

IRRIGATION AND WASTE WATER PRODUCTS







Applications

Waste Water: Motor Protection and Pump Controls on Lift Stations, Booster Stations, Treatment Plants, Water Well Pumps.

Irrigation: Motor/Pump Protection on single and three phase water well pumps, center pivot irrigation, aerators. Timing Controls on water well pumps, center pivot irrigation.

LITTELFUSE RELAYS



IRRIGATION AND WASTE WATER PRODUCTS

PRODUCT DESCRIPTIONS	LITTELFUSE PART NUMBER	PRODUCT IMAGE	FUNCTIONS/APPLICATIONS	FEATURES	COMPETITOR PART #				
MOTOR PROTECTION									
Three-Phase Voltage Monitor	201A-AU		Protects Motors from: • Phase Loss • Low & High voltage • Voltage unbalance • Phase reversal • Rapid cycling	 8-pin plug in style. DIN Rail or surface mountable via octal base. Universal range from 190-480VAC & 50/60Hz. Transient protection meets IEEE & IEC standards. Four adjustment pots provide versatility for a variety of applications. Adjustable trip delay & restart delay. Bi-color LED indicates trip status and provides simple troubleshooting. 	Diversified: SLBXXXALEA, SLBXXXALER, SLU100ASD, SLA230ALE, SLCXXXALE, SLJXXXALE, SLMXXXASE Time Mark: series 263 , 265, 200, 2642, 2652, 2644, 158 Macromatic: PMPU-FA8, PMDU				
	460			 Standard surface or DIN rail mountable. Universal range from 190-480VAC & 50/60Hz. Transient protection meets IEEE & IEC standards. Four adjustment pots provide versatility for a variety of applications. Adjustable trip delay & restart delay. Bi-color LED indicates trip status and provides simple troubleshooting. 	Diversified: SLBXXXALEA, SLBXXXALER, SLU100ASD, SLA230ALE, SLCXXXALE, SLJXXXALE, SLMXXXASE Time Mark: series 263, 265, 200, 2642, 2652, 2644, 158 Macromatic: PMPU-FA8, PMDU				
Three-Phase Voltage & Current Monitor	777-KW/HP-P2		Protects Motors from: • Low & High voltage • Voltage & Current unbalance • Phase reversal & Phase Loss. • Current overload & underload.	 Class II Ground fault detection. Network programmable. Built-in 3 digit display for setup & diagonostics. Surface or DIN rail mountable. 	Contact tech support for competitor cross references.				
ALTERNATING RELAYS									
Duplex Alternating Relay for pumps with one Float Input	ALT115-S-SW	As the same of the	Used in single high level float applications. Ideal for duplex pumping applications to balance the runtime of two pumps.	 Input voltage 95-125VAC (24VAC & 230VAC models available). Compact design saves precious panel space, uses 8 pin base. SPDT Relay. Solid-state reliability. 	Diversified: ARB120ABA, ARA120ABA Time Mark: 261S120, 261ST120 Macromatic: ARP120A6R Crouzet: PJRS110A Motor Prot. Electronics: 008-120-10S				
Cross connected duplex Alternating Relay for pumps with 2 Float Inputs	ALT115-X-SW	A Marian	Used in dual high level float applications. Ideal for duplex pumping applications to balance the runtime of two pumps.	 Input voltage 95-125VAC (24VAC & 230VAC models available). Compact design saves precious panel space, uses 8 pin base. Cross connected DPDT relay. Solid-state reliability. 	Diversified: ARB120ACA, ARA120ACA Time Mark: 261DX120, 261DXT120 Macromatic: ARP120A3R Crouzet: PJRXS110A Motor Prot. Electronics: 008-120-11S Dayton: 6C052				

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5-Channel multiple pump controller & relay switch	PC-105	TO THE PARTY OF TH	Operates multiple pumps in a wide variety of configurations. It can also be set up as a simple five channel relay.	 Duplex, duplex SPS, triplex & quadplex pump control. Pump up or pump down Functions. DIN rail or surface mountable. 	Diversified: ISO-120-AFN		
			ACCESSORY				
Octal Socket Accessory unit	OT08-PC		Recommended for use with all 8 pin octal plug-in devices	8 pin Surface & DIN rail mountable Littelfuse part ALT115-S-SW, ALT115-X-SW and 201-100-SLD must use this accessory for UL rating. Can be used with part # 201A-AU.	Diversified: OT-08 Time Mark: 51X120 Macromatic: 70169D		
	INTRINSICALLY SAFE RELAYS						
5-Channel intrinsically safe¹ relay switch¹	ISS-105-ISO		Suitable for applications with switch inputs in hazardous locations. Designed to interface controls between hazardous and non-hazardous areas.	5-channel intrinsically-safe switch. LEDs provide proof of input and output activation. Din rail mounted. 120VAC input, AC Line Frequency 50/60Hz. For a 1-Channel Din rail mount version use our ISS-100 & for an 1-Channel 8-pin version use our ISS-101.	ISS-100 Diversified: ISO-120-AFN ISS-105-ISO & ISS-101: Contact tech support for competitor cross references.		
5-Channel intrinsically safe pump controller & relay switch			Operates pump(s) in hazardous locations in a wide variety of configurations for either pump up or pump down applications. It can also be set up as a simple five channel intrinsically safe relay.	Meets UL 913, IEC EMC standards for Electrical Fast Transients (EFT), Electrostatic Discharge (ESD) and Radio Frequency Immunity (RFI). DIN rail or surface mountable. Finger safe terminals. Duplex, duplex SPS, triplex & quadplex pump control. Pump disable switches, Pump up or pump down control. 120VAC input, AC Line Frequency 50/60Hz.	Diversified: ARM-2003, ARM-2010, ARM-2011, ARM-120-AFE, ARM-120-AFEP, ARM-120-AAE, ARM-120-ABE, RM-120-ACE, ARM-120-ADE, ARM-120-AGE, ARM-120-AHE, ARM-120-AJE		
SEAL LEAK DETECTORS							
Seal Leak Detector,	201-100-SLD		Sense seal failures on submersible pumps	LED Status Indicator. 4.7k to 100kΩ adjustable sensitivity 8-pin plug in style. DIN Rail or surface mountable via octal base For a Surface or DIN rail mount version use our 460-15-100-SLD	Time Mark: 409 Macromatic: SFP120A100 Diversified: SPM120AAA100K		



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Dual channel Seal Leak Detector	PC-102CICI-DL		Sense seal failures on two submers- ible pumps	 Two Form C isolated contacts with LED Status Indicator. Invertible relay logic 4.7k to 100kΩ adjustable sensitivity DIN rail or surface mountable 	Macromatic: SFP120C100 (8-pin plug in) Diversified: SPM120ABA100K (8-pin plug in) Time Mark: 4092-120 (8-pin plug in)		
	FLASHERS						
Pump Control Panel Flasher	FS126 FS126RC	5	Used to control Incandescent & Resistive loads.	 Fixed flash rate 75 FPM. 1A AC, Fullwave output. Input voltage 120VAC, AC Line Freq. 50/60Hz. Compact size. CE & CSA Approved; UL recognized. 	Contact tech support for competitor cross references.		
TIMERS							
Delay-on-Make Time	KRDM421²		Used in Irrigation, Agriculture & Pumping Equipment.	On board knob to adjust, delays from 1s - 100s. 10A, SPDT output contacts, 2"X2" panel mount. ±0.5% repeat accuracy, ±5% factory calibration Input voltages 120VAC, AC Line Frequency 50/60Hz Solidstate timing circuit provides excellent repeat accuracy and stability Fully encapsulated to protect against shock, vibration, humidity, etc.	Macromatic: THR-10262-31 Airotronics: TGC10100A1 Ametek NCC:Q1T-00060-341		
	KRDB421³				Macromatic: THR-11662-31T Airotronics: TGML10100A1 Diversified & Time Mark: Several (Contact tech support)		

Intrinsically Safe: Specially sealed relay switch for hazardous location to limit the available electrical energy to nonincendive levels so that sparks cannot occur from short circuit or failures which could cause an explosive atmosphere (i.e. flammable gas in a waste plant) to ignite.

²Delay-on-Make Timer: Upon application of input voltage, the time delay (t) begins. At the end of the time delay (t), the output is energized. Input voltage must be removed to reset the time delay relay & de-energize the output.

³Delay-on-Break Timer: Input voltage must be applied before and during timing. Upon closure of the initiate switch, the output relay energizes. The time delay begins when the initiate switch is opened. The output remains energized during timing. At the end of the time delay, the output de-energizes. The output will energize if the initiate switch is closed when input voltage is applied.