

Fact Sheet

LIGHTING & LIGHTING CONTROL PRODUCTS

▶ What is Lighting?

- Solid State Lighting (SSL) is a revolutionary new technology in which light-emitting diodes (LEDs) replace conventional incandescent and fluorescent lamps resulting in more energy efficient lighting applications.
- From a single bulb to an entire system, SSL lighting is an integral part of intelligent building networks.
- Typical lighting applications consist of the light source (light bulb, tube, panel), the light fixture (downlight, streetlight, troffer,) and the lighting control.

▶ In the Know ↗

- More than 50% of the world's electricity consumption is used for lighting and our increasing population has put a tremendous strain on the world's electric grids.
- The global LED lighting market has grown 54% over the past year to \$25.4 billion, while at the same time the LED lighting penetration rate rose to 18.6%.
- Many countries around the world are banning incandescent lights due to high energy consumption driving the transition to more efficient alternatives like LED fixtures.
- LED lighting products provide significantly longer operating life making them well suited for areas that are not easily accessible.
- LEDs offer the capability of controlling a wider range of dimming and color adjustments.
- LED technology moves lighting from an electrical system (110/220 volts AC) to an electronic system (5-60V volts DC). This shift in technology, along with innovative interconnect solutions, offers unique opportunities to design smaller and more compact lighting solutions.
- TE is positioned as a leader in the design and development of LED interconnects and LED holders.

▶ Applications for Lighting & Lighting Control Products

- Retrofit Lamps
- Indoor Fixtures
- Outdoor Fixtures
- Signage
- Specialty Lighting
- Lighting Controls



▶ Target Customers

- Architectural Lighting
- Consumer Lighting
- Street Lighting
- Emergency Lighting
- LED Retrofit Bulb Manufacturers
- LED Chip on Board Manufacturers
- Contract Manufacturers

▶ Design Navigator ↗

TE provides interconnect solutions for retrofit lamps, indoor fixtures, outdoor fixtures, signage, specialty lighting and lighting controls appropriate for use in a broad range of operating environments, from private offices, to retail and commercial indoor and outdoor spaces.

With one of the largest connector portfolios on the market, TE offers a broad range of options to choose from to help accelerate your customer's path to market. Whether it's showing you our value-added solutions or designing a new product, our commitment to advanced engineering and world-class manufacturing delivers innovation to advance your lighting project.

TE's featured products include:

- LUMAWISE LED holders
- Inverted Thru Board Interconnect
- Solid State Lighting Connectors
- NECTOR Power Systems
- Filters
- Relays

▶ Key Questions to Ask Your Customers

- What are the voltage and current requirements for your lighting application?
- Does your current solution need improvement in terms of light obstruction and shadowing?
- How are you currently making power connections to your luminaire?
- Are you interested in reducing the time it takes to install or retrofit a lighting system?
- Does your design require a sealed connector system?
- Are you looking for an LED connection solution that can be easily integrated into your high volume SMT manufacturing setup?
- Would you like to eliminate the time and cost of secondary assembly processes?

Design Navigator

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

	APPLICATIONS						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
	1	2	3	4	5	6													
PCB and Wire Connectors																			
AMP CT & Mini CT Connectors	●	●	●	●	●	●	4	125 AC	1500 AC	-40 to +105	●	30-18	●	●	●				UL, CSA
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
G13 Pin Header	●						2	250 AC/DC	1500 AC	-40 to +120	●						●		UL
G13 Screwdown Jumper	●				●	●	2	250 AC/DC	1500 AC	-40 to +120							●		UL
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
Micro Poke-In Connectors	●	●			●		3	250 AC/DC	1500 AC	-25 to +130	●	26-24	●		●				UL
Mini Hermaphroditic Connectors			●	●	●	●	3	300 AC/DC	1600 AC	-40 to +105	●								UL, IEC
Mini Screwdown Jumper	●				●		3	250 AC/DC	1500 AC	-40 to +105							●		UL
Mini Universal MATE-N-LOK Connectors		●			●		9.5	600 AC	1500 AC	-55 to +105		30-16	●	●	●				UL
Pivot Power RJ45 Connectors			●		●		1	60 AC/DC	1000 AC	-40 to +85		18		●	●				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
Releasable Poke-In Wire Connectors	●	●	●	●	●	●	9	400 AC/DC	1800 AC	-30 to +105	●	22-18	●	●	●				UL, IEC
RJ45 Connectors		●			●		1.5	150 AC	900 AC	-40 to +85	●	26-22	●						UL, IEC
SMT Poke-In Connectors		●	●	●	●	●	5	250 AC/DC	1500 AC	-40 to +105	●	22-18	●	●	●				UL
Terminal Blocks		●	●	●	●	●	15	300 AC/DC	varies*	-40 to +110		30-10	●	●	●	●	●		UL, CSA, VDE, cUL
VAL-U-LOK Connectors		●			●		10	300 AC	1500 AC	-40 to +105		30-18	●	●	●				UL, IEC
Vertical and In-Line Screwless Connectors					●		2	600 AC/DC	2200 AC	-30 to +105		18-16	●		●				UL
LED Connectors																			
LUMAWISE Custom LED Holders	●	●	●	●	●		varies*	varies*		-40 to +105		varies*	varies*	varies*					varies*
LUMAWISE Z32 Holders Low Profile	●	●	●	●	●		2	60 DC		-40 to +105		22-20	●	●					UL
LUMAWISE Z50 Holders with Optics Attach		●	●	●	●		5	300 DC		-40 to +105		22-18	●	●					UL, IEC, Zhaga
LUMAWISE Z50 Optics Attachment Accessories		●	●	●	●					-40 to +105									
Scalable LUMAWISE LED Holder (1 & 2 piece)	●	●	●	●	●		3	250 DC		-40 to +105		22-18	●	●					UL, IEC
Z50 LUMAWISE LED Holders		●	●	●	●		5	300 DC		-40 to +105		22-18	●	●					UL, IEC, Zhaga
Power Distribution																			
Ceiling Grid Power (eMerge)		●			●	●	4.1	24 DC		-55 to +85									UL
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		●	●	●	●		5	600 AC/DC		-45 to +85		22-18	●	●		●		IP65 IP67	UL
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
SlimSeal SSL 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
Photocontrols																			
ANSI C136.41 Compliant Dimming Receptacle			●				20	480 AC	2500 AC	-45 to +85					●				UL
Non-dimming Receptacle			●				15	480 AC	120 AC	-40 to +105				●		●			cULus
Circuit Protection																			
2Pro Hybrid Devices					●		400	600 AC/DC		-40 to +85		22	●	●	●				UL
R-Line PolySwitch Devices					●		100	72 AC	500 AC	-40 to +85		26-18	●	●	●				UL, IEC
Relays																			
3G com Series					●		5	250 AC	1500 AC	-40 to +85	●							IP67	UL, IEC
FX Series					●		2	250 AC	1800 AC	-40 to +85								IP67	UL, IEC
RT 1 Power Inrush Relay					●		20	250 AC	5000 AC	-40 to +85	●								UL, IEC
Switches																			
Power Rocker Switches					●		20	250 AC	1000 AC	-20 to +85					●	●		IP40	UL
Tactile Switches					●		0.05	24 DC	500 AC	-35 to +105	●							IP67	

	APPLICATIONS						Max Rated Current (A)/ Voltage (V) ¹	Operating Temperature Range (°C)	Mounting Style	Terminations (Input and Output)	Standards
	1	2	3	4	5	6					
Corcom EMI/RFI Power Line Filters	●	●	●	●	●	●	5 / 277 AC	-10 to +85	Chassis with mounting holes	Solid conductor wire leads	UL, IEC
Corcom FB Series		●			●	●					
Q Series		●					20 / 250 AC	-10 to +85	Chassis with mounting holes	Spade terminals, Wire leads, IEC inlet	UL, IEC

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