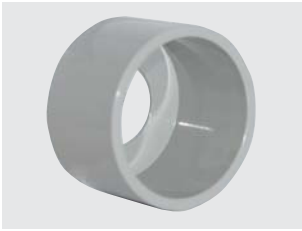


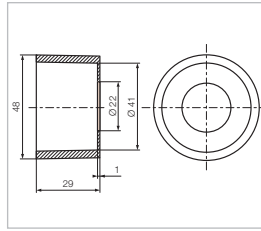
Accessories: ø 22mm

► MISCELLANEOUS

GUARD Part Number



LWA0225



For spring return button and spring return mushroom head
(max. ø 40)

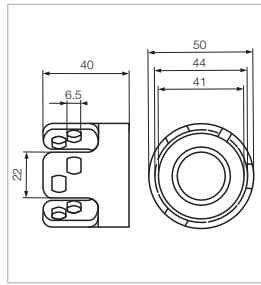
- Grey

LWA0225

PADLOCKABLE GUARD



LWA0240



For maintained mushroom head

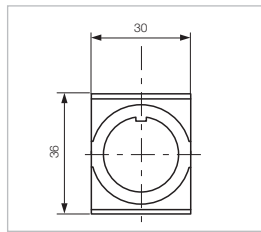
- Yellow

LWA0240

SQUARE FRAME



LWA0230



For turning a round shape button or a pilot light into
a square shape

- Black

LWA0230

RELAY TERMINAL (GROUND OR NEUTRAL)



LWA0216

For control station
Base mounted

LWA0216

Accessories: Ø 22mm

► MISCELLANEOUS

ANTI-ROTATION CLAW PLATE

Part Number



Metal claw plate

LWA0237

LWA0237

ANTI-ROTATION RING



Plastic anti rotation ring - 22mm

LWA0209

LWA209

BLANKING PLUG



- Black
- Grey

LWA0229
LWA0215

LWA0229

SCREWDRIVER - FOR PLUG IN TERMINAL BLOCKS



2.5mm (.098") flat head screwdriver
for use with plug in terminal blocks

45040

45040

► MISCELLANEOUS

FIXING TOOL

Part Number



LWA0234

Fixing tool for locking ring - 22mm only

LWA0234

Fixing tool for locking ring - 22mm & 30mm

WA0210

REDUCTION RING Ø 30/22



LWA0219

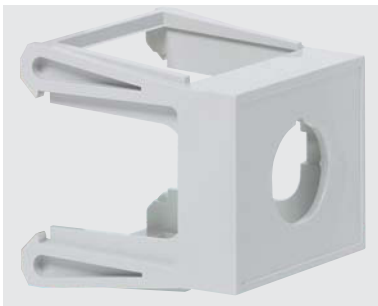
Converts Ø 30 mm panel cut-out to 22 mm hole

- Grey
- Yellow

LWA0219

LWA0220

PUSH BUTTON SUPPORT CLIP-ON TO DIN RAIL



LWA0238

For pilot lights, spring return buttons and selector switches

LWA0238

PADLOCKABLE SHROUD



LWA0226

For flush or projected push-buttons only

LWA0226

► MISCELLANEOUS

REPLACEMENT KEYS

Part Number



455 / 1424A

Replacement keys (set of 2) - key profile 455

455

Replacement keys (set of 2) - key profile 1424A

1424A

LOCKING NUT

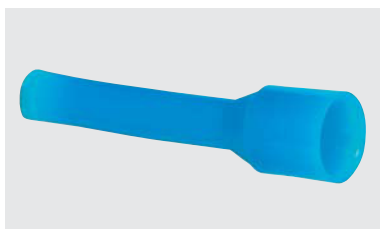


04006305

Plastic locking nut for 22mm operators

04006305

BULB EXTRACTOR



LWA0201

For BAGS bulbs

LWA0201

CABLE GLANDS



M20-BK



PG16-GY

	Size	Cable Thickness	
● Black	M20	6mm - 12mm	M20-BK
● Grey	PG11	3mm - 7mm	PG11-GY
● Grey	PG13.5	6mm - 12mm	PG13-GY
● Grey	PG16	10mm - 14mm	PG16-GY
● Grey	PG21	13mm - 18mm	PG21-GY
● Grey	PG29	18mm - 25mm	PG29-GY

Din-Rail Assemblies ø 22

► NON ILLUMINATED

 Technical Info (p. 103)

SPRING RETURN - FLUSH Part Number

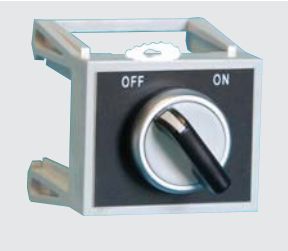


LWA0238-101

● Green	NO	
● Red	NC	

Marking	Part Number
START	LWA0238-101
STOP	LWA0238-104

SELECTOR SWITCH - WITH HANDLE



LWA0238-401

● Black	NO	
---------	----	--

Marking	Part Number
OFF ON	LWA0238-401

SELECTOR SWITCH - WITH KEY

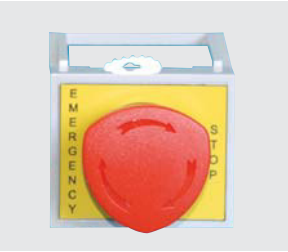


LWA0238-402

● Black	NO	
---------	----	--

Marking	Part Number
OFF ON	LWA0238-402

MUSHROOM HEAD ø 40 - MAINTAINED Push-turn to reset



LWA0238-301

● Red	NC	
-------	----	--

Marking	Part Number
EMERGENCY STOP	LWA0238-301

Technical Specifications

► GENERAL

Characteristics	Data	Standards
► Storage temperature	- 40 °C to + 70 °C	
► Operating temperature	- 25 °C to + 70 °C	
► Climatic resistance	Constant humid heat Cyclic damp heat Resistance to sea air	IEC 60068-2-3 IEC 60068-2-30 IEC 60068-2-52
► Degree of protection	IP 66 for standard heads IP 67 for shrouded heads IP 66 for equipped control stations IP 20 at the rear of the panel for contact blocks and one piece pilot lights Type 1, 2, 3, 3R, 3S, 4, 4X, 12, and 13 for heads and control stations	IEC 60529 NEMA standard
► Protection against mechanical impacts	IK 05 illuminated and non-illuminated heads IK 07 empty control station	IEC 62262
► Electrical insulation	Class II - heads and control station	IEC 60947-5-1
► Terminal marking		IEC 60947-1
► Tightening torques	Locking ring: recommended 3 N.m terminals: max. 1.2 N.m	
► Approvals	UL United states and Canada BV Bureau Véritas Certification OC/CB	UL 508, CSA 22.2 Marine rules IEC 60947-5-1 IEC 60947-5-5 IEC 60947-5-4
► Vibrations	withstand vibration Fc test: 2 to 25 Hz, 1.6 mm; 25-100 Hz, 4 g	IEC 60068-2-6

Technical Specifications

► HEADS

Characteristics	Data	Standards
► Mechanical endurance	Spring return: 5,000,000 Push-push: 500,000 Selector switches: 300,000 Mushroom head maintained function EN 418: 10,000 Mushroom head maintained function: 150,000	
► Activation force in N	Spring return + NO: 6.5 Spring return + NC: 4.5 Additional NO contact: 4.5 Additional NC contact: 3.0 Push-pull mushroom head + NO + NC: 27 Push-turn mushroom head + NO + NC: 22 Push-pull mushroom head EN 418 + NO + NC: 37 Push-turn mushroom head EN 418 + NO + NC: 60	
► Activation force in Nm	Selector switch + NO: 0.04 Additional NO contact: 0.03	

► EMERGENCY STOP ACTUATORS - EN 418/ISO 13850:

According to IEC/EN60947-5-5, the emergency stop function can be provided by an EN418/ISO13850 mushroom head combined with a "positive opening" NC contact block.

The mechanism of our EN418/ISO13850 mushroom heads is so designed that a "push" action of sufficient force to open the contact systematically triggers an irreversible locking of this opening. This generates an "emergency stop" signal which can be cancelled only by deliberate manual resetting of the mushroom head (pull and turn or unlocking by key).

This function allows to generate an "emergency stop" signal for any equipment subject to directive 98/37CE (machinery safety) completed by the IEC 60204-1 standard.

The EN418/ISO13850 mushroom heads also comply with the safety requirements detailed in standards EN418 and ISO13850.

Technical Specifications

► CONTACT BLOCKS

Screw and plug-in connection characteristics	Data		Standards																																										
▶ Rated insulation voltage	690 V AC 600 V AC		IEC/EN 60947-1 UL 508																																										
▶ NC contacts	Positive opening		IEC/EN 60947-5-1																																										
▶ Rated impulse voltage U _{imp} Pollution degree	6kV 3																																												
▶ Conventional thermal current in free air conditions	AC15: 10 A DC13: 2.5 A		IEC 60947-5-1																																										
▶ Electrical ratings	<div><div>Alternating current AC15 - A 600 U_e = 120 V, I_e = 6 A U_e = 240 V, I_e = 3 A U_e = 380 V, I_e = 1.9 A U_e = 480 V, I_e = 1.5 A U_e = 500 V, I_e = 1.4 A U_e = 600 V, I_e = 1.2 A Minimum operating current - standard blocks U_e = 24 V DC and I_e = 5 mA Failure rate < 10⁻⁸ UL508 Alternating Current 50/60Hz - A600 Continuous Current - 10 amps Rated Voltage - 600Vac</div><div>Direct current DC13 - Q 600 U_e = 125 V, I_e = 0.55 A U_e = 250 V, I_e = 0.27 A U_e = 400 V, I_e = 0.15 A U_e = 500 V, I_e = 0.13 A U_e = 600 V, I_e = 0.1 A - gold plated contacts U_e = 5 V DC and I_e = 1 mA Failure rate < 10⁻⁸</div></div> <table><thead><tr><th></th><th>Max. Amps</th><th>Max. Amps</th><th></th><th>Max. Amps</th><th>Max. Amps</th></tr><tr><th>Voltage</th><th>Make</th><th>Break</th><th>Voltage</th><th>Make</th><th>Break</th></tr></thead><tbody><tr><td>72</td><td>60</td><td>10</td><td>24</td><td>2.5</td><td>2.5</td></tr><tr><td>120</td><td>60</td><td>6.0</td><td>125</td><td>0.55</td><td>0.55</td></tr><tr><td>240</td><td>30</td><td>3.0</td><td>250</td><td>0.27</td><td>0.27</td></tr><tr><td>480</td><td>15</td><td>1.5</td><td>301-600</td><td>0.10</td><td>0.10</td></tr><tr><td>600</td><td>12</td><td>1.2</td><td></td><td></td><td></td></tr></tbody></table>			Max. Amps	Max. Amps		Max. Amps	Max. Amps	Voltage	Make	Break	Voltage	Make	Break	72	60	10	24	2.5	2.5	120	60	6.0	125	0.55	0.55	240	30	3.0	250	0.27	0.27	480	15	1.5	301-600	0.10	0.10	600	12	1.2				IEC 60947-5-1
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480	15	1.5	301-600	0.10	0.10																																								
600	12	1.2																																											
▶ Electrical operating life	1 million cycles for: - AC15 - B 300 U _e = 120 V, I _e = 3 A U _e = 240 V, I _e = 1.5 A - DC13 - R 300 U _e = 125 V, I _e = 0.22 A U _e = 250 V, I _e = 0.1 A																																												
▶ Applicable wire sizes	Rigid or flexible wire without ferrule: 0.5 mm ² to 2 x 2.5 mm ² Rigid or flexible wire with ferrule: 0.5 mm ² to 2 x 1.5 mm ²																																												

Technical Specifications

▶ CONTACT BLOCKS

Faston connection	Data		Standards																															
▶ Rated insulation voltage	320 V AC 300 V AC		IEC/EN60947-1 UL 508																															
▶ NC contacts	Positive opening		IEC/EN 60947-5-1																															
▶ Rated impulse withstanding voltage Uimp Pollution degree	6 kV 3																																	
▶ Conventional thermal current in free air conditions	AC 15: 10 A DC 13: 2.5 A		IEC 60947-5-1																															
▶ Electrical ratings	Alternating current AC15 - A 300 Ue = 120 V, Ie = 6 A Ue = 240 V, Ie = 3 A Minimum current of use Ue = 24 V DC and Ie = 5 mA Failure rate < 10 ⁻⁸ UL508 Alternating Current 50/60Hz - A300 Continuous Current - 10 amps Rated Voltage - 300Vac		Direct current DC13 - Q 300 Ue = 125 V, Ie = 0.55 A Ue = 250 V, Ie = 0.27 A IEC 60947-5-1 Direct Current - Q300 Continuous Current - 2.5 amps Rated Voltage - 300Vdc																															
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▶ Electrical operating life	1 million cycles for: - AC15 - B 300 Ue = 120 V, Ie = 3 A Ue = 240 V, Ie = 1.5 A		- DC13 - R 300 Ue = 125 V, Ie = 0.22 A Ue = 250 V, Ie = 0.1 A																															
▶ Faston size	6.35 mm (0.25") or 2 x 2.8 mm (0.110")																																	

Technical Specifications

► CONTACT BLOCKS

Pin-style connection (for PCB)	Data		Standards	
► Rated insulation voltage	250 V AC 250 V AC		IEC/EN60947-1 UL 508	
► NC contacts	Positive opening		IEC/EN 60947-5-1	
► Rated impulse withstanding voltage Uimp Pollution degree	4 kV 3			
► Conventional thermal current in free air conditions	AC 15: 5 A DC 13: 1 A		IEC 60947-5-1	
► Electrical ratings	Alternating current AC 15 - B 300 Ue = 120 V, Ie = 3 A Ue = 240 V, Ie = 1.5 A		Direct current DC13 - R 300 Ue = 125 V, Ie = 0.22 A Ue = 250 V, Ie = 0.1 A	
	Minimum current of use - standard blocks Ue = 24 V DC and Ie = 5 mA Failure rate < 10 ⁻⁸		IEC 60947-5-1 IEC 60947-5-4 - golden contacts Ue = 5 V DC and Ie = 1 mA Failure rate < 10 ⁻⁸	
	UL508 Alternating Current 50/60Hz - B300 Continuous Current - 5 amps Rated Voltage - 300Vac		Direct Current - R300 Continuous Current - 1 amp Rated Voltage - 300Vdc	
	Max. Amps	Max. Amps	Max. Amps	Max. Amps
	Make	Break	Make	Break
Voltage			Voltage	
72	30	5.0	24	1.0
120	30	3.0	125	0.22
240	15	1.5	250	0.11
► Electrical operating life	1 million cycles for: - AC15 - B 300 Ue = 120 V, Ie = 3 A Ue = 240 V, Ie = 1.5 A		- DC13 - R 300 Ue = 125 V, Ie = 0.22 A Ue = 250 V, Ie = 0.1 A	
► Pin diameter	ø 1 mm			

Technical Specifications

► LED BLOCKS FOR ILLUMINATED HEADS

Characteristics	Data	Standards
► Rated insulation voltage	300 V	IEC/EN 60947-5-1
► Rated impulse voltage U _{imp} Pollution degree	4 kV (with filter block see p. 70) 3	IEC/EN 60947-1
► Operating voltage	12 to 24 V AC/DC 48 V AC/DC (for LED block) 130 V AC 230 V AC	
► Frequency	50 or 60 Hz	
► Lifetime at rated supply voltage	Red and yellow: 100 000 hours at 25 °C Other colors: 50 000 hours at 25 °C	
► Consumption of LED blocks	Voltage: - 24 V: 25 mA ± 20% - 48 V: 15 mA ± 5% - 130 V: 20 mA ± 10% - 230 V: 16 mA ± 30%	

► ONE PIECE PILOT LIGHT BA9S

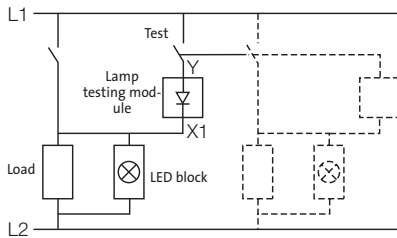
Characteristics	Data	
► Rated insulation voltage	400 V	IEC 60947-5-1
► Rated impulse withstand voltage U _{imp}	4 kV	IEC/EN 60947-1
► Bulb rating	400 V max. - 2.6 W max. 240 V max. - 2.6 W max.	IEC 60947-5-1 UL 508

Technical Specifications

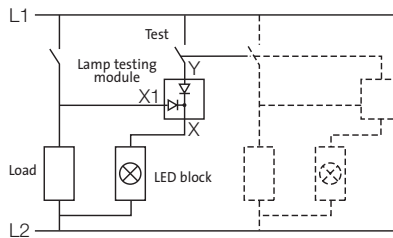
► DIAGRAMS

PUSH-TO-TEST LED PILOT LIGHT DIAGRAMS

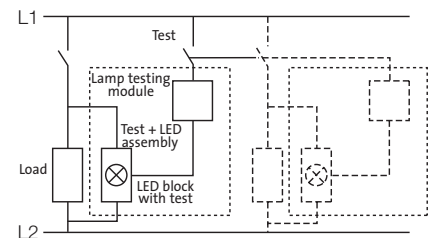
Lamp-testing module with
1 diode (33ET) for direct
supply 24 V and 48 V



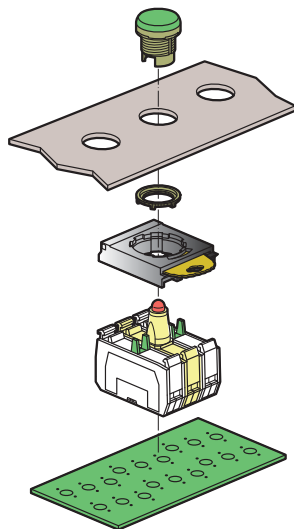
Lamp-testing module with
2 diodes (33ETT) for direct
supply 24 V and 48 V



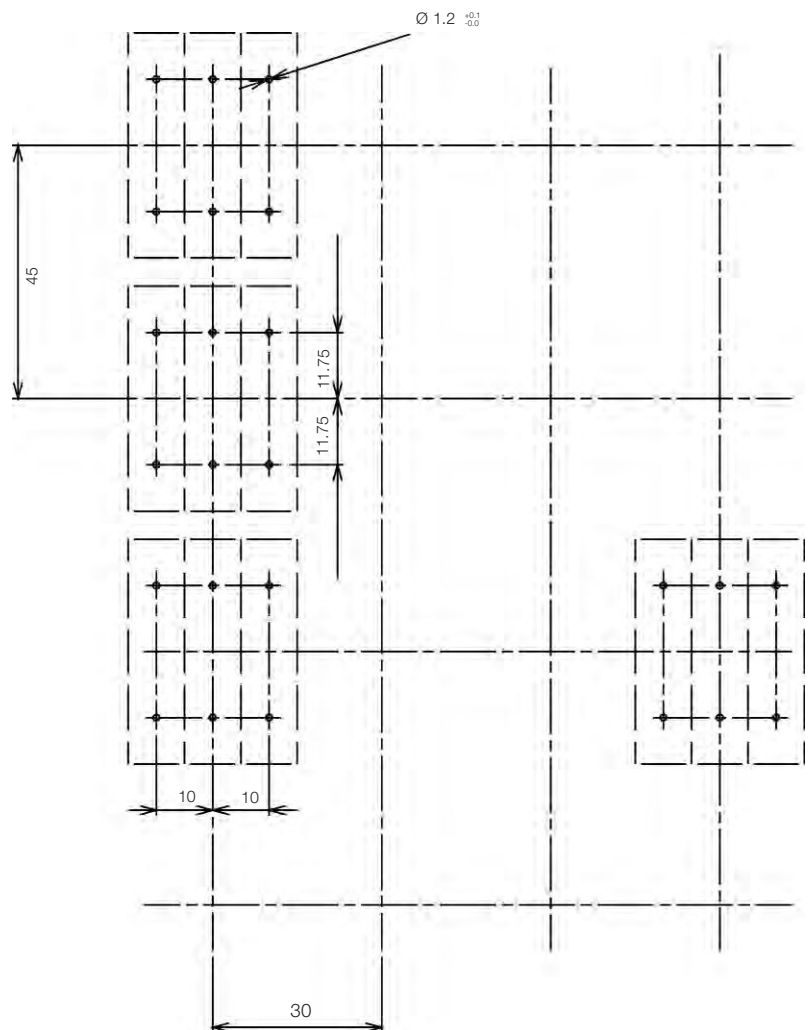
Lamp-testing assembly
for direct supply 130 V and 240 V



PRINTED CIRCUIT BOARD MOUNTING



PCB BOARD DRILL PLAN



PCB TERMINAL - SINGLE CLIP

PCB TERMINAL - 3 POSITION CLIP

