

# Alternating Controllers - Duplex

## ARM Series

The **ARM Series** Alternating Relay is a microprocessor-based controller designed for use in dual load installations to assure equal run time on each load. LED indicators show the status of the unit's five intrinsically safe control switch inputs, one alarm, and two load outputs. H-O-A switches, a lead select switch, and a test/clear button are provided for manual control. The ARM Series reduces the number of components required for this application by combining many functions into one unit.



### FUNCTIONS & FEATURES

**TWO PUMP SEQUENCING:** Evenly distributes run time by automatically alternating lead and lag load designations when the off control switch input opens.

**UL913 INTRINSICALLY SAFE:** Control switch inputs are low voltage/low current and are electronically isolated from the control voltage and load alarm contacts.

**H-O-A Switches:** Hand-Off-Automatic switches allow for manual operation.

**LEAD SELECT SWITCH:** Disables the automatic sequencing function and allows loads to be locked into the 2-1 or 1-2 sequence.

**CONTROL SWITCH FAULT DETECTION:** Unit detects open and shorted control switch failures.

**TEST/CLEAR SWITCH:** Verifies function and resets the control switch fault detection algorithm.

**ALARM OUTPUT:** Alarm contacts close when a control switch fails or the system's capacity is exceeded.

**INRUSH CURRENT DELAY:** Reduces line sags by preventing both loads from energizing simultaneously.

**VERSATILE MOUNTING:** Two (2) mounting configurations are available. The standard surface mount has top access to controls and indicators and is intended for back panel mounting. The panel mount option is intended for front panel or door cutout access to controls and indicators.

### TECHNICAL DATA

ATC/DEI Series	ARM Series Duplex		
Dimensions (WxHxD)	4"x3"x3.25"		
Power Required	4 VA Maximum		
Weight	16 oz.		
Control Voltage	24 or 120 VAC $\pm$ 10%, 50/60 Hz		
Duty Cycle	Continuous		
Terminations	(12) #8-32 Screw Terminals (3) SPST-N.O. 10 Amp Resistive, 1/4 hp, 55VA Inductive @ 24 VAC, 278 VA Inductive @ 120 VAC		
Contact Rating			
<b>CONTROL SWITCH</b>			
Open Circuit Voltage	5 VDC		
Short Circuit Voltage	0.1mA		
<b>RESPONSE</b>			
Power Up	3 SEC $\pm$ 5%		
Inrush Current	5 SEC $\pm$ 5%		
<b>TEMPERATURE RATING</b>			
Operate	-4° to 131° F (-20° to +55° C)		
Storage	-40° to 185° F (-40 to +85° C)		
<b>LIFE EXPECTANCY</b>			
Mechanical	10 Million Operations		
Electrical	50,000 Operations @ Rated Load		
<b>AGENCY APPROVALS</b>	Process control equipment for hazardous locations (7M26 UL913) *Includes Intrinsically Safe Inputs		
<b>UL Listed</b>			
<b>LED INDICATORS</b>			
Designation	Color	State	Condition
Level/Alarm	Red	ON	cs5 Closed
Lag	Green	ON	cs4 Closed
Lead	Green	ON	cs3 Closed
Off	Green	ON	cs2 Closed
Aux. Off	Green	ON	cs1 Aux. / cs2closed
Load 1	Green	ON	Load ON
Load 2	Green	ON	Load ON
Ctrl. Switch	Red	ON	Failure Open/Closed

\* Our standard 10 year warranty applies to all ATC/DEI Products

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## ORDERING INFORMATION

\*Replace XXX with desire control voltage (24, 120)

<b>Model Number</b>	<b>Control Voltage</b>	<b>Mounting</b>	<b>Comments</b>
ARM-XXX-AFE*	24 or 120 VAC	Surface	Standard
ARM-XXX-AFEP*	24 or 120 VAC	Panel	Standard
ARM-2003	120 VAC	Surface	Special: w/o H-O-A switches
ARM-2010	120 VAC	Panel	Special: w/o H-O-A switches
ARM-2011	120 VAC	Surface	Special: w/o Control switch failure feature

