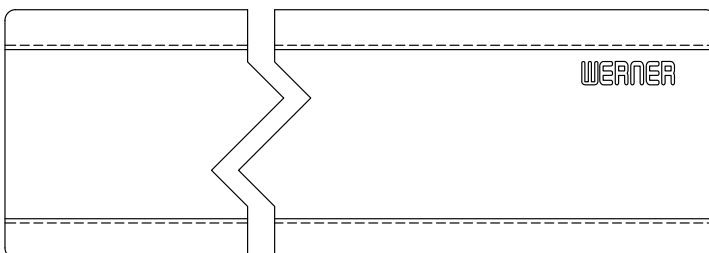
35x7.5mm Un-Perforated Type



35x7.5mm Perforated Type

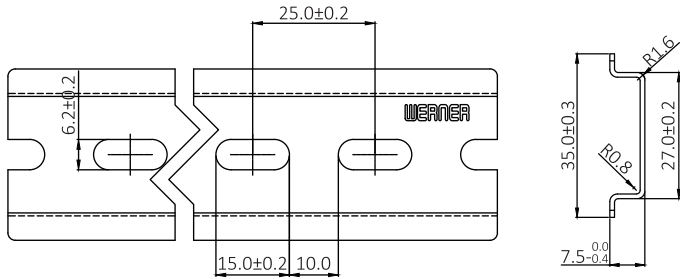


35x7.5mm Un-Perforated

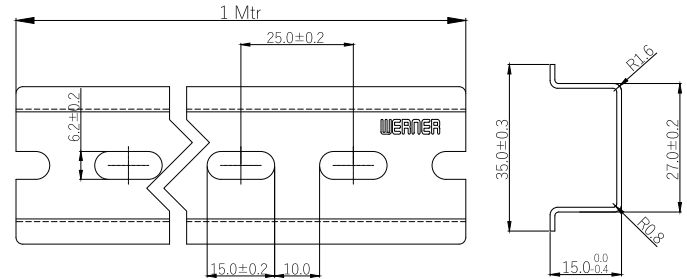


Mechanical Specification

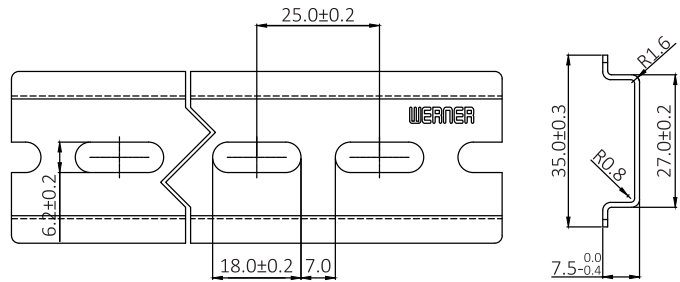
35x7.5 mm M6 Perforated 15mm slot



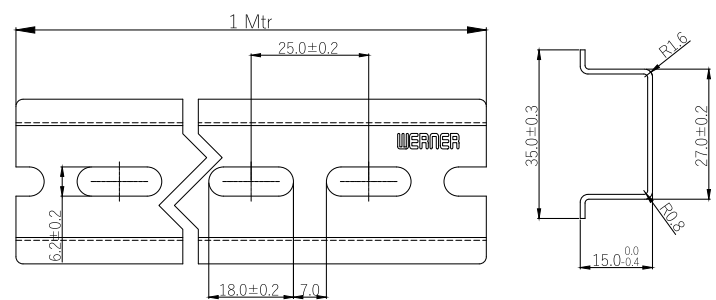
35x15 mm M6 Perforated 15mm slot



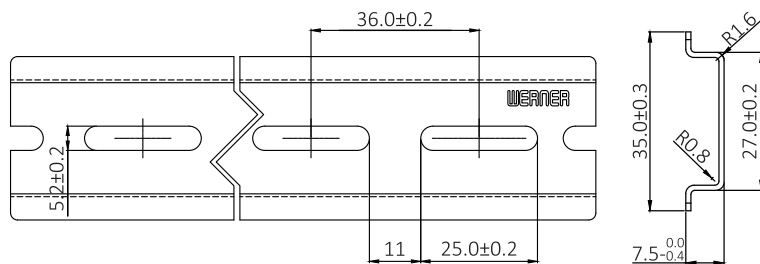
35x7.5 mm M6 Perforated 18mm slot



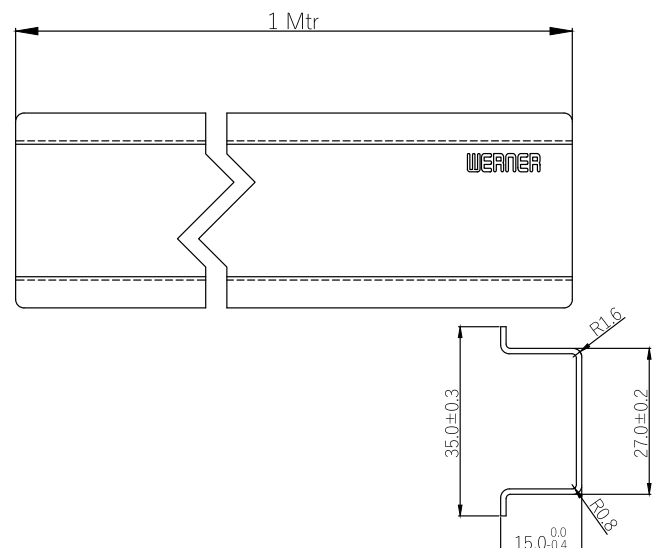
35x15 mm M6 Perforated 18mm slot



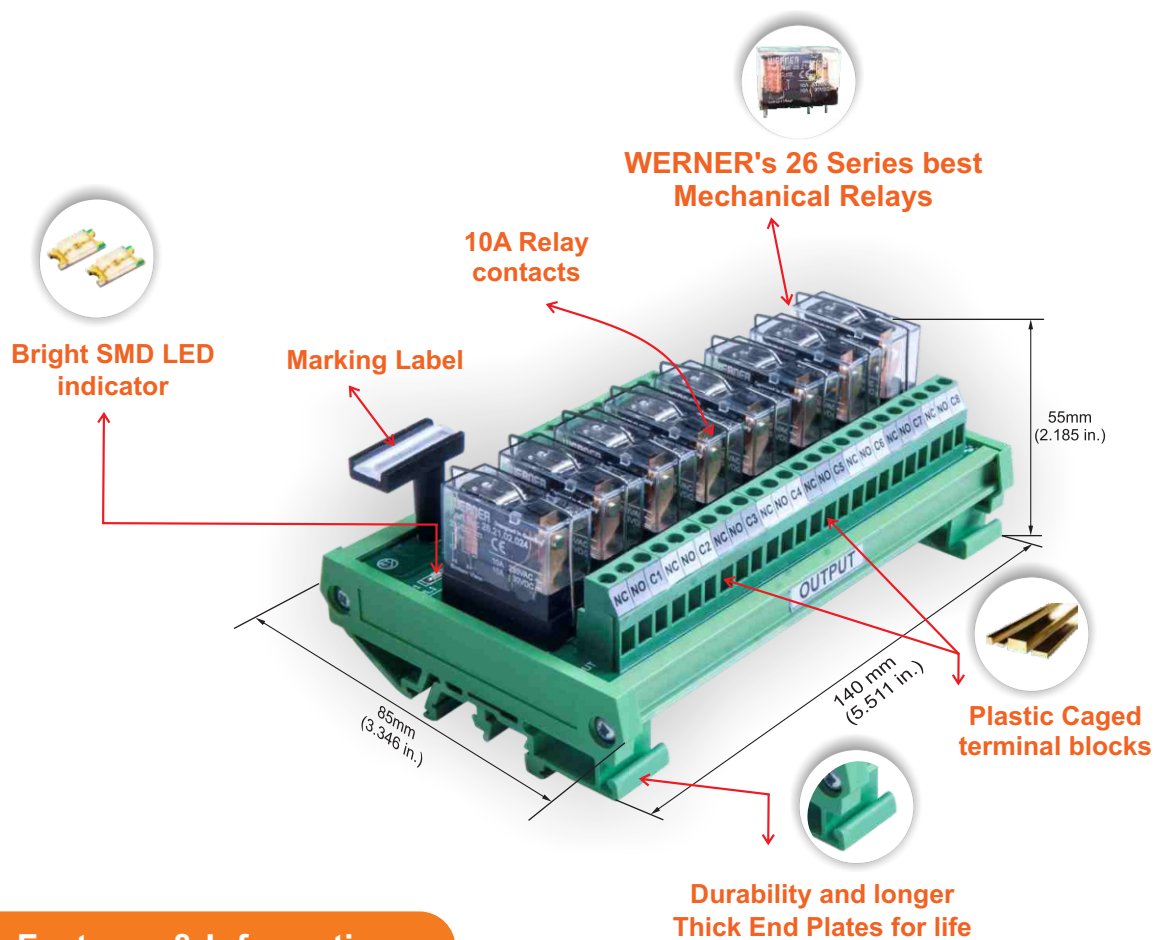
35x7.5 mm M5 Perforated 25mm slot



35x15 mm Un-Perforated



WIN Series Relay Interface Modules



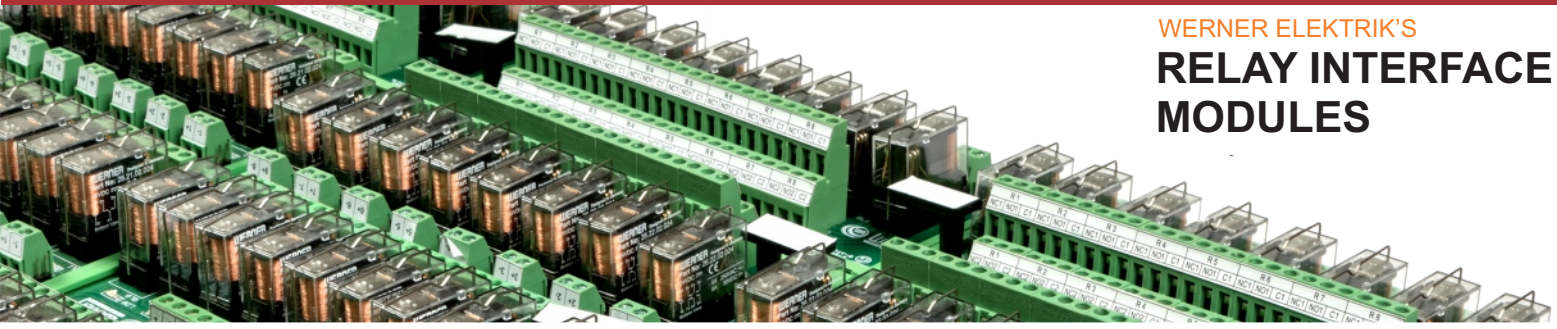
Main Features & Information

- Insured and uninsured product options available.
- Product terminals with brass cage are terminal blocks
- Bright SMD LED indicator
- Thick for durability and longer life tip plates.
- For more detailed information and order You can contact our representatives.

NOTE: For detailed technical information about the products, you can review the product data on the pages...

WIN Series Relay Interface Modules

WERNER ELEKTRIK'S RELAY INTERFACE MODULES

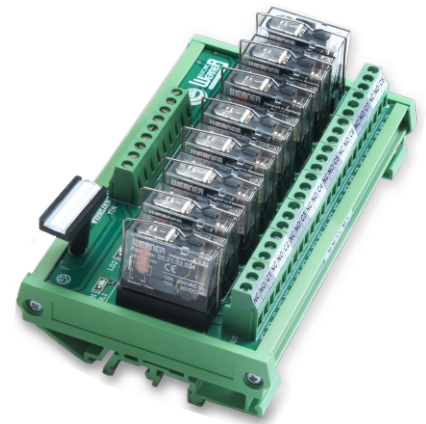


24 VDC Relays with base

Description	Type	Unit – LP ₹	Std Pkg (nos.)
1Ch 1C/O 24V Relay Board Individual Jumper	WIN311010D024B	217.50	1
2Ch 1C/O 24V Relay Board Individual Jumper	WIN311020D024B	244.00	1
1Ch 2C/O 24V Relay Board Individual Jumper	WIN312010D024B	351.80	1
2Ch 2C/O 24V Relay Board Individual Jumper	WIN312020D024B	405.00	1
4Ch 1C/O 24V Relay Board Common Positive	WIN211040D024B	954.50	1
4Ch 1C/O 24V Relay Board Common Negative	WIN111040D024B	954.50	1
4Ch 1C/O 24V Relay Board Individual Jumper	WIN311040D024B	990.00	1
8Ch 1C/O 24V Relay Board Common Positive	WIN211080D024B	1454.00	1
8Ch 1C/O 24V Relay Board Common Negative	WIN111080D024B	1454.00	1
8Ch 1C/O 24V Relay Board Individual Jumper	WIN311080D024B	1485.00	1
8Ch 2C/O 24V Relay Board Common Positive	WIN212080D024B	1937.00	1
8Ch 2C/O 24V Relay Board Common Negative	WIN112080D024B	1936.00	1
8Ch 2C/O 24V Relay Board Individual Jumper	WIN312080D024B	1980.00	1

230 VAC Relays with base

1Ch 1C/O 230V AC Relay Board Individual Jumper	WIN311010A230B	349.60	1
2Ch 1C/O 230V AC Relay Board Individual Jumper	WIN311020A230B	617.00	1
1Ch 2C/O 230V AC Relay Board Individual Jumper	WIN312010A230B	378.50	1
2Ch 2C/O 230V AC Relay Board Individual Jumper	WIN312020A230B	676.00	1
4Ch 1C/O 230V AC Relay Board Individual Jumper	WIN311040A230B	1460.80	1
4Ch 2C/O 230V AC Relay Board Individual Jumper	WIN312040A230B	1928.00	1
8Ch 1C/O 230V AC Relay Board Individual Jumper	WIN311080A230B	2719.50	1
8Ch 2C/O 230V AC Relay Board Individual Jumper	WIN312080A230B	2970.00	1

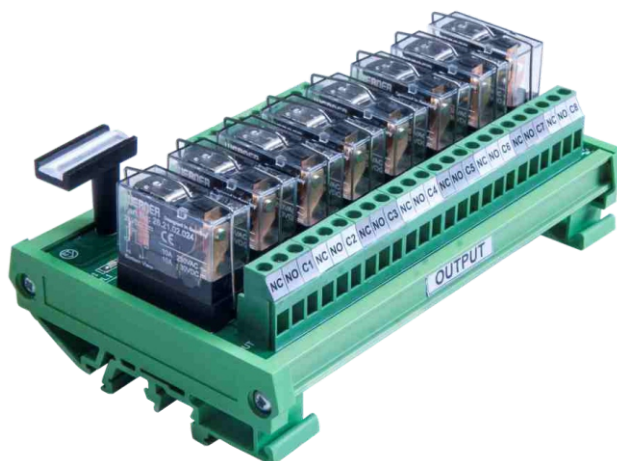


110 VAC Relays with base

1Ch 1C/O 110V AC Relay Board Individual Jumper	WIN311010A110B	319.60	1
2Ch 1C/O 110V AC Relay Board Individual Jumper	WIN311020A110B	534.00	1
1Ch 2C/O 110V AC Relay Board Individual Jumper	WIN312010A110B	354.00	1
2Ch 2C/O 230V AC Relay Board Individual Jumper	WIN312020A110B	593.80	1
4Ch 1C/O 110V AC Relay Board Individual Jumper	WIN311040A110B	1460.80	1
4Ch 2C/O 110V AC Relay Board Individual Jumper	WIN312040A110B	1928.00	1
8Ch 1C/O 110V AC Relay Board Individual Jumper	WIN311080A110B	2719.50	1
8Ch 2C/O 110V AC Relay Board Individual Jumper	WIN312080A110B	2970.50	1

WIN Series Relay Interface Modules

Relay Interface Modules – Product Selection Table



WIN 1 1 1080 D 024

Series	
WIN	

Input Type	
1	Common Negative
2	Common Positive
3	Individual with Jumper

Output Type	
1	Individual Output

Change Over	
1	1 Change Over
2	2 Change Over
4	4 Change Over

Coil Voltage	
012	12VDC
024	24VDC
048	48VDC
110	110VDC
230	230VDC

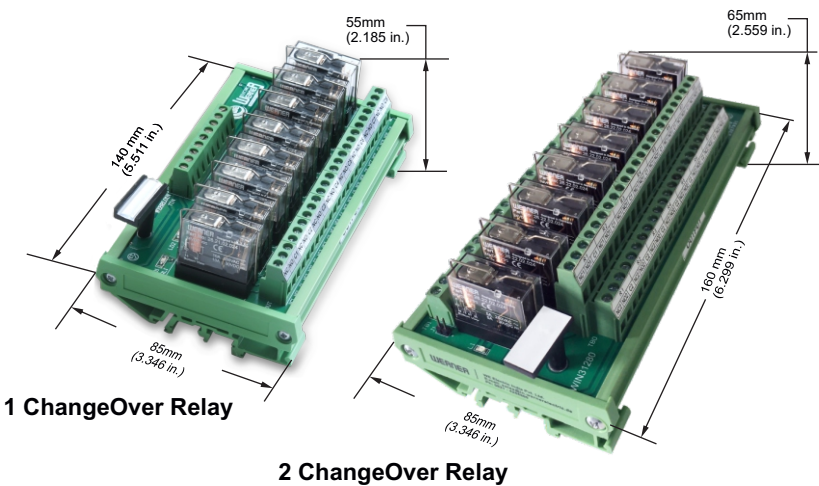
Voltage Type	
A	AC
D	DC

With Fuse	
1	With fuse
0	Without fuse

Channel	
01	1 Channel
02	2 Channel
04	4 Channel
06	6 Channel
08	8 Channel
16	16 Channel
32	32 Channel

Contact Ratings		
Wire Range	Current	Voltage
0.5-4mm ² 30-14 AWG	8A	240VAC/ 30VDC

Contact Ratings		
Wire Range	Current	Voltage
0.5-4mm ² 30-14 AWG	12A	240VAC/ 30VDC



1, 2, 4, 6, 8, 16, and 36 Channels



Bright SMD LED indicator



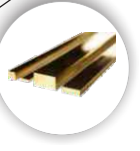
WERNER's 26 Series best Mechanical Relays



10A Relay contacts



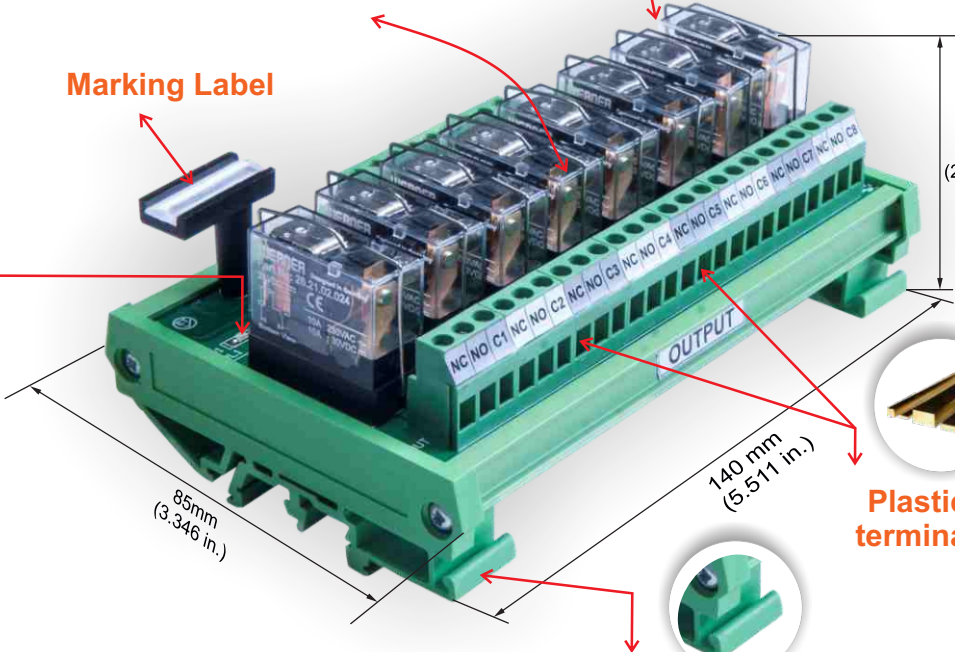
Marking Label



Plastic Caged terminal blocks



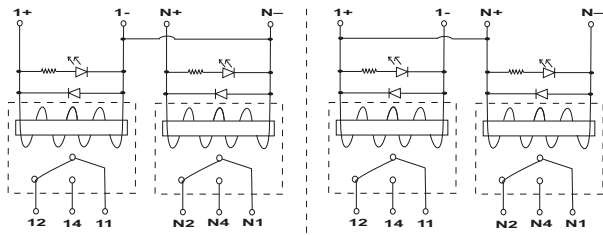
Durability and longer Thick End Plates for life



Wiring Diagram

1 ChangeOver Relay Modules 1,2,4,6,8 & 16 Channels

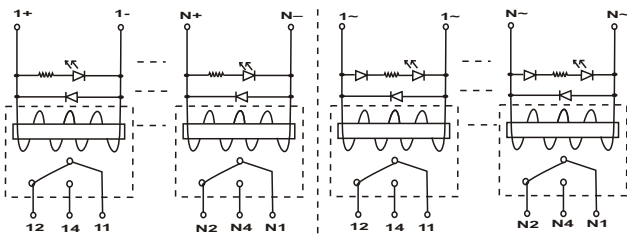
MODULE CIRCUIT



2=NEGATIVE LOOPING

1=POSITIVE LOOPING

N= 2, 4, 6, 8 & 16

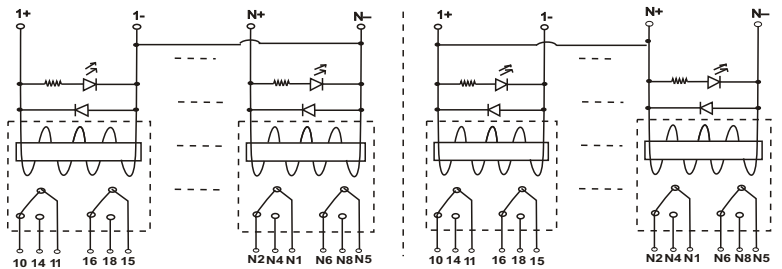


0=Bussed Individual

3=CONFIGURATION AC VOLTAGE

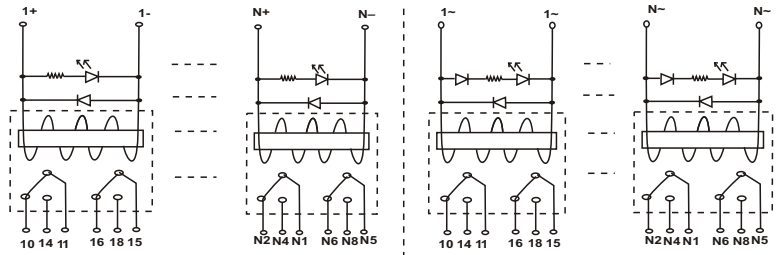
2 ChangeOver Relay Modules 1,2,4,6,8 & 16 Channels

MODULE CIRCUIT



2=NEGATIVE LOOPING

1=POSITIVE LOOPING



0=Bussed Individual

3=CONFIGURATION AC VOLTAGE

Contact Specification

Single Change Over Relay Modules: 5A

Relay Socket: 12A
Terminal Blocks: 10A
PCB Trace for Contact Circuit
At 30°C (86°F) temperature rise NC: 5A
Common and NO: 5A
PCB Trace for Coil Circuit: 2A
At 30°C (86°F) temperature rise

Double Change Over Relay Modules: 2 x 5A

Relay Socket: 8A
Terminal Blocks: 12A
PCB Trace for Contact Circuit: 5A
At 30°C (86°F) temperature rise: 5A
PCB Trace for Coil Circuit: 2A
At 30°C (86°F) temperature rise

Relay Specification

AC Coil Ratings

Voltage	Rated Current (mA) AC 60Hz	Coil Resistance (Ω)	Power Consumption (VA)	Operation Properties		
				Continuous Voltage	Pickup Voltage	Dropout Voltage
6V	150	16	Approx. 0.90	110% max. at 70°C (158°F)	80% max.	30% min.
12V	75	65				
24V	37.50	260				
110V	10.60	4600				
120V	7.50	6500				
220V	4.1	25000				
240V	5.30	30000				

±15% at 20°C

DC Coil Ratings

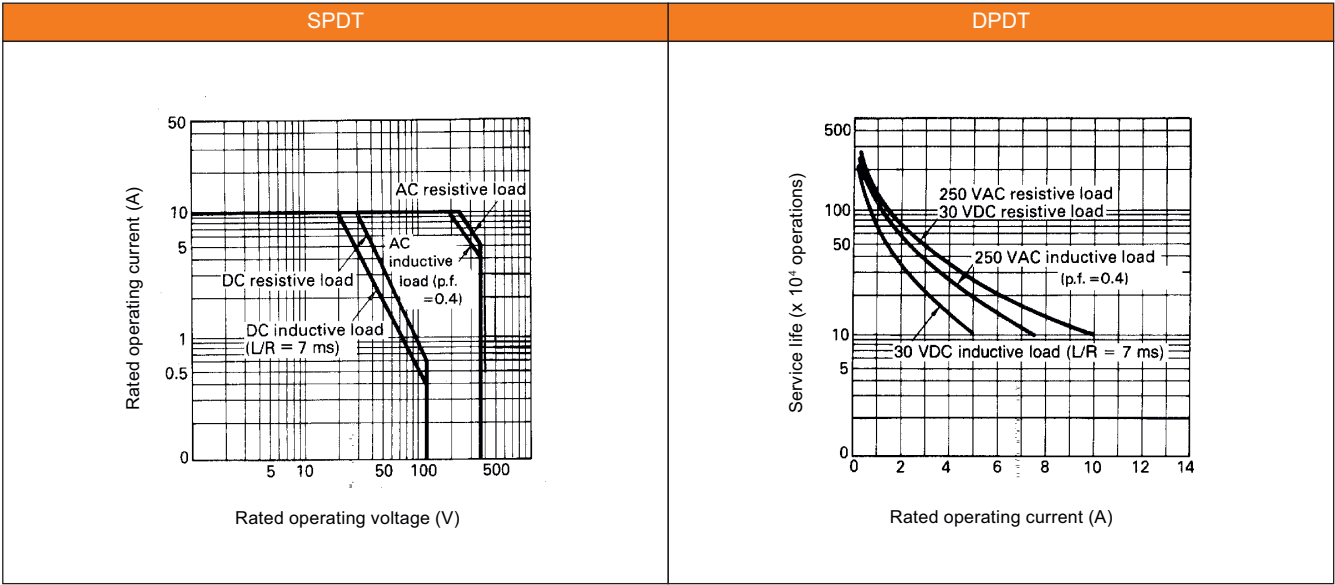
Voltage	Rated Current (mA)	Coil Resistance (Ω)	Power Consumption (mW)	Operation Properties		
				Continuous Voltage	Pickup Voltage	Dropout Voltage
6V	88.20	68	Approx. 530	110% max. at 70°C (158°F)	70% max.	15% min.
12V	43.60	275				
24V	21.80	1,100				
48V	11.50	4,170				
110V	4.80	22,900				

±15% at 20°C

Weight

Model No.	26.21 (SPDT)	26.22 (DPDT)	26.23 (SPST-NO)	26.24 (DPST-NO)
Weight (approx.)	17g	18g	15g	16g

Relay Electrical Characteristics



91 Series Terminal Boxes



Materiel:

Enclosure :Sheet Steel

Cover : Sheet steel, all round foamed-in PU seal.

Surface finish:

Enclosure & Cover: Washing & phosphate Undercoat Structure finish.

Colour:

RAL 7035

Protection Category IP:

IP55 & IP66

Product Content

- Cover plugs and dummy screw connection including plugs elements.
- The products are without mounting plate.
- With Gland Plate or fitting order without plate can be done.

NOTE: For detailed technical information about the products, you can review the product data on the pages...

91 Series Terminal Boxes



91 Series Terminal Boxes

WERNER ELEKTRIK'S
Terminal Boxes

Effortless wall-mounting thanks to rear panel with holes, prepared for wall mounting bracket or direct mounting.

Perfect protection from multi-folded enclosure protection channel preventing the ingress of dirt and water when the door is opened.

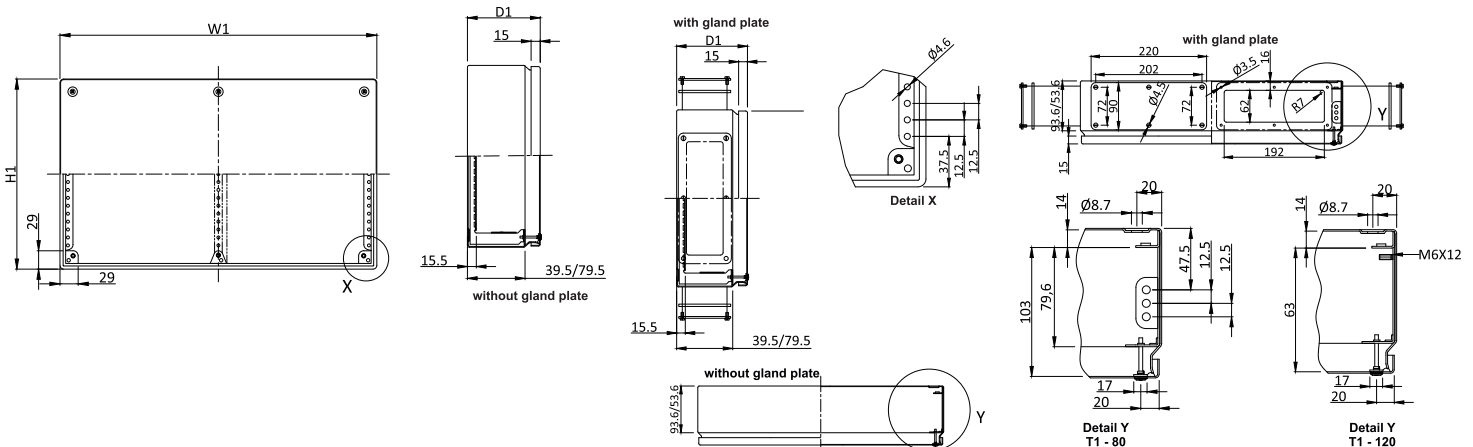
Maximum flexibility in cable routing (only for housings with gland plate), as the sheet steel gland plates for self-population can be exchanged for various pre-punched plates.

Safe earthing to any side via earthing bracket in the cover and shaped earthing legs in all four corners of the housing.

For RAL 7044 lined boards, please add the extension .800 to the Model No. For textured RAL 7035, use the .500 extension.

Width (W1) mm	Height (H1) mm	Depth (D1) mm	Model No. With out gland plate	Unit—LP ₹	Type	Model No. With gland plate	Unit—LP ₹	Type
150	150	80	91.1514.510	1413	Stock	91.1524.510	1465	Non Stock
200	150	80	91.1528.510	1470	Stock	—	—	—
200	200	80	91.1516.510	1589	Stock	—	—	—
300	150	80	91.1515.510	1661	Non Stock	91.1525.510	1725	Non Stock
300	200	80	91.1517.510	1737	Stock	91.1527.510	1800	Non Stock
400	200	80	91.1518.510	1845	Non Stock	—	—	—
600	200	80	91.1519.510	2362	Non Stock	—	—	—
150	150	120	91.1500.510	1562	Stock	91.1520.510	1620	Non Stock
200	150	120	91.1529.510	1257	Stock	—	—	—
200	200	120	91.1502.510	1805	Stock	—	—	—
300	150	120	91.1501.510	1854	Stock	91.1530.510	2220	Stock
300	200	120	91.1503.510	2012	Stock	91.1531.510	2160	Stock
300	300	120	91.1507.510	2403	Stock	91.1535.510	3900	Stock
400	150	120	91.1589.510	1725	Stock	—	—	—
400	200	120	91.1504.510	1678	Stock	91.1532.510	2380	Stock
400	300	120	91.1508.510	2660	Stock	91.1536.510	3170	Non Stock
400	400	120	91.1511.510	3128	Stock	91.1539.510	4480	Non Stock
500	200	120	91.1505.510	2741	Stock	91.1533.510	3370	Stock
500	300	120	91.1509.510	3047	Stock	91.1537.510	4980	Non Stock
600	200	120	91.1506.510	3065	Non Stock	91.1534.510	3745	Non Stock
600	300	120	91.1510.510	3746	Non Stock	91.1538.510	5343	Non Stock
600	400	120	91.1512.510	4113	Non Stock	91.1540.510	5985	Non Stock
800	200	120	91.1527.510	4334	Non Stock	91.1542.510	4780	Non Stock
800	400	120	91.1513.510	5274	Non Stock	91.1541.510	7461	Non Stock

Note: Non Stock (Min. batch qty. 10 nos)



92 Series Electronic Boxes



Material

Enclosure : Sheet Steel

Cover: Sheet steel, all round foamed-in PU seal.

Surface finish

Enclosure & Cover: Washing & phosphate Undercoat Structure finish.

Colour

RAL 7035

Protection Category IP

IP55 & IP66

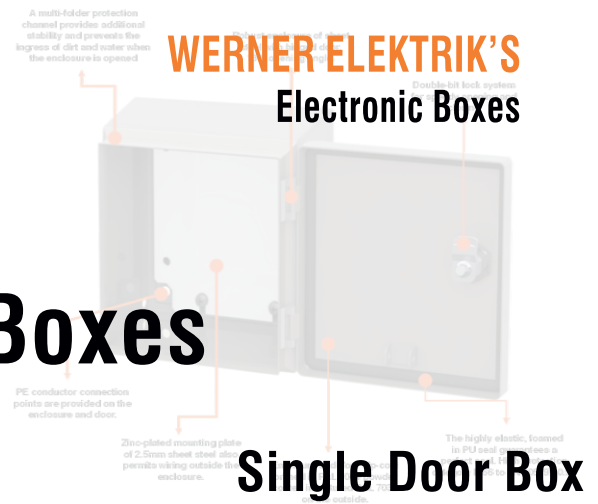
Product Content

- Cover plugs and dummy screw connection including plugs elements.
- The products are without mounting plate.
- With Gland Plate or fitting order without plate can be done.

92 Series Electrical Boxes



92 Series Electronic Boxes



For primed enclosures in RAL 7044, please add extension .800 to the Model No. For textured RAL 7035, use extension .500.

Model No.	Width dimensions mm	Height dimensions mm	Depth dimensions mm	Mounting plate dimensions mm		Unit—LP ₹	Type
	B1	H1	T1	F1	G1		
92.1551.500	150	150	80	125	135	1677	Stock
92.1545.500	150	300	80	125	285	2650	Non Stock
92.1546.500	200	200	80	175	185	1908	Non Stock
92.1552.500	200	300	80	175	285	2400	Non Stock
92.1547.500	200	400	80	175	385	3073	Non Stock
92.1553.500	150	150	120	125	135	1727	Stock
92.1548.500	150	300	120	125	285	2710	Non Stock
92.1549.500	200	200	120	175	185	2078	Stock
92.1554.500	200	300	120	175	285	2239	Stock
92.1550.500	200	400	120	175	385	2611	Stock
92.1555.500	300	300	120	275	285	2550	Stock
92.1556.500	300	400	120	275	385	3070	Stock
92.1557.500	200	500	120	175	485	3605	Stock
92.1577.500	300	400	155	275	385	3435	Stock
92.1578.500	300	600	155	275	585	4890	Stock
92.1579.500	300	800	155	275	785	5724	Stock

Note: For IP66 price kindly contact our local Sales Engineer

Note: Non Stock (Min. batch qty. 10 nos)

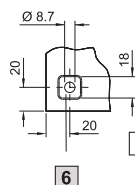
Type	Model No.	Unit—LP ₹
Set of Wall Mounting bracket (small)	92.WMB.S	180
Set of Wall Mounting bracket (big)	92.WMB.B	200
Set of Wall Mounting bracket Kit 20mm	92.WMB.20	300

1 For 92.1557.500/
92.1578.500 / 92.1579.500
two locks

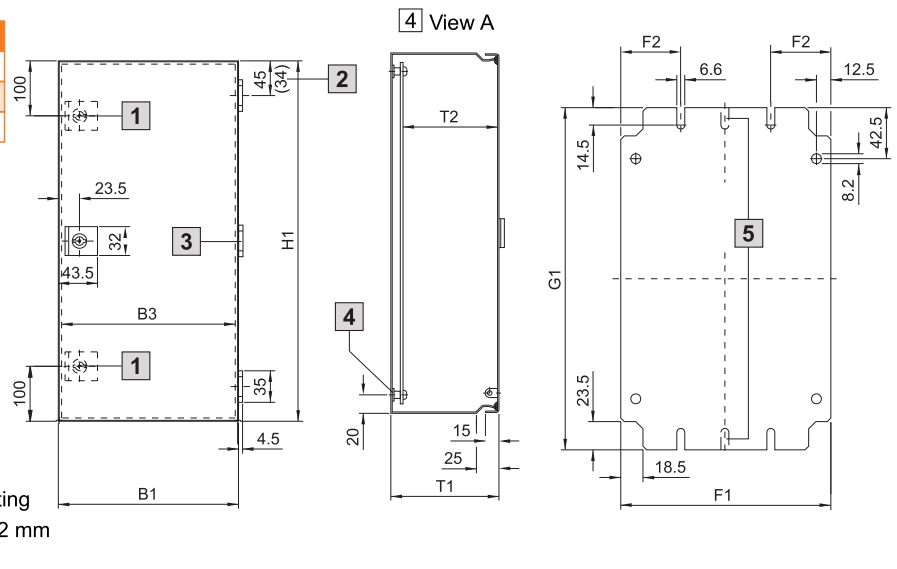
2 For 92.1551.500
& 92.1553.500

3 Only for 92.1579.500

5 For 125mm wide mounting
plates, attachment is in the
centre only



View A
for wall mounting
6 Knockout 2 mm
recessed



94 Series Electrical Panels & Boxes



Material

Enclosure :Sheet Steel

Cover: Sheet steel, all round foamed-in PU seal.

Surface finish

Enclosure & Cover:Washing & phosphate Undercoat Structure finish.

Colour

RAL 7035

Protection Category IP

IP55

Product Content

- Enclosure with hinged door 120°, 180° & dummy plugs.
- Cam lock arrangement with Mouniting plate, with gland plate.

94 Series Terminal Boxes



WERNER ELEKTRIK'S
Electronic Enclosure

94 Series Electronic Enclosure

To order, textured RAL 7032 boards, please add extension .600 to Model No. and use extension .800 for primed boards. Delivery times available on request.

Model No.	Width (W1) mm	Height (H1) mm	Depth (D1) mm	Unit—LP ₹ IP-55
94.1221.500	200	200	155	3002
94.1222.500	200	300	120	3461
94.1223.500	200	300	155	3434
94.1224.500	250	300	155	3567
94.1225.500	300	300	155	3848
94.1226.500	300	300	210	4100
94.1227.500	300	400	155	4275
94.1228.500	300	400	210	4797
94.1229.500	380	300	155	4050
94.1230.500	380	300	210	4150
94.1231.500	380	380	210	4550
94.1232.500	400	300	155	4190
94.1233.500	400	300	210	4700
94.1234.500	400	400	155	4800
94.1235.500	400	400	210	5085
94.1236.500	400	500	155	5550
94.1237.500	500	600	210	7780
94.1238.500	500	700	300	10150
94.1239.500	600	400	210	6895
94.1240.500	600	400	350	9413
94.1241.500	380	600	210	6350
94.1242.500	380	600	350	6650
94.1243.500	400	500	210	5982
94.1244.500	400	600	210	6764
94.1245.500	400	800	300	10550
94.1246.500	500	500	210	6764
94.1247.500	500	500	300	7560
94.1248.500	500	700	250	8820
94.1249.500	600	500	210	7995
94.1250.500	600	600	210	8317
94.1251.500	600	600	250	8850
94.2125.500	600	600	300	9998
94.1252.500	600	600	350	10250
94.1253.500	600	700	210	10450
94.1254.500	600	760	210	10480
94.1255.500	600	760	350	11500
94.1256.500	600	800	250	10100
94.1257.500	600	800	300	11500
94.1258.500	600	1000	250	11150

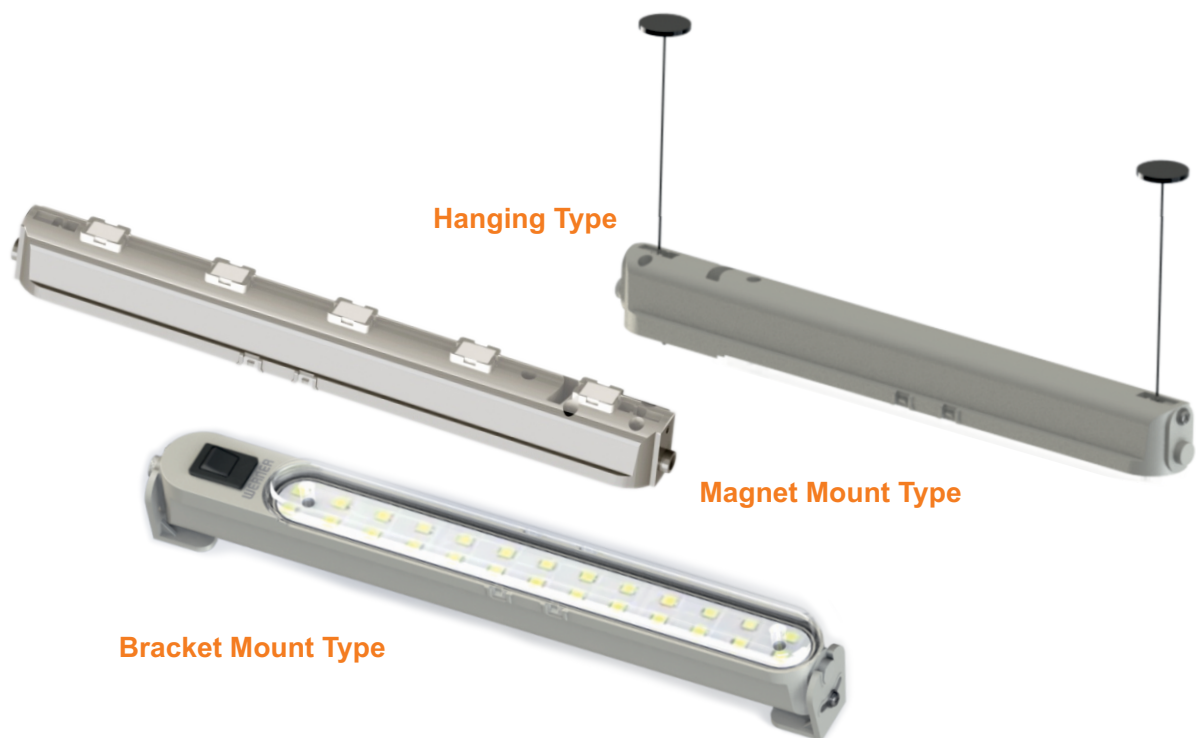
Model No.	Width (W1) mm	Height (H1) mm	Depth (D1) mm	Unit—LP ₹ IP-55
94.1259.500	600	1000	300	14378
94.1260.500	760	760	210	11350
94.1261.500	760	760	300	11550
94.1262.500	800	800	300	13420
94.1263.500	800	600	300	11600
94.1264.500	800	1000	200	14950
94.1265.500	800	1000	250	15250
94.1268.500	800	1000	300	15450
94.1269.500	800	1200	300	19250
94.2109.500 DD	760	1000	210	14580
94.2110.500 DD	760	1000	300	18405
94.2111.500 DD	1000	1000	300	21498
94.2121.500	600	1200	300	15240
94.2123.500 DD	1000	1200	300	24720
94.2124.500 DD	1000	1400	300	29560

Note:- 94.2121.500, 94.1269.500 are (Single Door with 3Point Lock)
94.2123.500, 94.2124.500 are (Double Door with 3Point Lock)
DD (Double Door)

Type	Model No.	Unit—LP ₹
Set of Wall Mounting bracket (small)	92.WMB.S	200
Set of Wall Mounting bracket (big)	92.WMB.B	220
Set of Wall Mounting bracket Kit 20mm	92.WMB.20	340

Note: For IP66 price kindly contact our local Sales Engineer

35 Series LED Panel Light



Main Features & Information

- Maintain 2.5KV ripple and 4KV EFT
- Cascading options available
- 600 angle rotating panel mounting.
- IP 54
- 50,000 Hours long life
- Available xxxtwo Black and White colors
- High Brightness

NOTE: For detailed technical information about the products, you can review the product data on the pages...

35 Series LED Panel Light

Hanging Type



Bracket Mount Type

Magnet Mount Type

WERNER ELEKTRIK'S

35 Series
LED PANEL LIGHT

Black

White

Grey

LED Panel Light with On-OFF Switch, White Housing

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Clear Lens	024VDC	35.11.024	780	35.31.024	897
	110VAC	35.11.110	780	35.31.110	897
	240VAC	35.11.240	780	35.31.240	897

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Diffuser Lens	024VDC	35.21.024	780	35.31.024	897
	110VAC	35.21.110	780	35.31.110	897
	240VAC	35.21.240	780	35.31.240	897

Led Panel Light with ON-OFF Switch, White Housing with Cascading Unit with 1 mtr Wire

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Clear Lens	024VDC	35.11.024.1	1660	35.31.024.2	1893
	110VAC	35.11.110.1	1660	35.31.110.2	1893
	240VAC	35.11.240.1	1660	35.31.240.2	1893

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Diffuser Lens	024VDC	35.21.024.1	1660	35.41.024.2	1893
	110VAC	35.21.110.1	1660	35.41.110.2	1893
	240VAC	35.21.240.1	1660	35.41.240.2	1893

LED Panel Light with On-OFF Switch, Black Housing

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Clear Lens	024VDC	35.12.024	780	35.32.024	897
	110VAC	35.12.110	780	35.32.110	897
	240VAC	35.12.240	780	35.32.240	897

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Diffuser Lens	024VDC	35.22.024	780	35.32.024	897
	110VAC	35.22.110	780	35.32.110	897
	240VAC	35.22.240	780	35.32.240	897

Led Panel Light with ON-OFF Switch, Black Housing with Cascading Unit with 1 mtr Wire

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Clear Lens	024VDC	35.12.024.1	1660	35.32.024.2	1893
	110VAC	35.12.110.1	1660	35.32.110.2	1893
	240VAC	35.12.240.1	1660	35.32.240.2	1893

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Diffuser Lens	024VDC	35.22.024.1	1660	35.42.024.2	1893
	110VAC	35.22.110.1	1660	35.42.110.2	1893
	240VAC	35.22.240.1	1660	35.42.240.2	1893

35 Series LED Panel Light

LED Panel Light with On-OFF Switch, Grey Housing

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Clear Lens	024VDC	35.13.024	780	35.33.024	897
	110VAC	35.13.110	780	35.33.110	897
	240VAC	35.13.240	780	35.33.240	897

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Diffuser Lens	024VDC	35.23.024	703	35.33.024	897
	110VAC	35.23.110	703	35.33.110	897
	240VAC	35.23.240	703	35.33.240	897

Led Panel Light with ON-OFF Switch, Grey Housing with Cascading Unit with 1 mtr Wire

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Clear Lens	024VDC	35.13.024.1	1660	35.33.024.2	1893
	110VAC	35.13.110.1	1660	35.33.110.2	1893
	240VAC	35.13.240.1	1660	35.33.240.2	1893

Housing Type	Voltage	Part No. (With Bracket)	MRP (Per Unit)	Part No. (With Magnet)	MRP (Per Unit)
Diffuser Lens	024VDC	35.23.024.1	1660	35.43.024.2	1893
	110VAC	35.23.110.1	1660	35.43.110.2	1893
	240VAC	35.23.240.1	1660	35.43.240.2	1893

35 Series LED Panel Light

LED Panel Lightings – Product Selection Table



35.11.024

Series	
35 Series LED Panel Light	

Housing Type	
1	Clear lens
2	Diffuser lens
3	Magnet Mount with Clear lens
4	Magnet Mount with Diffuser lens

Input Voltage	
024	24V DC
110	110V AC
240	240V AC

Housing Colour (Only for palstic type)	
1	White
2	Black
3	Grey

Terms And Conditions

Please read this catalog before purchasing any products. Please consult your *WERNER* representative for any clarifications or comments.

Application Considerations

WERNER shall not be responsible for conformity with any regulations, codes or standards that apply to use of the products. *WERNER* shall provide applicable third party certification documents identifying ratings and limitations of use that apply to the products in case of the customer's request.

Prevent use the products for an application involving risk to life or property. Be sure that the *WERNER*'s products are properly rated and installed for the overall system or equipment.

WERNER shall not be responsible for the user's programming of a programmable products.

Warranty

WERNER's warranty represents that the products are free from defects in materials and workmanship for a period of one year.

WERNER shall not be responsible for any special loss of profit, commercial loss, indirect or consequential damages relevant to products.

WERNER shall not be responsible for repair, warranty or any claims regarding the products unless *WERNER*'s Analysis confirm that the products were properly stored, installed, handled, maintained and not a result of accident, insufficient, abuse, misuse, natural disaster, improper installation excessive electrical supply, environmental conditions or abnormal mechanical.

Disclaimers

WERNER shall practice to change type/model numbers when published ratings or features are changed, however some specifications of the products may be changed without any notice.

When in doubt, please consult with your *WERNER* representative to confirm actual specifications of products.

WERNER shall change product specifications and accessories at any time based on improvements and other reasons.

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WERNER

Inventing Innovation...

Living Industrial Partnerships

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