

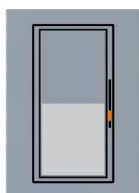
LIGHTING RELAY GUIDE

CONTROL PROTECT POWER

Whether you are designing your lighting or outlet controller for 120v, 277, 347, or 480v, TE Connectivity (TE) has extensive capabilities in the design and manufacture of relays for the task.

Meeting the inrush current requirements of National Electrical Manufacturers Association (NEMA) 410 and complying with standardized PCB footprints, TE lighting relays portfolio covers 1A, single fixture control all the way up to 20A branch circuit ratings.

Through agency approved test labs, we ensure that our relays are tested to meet the expectations of the lighting industry.



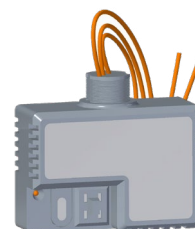
Wall Switch / Dimmer



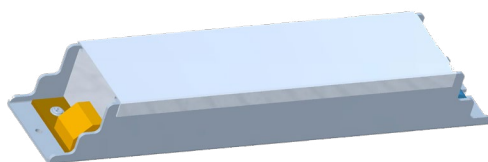
Occupancy Sensor



Outdoor
Controller



Power Pack



Electronic Ballast / LED Driver

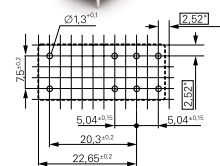


Controlled Outlet

Key Features

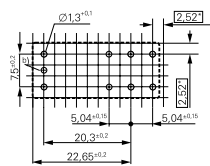
SCHRACK RT

DC and AC coil
Mono-or bistable coil
Reinforced insulation
WG type available (IEC 60335-1)
High ambient temperature version (105°C)
THR (reflow) version
Sensitive version
Bifurcated contacts



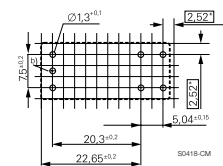
SCHRACK RT INRUSH

For inrush peak currents up to 80A
Mono-or bistable coil
Reinforced insulation
WG type available (IEC 60335-1)



SCHRACK RTX

Inrush peak currents up to 370A
Bistable coil
Reinforced insulation
16A rated fluorescent load acc. EN60669-1
8A electronic ballast acc. UL508
1 1/2 HP motor load acc. UL508



Footprint

2) see footnote below

Applications

HVAC, Home automation,
Machine control, Energy control
Switching cabinet, Interface modules

Lighting applications, Movement
detectors, Motors control,
Domestic appliances

Lighting control systems
Motion sensors
Home automation applications

Contact Data

Contact arrangement	1. form C (CO), 1 form A (NO) 2 form C (CO), 2 form A (NO)	1 form C (CO) 1 form A (NO)	1 form A (NO)
Rated voltage	250VAC	250VAC	250VAC
Rated current	2X8/16A	16A	16A
Switching power / Max. break	2X2000/4000VA	4000VA	4000VA
Contact material	AgNi90/10, AgSnO ₂	AgNi90/10, AgSnO ₂	W (pre-make contact) + AgSnO ₂
Min. recommended contact load	1) see footnote below	1) see footnote below	1) see footnote below

Coil Data

Magnetic system	DC, AC, bistable	DC, bistable	Bistable
Rated coil voltage	5 to 110VDC/24 to 230VAC	5 to 11VDC	5 to 48VDC
Rated coil power	400mW/0.75VA	400mW	650mW/665mW

Dielectric Strength

Initial dielectric strength			
between open contacts	1000Vrms	1000Vrms	1250Vrms
between contact and coil	5000Vrms	5000Vrms	5000Vrms
between adjacent contacts	2500Vrms		
Clearance/creepage			
between contact and coil	>10/10mm	>10/10mm	min. 6/6mm

Other Data

Ambient temperature (max.)	+75°C (AC type) +85°C	+85°C	+70°C
Category of environmental protection IEC61810	RTII, RTIII	RTII	RTII
Terminal type	THT, THR (DC and AC type)	THT	THT
Mounting	PCB or on socket	PCB or socket	PCB
Dimensions (lwh)	29x12.7x15.7mm	29x12.7x15.7mm	29.1x12.7x16mm

Accessories

PCB and DIN rail sockets

Link to datasheet

[SCHRACK RT](#)

[SCHRACK RT INRUSH](#)

[SCHRACK RTX](#)

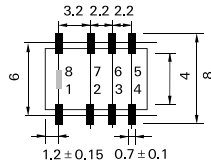
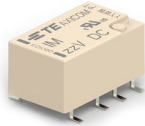
1) Recommended minimum load indication for contact material: AU and gold plated: 1mA at 6VDC; AgNi0.15 and AgNi90/10: 10mA at 12VDC; AgCdO and AgSnO₂: 100mA at 12VDC. Please contact technical support for detailed technical data.
2) Footprint images are representative. For a complete selection, refer to the TE data sheet via the link above.

Lighting Relay Guide

Key Features

Axicom IM

4G telecom/signal relay/switching relay
Slim line 10x6mm, low-profile 5.65mm
Switching power 60W/62.5VA
Switching voltage 220VDC/250VAC
Monostable + Bistable
Low rated coil power
High dielectric version
High current version up to 5 A
High contact stability version
Bifurcated contacts + single contact

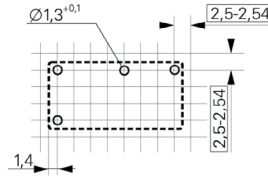


Footprint

2) see footnote below

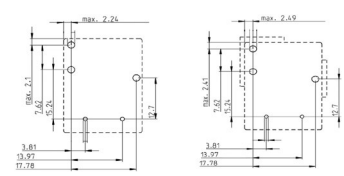
SCHRACK PE

Low height 10.0mm
Sensitive 200mW coil
Mono-or bistable coil
WG type available (IEC 60335-1)



Potter & Brumfield T9G

High breaking capacity
PCB and quick connect connections
4kV/8mm coil-contact
Minimum board space
(29mm x 21.5mm)
UL-class F as standard



Applications

Telecommunication, access and transmission equipment
Thermostat controls, fire and security equipment
Measurement and test equipment, Industrial controls, medical equipment

Industrial electronics
White goods
Measurement and control

HVAC, Appliances
Industrial control
Energy management

Contact Data

Contact arrangement	2 form C, 2 CO Single contact + Bifurcated contacts	1 form C (CO)	1 form C (1 CO) 1 form B (1 NC) 1 form A (1 NO) 250VAC 30A
Rated voltage	250VAC/220VDC	250VAC	250VAC
Rated current	2/5A	5A (CO) 6A (NO)	30A
Switching power / Max. break	60W/62.5VA	1250VA	
Contact Material		AgNi 90/10, AgSnO ₂	AgSnO ₂
Min. recommended contact load	100µV/1µA	1) see footnote below	1A at 12VAC/VDC
Initial contact resistance	<50mΩ at 10mA/30mV I: < 100mΩ		

Coil Data

Magnetic system	Polarized	DC, bistable	DC
Rated coil voltage	1.5 to 24VDC	3 to 48VDC	5 to 110VDC
Rated coil power	50 to 200mW/-	200mW	900mW
DC coil / bistable 1 coil/2 coils			

Dielectric Strength

Initial dielectric strength			
between open contacts	750 to 1500Vrms	1000Vrms	1500Vrms
between contact and coil	1500 to 1800Vrms	4000Vrms	4000Vrms
between adjacent contacts	750 to 1800Vrms		
Initial surge withstand voltage			
between open contacts	1000 to 2500V		
between contact and coil	2000 to 2500V		
between adjacent contacts	1000 to 2500V		
Isolation 100/900MHz	37.0/18.8dB		
Insertion loss 100/900MHz	0.03/0.33dB		
Volt. standing wave ratio 100/900MHz	1.06/1.49		
Capacitance			
between open contacts	max. 1pF	3.2/4mm	6.4mm / 9.5mm (UL) 8mm / 8mm (IEC)

Other Data

Ambient temperature (max.)	-40 to +85°C	+ 85°C	+105°C
Category of environmental protection	IP67/RTV	RTII, RTIII	RTII, RTIII
Terminal type	THT, SMT	THT	THT/Quick connect
Mounting		PCB	PCB
Dimension (lwh)	10x6x5.65mm	20x10x10mm	29x21.5x15.7mm

Link to datasheet

[AXICOM IM](#)

[SCHRACK PE](#)

[POTTER & BRUMFIELD T9G](#)

1) Recommended minimum load indication for contact material: AU and gold plated: 1mA at 6VDC; AgNi0.15 and AgNi90/10: 10mA at 12VDC; AgCdO and AgSnO₂: 100mA at 12VDC. Please contact technical support for detailed technical data.

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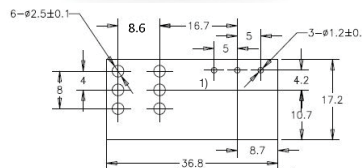
Key Features

Footprint

2) see footnote below

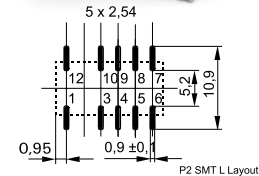
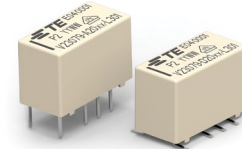
EW60

1 pole 60A, 1 form A (NO) contact
Polarized bistable (latching) with 1 or 2 coils
NEMA 410-2011, 16A, 277VAC, electronic ballast;
20A branch circuit
480A inrush, 2.1m sec



Axicom P2 LIGHTING

Small signal relay
Slim line 15x7.5mm
Switching current max. 5A
High dielectric strength 3kV
VDE certified for LED tubes



Applications

Lighting control, bus actuator,
power distribution, circuit protection, inverter

LED tubes
Office equipment
Security systems, set top boxes

Contact Data

Contact arrangement	1 form A (1 NO)	2 form C, 2 CO Bifurcated contacts
Rated voltage	440VAC	250VAC/220VDC
Rated current	60A	2A
Switching power / Max. break	15000VA	60W/62.5VA
Contact material	AgSnO ₂	
Min. recommended contact load	Visit TE.com for more information	100μV/1μA
Initial Contact resistance		<50mΩ at 10mA/20mV

Coil Data

Magnetic system	Bistable	Polarized
Rated coil voltage	5 to 24VDC	3 to 12VDC
Rated coil power	1.5W/3W	140mW - 1 coil version

Dielectric Strength

Initial dielectric strength		
between open contacts	1500Vrms	1500Vrms
between contact and coil	4000Vrms	3000Vrms
between adjacent contacts		1500Vrms
Clearance/creepage		
between contact and coil	≥6/9mm	
Initial surge withstand voltage		
between contact and coil		6000Vrms

Other Data

Ambient temperature (max.)	+70°C	-40 to +85°C
Category of environmental protection IEC61810	RTI	RTIII
Terminal type	PCB	THT, SMT
Mounting	PCB	
Dimensions (lwh)	36.8x17.2x30.4mm	14.5x7.2x9.9mm, ovrmld

Accessories

Link to datasheet

[EW60](#)

[AXICOM P2 LIGHTING](#)

1) Recommended minimum load indication for contact material: AU and gold plated: 1mA at 6VDC; AgNiO.15 and AgNi90/10: 10mA at 12VDC; AgCdO and AgSnO₂: 100mA at 12VDC. Please contact technical support for detailed technical data. 2) Footprint images are representative. For a complete selection, refer to the TE data sheet via the link above.

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