EVERY CONNECTION COUNTS

SOLUTION GUIDE

LIGHTING SOLUTIONS

LIGHTING SOLUTIONS

Table Of Contents

Lighting Applications – Innovative Solutions 03

Lighting Relays – Control, Protect and Power 10

Power Connectors for Lighting Applications 16

LIGHTING APPLICATIONS

INNOVATIVE SOLUTIONS

From outdoor luminaires to commercial refrigeration, innovation in lighting is taking advantage of broad-based technological progress. Whether you are creating a new system or enhancing an existing design, TE Connectivity (TE) is your lighting solutions provider for electromechanical and electronic components that seamlessly integrate controls and transmit power and data across multiple building systems.

Design Navigator

Get more information on **te.com** by clicking on the product names below.

	APPLICATIONS																		
	1 Horticultural Lighting	2 Indoor Fixtures	3 Outdoor Fixtures	4 Signage	5 Specialty Lighting	6 Lighting Controls	Max Current Rating (A)[1]	Max Voltage Rating (V)[1]	Min Dielectric Withstand Voltage[1]	Operating Temperature Range (°C)	SMT Compatible	Wire Range (AWG)	Solid Wire	Stranded Wire	Wire-to-Board	Wire-to-Wire	Board-to-Board	IP Sealing Level	Standards
PCB and Wire Connectors																			
AMP CT & Mini CT Connectors	●	●	●		●	●	4	125 AC	1500 AC	-40 to 105	●	30-18		●	●	●			UL, CSA
BUCHANAN WireMate Connectors Modular Screwless Terminal Block Series	●	●		●	●	●	10	300 AC	2000 AC	-40 to 105		22-12	●	●	●				UL
BUCHANAN WireMate Connectors Poke-In Series		●		●	●	●	6	400AC	1800AC	-40 to 105	●	22-18	●	●	●				UL
BUCHANAN WireMate Connectors Slim Poke-In Series		●		●	●	●	10	300AC	1000 AC	-40 to 105	●	24-18	●	●	●		●		UL
BUCHANAN WireMate Connectors Vertical Poke-In Series						●	2	600 AC/DC	2200 AC	-30 to 105		18-16	●		●				UL
Economy Power II Connectors	●	●	●		●		11	600 AC	1500 AC	-25 to 105		22-16		●	●	●			UL, IEC
FASTON/Ultra-Fast Terminals & Splices			●		●	●	48	600 AC/DC	-	-40 to 250		26-10	●	●	●				UL, CSA
Hermaphroditic Connectors	●		●	●	●	●	6	125 AC/DC	1500 AC	-30 to 105	●	22-18		●	●		●		UL
High Power Inverted Thru Board Card Edge Connectors	●	●	●		●		7	600 AC/DC	2200 AC	-30 to 105	●	22-18		●	●		●		UL
IDC SSL Connectors		●	●	●	●	●	9	250 AC/DC	1500 AC	-40 to 105	●	24-18	●	●	●				UL
Inverted Thru Board Card Edge Connectors	●	●					3	400 AC/DC	1500 AC	-20 to 130	●	22-18, 26-24	●	●	●		●		UL
Inverted Thru Board Card Edge/Poke-In Connectors	●	●	●	●	●		3	400 AC/DC	1500 AC	-20 to 130	●	-			●		●		UL
Inverted Thru Board SMT Connectors	●	●	●		●		3	70 AC/DC	1140 AC	-40 to 105	●	28-24	●	●	●				UL
LIGHT-N-LOK Connectors	●	●	●				5	600 AC	2200 AC	-40 to 95		18	●			●			UL
Micro MATE-N-LOK Connectors	●	●			●		5	250 AC	1500 AC	-40 to 105	●	30-18		●	●	●			UL
Mini Hermaphroditic Connectors	●		●	●	●	●	3	300 AC/DC	1600 AC	-40 to 105	●	-					●		UL, IEC
Mini Universal MATE-N-LOK Connectors	●	●			●		9.5	600 AC	1500 AC	-55 to 105		30-16		●	●	●			UL
PLASTI-GRIP Terminals & Splices	●		●		●	●	-	1000 AC/ DC	-	105 max		22-10	●	●	●	●			UL, CSA
PIDG Terminals & Splices	●		●		●	●	-	300 AC/DC	-	105 max		26-20	●	●	●	●			UL, CSA
Push Grip Wire Connectors		●		●	●		24	600 AC	3400 AC	-40 to 105		22-12	●	●		●			UL, CSA
RJ45 Connectors	●	●				●	1.5	150 AC	900 AC	-40 to 85	●	26-22	●					IP20, IP66, IP67	UL, IEC
Twist Splice Wire Connectors		●		●	●		-	600 AC	-	105 max		22-6	●	●		●			UL, CSA
VAL-U-LOK Connectors	●	●			●		10	300 AC	1500 AC	-40 to 105		30-18		●	●	●			UL, IEC
LED Connectors																			
LUMAWISE LED Holder Custom Series	●	●	●		●		varies*	varies*	-	-40 to 105		varies*	varies*	varies*					varies*
LUMAWISE LED Holder Type Z32 Low Profile	●	●	●		●		2	60 DC	-	-40 to 105		22-20	●	●					UL
LUMAWISE LED Holder Type Z35		●	●	●	●		3	60 DC	varies*	-40 to 105		20-18	●	●					UL, IEC
LUMAWISE LED Holders Z50	●	●	●		●		5	300 DC	-	-40 to 105		22-18	●	●					UL, IEC, Zhaga
LUMAWISE LED Holder Type Z50 with Optics Attach	●	●	●		●		5	300 DC	-	-40 to 105		22-18	●	●					UL, IEC, Zhaga
LUMAWISE LED Holder Type Z50 Optics Attachment	●	●	●		●		-	-	-	-40 to 105		-							-
Photo Controls																			
LUMAWISE Dimming Receptacles			●				20	480 AC	2500 AC	-45 to 85		-			●				UL
LUMAWISE Endurance S Modules			●		●	●	1.5	30 AC	1060 AC	-40 to 90		20-16	●	●				IP66	UL, IEC, Zhaga
LUMAWISE Photo Control Base Assembly, Sleeves, and Cover			●			●	15	480 AC	1960 AC	-40 to 105		-						IP66	UL, IEC

	APPLICATIONS						Max Rated Current (A)[1]/ Voltage (V)[1]	Operating Temperature Range (°C)	Mounting Style	Terminations (Input and Output)	Standards
Corcom EMI/RFI Power Line Filters	1	2	3	4	5	6					
Corcom Filter FB Series	●	●	●		●	●	5 / 277 AC	-30 to 50	Chassis mount	Solid conductor wire leads	UL, CSA, VDE
Corcom Filter FL Series		●			●		3.9 / 280 AC	-10 to 40	Chassis mount	Solid conductor wire leads	UL
Corcom Filter B Series	●	●	●	●	●		20 / 250 AC	-10 to 40	Chassis mount	Spade terminals, wire leads, bolts	UL, CSA, VDE
Corcom Filter S Series		●	●	●	●		20 / 250 AC	-10 to 40	Chassis mount	Spade terminals, wire leads, bolts	UL, CSA, VDE
Corcom Filter HT Series		●			●		15 / 250 AC	-10 to 40	Chassis mount	Spade terminals, bolts	UL, CSA, VDE

[1] May vary based on application and product selection
* Available with custom specifications
CSA – Canadian Standard Association
cUL – Tested to Canadian Standards by Underwriters' Laboratories

IEC – International Electrotechnical Commission
UL – Underwriters' Laboratories
VDE – Verband Deutscher Elektroingenieure
Zhaga – Standard for Interchangeable LED Light Sources

Design Navigator

Get more information on **te.com** by clicking on the product names below.

	APPLICATIONS																	
	1 Horticultural Lighting	2 Indoor Fixtures	3 Outdoor Fixtures	4 Signage	5 Specialty Lighting	6 Lighting Controls	Max Current Rating (A)[1]	Max Voltage Rating (V)[1]	Min Dielectric Withstand Voltage[1]	Operating Temperature Range (°C)	SMT Compatible	Wire Range (AWG)	Solid Wire	Stranded Wire	Wire-to-Board	Wire-to-Wire	Board-to-Board	IP Sealing Level	Standards
Power Distribution																			
Circular Plastic Connectors (CPC)	●		●	●	●		60	600 AC	1500 AC	-40 to 105		30-10	●	●	●	●		IP67	UL
Commercial MATE-N-LOK Connectors			●				19	250 AC	1500 AC	-55 to 105		30-14		●	●	●			UL
CoolSplice Connectors	●	●	●	●	●		15	600 AC/DC	3400 AC	-45 to 105		22-12	●	●		●		IPX5, IPX7, IPX8 (2 hrs at 1m)	UL, IEC
NECTOR M Power System	●	●	●	●	●	●	20	400 AC	2500 AC	-20 to 85		4.0-1.5		●	●	●		IP67	UL, IEC
NECTOR S Power System	●	●		●	●		7	250 AC/DC	1500 AC	-20 to 85	●	18		●	●	●	●	IP67	UL, IEC
Power Key Connectors	●	●	●	●	●	●	10	300 AC	-	-30 to 105		26-16			●				UL, CSA
POWER TRIPLE LOCK	●		●	●	●	●	20	600AC/DC	-	-55 to 105 HT 150		20-12, 2x20, 2x18			●	●			UL, CSA
SlimSeal Connectors	●	●	●	●	●		5	400 AC/DC	-	-40 to 105		-			●	●		IP67	UL
Universal MATE-N-LOK Connectors		●	●	●		●	19	600 AC	3000 AC	-55 to 105		30-10		●	●	●	●	IP56, IP57	UL, IEC
UV Resistant Circular Plastic Connectors (CPC)	●		●	●	●		60	600 AC	1500 AC	-40 to 105		30-10	●	●		●		IP67	UL
Protection and Insulation																			
CGPE-105 Heat Shrink Tubing	●	●	●	●	●	●	-	600AC	500V/mil	-70 to 105		-			●	●			see product specification
HT-200 Heat Shrink Tubing	●	●	●	●	●	●	-	600AC	500V/mil	-70 to 200		-			●	●			RW-1200, Mil Spec
RT-375 Heat Shrink Tubing	●	●	●	●	●	●	-	600AC	400V/mil	-55 to 150		-			●	●			UL, VW-1, CSA, Mil Spec
Relays																			
EW60 PCB Relay	●	●	●	●	●	●	60	277 AC	4000VAC	-40 to 70		-							UL, VDE
Axicom Signal Relay IM Series	●			●		●	5	220DC, 250AC	1800V	-40 to 85	●	-							UL
OEG Relay OJ Series	●	●	●	●	●	●	5	250AC, 28DC	4000V	-30 to 85		-							UL, VDE, CSA
Axicom Signal Relay P2 Series	●			●		●	2	220DC, 250AC	1500V	-40 to 85	●	-							UL
Potter and Brumfield Relay T9G Series	●	●	●	●	●	●	30	400AC	4000 AC	-40 to 105		-							UL, VDE
Schrack Power PCB Relay RT 1 Power Inrush Series						●	20	250 AC	5000 AC	-40 to 85	●	-							UL, IEC
Schrack Power PCB Relay RZ Series	●	●	●	●	●	●	16	250AC	4000 AC	-20 to 105	THR reflow	-							UL, VDE, CQC
Switches																			
ALCOSWITCH Power Rocker Switches						●	20	250 AC	1000 AC	-20 to 85		-	●	●	●	●			UL
ALCOSWITCH Tactile Switches						●	0.05	24 DC	500 AC	-35 to 105	●	-						IP67	-
ALCOSWITCH DIP Switches						●	0.1	50 DC	500 AC	-20 to 85	●	-							UL

		APPLICATIONS						Voltage Range (V)	Power Range (W)	Operating Current (mA)	Output	Measurement Range	Accuracy/ Tolerance	Operating Temperature Range (°C)	SMT Compatible	Package	Standards
		1	2	3	4	5	6										
Sensors																	
Temperature Sensor: Ni SMD RTD		●	●	●	●	●	●	0.2-5.0	-	0.2	Analog Resis.	-55 to 160C	± 1.5°C	-55 to 160	●	SOT23	see data sheet
Temperature Sensor: TSYS		●	●	●	●	●	●	1.5-3.6	-	0.018(AVG)	I2C/SPI	-40 to 125C	± 2%	-40 to 125	●	TDFN8	RoHS
Humidity Sensor: HTU20		●	●	●				1.5-3.6	-	0.45	I2C	0-100% RH	± 3%	-40 to 125	●	TDFN6	see data sheet
Humidity Sensor: HTU21		●	●	●				1.5-3.6	-	0.45	I2C	0-100% RH	± 2%	-40 to 125	●	TDFN6	see data sheet
Resistors																	
SMD Power Resistors	Type 3520	●	●	●	●	●	●	400	1	-	-	-	± 5%	-55 to 155	●	2512	see data sheet
	Type 3521	●	●	●	●	●	●	500	2	-	-	-	± 1%	-55 to 155	●	2512	stee data sheet
	Type 3522	●	●	●	●	●	●	500	3	-	-	-	±1% or 5%	-55 to 155	●	2512	see data sheet
	SM Series	●	●	●	●	●	●	300-500	2-5	-	-	-	± 1% or 5%	-55 to 200	●	-	see data sheet
SMD Current Sense Resistors	RL73 Series	●	●	●	●	●	●	-	0.05-2	-	-	-	± 1% to 5%	-55 to 170	●	0201 to 2512	see data sheet
	TL Series	●	●	●	●	●	●	-	1	-	-	-	± 1%	-65 to 170	●	1206, 2010, 2512	see data sheet
	TLM Series	●	●	●	●	●	●	-	0.125- 1	-	-	-	± 1% to 5%	-55 to 155	●	0603 to 2512	see data sheet
	TLR Series	●	●	●	●	●	●	-	1-3	-	-	-	± 1% or 5%	-55 to 170	●	1206, 2010, 2512	see data sheet
	TLRS Series	●	●	●	●	●	●	-	2.5-7	-	-	-	±1%, 2%, or 5%	-55 to 155	●	1050, 1575	see data sheet

[1] May vary based on application and product selection
* Available with custom specifications
CSA – Canadian Standard Association
cUL – Tested to Canadian Standards by Underwriters' Laboratories
IEC – International Electrotechnical Commission

Mil Spec - Meets product specific mil specs (see product page on te.com for more detail)
UL – Underwriters' Laboratories
VDE – Verband Deutscher Elektroingenieure
VW-1 – Flammability specification under UL 224

HORTICULTURAL LIGHTING

FEATURED PRODUCTS

1 2 4 5

NECTOR S Power System

- Reduce assembly time with power "plug and play"
- Allow for simplified power distribution inside furniture with 7.5mm diameter
- Offer material cost, time and space savings by means of a 6-way power distributor

Website
Brochure

1 2 3 4 5

SlimSeal Circular Connector Series

- Achieve a high level water proof solution with IP67 to IP68 rating
- Save space with a compact circular design
- Help prevent accidental mating with a unique contact pattern for each position size

Website
Brochure

1 2 3 4 5

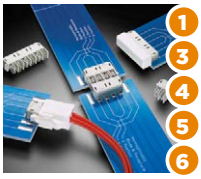
SlimSeal Miniature Connector Series

- Enable a sealed solution with an IP67 rated connector
- Achieve easy assembly and identification with three different color options
- Save space with a compact size design

Website
Brochure

SIGNAGE

FEATURED PRODUCTS



1 3 4 5 6

Hermaphroditic Connectors

- Save space with low profile, flat surface design
- Provide design flexibility with SMT or reflow processing compatibility and board-to-board or wire-to-board options
- Simplify design by allowing the same footprint on both ends of the strip

Website
Brochure

1 2 3 4 5 6

NECTOR M Power System

- Reduce space requirement for multi-position connectors and easily fit through walls with small diameter form factor
- Meet outdoor sealing requirement with IP67 rating versions
- Prevent breakdown of material with UV resistance

Website
Brochure

1 3 4 5

UV Resistant Circular Plastic Connectors (CPC)

- Eliminate the need for replacement of UV-degraded housings
- Achieve low cost and easy installation with built-in IP67 sealing capability
- Support a wide range of applications with power and signal design flexibility

Website
Data Sheet

1 Horicultural Lighting 2 Indoor Fixtures 3 Outdoor Fixtures 4 Signage 5 Specialty Lighting 6 Lighting Controls

INDOOR FIXTURES

FEATURED PRODUCTS

1 2 3 4 5

LUMAWISE LED Holders

- Provide electrical, thermal and optical connection with one product
- Reduce installation time and eliminate the need for soldering with poke-in wire connection
- Streamline assembly and installation with tool-less termination of solid fused or stranded wire and snap-in LED retention feature

Website
Brochure

2 4 5 6

BUCHANAN WireMate Connector Poke-In Series

- Achieve easy and fast installation with poke-in contact feature
- Save space with low profile design
- Accepts multiple insertions of 22-18AWG solid & stranded wires

Website
Brochure

1 2 3

LIGHT-N-LOK Connectors

- Tool-less, easy and fast installation with poke-in contact feature
- Compact size design for space saving
- Support for hot plug (UL2459) abnormal overload test

Website
Brochure

2 4 5

Push Grip Wire Connectors

- Enable visual termination through clear polycarbonate housings
- Help ease installation with tool-less, poke-in wire spliced design
- Terminate multiple wire gauges in a single splice connection

Website
Flyer

1 2 3 4 5 6

Lighting Relays

- Offer a wide range of inrush current capabilities
- Address the complete spectrum of requirements in the lighting industry
- Minimize use of zero cross drives

Lighting Relays Guide
Relays Selection Guide

1 2 3 5 6

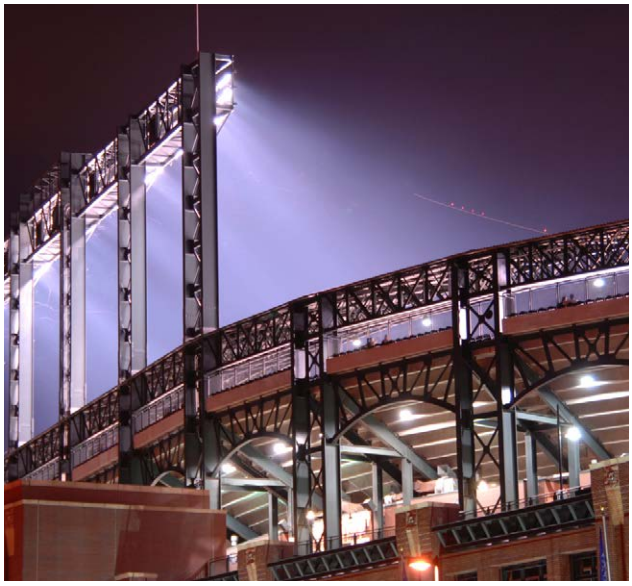
AMP CT & Mini CT Connectors

- Provide PC board relief-retention with kinked connector design
- Save space with miniaturized discrete wire interconnect
- Offer design flexibility with IDC and crimp termination methods

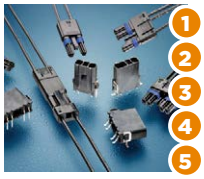
AMP CT | Mini CT
AMP CT QRG
Mini CT QRG

1 Horicultural Lighting 2 Indoor Fixtures 3 Outdoor Fixtures 4 Signage 5 Specialty Lighting 6 Lighting Controls

OUTDOOR FIXTURES



FEATURED PRODUCTS

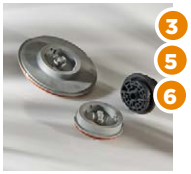


1 2 3 4 5

Website
Flyer

SlimSeal Connectors

- Achieve a space-saving solution with a slim design
- Reduce assembly time with pre-assembled seals & wire guides
- Allow for use in outdoor or commercial refrigeration applications with IP67 seal rating



3 5 6

Website
Flyer

LUMAWISE Endurance S Modules

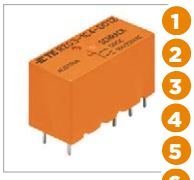
- Compact size allowing greater flexibility in luminaire design
- Improved sealing to achieve IPx5 and IPx6 with no mounting screws
- Simple insert and rotate to lock feature, no tooling needed and one handed operation to install allows luminaries to be simply and quickly upgraded

1 2 3 4 5

Website
Flyer I | Flyer II
Video

CoolSplice Connectors

- Quick and easy installation, no need to strip wires and no special tools required with IDC termination
- Provide a waterproof solution with IPx8 rating (2hrs 1m under water) for use in harsh environments
- Easy field and factory installation using two independent wire termination push buttons



1 2 3 4 5 6

Website
Flyer

Schrack Power PCB Relay RZ Series

- Global standard platform for 16 Amp applications
- Designed to overcome micro welding in the contact interface to improve life time
- Standard versions for 85°C ambient temperature and high temperature versions for 105°C

3

Website
Flyer

LUMAWISE Dimming Receptacles

- Support one or two channel dimming protocols with two or four dimming contacts
- Achieve a reliable power interconnect with robust twist lock contacts
- Simplify integration into new or existing light fixtures with pre-terminated receptacle

3 6

Website
Flyer

LUMAWISE Photo Control Base Assembly, Sleeves, and Covers

- Integrate power and signal interface to the dimming receptacle to ensure aiming at long term reliability
- Translucent covers are configured to transmit daylight to the light sensing device
- Achieve protection against dust and heavy jet spray with an IP66 rated solution

1 Horicultural Lighting 2 Indoor Fixtures 3 Outdoor Fixtures 4 Signage 5 Specialty Lighting 6 Lighting Controls

SPECIALTY LIGHTING

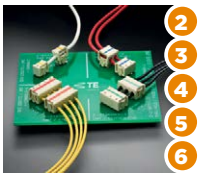
FEATURED PRODUCTS

1 2 4 5

Website
Brochure

NECTOR S Power System

- Reduce assembly time with power "plug and play"
- Allow for simplified power distribution inside furniture with 7.5mm diameter
- Offer material cost, time and space savings by means of a 6-way power distributor



2 3 4 5 6

Website
Brochure

IDC SSL Connectors

- Allow for quick installation with tool-less termination and no wire stripping
- Utilize in harsh environments with robust design
- Provide design flexibility with SMT/ thru-hole and closed end/feed-thru configurations

1 2 5

Website

Quick Reference Guide

Micro MATE-N-LOK Connectors

- Maximize board space with single and dual row, vertical and right angle configurations
- Prevent accidental unmating in high vibration applications with positive latches
- Accommodate wire sizes from 30 to 20 AWG with a broad range of crimp, snap-in, pin and receptacle contacts

LIGHTING CONTROLS

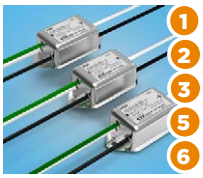
FEATURED PRODUCTS

1 2 3 4 5 6

Website
Brochure

Potter and Brumfield Relay T9G Series

- Save PCB space with the smallest relay in its class while maintaining standard footprint
- Help provide operator safety through increased insulation (UL 61810-1)
- Increase relay performance through 4kV dielectric rating / 8kV surge voltage between coil and contacts



1 2 3 5 6

Website
Brochure

Corcom Filter FB Series

- Allow for use in most standard lighting tracks with compact size
- Simplify installation with screw mount design
- Meet international requirements with EMI protection

6

Website
Data Sheet

Schrack Power PCB Relay RT 1 Inrush Relay Series

- Enable switching of high inrush loads while saving space with smaller housing dimensions
- Meet industry standard making and breaking capacity with tungsten versions
- Allow for dense PCB mounting with low power consumption of bistable coil versions

1 Horicultural Lighting 2 Indoor Fixtures 3 Outdoor Fixtures 4 Signage 5 Specialty Lighting 6 Lighting Controls

TE Connectivity (TE) has extensive capabilities in the design and manufacture of relays and a broad portfolio of relays for lighting applications. Meeting the requirements of National Electrical Manufacturers Association (NEMA) 410 and complying with standardized PCB footprints, TE offers a wide range of inrush current capabilities and addresses the complete spectrum of requirements in the lighting industry. Through agency approved test labs, we ensure that our relays are tested to meet the expectations of the lighting industry. Whether you are designing for outdoor or indoor lighting applications, TE delivers high quality relays from state-of-the-art production lines.

RETAIL

GREENHOUSE LIGHTING

COMMERCIAL

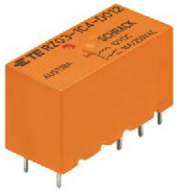
STREET LIGHTING

RESIDENTIAL LIGHTING

Our Relays in Lighting

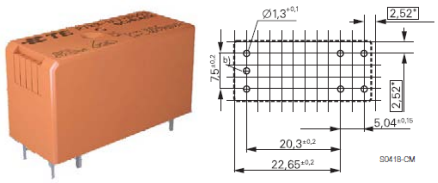
- RTX
- RT-iPower
- RT Inrush
- RZ
- T9A Standard
- T9A2X
- EW60

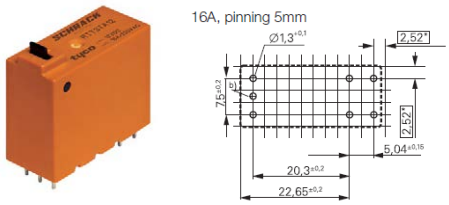
LIGHTING CONTROL

	RTX	RT-iPOWER	RT INRUSH	RZ
				
Applications	• Occupancy sensor • Intelligence lighting control by bus systems • Bus system actuators (smart home) • Movement detectors • Remote light controls • Intelligent wall sockets • Light sensors • LED Lighting control	• Occupancy sensor • Intelligence lighting control by bus systems • Bus system actuators (smart home) • Movement detectors • Remote light controls • Intelligent wall sockets • Light sensors • LED Lighting control	• Occupancy sensor • Intelligence lighting control by bus systems • Movement detectors • Street lighting • Emergency lighting • LED Lighting control	• Movement detectors • Timers • Street lighting

	T9A STANDARD	T9A2X	EW60
Applications	• Low voltage controllers	• Street lighting • Emergency lighting	• Occupancy sensor • Intelligence lighting control by bus systems • Street lighting • Bus system actuators (smart home) • Movement detectors • Remote light controls • Intelligent wall sockets • Light sensors • LED Lighting control

	RTX	RT-iPOWER
Key Features	Reduce cost **and** save space with one relay for capacitive and for inductive loads Minimizes use of zero cross drives Standard 16 Amps global footprint	Enable switching without energizing the coil through manual operator option Minimizes use of zero cross drives Standard 16 Amps global footprints





In Rush Amperage	up to 320A	RTS3L: up to 120A; RTS3T: up to 320A; RTSET: up to 370A
Latching option	Y	Y
Reinforced insulation	Y	Y
UL electronic ballast/TV	TV16/277 VAC	3A/277 VAC; 5A/120 VAC; 5A/277 VAC 8A/277 VAC; TV 5/240 VAC
Contact Data		
Contact arrangement	1 form A, 1 NO	1 form A, 1 NO
Rated voltage	277VAC	480VAC
Rated current	16A	12/16A
Switching power	4000VA	4000VA
Contact material	W Tungsten (flip-flop spring)	AgSnO2, W+AgSnO2, (pre-make cont.)
Coil Data		
Magnetic system	DC, bistable (1 or 2 coils)	DC, monostable / bistable (1 or 2 coils)
Rated coil voltage	5 to 48VDC	5 to 110VDC
Rated coil power	650/950mW	400/600mW per
Insulation Data		
Initial dielectric strength		
between open contacts	1250Vrms	1000Vrms
between contact and coil	5000Vrms	5000Vrms
Clearance/creepage		
between contact and coil	min. 6/6mm	10/10mm
Other Data		
Ambient temperature (max.)	+70°C	+85°C
Category of environmental protection IEC61810	Flux proof	Flux proof, wash tight, on request
Terminal type	THT	THT
Mounting	PCB	PCB or on socket
Dimensions (lwh)	29.1x12.7x16mm	29x12.7x15.7mm/RTS3Tmanual operator version: 30x13.7x28.2 mm
Accessories		PCB and DIN rail sockets
Preferred Part Numbers		1-1415898-9 2-1415898-3 2-1415898-5 1415898 1415898-2 1415898-5
Link to datasheet	RTX	RT-iPOWER
Notes		

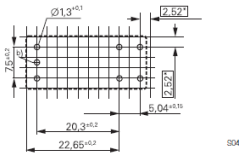
Key Features

RT INRUSH

Monostable and bistable versions available

Standard 16 Amps global footprint

16A, 1 form A (NO) contact, pinning 5mm

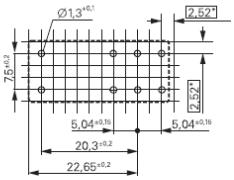


RZ

Overcome micro welding and help improve life time through weld breaker mechanism

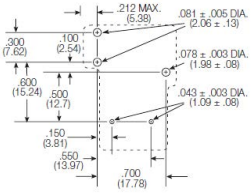
Standard 16 Amps global footprint

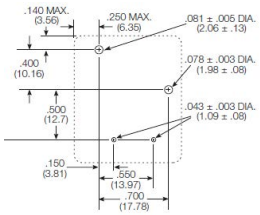
16A, pinning 5mm



In Rush Amperage	up to 80A	up to 80A (AgSnO)
Latching option	Y	N
Reinforced insulation	Y	Y
UL electronic ballast/TV	1A/277 VAC 2A/120 VAC 1400W/240 VAC Tungsten	TV4/240 VAC 1000W/240 VAC Tungsten
Contact Data		
Contact arrangement	1 form C, 1 CO; 1 form A, 1 NO	1 form C, 1 CO; 1 form A, 1 NO
Rated voltage	250VAC	250VAC
Rated current	16A	16A
Switching power	4000VA	4000VA
Contact material	AgSnO	AgNi90/10, AgSnO
Coil Data		
Magnetic system	DC, monostable/bistable (1 or 2 coils)	DC, monostable
Rated coil voltage	5 to 60 VDC	3 to 48VDC
Rated coil power	400mW/600mW (bistable 2 coil version)	400mW
Insulation Data		
Initial dielectric strength		
between open contacts	1000Vrms	1000Vrms
between contact and coil	5000Vrms	5000Vrms
Clearance/creepage		
between contact and coil	10/10mm	10/10mm
Other Data		
Ambient temperature (max.)	+85°C	+85°C
Category of environmental protection IEC61810	Flux proof, wash tight	Flux proof
Terminal type	THT	THT
Mounting	PCB or on socket	PCB
Dimensions (lwh)	29x12.7x15.7mm	29x12.7x15.7mm
Accessories	PCB and DIN rail sockets	
Preferred Part Numbers	2-1393240-7 2-1393240-8 3-1393240-3 3-1393240-5 7-1393239-3 7-1393239-5	4-1415899-9 5-1415899-0 5-1415899-4 5-1415899-5
Link to datasheet	RT INRUSH	RZ
Notes		

	T9A STANDARD	T9A2X
Key Features	Option for load connections via QC terminals Standard 30 Amps global footprint	Switches loads by de-energizing relay Enables fail-on functionality Wider application potential through high isolation (6kv) between coil and contact circuits





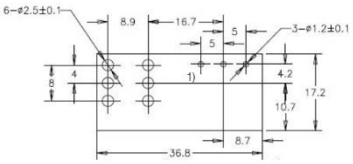
In Rush Amperage	up to 166A for LED load	up to 320A for LED load
Latching option	N/A	N/A
Reinforced insulation	N/A	N/A
UL electronic ballast//UL TV	3A/120 VAC//TV-8/125 VAC	5A/277 VAC (potential)
Contact Data		
Contact arrangement	1 form A (NO); 1 form B (NC); 1 form C (CO)	1 form B (NC)
Rated voltage	277VAC	240VAC
Rated current	30A	30A
Switching power	7500VA	N/A
Contact material	AgSnInO	AgSnOInO
Coil Data		
Magnetic system	DC	DC
Rated coil voltage	5 to 110VDC	5 to 110VDC
Rated coil power	900mW, 1W	1W
Insulation Data		
Initial dielectric strength		
between open contacts	1500Vrms	1500Vrms
between contact and coil	2500Vrms	2500Vrms
Clearance/creepage		
between contact and coil	3.1/6.3mm	3.18/6.36mm
Other Data		
Ambient temperature (max.)	+85°C	+70°C
Category of environmental protection IEC61810	Unenclosed, dust protected, flux proof, wash tight	Unenclosed, dust protected, flux proof, wash tight
Terminal type	THT, Quick Connect	THT, Quick Connect
Mounting	PCB, panel mount	PCB, panel mount
Dimensions (lwh)	27.4x20.4; 27.9mm (H) w/QC	27.4x20.4; 27.9mm (H) w/QC
Accessories		
Preferred Part Numbers	6-1423091-2 5-1423091-7 6-1423091-3 1558661-3	3-2071229-7
Link to datasheet	T9A STANDARD	T9A2X
Notes	Enhanced version in development	PCB versions available upon request

EW60

Key Features

Switch the lighting power of an entire floor of a building or street through strong electronic ballast switching

Minimizes use of zero cross drives



In Rush Amperage	up to 480A
Latching option	Y
Reinforced insulation	Y
UL electronic ballast/TV	16A or 20A/277 VAC; 60A/250 VAC

Contact Data

Contact arrangement	1 form A (NO)
Rated voltage	250 VAC
Rated current	60A
Switching power	15 kVA
Contact material	AgSnO2

Coil Data

Magnetic system	DC
Rated coil voltage	12Vdc
Rated coil power	1.5/3W, 24 VDC

Insulation Data

Initial dielectric strength	
between open contacts	1500Vrms
between contact and coil	4000Vrms

Clearance/creepage

between contact and coil	≥6/9mm

Other Data

Ambient temperature (max.)	+70°C
Category of environmental protection IEC61810	Dust protected
Terminal type	THT
Mounting	PCB
Dimensions (lwh)	36.8x17.2x30.4mm

Accessories

Preferred Part Numbers

2071366-1
2071366-2
2071366-3
2071366-4

Link to datasheet

EW60

Notes

POWER CONNECTORS FOR LIGHTING APPLICATIONS

From outdoor luminaires to commercial refrigeration, new technology boosts innovation in lighting. Partner with TE Connectivity (TE) to help bring your products to market fast with our broad range of power connector solutions.

POWER TRIPLE LOCK Connectors

Combining high performance with a functional design, these connectors with 6mm centerline spacing were specifically developed for better power connections up to 20A. The system offers three enhanced methods to help assure secure connections. Available in wire-to-wire and wire-to-board types. With the available high temperature (150°C) material, this connector system is ideal for lighting applications.

Economy Power Connectors

These wire-to-board connectors are widely utilized for power circuit applications up to 11A in lighting, household appliances and industrial machinery. Choose from 3.96, 5.08 or 7.92mm pitches. Optional terminal position assurance (TPA) devices help assure contacts are seated in housings. These connectors are offered in Glow Wire compatible material that also meet UL 94 V-0.

Power Key Connectors

Power key connectors are designed and built for manufacturing efficiency by optimizing contact seating and proper mating to the PCB headers. The 5.0mm pitch connectors offer a compact 20.7mm mated height, and are ergonomically friendly for assembly. Various colors and keys help prevent mis-mating, and are potting capable for PCB boards. GWT compliant models meeting UL 94 V-0 are offered.

Universal MATE-N-LOK Connectors

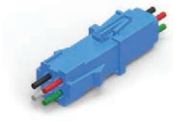
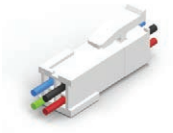
With pins and sockets intermixed in .250″ [6.35mm] pitch housings, these connectors are rated to 19A. They offer wire-to-wire, wire-to-panel, and wire-to-board configurations. Polarization, positive locking, and rear cavity identification ease assembly. Options include circular, flanged, bulkhead, sealed, and colored housings in various materials (including Glow Wire compliant) for lighting and other applications.

Mini Universal MATE-N-LOK Connectors

Compact, durable connectors rated up to 10.5A provide panel mount, free hanging, and wire-to-board connections in a .163″ [4.14mm] pitch package. They are polarized to provide proper plug-to-cap mating and have a latch to help prevent accidental un-mating. A sealed option offers moisture resistance where there is high humidity or intermittent liquid splashing, or for foam-in applications.

Micro Universal MATE-N-LOK Connectors

Micro MATE-N-LOK connectors, with a 3mm contact centerline and 5A rating, are the smallest solutions in the MATE-N-LOK connector family, offering wire-to-wire and wire-to-board types. Low profile versions are less than 4.7mm tall. IR reflow-compatible headers include vertical and right angle types for through-hole and surface mounting. Typical uses include lighting, appliances, industrial equipment, home equipment, and security systems.

	Centerline (mm)	Current Rating	Voltage Rating	Wire Size (AWG)	Position Size	Configurations	Operating Temp. Range °C	Flammability	Approvals	Features
POWER TRIPLE LOCK Connectors										
	6.00	20	600 VAC or VDC	12-20 2x18 2x20	2-15	Wire to Wire Wire to Panel Wire to Board MFBL	-55°C to + 105°C HT 150°C	GWEPT 750 & UL 94 V0, High Temperature 150°C	UL, CSA	CPA, TPA color specific keyings & polarizations
Economy Power Connectors										
	3.96	8 (1p) -7.5	250 VAC	22-18	2-12	Wire to Wire Shrouded Headers Unshrouded Headers	-25°C to + 105°C	GWEPT 750°C UL 94 V0	UL, CSA	TPA (EP II), inspection window for electrical check, lubricated contact external robust locking latch
	5.08	7.5	250 VAC							
	7.92									
	3.96 (EP II)	11	600 VAC	22-16					UL	
Power Key Connectors										
	5.00	10	300 VAC	24-16	2, 3, 4, 6	Wire to Board	-30°C to + 105°C	UL 94 V0 & V2, GWEPT 750°C NF	UL, CSA	TPA, four colors and keyings, potting compatible, lanceless contacts
Universal MATE-N-LOK Connectors, Universal MATE-N-LOK II Connectors										
	6.35	19	600 VAC or VDC	30-10	1-15 2-15 (II)	Wire to Wire Wire to Board	-55°C to + 105°C 125°C	UL 94 V0, V2 & GWEPT 750°C	UL, CSA, VDE	Sealed version
Mini Universal MATE-N-LOK Connectors, Mini Universal MATE-N-LOK II Connectors										
	4.14	9.5 (both) 10.5 (II)	600 VAC or VDC	30-16	1-4, 6, 9, 12, 15 (WTW) 2-24 (WTB)	Wire to Wire Wire to Board	-55°C to + 105°C	UL 94 V0&V2	UL, CSA, (250V Max.) UL, CSA, VDE (II)	Sealed version
Micro Universal MATE-N-LOK Connectors										
	3.0	5	250 VAC	30-18	2-24	Wire to Wire Wire to Board Wire to Panel	-40°C to + 105°C	UL 94 V0 & V2 GWEPT 750°C NF Version available for headers	UL, CSA, VDE	45% lower profile version available, surface-mount header configu-ration, dual beam contact design

Connect With Us

We make it easy to connect with our experts and are ready to provide all the support you need.
Visit **te.com/support** to chat with a Product Information Specialist.

TE Connectivity

te.com/lighting-component-solutions

AMP, BUCHANAN, FASTON, LIGHT-N-LOK, MATE-N-LOK, PLASTI-GRIP, VALU-LOK, LUMAWISE, CORCOM, NECTOR, SlimSeal, POWER TRIPLE LOCK, Potter & Brumfield, SCHRACK, CoolSplice, MATE-N-LOK, POWER TRIPLE LOCK, TE, TE Connectivity, TE connectivity (logo), and EVERY CONNECTION COUNTS are trademarks owned or licensed by the TE Connectivity plc family of companies. Other product names, logos, and company names mentioned herein may be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

●2026 TE Connectivity. All Rights Reserved.

02-26