

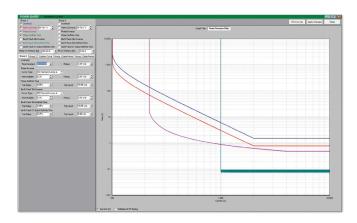
ACCESSORIES

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For More Information... on Retrofits, Panel Mount Adapters and more accessories, visit

Littelfuse.com/relayaccessories

SOFTWARE



Protection Relays and Alarm Systems are supplied with free software. The software simplifies programming and allows the user to save setpoint files and reuse them for similar applications.

The software gives the ability to change parameters and see the impact on the protection time current curves. It also allows another device curve to be entered to view simple coordination.

SOFTWARE				
Product		Features	Accessory For	
Solutions-M Relay Interface Software		Provides the ability to configure and monitor Modbus networks. The features include data logging, real-time data monitoring and fault and event monitoring. Devices can be added and configured manually or the software can scan an existing network to identify devices which can be used as is or reconfigured by the user. Setpoints for each device can be uploaded and downloaded for easy monitoring and reconfiguration.	RS485 TCP/IP networks MotorSaver and PumpSaver Devices	
SE-COMM-RIS Relay Interface Software		Provides remote access to metering, control, data logging, and programming features. Setpoints can be accessed individually, downloaded as a file, and protective curves can be plotted. Metered data can be observed or logged for later study.	FPU-32 FPS MPS MPU-32	
SE-FLASH Firmware Update Utility	The second secon	Used to update relay firmware to add new features.	FPU-32 FPS MPS MPU-32 EL731	
SE-MON330 Relay Interface Software		Used to receive data from the SE-330. It displays relay set points and measured values, and features data logging of information at a selectable interval.	SE-330 SE-330AU SE-330HV	
VMPU Virtual Motor Protection Relay	The same of the sa	Allows the user to scroll through the MPU-32 Motor Protection Relay menu.	MPU-32	
VMPS Virtual Motor Protection System		Allows the user to scroll through the MPS Motor Protection System menu.	MPS	
VFPU Virtual Feeder Protection Relay	Trans	Allows the user to scroll through the FPU-32 Feeder Protection Relay menu.	FPU-32	
MPU-32 Tutorial MPU-32 Online Self-Training Tutorial	The second secon	Online Self-Training tutorial for MPU-32 programming.	MPU-32	



ELECTRICAL

			ELECTRICA	AL ACCESSORIES			
PGA-1100 . Diode Logic Uni		C C C C C C C C C C C C C C C C C C C	and more than one Lit		PGR-8800 D0920	Accessory For AF0500 D1000	AF0100
P1004-XX /ersa-Pot PART NUMBER P1004-179 P1004-175 P1004-95 P1004-16 P1004-15 P1004-14 P1004-12 P1004-13	P1004-95-X P1004-16-X P1004-12-X	VALUE 50 kΩ 100 kΩ 200 kΩ 100 kΩ 500 kΩ 1.5M Ω 2M Ω 3M Ω 5M Ω	Panel mountable, indo recommended for rem The shaft is slotted fo serrated for slip-proof Versa-Knob or Lock SI two 8 in (20.3 cm) wir (clockwise increase) a	ustrial potentiometer note time delay adjustment. or screwdriver adjustment and finger adjustment. Accepts naft. May be ordered with	P1004-174 8 PHS Series P1004-16 & Series: ERI	P1004-175: P1004-16-X: DM ERDI ERD3 TS1 TS6 1004-14, P1004-1 X: B ORM ORS TRM TRS	TRB TRM
P0700-7 Versa-Knob				ed for 0.25 in (6.35 mm) shaft oss industrial black finish.		P1004-XX-(X)	
P0700-8 Lock Shaft						P1004-XX-(X)	
P1004-9 P1004-10 P1004-31 Mini-Pot PART NUMBER P1004-9 P1004-10 P1004-31	VALUE 500kΩ 1MΩ 3MΩ	800	time delay adjustmen the timer's center hole mini-mount bracket fo Adjustment by screwd ordered with two 3 in pot (clockwise increas	ial potentiometer for remote t. The shaft extends through e for easy panel mounting. Use or standup mounting of timer. driver or mini-knob. May be (7.6 cm) wires soldered to se) and female quick connect ds by adding suffix -X to end of 0.25 W at 55 °C Linear 300° ±5° ±10 % 0.125 in (3.2 mm)	TS	AC1 TS1 S4 TS6 SU2000	TS2 TSD7
P0700-21 Mini-Knob				d for 0.125 in (3.2 mm) shaft of	P1004-9	P1004-10	P1004-31

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ELECTRICAL ACCESSORIES Product Features Accessory For P0200-19 Single package/container of heat sink compound Heat Sink Compound consisting of primarily zinc oxide and having a 12 2 grams month shelf life (EOD date on the label). P0200-19 Any 2 x 2 in (50.8 x 50.8 mm) plated timer mounts one high current, plated 2 x 2 in (50.8 x or flasher. P0200-20 50.8 mm) timer or flasher. P0200-20 mounts Heat Sink Compound 50+ units. 100 grams Modules with 0.25 in (6.35 mm) Screw adaptor terminal designed for use with all P1015-18 modules with 0.25 in (6.35 mm) male guick male quick connect terminals. **Quick Connect** connect terminals. Screw terminal accepts ring Consult the individual datasheet to Screw Adaptor or spade terminals. determine compatibility. P1015-13 These 0.25 in (6.35 mm) female terminals are P1015-64 Consult individual datasheet to P1015-14 constructed with an insulator barrel to provide determine compatibility. Female Quick strain relief. **Connect Terminals** P0400 Time Adjustment Dials PART NUMBER RANGE **INCREMENTS** P0400-12 0.05 - 1 s 0.1 s P1004-9 P1004-10 P1004-12 Dials for use with remote Versa-Pot and panel mounted Mini-Pot. Reverse screen printed on clear P1004-13 P1004-16 P1004-31 P0400-86 0.1 - 10 m 1 m plastic to avoid damage to printed image. P1004-95 P0400-82 1 s 0.1 - 10 s P0400-17 1 - 30 s 5 s P0400-83 1 - 60 s 10 s MRD* P0400-27 0 - 10 *Multiplier Reference Dial **VTPXX** The VTP Series mounts on modules with in-line adjustment terminals. Rated at 0.25 W at 55 °C. VTP Available in resistance values from $5 \text{ k}\Omega$ to $5 \text{ M}\Omega$ **(P 71)** PART NUMBER R_T VALUE RANGE PART NUMBER R_T VALUE RANGE 0.5-20s VTP3L VTP0E $250 \text{ k}\Omega$ $2 M\Omega$ 0.1 - 4 m0.05-3s VTP1B $0.5\,\mathrm{M}\Omega$ VTP4B $3 M\Omega$ 0.05 - 3 sSeries: TAC1 THD7 THDM TS1 VTP1C $0.5 \,\mathrm{M}\Omega$ 0.1-10s VTP4F $3 M\Omega$ 0.5 - 60 sTSD7 TS2 TS4 TS₆ VTP1D $0.5\,\mathrm{M}\Omega$ 0.5-10s VTP4J $3 M\Omega$ 2-180 s VTP2A 1 ΜΩ 0.05-1s VTP4P $3 M\Omega$ 1-100 m VTP2C 1 ΜΩ 0.1-10s VTP5G 5 ΜΩ 1-100 s VTP2E 1 ΜΩ 0.5-20s VTP5K $5 M\Omega$ 10-1000 s VTP2F 1 ΜΩ 0.5 - 60sVTP5N $5\,\mathrm{M}\Omega$ 0.1-10 m VTP2J 1 ΜΩ 2-180s VTP5P $5\,\mathrm{M}\Omega$ 1-100 m 1 ΜΩ 1-100m **VTPDF** 50 kΩ 0.5-60 s VTP2P VTP3B 0.05 - 3s $2 M\Omega$



ELECTRICAL

			ELEC	TRICAL AC	CESSORIES	3				
	Product			Featu	es			Accessory	For	
LPSM003Z Indicating Fuse H LPSM003Z Non-indicating Fu	older	Roman Roman Roman	Littelfuse POWf optimum protec Midget-Style fu	tion to perso	onnel for Cla		Class CC	and Midget-S	tyle fuses	
OKLK002.T Midget Fuse (2 A			10 x 38 fast acti current-limiting				FH3P	LPSM003ZXID	LPSM0	03Z
			The VRM6048 a							
VRM6048 Voltage Monitor Accessory Modu	575 V ac —	⇒ 460 V ac L1 L2 + L3 Voltage Monito	Adjustment Package Mounting Termination Operating Storage Humidity Voltage *The VRM6048 mu monitor is disconne input voltage.	is 575 V a and adjus monitor f Molded h encapsul; Surface n (M5 x 0.8 be DIN-ra P1023-20 Screw tel wire clam AWG wir -40 °C to -40 °C to 95 % relating to 600 V ac 575 V ac 550 V ac	rminals with ops for up to e. 70 °C 85 °C outive, non-col 48 46 44 d as shown. If the properties of the color	s shown voltage operation. / ne #10 w. May using captive No.12 ndensing ttput* 0 V ac 0 V ac the voltage	Series:	PLM PLR PLS TVM TVW (manufacture December	, ed after	
V150LA10	AP (The V150LA10A suppressor, is a is designed to b power lines. Th very little moun	radial leade e operated o is UL Recogr	d varistors (I continuously	MOVs) that across ac	Any of o	ur products the	•	elow
PRODUCT	MAX. OPERAT	TING VOLTAGE	MAX IMPULSE CURRENT 80.20 µs CURRENT WAVE	VARISTOR V 1MA DC TES		PEAK CLAMP WITH 80.20 μs		CAPACITANCE	DISC DIAMETER	
	AC (V)	DC (V)	(A)	MIN. (V)	MAX. (V)	V _C (V)	1 _{PK} (A)		SIZE (MM)	
V150LA10AP	150	200	4500	216	264	395	50	800	14	

GR MODULES, HIGH-TENSION COUPLERS, & RELAY TESTERS

		GROUND-REFERENCE MODULES	
Product		Features	Accessory For
SE-GRM024 Ground Reference Module	GI -	Connects the SE-601 relay to an ungrounded 24 V dc bus.	SE-601
SE-GRM048 Ground Reference Module	ISO .	Connects the SE-601 relay to an ungrounded 48 V dc bus.	SE-601
SE-GRM125 Ground Reference Module	161 - 162 - 163 -	Connects the SE-601 relay to an ungrounded 125 V dc bus.	SE-601
SE-GRM250 Ground Reference Module	ISO	Connects the SE-601 relay to an ungrounded 250 V dc bus.	SE-601
SE-GRM500 Ground Reference Module	\$ === 1 	Connects the SE-601 relay to an ungrounded 500 V dc bus.	SE-601
SE-GRM780 Ground Reference Module		Connects the SE-601 relay to an ungrounded 780 V dc bus.	SE-601
SE-GRM1000 Ground Reference Module		Connects the SE-601 relay to an ungrounded 1000 V dc bus.	SE-601
		HIGH-TENSION COUPLERS	
Product		Features	Accessory For

HIGH-TENSION COUPLERS				
Product	Features	Accessory For		
PGH-5000 High Tension Couplers	Allows 5 kV systems to be connected to relay.	PGR-6100 PGR-3200		
PGH-6000 High Tension Couplers	Allows 6 kV systems to be connected to relay.	PGR-6100 PGR-3200		

PROTECTION RELAY TESTERS				
Product	Features	Accessory For		
SE-100T c us Ground-Fault Relay Tester	Tests the current pickup level ground-fault protection. Tests the entire ground-fault circuit.	Any Relay on Substations, MCCs, Central Distribution Panels, Switchboards, and Test Benches		
SE-400 Ground-Fault-Relay Test Unit	Tests the current pickup level, time delay and coordination of ground-fault protection. Tests the entire ground-fault circuit.	Any Relay on Substations, MCCs, Central Distribution Panels, Switchboards, and Test Benches		

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ACCESSORIES

INPUT MODULES & METERS

INPUT MODULES				
Product		Features	Accessory For	
MPS-RTD Temperature Input Module	O - Kinna a	Provides 8 programmable inputs to connect Pt100, Ni100, Ni120, and Cu10 RTDs.	MPU-32 MPS	
MPS-DIF Differential Current Module	T1 11 11 11 11 11 11 11 11 11 11 11 11 1	Adds motor differential protection, compatible with core balance and summation current transformer connections.	MPU-32 MPS	
MPU-CIM Current Input Module	A STATE OF THE STA	Interface between current transformers and MPU-32 or FPU-32 series relays. Reduces potential for open CT hazard.	MPU-32 FPU-32	
PGA-LS10 Point Sensor		Line-of-sight light sensor detects an arc as small as 3 kA within a 2 m half-sphere. Local LED continually displays sensor health or trip state.	PGR-8800 AF0500 AF0100	
PGA-LS20 Fiber-Optic Sensor		Used to detect light and coordinate with current detection to eliminate nuisance tripping. 8 m (26.2 ft) active; 10 m (32.8 ft) total.	PGR-8800 AF0500 AF0100	
PGA-LS30 Fiber-Optic Sensor		Used to detect light and coordinate with current detection to eliminate nuisance tripping. 18 m (59 ft) active; 20 m (66 ft) total	PGR-8800 AF0500 AF0100	
A0200/A0300 Light Sensor		Line-of-sight light sensor detects an arc as small as 3 kA within a 2 m halfsphere. Available in both 180° and 360°.	D0920	
A0220 Arc Detecting Point Sensor	data - month	Line-of-sight light sensor detects an arc as small as 3 kA within a 2 m half-sphere. Available with 10 or 15 m cable. For full datasheet and ordering information, see pg. 80	PGR-8800 AF0500 AF0100 D0920 D1000	
LCSC10T12 Toroidal Current Sensor		Remote monitoring of currents up to 50 A. Inner diameter 9.14 mm (0.36")	DCSA Series	

	REMOTE INDICATION & METERS	
Product	Features	Accessory For
REWATER TO SET IN THE	Panel-mounted remote indication and reset with NEMA 1 rating.	SE-105 SE-107
RK-105I Remote Indication Assembly (1) c us	Panel-mounted remote indication with NEMA 1 rating.	SE-105 SE-107
RK-102 Industrial Remote Indication and Reset Kit	Panel-mounted remote indication and reset, standard 22 mm mounting, with NEMA 4 and NEMA 13 rating.	SE-105 SE-107
RK-132 Industrial Remote Indication and Reset Kit	Panel-mounted remote indication and reset, standard 22 mm mounting, with NEMA 4 and NEMA 13 rating.	SE-134C SE-135 SE-145
RK-325 Remote Indication and Reset Assembly (L) c(S)-us	Panel-mounted remote indication and reset with NEMA 1 rating.	SE-325



METERS & SENSING RESISTORS

REMOTE INDICATION & METERS				
Product	Features	Accessory For		
RK-325I Remote Indication Assembly	Panel-mounted remote indication with NEMA 1 rating.	SE-325		
RK-302 Remote Indication and Reset Kit	Panel-mounted remote indication and reset, standard 22 mm mounting with NEMA 4 and NEMA 13 rating.	SE-325		
RK-332 Remote Indication and Reset Kit	Panel-mounted remote indication and reset, standard 22 mm mounting with NEMA 4 and NEMA 13 rating.	SE-330 SE-330AU SE-330HV		
PGA-0500 Analog % Current Meter	Panel-mounted analog meter displays ground-fault current as a percentage of the set point.	SE-601 SE-701 PGR-4300 SE-703 PGR-6100 SE-704		
PGA-0510 Analog Ohm Meter	Panel-mounted analog ohmmeter displays insulation resistance from 0 Ω to infinity.	PGR-3200 PGR-6100 PGR-6101-120		

	SENSING RESISTORS				
Product	Features	Accessory For			
ER-600VC (PGE-600V) Sensing Resistor	Used on systems up to 1 kV. (Continuous duty)	SE-330 SE-325 SE-330AU			
SE-MRE-600 Enclosure	Used in outdoor enclosures. (ER-600 VC ordered separately)	ER-600VC			
ER-5KV (PGE-05KV) Sensing Resistor	Used on systems up to 5 kV. (Continuous duty)	SE-330 SE-325 SE-330AU			
ER-5WP (PGE-05WV) Sensing Resistor	Used on systems up to 5 kV, includes weather-protected terminals for use in outdoor enclosures. (Continuous duty)	SE-330 SE-325 SE-330AU			
ER-15KV (PGE-15KV) Sensing Resistor	Used on systems up to 15 kV. (Non-continuous duty)	SE-330 SE-325 SE-330AU SE-330HV			
ER-25KV (PGE-25KV) Sensing Resistor	Used on systems up to 25 kV. (Non-continuous duty)	SE-330 SE-325 SE-330AU SE-330HV			
ER-35KV (PGE-35KV) Sensing Resistor	Used on systems up to 35 kV. (Non-continuous duty)	SE-330 SE-330AU SE-330HV			
ER-72KV (PGE-72KV) Sensing Resistor	Used on systems up to 72 kV. (Non-continuous duty)	SE-330HV			



REMOTE INDICATION & MONITORING

REMOTE INDICATORS & MONITORS				
Product		Features	Accessory For	
RM1000 RM1000-3R RM1000 NEMA 4 Motor-monitoring Device	Mossiae Paresiner	Motor-monitoring device to be used in conjunction with the 777 family of products (excluding the P1 Series), 77C family of products, and the 601 voltage monitors, via Modbus protocol with a communications module. The RM1000/777 motor management system combines unsurpassed electronic motor protection and critical, user-friendly, motor monitoring. For full datasheet, see pg. 246	777 series 77C series 601 series	
RM2000 RM2000CBM+ RM2000-RTDW Motor-monitoring Device	Mangaur Mangaur W O	Motor-monitoring device to be used in conjunction with the 777 family of products (excluding the P1 Series), 77C family of products and the Model 601 voltage monitors, via Modbus protocol with a communications module. The RM2000/777 motor management system combines unsurpassed electronic motor protection and critical, user-friendly, motor monitoring.	777 series 77C series 601 series	
INFORMER Remote diagnostic tool	INFORMER THE LAW	Hand-held diagnostic tool designed for use with single-phase pump relays. The Informer uses an infrared receiver to access information sent from the relay which can be helpful for troubleshooting the system. Comes with IR Kit-12 (12" long). For full datasheet, see pg. 250	111P 111-Insider-P 111P-ENCL 231-Insider-P 232-Insider 233P-1.5 233P-ENCL 233P-1.5-ENCL 234-P 235P 235P-ENCL	
IR Kit-36 (36" long) Informer Fiber Optic Kit	Ÿ	Use with the Informer. Simply attaches to the face of the unit to provide remote diagnostics without opening the panel.	LSRX1 111-Insider-P 455 LSRX-C 231-Insider-P	
INFORMER-MS Remote diagnostic tool	No Comments	Hand-held diagnostic tool designed for use with the Littelfuse 455 series. The Informer-MS uses an infrared receiver to read valuable information transmitted from the 455, which can be helpful for troubleshooting the system For full datasheet, see pg. 252	455 series	
OL-RESET Remote Reset Module	Motosher O. Reser O. Reser O. Reserved	Allows the 777 line of motor and pump relay products to be manually reset without opening the panel door. Simply connect the module to the 777 communication port, connect a wire to each of the two applicable pins on the OL-RESET and to a normally-open push-button switch (sold separately). Mount the push-button switch in a convenient location.	777 series	
777-MRSW Manual Remote Reset Kit (24" long)	P	Allows the 777 line of motor and pump relay products to be manually reset without opening the panel door. Simply connect the 9-pin adapter to the 777 communication port and mount the push-button switch in a convenient location.	777 series	
M500 Electronic Megohmmeter		Automatic, portable, battery-powered insulation tester. This unit inexpensive alternative to costly swing needle megohmmeters. T resistance values of motors, generators and transformers up to 1 the condition of insulation on the zone scale. Its compact design	The M500 measures insulation 000 megohms at 500 V ac, indicating	

the condition of insulation on the zone scale. Its compact design and ease of use makes the M500 a great diagnostic tool for motor rewind shops, electrical maintenance personnel and pump installers.

COMMUNICATION ADAPTERS & MODULES

D. 1. 1		COMMUNICATION ADAPTERS	Δ
RS485-RS232 Converter with cable & plug		Features Allows RS485 devices to be connected to a PC via the RS232 (serial) port. The converter provides convenient terminal blocks for making signal and dc power supply connections. An optional power supply may be required for laptops or other computers with low power serial ports, or for very large networks. Pre-wired for easy installation on the RS485MS-2W module.	Accessory For RS485MS-2W
RS485-USB Converter with cable & plug/RS232:USB		Allows RS485 devices to be connected to a PC via the USB port. The converter provides convenient terminal blocks for making signal and dc power supply connections. An optional power supply may be required for laptops or other computers with low power serial ports, or for very large networks. Pre-wired for easy installation on the RS485MS-2W module.	RS485MS-2W
AC700-CUA Communications Adapter	Transport	Optical network-interface and firmware-upgrade communication adapter. Field-installed.	EL731
		COMMUNICATION MODULES	
Product		Features	Accessory For
RS485MS-2W Communication Module	Andrew 200	This module is required when the RM1000, RM2000 or other Modbus capable device is used with 77X-type products. For full datasheet, see pg. 254	Series: RM1000 77X RM2000
CIO-DN-P CIO-120-DN-P Communication link to PLC/ SCADA/monitoring systems	Daywood Co.	Convenient and cost-effective Devicenet™ interfaces capable of providing discrete control and monitoring of motor starters, drives and other devices over a Devicenet network. For full datasheet, see pg. 257	777 series
CIO-EN Communication link to PLC/ SCADA/monitoring systems	Simple Sim Simple Simple Simple Simple Simple Simple Sim S	The CIO-EN Module (non-POE) is a convenient and cost- effective Modbus-TCP and Modbus-RTU interface capable of providing discrete control and monitoring of an overload relay over a Modbus network. For full datasheet, see pg. 260	777 series
CIO-MB CIO-120-MB Communication link to PLC/ SCADA/monitoring systems	Property Co.	Convenient and cost-effective Modbus-RTU interfaces capable of providing discrete control and monitoring of an overload relay over a Modbus network. For full datasheet, see pg. 255	777 series
CIO-777-PR Communication link to PLC/ SCADA/monitoring systems	Parana Printing	Convenient and cost-effective Profibus interface capable of providing discrete control and monitoring of motor starters, drives and other devices over a Profibus network. For full datasheet, see pg. 259	777 series ending in P, -P, or -P2
CIO-601CS-DN-P1	Depote Signature Service Signature S	Convenient and cost-effective DeviceNet device capable of providing discrete control and monitoring of motor starters, drives and other devices over a DeviceNet network.	601-CS-D-P1
COM 4-20 Communication link to PLC/ SCADA/monitoring systems	Pump Saver 460 at Strong 400 a	Send a 4-20 mA signal proportional to the output power. It can also be used to send the input power by setting the efficiency setting on the 777-AccuPower monitor to one. This module allows communication to a PLC with an analog input and no Modbus input. For full datasheet, see pg. 261	777-AccuPower

Adapters Expertise Applied | Answers De

TERMINATIONS & ADAPTERS

TERMINATIONS & ADAPTERS				
Product	Features	Accessory For		
1N5339B Termination Device	5 W axial-lead ground-check termination. Included with SE-105 and SE-107.	SE-105 SE-107		
SE-TA6-SM Stud-Mount Termination Assembly	50 W ground-check termination that is robust and compact for submersible pumps. Wire lead simplifies installation. (Replacement for 1N4553B)	SE-105 SE-107		
SE-TA6 Termination Assembly	50 W ground-check termination with convenient mounting holes and screw terminals.	SE-105 SE-107		
SE-TA6A (PGA-0T6A) Termination Assembly corus	Temperature compensated 50 W ground-check termination with convenient mounting holes and screw terminals.	SE-105 SE-107 SE-134C		
SE-TA6A-WL Termination Assembly	Temperature compensated 50 W ground-check termination with convenient mounting holes and screw terminals.	SE-105 SE-107 SE-134C		
SE-TA6ASF-WL Small-Format Termination Assembly with Wire Leads	Temperature compensated 12 W ground-check termination, ideal for use in cable-coupler end caps and submersible pumps. Mounting holes and wire leads.	SE-105 SE-107 SE-134C		
SE-TA12A Termination Assembly	Temperature compensated 50 W ground-check termination with convenient mounting holes and screw terminals.	SE-135 SE-145		
SE-TA12ASF-WL Small-Format Termination Assembly with Wire Leads	Temperature compensated 12 W ground-check termination, ideal for use in cable-coupler end caps and submersible pumps. Mounting holes and wire leads.	SE-135 SE-145		
SE-TA12A-WL Termination Assembly	Temperature compensated 50 W ground-check termination with convenient mounting holes and screw terminals.	SE-135 SE-145		
SE-TA12A SE-TA12B Termination Assemblies	Used together to allow an SE-134C to monitor a splitter box and two cables.	SE-134C		
PPI-600V Parallel Path Isolator	Parallel ground-path rejection for ground-check monitors. Eliminates intermachine arcing and prevents stray dc currents from flowing in a monitored ground wire.	SE-105 SE-107 SE-134C SE-135		
RK-13 Relay Interface Module	Separate ground-fault and ground-check indication contacts for the SE-105, and separate ground-fault and resistor-fault contacts for the SE-325. Used to provide output to a PLC and operate standard pilot lights. Complete with conformally coated circuit boards.	SE-105 SE-107 SE-325		
SE-485-DIN Industrial RS-485 to RS-232 Converter	Industrial network quality RS-485 to RS-233 serial converter. DIN-rail mounted, 24 V dc required.	MPS FPS		
SE-485-PP Port-Powered Serial Converter	Converts an RS-485 signal to an RS-232 signal. Used for set-point programming and updating flash memory. 115.2 kbit/s maximum transfer rate.	MPU-32 MPS FPU-32 FPS		
CA-945 Serial Connector Adapter Kit	Connects an RJ45 to a 9-pin serial connector. Includes 1.5 m cable and plug-in adapter.	MPU-32 FPU-32		
SE-ICUSB232 USB to RS-232 Converter	Connects a 9-pin serial cable to a USB port.	SE-330 CA-945 SE-330AU SE-330HV SE-485-PP SE-485-DIN		



LIQUID LEVEL PROBES & PROBE HOLDERS

LIQUID LEVEL CONTROL ELECTRODES					
Product	Features	Accessory For			
LLP-24 Liquid Level Probe	Threaded stainless steel probe measuring 24 in (61 cm) long. Designed for use with PHST-38QTN liquid level control electrodes.	PHST-38QTN			
PHST-38QTN Probe Holder P0700-409 Protective Boot 4.20 (106.68) REF	Designed for use with all conductive liquid level controls. Composed of insulators and metal parts made of number 300 series stainless steel. These internally conductive probe holders are designed for a maximum steam pressure of 240 PSI; 400 °F maximum. Maximum voltage from electrode to ground. PHST-38QTN is UL 353 Recognized.	Series: LLC1 LLC2 LLC4 LLC5 LLC6 LLC8 PC-XXX-LLC-CZ PC-XXX-LLC-GM 460-15-100-LLS			

CT SELECTION GUIDE

		PRODUCT	GROUND-FAULT CT	GROUND-FAULT TRIP LEVEL	PHASE CTS	PAGE #
	Г	SE-601		(or insulation level) 1–20 mA	N/A	17102 #
		PGR-3100	No CTs required No CTs required	Indication only	N/A	_
		PGR-3200	No CTs required No CTs required	Warnings at 30 k Ω & 50 k Ω Alarm at 10 k Ω	N/A	_
GROUND-FAULT PROTECTION	÷	SE-701/SE-703	CT200 series EFCT series	10–198 A 50 mA–4.95 A	N/A	480 480
			SE-CS30 series	300 mA-29.7 A		480
		SE-704	SE-CS30 series	10 mA-5 A	N/A	480
	L	EL731	EFCT series	30-5,000 mA ac and dc	N/A	480
UND- UCTOR TORING	6	SE-105/SE-107	CT200 series	0.5-4 A	N/A	480
GROUND- CONDUCTOR MONITORING		SE-134C/SE-135	SE-CS10 series	0.5–12.5 A	N/A	480
			CT200 series	12–200 A		480
RESISTANCE GROUNDING	Į.	SE-330	EFCT series	100 mA-5 A	N/A	480
RESIST	*		SE-CS30 series	600 mA-30 A		480
		SE-325	CT200 series	0.5-4 A	N/A	480
	ſ	MPU-32*	CT200 series	10–200 A		480
			EFCT series	50 mA-5 A	N/A	480
			SE-CS30 series	300 mA-30 A		480
			CT200	10–200 A		480
MOTOR & PUMP Protection	W.	MPS*	EFCT series (5-A Primary)	50 mA-5 A	1-A, 5-A Secondary CTs	480
MOT			SE-CS30 series (30-A Primary)	300 mA-30 A		480
		MPU-32-X69X-PMA16	Existing CTs can be used or same as MPU-32.			480
		MPS-469X-PMA24	Existing CTs can be used or same as MPS.			480
			CT200 series	10–200 A		480
		FPU-32*	EFCT series	50 mA-5 A	1-A, 5-A Secondary CTs	480
FEDER PROTECTION			SE-CS30 series	300 mA-30 A		480
	₩		CT200	10–200 A		480
		FPS*	EFCT series (5-A Primary)	50 mA-5 A	1-A, 5-A Secondary CTs	480
∓ ≅	إ	=	SE-CS30 series (30-A Primary)	300 mA-30 A		480
ARC-FLASH Protection	F	PGR-8800*	N/A	N/A	5-A Secondary CTs (optional)	480

Note: See page 502 for additional information on CT selection. See page 482 for CT sizing chart.

^{*}Phase CTs should be selected with a primary rating of 100—300 % of rated current to maintain specified accuracy.

[‡]Select a CT with a primary rating approximately equal to the system's rated current.



CURRENT TRANSFORMERS

CURRENT TRANSFORMERS					
Product	Features	Inner Diameter		Accessory F	or
CT200 (PGC-2056) Current Transformer	Detects phase current or ground-fault current (200-A primary)	56 mm (2.20")	FPS MPU-32 SE-330	FPU-32 PGR-8800 SE-325	MPS SE-105/107 SE-701
CT200L (PGC-2089) Current Transformer	Detects phase current or ground-fault current (200-A primary)	89 mm (3.50")	FPS MPU-32 SE-107	FPU-32 PGR-8800 SE-701	MPS SE-105
FCT-26 (PGC-3026) Ground-Fault Current Transformer Group cross us	Sensitive current transformer used to detect ground-fault current (5-A primary)	26 mm (1.02")	EL731 MPS SE-701	FPS MPU-32	FPU-32 SE-330
Fround-Fault Current Transformer Figure 1. Comparison of the comp	Sensitive current transformer used to detect ground-fault current (5-A primary)	82 mm (3.23")	EL731 MPS SE-701	FPS MPU-32	FPU-32 SE-330
EFCT-2 (PGC-3140) Ground-Fault Current Transformer U cous	Sensitive current transformer used to detect ground-fault current (5-A primary)	140 mm (5.50")	EL731 MPS	FPS MPU-32	FPU-32 SE-701
EFCT-1FC (PGC-31FC) Flux Conditioner	Fits in the EFCT-1 window to reduce saturation and prevent false operation due to large surge currents	70 mm (2.75")		EFCT-1	
SE-CS10-2.5 (PGC-4064) Current Sensor	Detects ground-fault current	64 mm (2.50")	SE-134C	SE-135	SE-145
SE-CS10-4 (PGC-4108) Current Sensor	Detects ground-fault current	108 mm (4.25")	SE-134C	SE-135	SE-145
SE-CS10-6 (PGC-4160) Current Sensor	Detects ground-fault current	160 mm (6.31")	SE-134C	SE-135	SE-145
SE-CS10-8 (PGC-4210) Current Sensor	Detects ground-fault current	210 mm (8.25")	SE-134C	SE-135	SE-145
SE-CS30-26 (PGC-5025) Ground-Fault Current Transformer	Current Transformer for low-level ground faults, flux conditioner is standard (30-A primary)	25 mm (0.98")	FPS MPU-32 SE-330	FPU-32 PGR-6100 SE-701	MPS PGR-6101 SE-704
SE-CS30-70 (PGC-5060) Ground-Fault Current Transformer	Current Transformer for low-level ground faults, flux conditioner is standard (30-A primary)	60 mm (2.36")	FPS MPU-32 SE-330	FPU-32 PGR-6100 SE-701	MPS PGR-6101 SE-704
SE-CS30-4 (PGC-5095) Ground-Fault Current Transformer	Current Transformer for low-level ground faults, flux conditioner is standard (30-A primary)	95 mm (3.74")	FPS MPU-32 SE-330	FPU-32 PGR-6100 SE-701	MPS PGR-6101 SE-704
SE-CS30-5 (PGC-5130) Ground-Fault Current Transformer	Current Transformer for low-level ground faults, flux conditioner is standard (30-A primary)	130 mm (5.12")	FPS MPU-32 SE-330	FPU-32 PGR-6100 SE-701	MPS PGR-6101 SE-704
SE-CS30-8 (PGC-5200) Ground-Fault Current Transformer	Current Transformer for low-level ground faults, flux conditioner is standard (30-A primary)	200 mm (7.87")	FPS MPU-32 SE-330	FPU-32 PGR-6100 SE-701	MPS PGR-6101 SE-704
SE-CS40-6 Current Sensor NOTE: Contact factory for additional CT offerings.	Detects ground-fault current	160 mm (6.31")	SE-135	SE-145	

14

CCESSORIES

INSTRUMENTATION & METERING TRANSFORMERS





Donut Style

Foot Mounted

Description

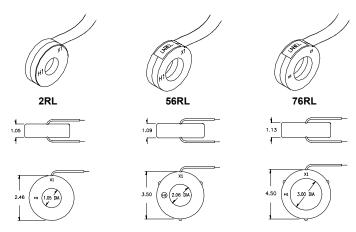
Littelfuse offers a wide array of instrument rated current transformers in 1–3 inch diameter opening.

Voltage class: 600 V BIL rating: 10 kV

Certification: cRUus (WICC File E100575)

Dimensional Drawing

DONUT STYLE

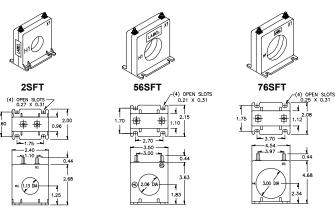


Ordering Information

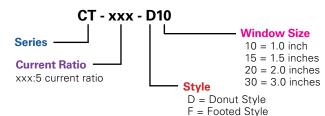
•		
DONUT MODEL	WINDOW	CURRENT RATIO
CT-0050-D10	1.0"	50:5
CT-0075-D10	1.0"	75:5
CT-0100-D10	1.0"	100:5
CT-0150-D10	1.0"	150:5
CT-0200-D10	1.0"	200:5
CT-0300-D10	1.0"	300:5
CT-0200-D20	2.0"	200:5
CT-0300-D20	2.0"	300:5
CT-0400-D20	2.0"	400:5
CT-0500-D20	2.0"	500:5

FOOTED MODEL	WINDOW	CURRENT RATIO
CT-0050-F10	1.0"	50:5
CT-0100-F10	1.0"	100:5
CT-0150-F10	1.0"	150:5
CT-0200-F10	1.0"	200:5
CT-0300-F10	1.0"	300:5
CT-1200-F15	1.5"	1200:5
CT-0150-F20	2.0"	150:5
CT-0200-F20	2.0"	200:5
CT-0300-F20	2.0"	300:5
CT-0400-F20	2.0"	400:5
CT-0600-F20	2.0"	600:5
CT-0400-F30	3.0"	400:5
CT-0800-F30	3.0"	800:5

FOOT MOUNTED WITH BRASS TERMINALS



Part Numbering System





INSTRUMENTATION & METERING TRANSFORMERS

INSTRUMENTATION AND METERING TRANSFORMERS				
Product	Features	Inner Diameter	Į.	Accessory For
CT-XXXX-DXX Series Donut Style Transformer	Littelfuse offers a wide array of instrument rated current transformers in 1–3 inch diameter opening. For full datasheet and ordering information, see page 481.	25.4 - 76.2 mm (1 - 3")	Series: 777 ECSW LSRU TCSA	DCSA ECS LSR-0 LSR-XX LSRX TCS LCSC10T12
CT-XXXX-FXX Series Footed Style Transformer	Littelfuse offers a wide array of instrument rated current transformers in 1–3 inch diameter opening. For full datasheet and ordering information, see page 481.	25.4 - 76.2 mm (1 - 3")	Series: 777 ECSW LSRU TCSA	DCSA ECS LSR-0 LSR-XX LSRX TCS LCSC10T12

Current Transformer Sizing Chart

Conductor Minimum CT Window			Window Siz	Size (Inner Diameter in mm)				
Size	Number of Conductors							
(AWG/kcmil)	1	3	4	6	8	12		
12	4	8	9	11	13	15		
10	6	10	11	14	16	19		
8	7	12	14	17	20	24		
6	9	15	18	22	25	31		
4	11	19	22	28	32	39		
3	13	22	25	31	36	44		
2	14	25	28	35	40	49		
1	16	28	32	39	45	55		
1/0	18	31	36	44	51	62		
2/0	20	35	40	49	57	69		
3/0	23	39	45	55	64	78		
4/0	25	44	51	62	72	88		
250	28	48	55	67	78	95		
350	33	56	65	80	92	113		
500	39	67	78	95	110	135		
750	48	82	95	117	135	165		
1000	55	95	110	135	156	191		

Installation Instructions:

When installing the Zero-Sequence CTs, ensure the following:

- Only the load carrying conductors pass through the center of the CT. This means L1 + N for 1-phase and L1+ L2 + L3 for 3-phase.
- 2. The power conductors pass through the center of the CT and are preferably bound together to keep the conductors uniformly spaced.
- 3. The power conductors pass perpendicular to the CT and, where practical, continue perpendicular to the CT on both sides of the CT for 3".
- 4. The power conductors should not be installed in a way that allows them to run along the side edges of the CT.
- 5. Where practical, locate the CT away from noise-generating devices such as transformers, frequency converters, etc.

14

ACCESSORIES

ELCT SERIES

Current Transformer





Description

TThe ELCT series is a sensitive current transformer with integrated flux conditioner used with Littelfuse relays to detect low levels of earth-leakage current.

Accessories



CBLTP

Twisted-pair wire for connection to CT. Order in desired length in meters.

Specifications

Current Rating ELCT5: 5:0.05 A **ELCT30:** 30:0.05 A

Accuracy ELCT5: 3 % @ 0.01 VA ELCT30: 3 % @ 0.06 VA

Frequency 50 to 400 Hz **Insulation Level** 600 V

Operating Temperature $-40 \, ^{\circ}\text{C} \text{ to } 55 \, ^{\circ}\text{C} \, (-40 \, ^{\circ}\text{F to } 131 \, ^{\circ}\text{F})$

Application SE-701

 Wire Gauge
 0.05-3.3 mm² (12-30 AWG)

 Tightening Torque
 0.5 N-m

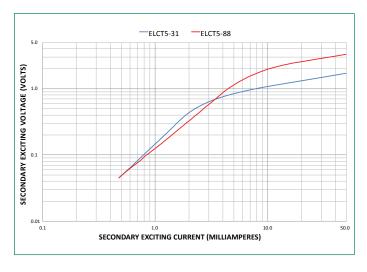
CertificationUL, cUL, CE

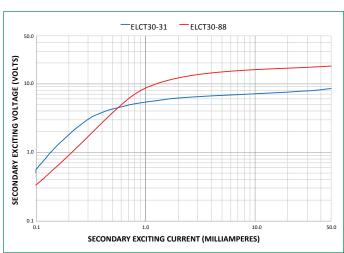
Compliance RoHS, IEC 61869-2, ANSI/IEEE C57.13

Note: One frequency response may be extended for specific product families

Ordering Information

ORDERING NUMBER	TURNS RATIO	WINDOW SIZE, ID	WEIGHT
ELCT5-31	100:1	31 mm (1.22 in)	127.0 g (0.28 lbs)
ELCT5-88	100:1	88 mm (3.46 in)	635.0 g (1.40 lbs)
ELCT30-31	600:1	31 mm (1.22 in)	131.5 g (0.29 lbs)
ELCT30-88	600:1	88 mm (3.46 in)	680.4 g (1.50 lbs)

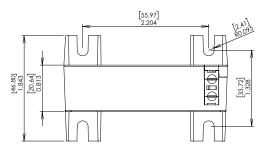


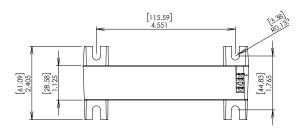


ELCT SERIES

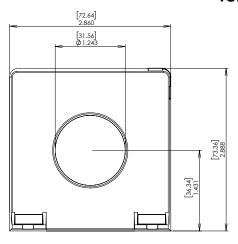
Dimensions and Mounting Diagram Inches [millimeters]

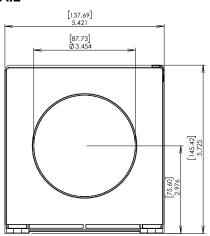
Mount the ELCT5-31 and ELCT30-31 using M5 or #10 screws. Mount the ELCT5-88 and ELCT30-88 using M6 or 1/4" screws.



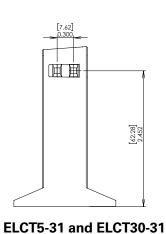


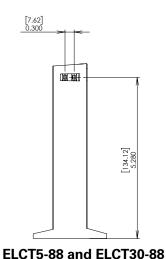
TOP VIEW AND MOUNTING DETAIL





FRONT VIEW





SIDE VIEW

Littelfuse® Expertise Applied | Answers Delivered

ZSCT SERIES

Current Transformer





Description

The ZSCT series is a current transformer used with Littelfuse relays to detect low levels of earth-leakage current.

Accessories



CBLTP

Twisted-pair wire for connection to CT. Order in desired length in meters.

Specifications

 Current Rating
 ZSCT5: 5:0.05 A

 ZSCT30: 30:0.05 A

 Accuracy
 ZSCT5: 3 % @ 0.01 VA

ZSCT3: 3 % @ 0.01 VA **ZSCT30:** 3 % @ 0.06 VA

requency 50 to 400 Hz

Frequency 50 to 400 Hz Insulation Level 600 V

Operating Temperature $-40 \,^{\circ}\text{C} \text{ to } 55 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } 131 \,^{\circ}\text{F})$

Application MP8000

 Wire Gauge
 0.05-3.3 mm² (12-30 AWG)

 Tightening Torque
 0.5 N-m

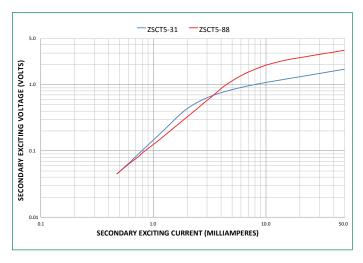
Certification UL, cUL, CE

Compliance RoHS, IEC 61869-2, ANSI/IEEE C57.13

Note: One frequency response may be extended for specific product families

Ordering Information

ORDERING NU	JMBER TURNS RATIO	WINDOW SIZE, ID	WEIGHT
ZSCT5-31	100:1	31 mm (1.22 in)	117.9 g (0.26 lbs)
ZSCT5-88	100:1	88 mm (3.46 in)	499.0 g (1.10 lbs)
ZSCT30-31	600:1	31 mm (1.22 in)	113.4 g (0.25 lbs)

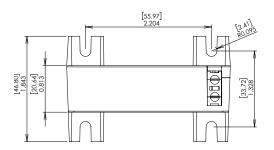


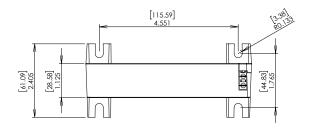


ZSCT SERIES

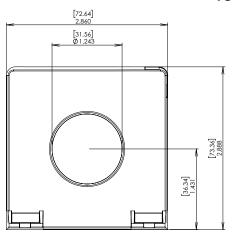
Dimensions and Mounting Diagram Inches [millimeters]

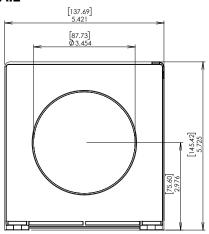
Mount the ZSCT5-31 and ZSCT30-31 using M5 or #10 screws. Mount the ZSCT5-88 using M6 or 1/4" screws.



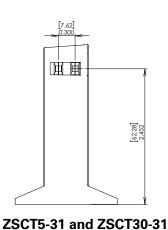


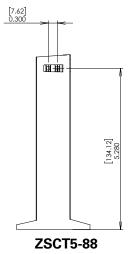
TOP VIEW AND MOUNTING DETAIL





FRONT VIEW





SIDE VIEW



PMA SERIES

Panel Mount Adapters — Retrofits

Example Shown: PMA-3



Example of a panel mount adapter (PMA-3). Relay is for illustrative purposes only and must be purchased separately from adapter plate. For more information on our complete offering of panel mount adapters see the following page.

Description

A variety of protection relay retrofit adapter plates are available for the products listed below. These adapter plates simplify the process of updating electromechanical or poorly functioning existing relays. Consult factory if you have a specific product to replace that is not featured. Adapters are available in either plate style for panel mounting or drawout style depending on the relay being replaced.

Motor, feeder and ground-fault protection upgrades are available for electromechanical or solid state relays that are nearing the end of their life.

Features & Benefits

FEATURES	BENEFITS
Mounting	Fits in existing mounting holes and panel openings
Multiple adapter sizes	Plate style or drawout style adapters are available to fit various outdated relays

Adapter Plates

RELAY TO REPLACE	PANEL MOUNT	NEW RELAY
AB BULLETIN 1406	PMA-14	MPS
FPL-GFRM	PMA-6	SE-701/SE-704
GE S1	PMA-9	MPU-32/FPU-32
GE LODTRAK III	PMA-10	MPU-32
	PMA-13	MPS
GE MULTILIN 169, 269, or 369	PMA-16	MPU-32
	PMA-16	FPU-32
GE MULTILIN 469	PMA-24	MPS
GE MULTILIN P4A	PMA-15	MPU-32/FPU-32
GEC/MCGG	PMA-3	SE-701/SE-704
GE & WESTINGHOUSE FT-11	PMA-12	MPU-32
P & B GOLDS	Contact Factory	FPU-32
WESTINGHOUSE CO9 & CO11	Contact Factory	FPU-32

For a complete list of the Littelfuse Panel Mount Adapter Plates please see next page.



PANEL-MOUNT ADAPTERS

PANEL MOUNT ADAPTERS			
Product	Features	Accessory For	
PMA-2 Adapter Plate	Used when replacing the AB Bulletin 1406.	MPL	J-32
PMA-3 Adapter Plate	Used when replacing GEC/MCGG ground-fault relays. Requires PMA-55 or PMA-60.	SE-704	SE-701
PMA-4 Adapter Plate	Used when replacing the Multilin 139/239.	MPL	J-32
PMA-6 Adapter Plate	Used when replacing FPL-GFRM ground-fault relays. Requires PMA-55 or PMA-60.	SE-	701
PMA-7 Adapter Plate	Used when replacing the GE Lodtrak II.	MPL	J-32
PMA-8 Adapter Plate	Used when replacing an Atkinson Omser II with an SE-130-Series Monitor.	SE-134C	SE-135
PMA-9 Adapter Plate	Used when replacing relays in the GE S1 Case. Requires PMA-55 or PMA-60.	MPU-32	FPU-32
PMA-10 Adapter Plate	Used when replacing the GE Lodtrak III.	MPL	I-32
PMA-12 Adapter Plate	Used when replacing GE and Westinghouse FT-11 relays.	MPL	J-32
PMA-13 Adapter Plate	Used when replacing the GE Multilin 169, 269, or 369.	MPS	
PMA-14 Adapter Plate	Used for rough cutouts and when replacing the AB Bulletin 1406.	МІ	rs
PMA-15 Adapter Plate	Used for rough cutouts and when replacing the GE Multilin P4A.	MPU-32	FPU-32
PMA-16 Adapter Plate PMA-16-RTDB Mounting Bracket	The PMA-16 mounting plate is used when replacing the GE Multilin 169, 269, and 369 relays. The PMA-16-RTDB is a mounting bracket for the optional MPS-RTD Temperature Input Module.	MPU-32	FPU-32
PMA-17 Adapter Plate	Used when replacing Sprecher & Schuh Cet 4.	MPL	I-32
PMA-18 Adapter Plate	Used when replacing Sprecher & Schuh Cet 3.	MPL	J-32
PMA-21 Adapter Plate	Used when replacing an ABB RACIF.	FPU	-32
PMA-23 Adapter Plate	Custom mounting plate for FPU-32 to replace 3 Westinghouse C0 relays.	FPU	-32
PMA-24 Adapter Plate	Used when replacing the GE Multilin 469.	М	rs
PMA-55 Adapter Plate	Used to panel mount the SE-601 and SE-701.	SE-601 PGR-4300	SE-701 SE-704
PMA-60 Adapter Plate	Used to panel mount the relay; IP 53 and NEMA 3 rating, tamper resistant.	SE-601 PGR-4300	SE-701 SE-704
MPU-32-SMK Surface-Mount Kit	Used to surface mount the MPU-32 or FPU-32.	MPU-32	FPU-32

Note: Relays are not included with the PMA-Series Panel Mount Adapters.



DIN RAIL & MOUNTING ADAPTERS

DIN RAIL & MOUNTING ADAPTERS			
Product	Features	Accessory For	
C103PM (AI) DIN Rail	Industry standard 35 mm aluminum or steel DIN rail. C103PM aluminum rail is available in a 36 in. (91.4 cm) length.	Can be used with all DIN-rail compatible units.	
AC700-SMK Mount Adapter	DIN-rail and Surface-mount adapter for back-plane mounting.	EL731	
D0050 DIN-Rail Adapter Clip	Plastic clip allowing DIN-rail mounting of the PGR-8800 and AF0500 Arc-Flash Relay.	AF0500 PGR-8800	
P1023-20 DIN Rail Mount Adaptor	Allows any 2 x 2 in (50.8 x 50.8 mm) or 2 x 3 in (50.8 x 76.2 mm) module to be mounted on a 35 mm DIN type rail. Comes complete with mounting hardware (one #10 - 24 x 1.00 screw and one #10 - 24 x 1.25 screw) for 0.75 in (19 mm) and 1 in (25.4 mm) thick modules.	Consult the individual datasheet to determine part compatibility.	
P0500-178 Surface Mount Adapter (3.38 (9.65) (3.97) (6.97) (6.97) (76.2	P0500-178 is surface mountable with 2 Quick Mount Fasteners.	ASXX/DSXX Series Timers	
P0500-179 DIN Rail Mount Adapter 35mm DIN 3 32mm DIN 1 815 (20.70) Inches (Millimeters)	P0500-179 snaps onto DIN rail.	ASXX/DSXX Series Timers	



BRACKETS & CLIPS

BRACKETS & CLIPS				
Product	Features	Accessory For		
Front Panel Mount Kit PANEL OPENING SCHOOL OPENING	Provides an easy method of through-the-panel mounting of 8-pin or 11-pin plug-in timers, flashers, and other controls. May be mounted in panels up to 0.125 in (3.2 mm) thick. Includes two clamps and two screws.	Series: ARP FS500 LLC4 LLC5 LLC6 PLM PLMU PLR PLS PRLM TDB TDBH TDBL TDI TDIH TDIL TDM TDMB TDMH TDML TDR TDS TDSH TDSL TRB TRDU TRM TRS TRU		
P1023-6 P1023-7 Mounting Brackets Official Control of	Provides a convenient method of mounting modules. The 90 ° orientation of mounting slots makes installation/removal of modules quick and easy. Made from steel with a cadmium surface finish. PART MOUNTING MOUNTING MOUNTING METHOD HOLE SIZE P1023-6 0.19 in (4.8 mm) #8 (M4 x 0.7) screw P1023-7 0.25 in (6.35 mm) Mini-Pot	Used on many 2" x 2" timers. Refer to individual series datasheet to determine if this accessory is compatible.		
PSCRB8 Hold-down Brackets	Designed for use with P1011-6 socket. Securely mounts 8-pin plug-in controls in any position, and provides protection against vibration. Sold in pairs.	P1011-6		
PSC8 PSC11 Hold-down Clips	Securely mounts plug in controls in any position. Also provides protection against vibration. Select the PSC8 for use with NDS-8, or the PSC11 for use with NDS-11 sockets. Sold in pairs.			
P1023-2 P Clamp	Removable P clamp bracket for mounting MSM series timers and FS100 and FS400 series flashers.	Timers series: MSM Flasher series: FS100 FS400		



ENCLOSURES & WATERTIGHT COVERS

ENCLOSURES			
Product		Features	Accessory For
NGRM-ENC NGR Monitor Control Panel	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NEMA 4 painted steel control panel, complete with the SE-325 or SE-330, and a fused 600/480:120 V PT for relay control power. Suitable for indoor or outdoor mounting, CSA certified. When NGR Monitor is back-plane mounted, 22 mm NEMA 4 indicators and reset button are included. Please contact factory for additional information. For full datasheet and ordering information, see pg. 67	SE-325 SE-330
NEMA-3R-L A Enclosure		Metal NEMA-3R electrical box with lenses for viewing the single-phase PumpSaver® status lights. H 6.0" x W 6.0" x D 4.0"	Single-Phase PumpSaver
RM-1000-ENCL Enclosure		Steel enclosure for protecting the RM1000 from weather and vandalism. Protects from UV, hail, and it seals to keep rain from contacting the RM1000 connections. The enclosure also features a built-in padlock tab (padlock not included). H 6.4" x W 6.3" x D 1.7"	RM1000

WATERTIGHT COVERS				
Product		Features	Accessory For	
MPU-16A-Y92A-96N Watertight Cover		Watertight cover for outdoor applications.	MPU-32 FPU-32	
SE-IP65CVR-G Watertight Cover	2 2 2	Watertight cover. Tamper-resistant. IP65 protection.	SE-330 SE	E-135 E-330AU E-400
SE-IP65CVR-M Watertight Cover		Watertight cover. Tamper-resistant. IP65 protection.	MPS FPS	
SE-MRE-600 Moisture-Resistant Enclosure Kit	o o o o o o o o o o o o o o o o o o o	Protects the connection terminals from snow and rain in outdoor applications.	ER-600VC ER-1000H	

AccessoriesMounting Adapters and Enclosures

SOCKETS

SOCKETS				
Product		Features	Accessory For	
OT08PC Octal Socket 8-Pin		8-pin 35 mm DIN-rail or surface mount octal socket. Rated at 10 A @ 600 V ac and has pressure clamp terminals.	AWG 12 to 22 (3.2 to 0.33 mm²) wire sizes. Consult individual datasheet for compatibility	
NDS-8 Octal Socket 8-Pin Screw terminals with captive wire clamps		8-pin 35 mm DIN-rail or surface mount octal socket. Rated at 10 A @ 300 V ac. Surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. A spring mechanism allows easy removal. Uses PSC8 hold-down clips.	Up to two #14 AWG (2.45 mm²) wire size Series: ARP FS500 LLC4 LLC5 PRLM TDB TDBH TDBL TDI TDIH TDIL TDM TDMB TDMH TDML TDR TDS TDSH TDSL TRDU TRM TRS TRU	
P1011-6 Octal Socket 8-Pin		8-pin surface mount socket with binder head screw terminals. Rated at 10 A @ 600 V ac. UL Listed combination when used with TDM, TDB, TDS series timers. Uses PSCRB8 hold-down brackets.	Series: ARP FS500 LLC4 LLC5 PRLM TDB TDM TDMB TDR TDS TRB TRDU TRM TRS TRU	
OT11PC Magnal Socket 11-Pin		Magnal Sockets are for plug-in units	11-pin Plug-in units Series: ARP LLC6 TDB TDBH TDBL TDMB TDS TDSH TDSL TRB TRDU TRM TRS TRU	
SD12-PC Rectangle Socket 12-pin		12-pin surface Rectangle Socket.	ACBC-120	
NDS-11 11-pin Magnal Socket Screw terminals with captive wire clamps	25 25 26 26 26 26 26 26	11 pin 35 mm DIN-rail or surface mount socket. Rated at 10 A @ 300 V ac. Surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. A spring mechanism allows easy removal. Uses PSC11 hold-down clips.	AWG 12 to 22 (3.2 to 0.33 mm²) wire sizes Series: ARP LLC6 TDB TDBH TDBL TDMB TDS TDSH TDSL TRB TRDU TRM TRS TRU	

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