

## Actuators and indicators

Actuators and indicators are used in control circuits for direct and remote management of operations, vital for industries, commercial establishments and domestic installations. The range offers reliability, critical to operational control, together with flexibility so important to panel assemblers, with the standardised modular construction. The actuators and indicators together with contact blocks, bulb holders and integral indicators and actuators conform to international standards and are certified to carry the following applicable international certification marks.

### Advantages:

- All Actuators and Indicators except Integral Indicators and LED Indicators are supplied with First Row Clip as shown
- The Actuator and Indicator fronts are IP65 and IP67 with shroud, except Illuminated Symmetric Head, Lever Head, Tip Head and Lock & Key types due to their inherent construction
- The key is withdrawable in 'O' position for Lock & Key Head Actuators as a standard feature; key withdrawable in other positions is available on request
- Symmetrical Head, Lever Head and Lock & Key Actuators are supplied with anti rotation ring (for mounting, see drill plan in continuation)
- For Projecting Head "Push-Push" Actuator, cascading with Side Row Clip or Second Row Clip is not recommended
- The Integral Indicators are suitable for 6V/12V/24V/48V/110V/240V AC/DC supply and for 2.6W max. bulb.
- The Indicators and Illuminated Actuators do not include bulbs except LED Integral Indicators which include LED light source

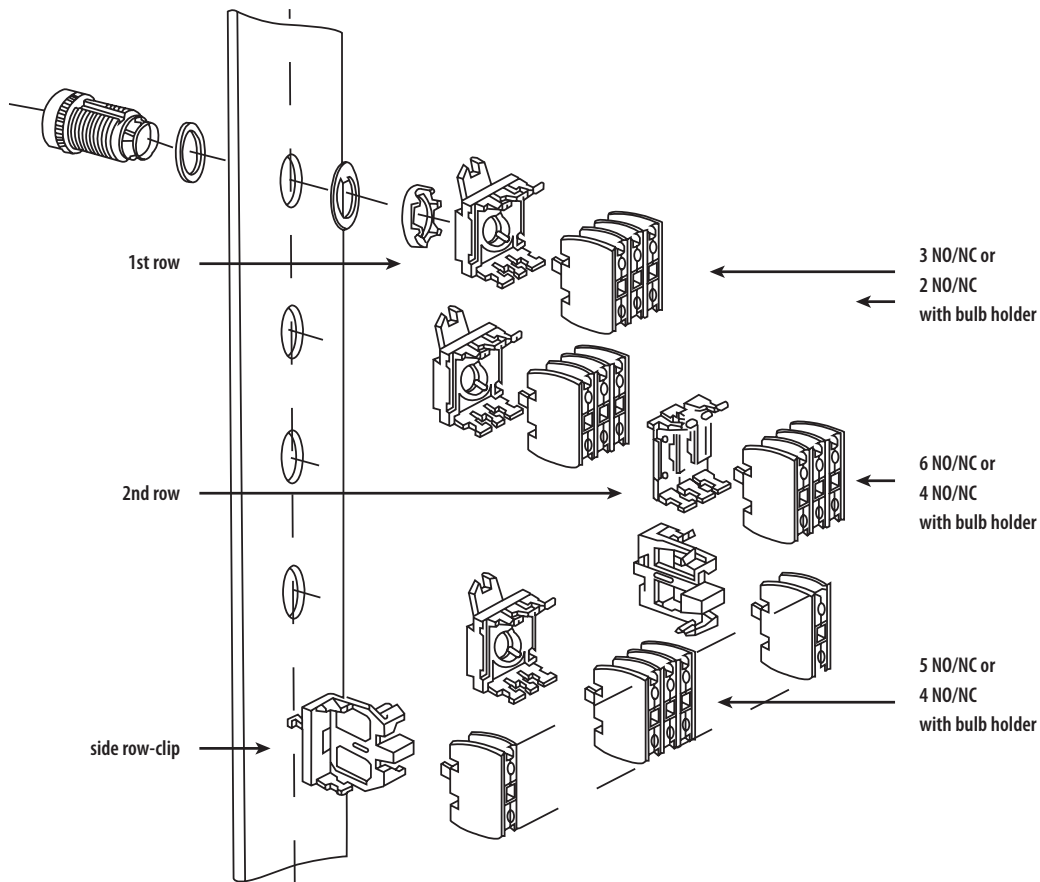
### Actuators, indicators & contact blocks

CE, VDE electrical ratings (IEC 947-3, 947-5-1, VDE 0660 part 200, EN 60947-3, EN 60947-5-1)

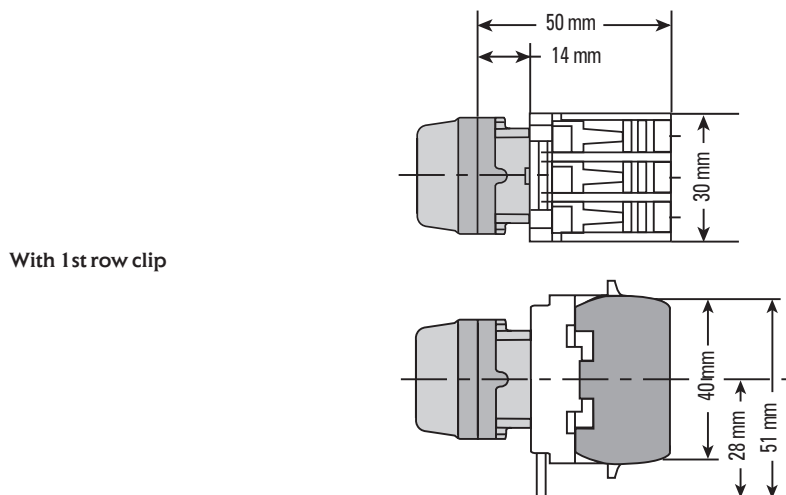
Alternating current (AC)	Rated operational voltage (50-60Hz)	Duty	V	110	230	440	500
	Rated operational current (IEC 947-3)	AC21	A	16	14	11	10
	Rated operational current (IEC 947-5-1)	AC15	A	8	6	3	2
Direct current (DC)	Rated operational voltage	-	V	24	48	11	220
	Rated operational current (IEC 947-5-1)	DC13	A	1,5	1	0,3	0,2
Electrical life at 230 V, 50-60Hz, AC							
Duty	Rated Amps	Operations (x10 <sup>6</sup> )	Duty	Rated Amps	Operations (x10 <sup>6</sup> )		
AC21	6	1	DC13 (24V DC)	1	1		
AC21	1	1,5					
AC15	1						
Contact/Bulb Holder Blocks:	IP 20, Actuators (front): IP 65- IP67 with rubber/vinyl shroud. Twin Touch (front): IP 40, Indicators (front): IP 65						
Operational Temperature Limits (without shroud)	Non-illuminated			-30 ... + 60°C			
	Illuminated			-30 ... + 40°C			
Rated Insulation Voltage:	600V AC						
Dielectric/H.V. Test Voltage:	2,5 kV > for 60 seconds						
Rated thermal current	16Amp with, 2,5 mm <sup>2</sup> flexible conductors						
Mechanical life	up to 3 x 10 <sup>6</sup> operations						
Terminals	Suitable for flexible or solid conductors from 2 x 1 mm <sup>2</sup> to 2 x 2,5 mm <sup>2</sup>						
Disposition of Contacts for Modular Blocks	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; background-color: white; margin-right: 5px;"></span> Contact Open NC  <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; background-color: black; margin-right: 5px;"></span> Contact Close NO                 </div> <div style="margin-right: 10px;">                     NC NO                 </div> <div style="margin-right: 10px;"> </div> </div> <p style="text-align: center;">Stroke (mm) →</p>						
Storage Temperature Limits	-20 to 75°C						

LED integral indicators, compact led integral indicators	
Operating voltage	240V AC, 110V AC, 48V AC/DC, 24 V AC/DC, 12V AC/DC, 50-60 Hz
Nominal consumption	7mA, 9VA max.
Wattage (W)	48V AC/DC : 1,5W, all others <1,0W
Operating range	-20% to +10% of operating voltage
Operating temperature	-10° to +55°
Available colours (max. luminous intensity)	Red (160 lux), green (27 lux), yellow (130 lux), orange (110 lux), blue (215 lux) and white.
Insulation resistance	> 100 Mega ohms at 500VDC
Terminals	Suitable for flexible or solid conductors from 1 mm <sup>2</sup> to 2,5 mm <sup>2</sup>
Dielectric test voltage	> 1,5 kV
Degree of protection	IP 30 for terminal, IP 65 for the front
Life	100,000 burning hours

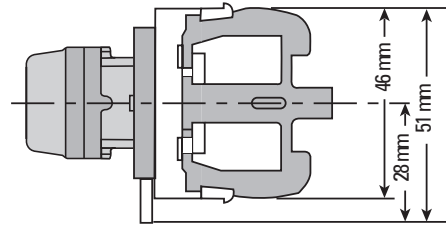
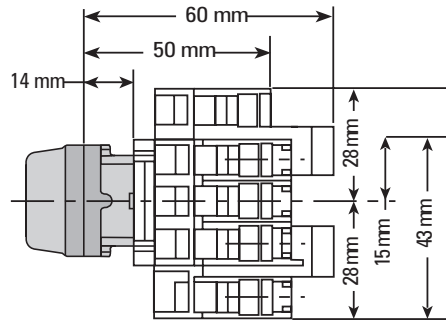
**Mounting possibilities**



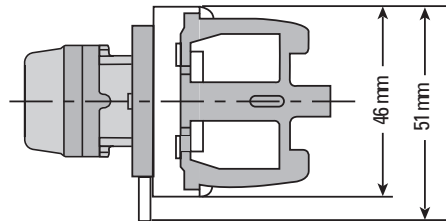
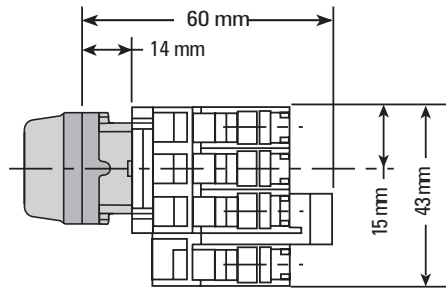
**Actuators with 1st row, side row and 2nd row cascading**



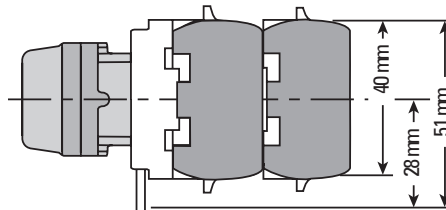
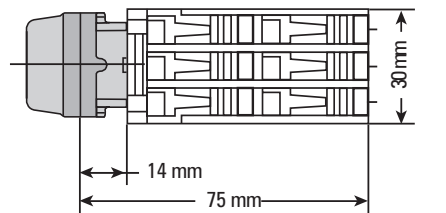
With side row (both sides)



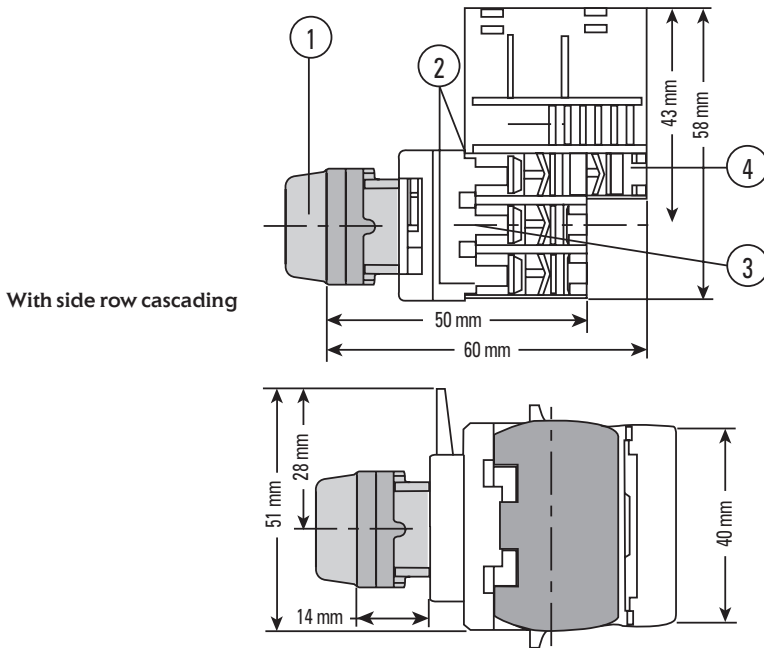
With side row clip on RH/  
LH



With 2nd row clip



**Indicators/actuators with bulb holder and transformer block**



Note:

- 1-Indicator or Illuminated Actuator
- 2-Contact Block NO or NC or Dummy Module
- 3-Bulb Holder Block
- 4-Transformer Block
- 5-Second Row Clip

**Mounting holes for modular block assemblies**

Figure "a"

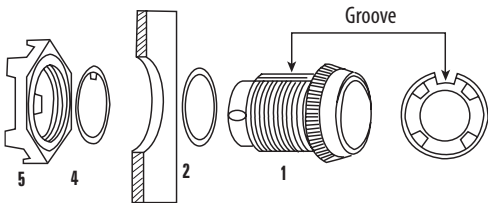


Figure "d"

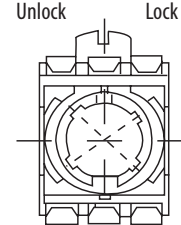


Figure "e"

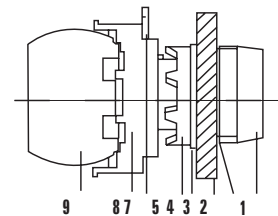


Figure "b"

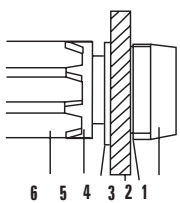


Figure "c"

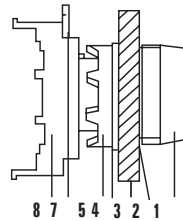


Figure "f"

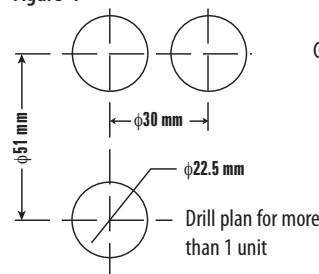
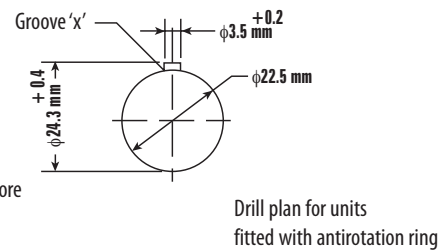


Figure "g"



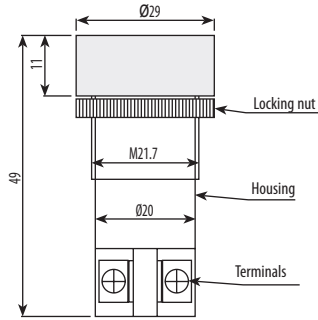
Notes:

1. (figure a&b) Remove the locking nut (5) from the Actuator (1).
2. Insert the Actuator along with the Sealing Ring (2) in panel cutout (3).
3. Orient the key of the antirotation ring (4) (optional) with the groove of the Actuator and insert the projection of the antirotation ring in the groove of panel cutout as shown x in figure g.
4. With the help of fixing device (6) fix the locking nut (5).
5. (figure c&d) Keep the locking lever (7) of the First Row Clip (8) in unlocking position.
6. Insert the First Row Clip on the Actuator. Ensure that the projection of First Row Clip is oriented with groove of Actuator.
7. Turn Locking Lever to Lock Position.
8. (figure e) Fix the modular blocks (9) into the First Row Clip (8) by just pushing to snap fit.

**Integral actuators and indicators**

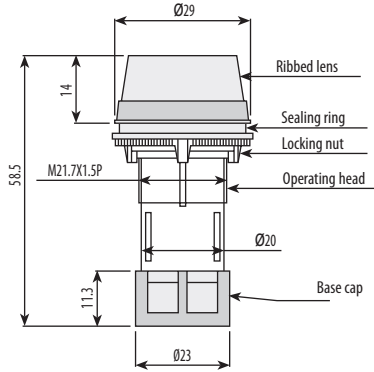
**Compact Integral Actuators**

**Series TN**



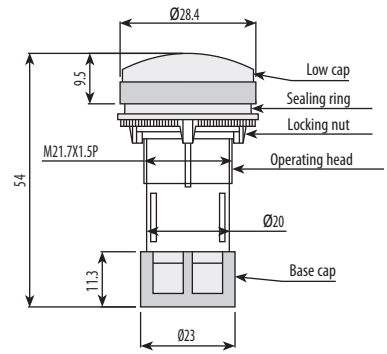
**Compact Integral LED Indicators & Compact Integral Indicators**

**Series TL, TM, TS**



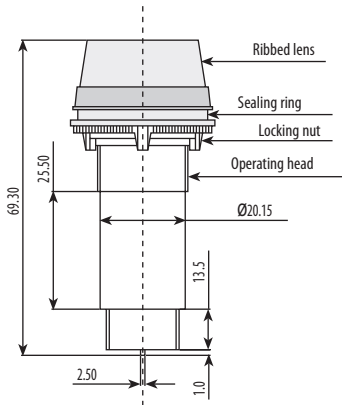
**Compact Integral LED Indicators**

**Series TT**



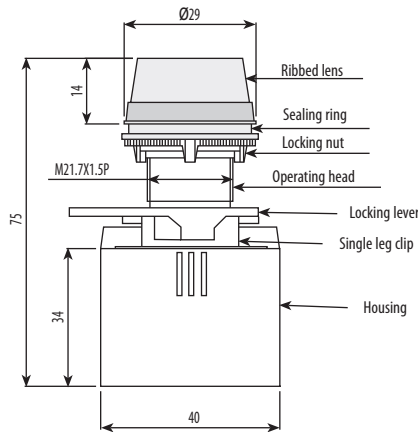
**Integral LED Indicators & Integral Indicators,**

**Series HV, HSO, HW**



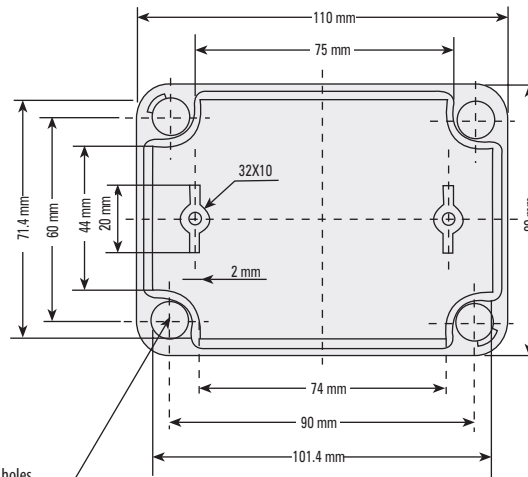
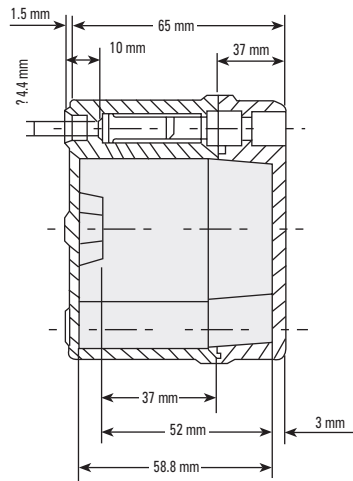
**Universal Voltage Integral LED Indicators**

**Series TP**



**Enclosure**

**All Purpose Enclosure**



Mounting holes  
4-Nos. Suitable for  
M 4x16 CH. HD Screws

