## api Locking-Coil Meter-Relays - C Series.



Black Panelist (Phenolic) Models: 303-C (3<sup>1</sup>/2<sup>11</sup>), 503-C (4<sup>1</sup>/2<sup>11</sup>), 603-C (5<sup>1</sup>/2<sup>11</sup>) (shown) See page 3 for dimensions.



**Clear Panelist Models: 202-C** (2<sup>1</sup>/<sub>2</sub><sup>1</sup>) **302** C (2<sup>1</sup>/<sub>2</sub><sup>1</sup>)

202-C (2<sup>1</sup>/<sub>2</sub>") 302-C (3<sup>1</sup>/<sub>2</sub>") 502-C (4<sup>1</sup>/<sub>2</sub>") 602-C (5<sup>1</sup>/<sub>2</sub>") (shown) See page 3 for dimensions.



Stylist Models: 1302-C (3<sup>1</sup>/2") 1502-C (4<sup>1</sup>/2") 1602-C (5<sup>1</sup>/2") (shown) See page 3 for dimensions.



**Ruggedized** Models: 255-C (2<sup>1</sup>/2'') 355-C (3<sup>1</sup>/2'') (shown) 455-C (4<sup>1</sup>/2'') See page 7 for dimensions.

## **Features**

- Simple contact circuit for limit control
- No amplifiers required
- Wide range of models and styles
- Available to match Analog Panel Meter Series

Locking-Coil meter-relays are essentially d'Arsonval meter mechanisms with setpoint arms and contacts. The locking coil of the meter-relay is an integral part of the signal coil and is wound with the signal coil as part of the meter-relay's moving element. The locking coil is energized when the indicating pointer reaches the setpoint. Torque produced by the locking current drives the contacts together and holds them firmly together to create an excellent low resistance control circuit. The way that LFE/api by TRIPLETT locking coil contacts open is another reason for their consistent performance. The meter-relays are designed so that the contacts open only after the locking coil circuit has been broken. A small spark is produced when the contacts "make". This keeps them free from pitting while a wiping motion on each "make" and "break" keeps them clean.

The LFE/api by TRIPLETT locking-coil meter-relay is an extremely simple and stable device to apply in limit control applications. It indicates as well as controls. No readout circuitry is needed in the control system, and precise control with indication is provided at moderate cost. Only three basic components are required for the system: a high or low setpoint locking-coil meter-relay, a load relay and a DC power source. A double setpoint control system is hardly more complicated; it requires only a LFE/api by TRIPLETT double setpoint meter-relay and an extra load relay.

Locking-Coil Meter Relays - C Series Specifications						
	Specifications		DC Ranges		AC Ranges (Rectifier Type)	
Specifications		Current	Voltage	Current	Voltage	Pyrometer
Accuracy		±2%	±2%	±3%	±3%	±2%
Tracking		Optional	Optional	Optional	Optional	N/A
Balance		±1%	±1%	±1%	±1%	±1%
Repeatability	Taut band	< 1/4%	< 1/4%	< 1/4%	< 1/4%	< 1/4%
переалартну	Pivot-and-Jewel	2%	2%	2%	2%	N/A
Resistance Tolerance		±20%	±5%		< 10V ±20% ≥ 10V ±5%	N/A
Overload	1 Second	1000%	≤ 100V 1000% > 100V 200%	150%	150%	N/A
Capacity	Continuous	150%	120%	150%	150%	N/A
Calibration Frequency				60 Hz	60 Hz	N/A
Overshoot (maximum)		20%	20%	20%	20%	N/A
Response Time (maximum)	Sensitivity ≥50µa	1.5 sec	1.5 sec	1.5 sec	1.5 sec	N/A
	Sensitivity <50µa	3 sec	3 sec	3 sec	3 sec	N/A

Effects of shock, vibration, humidity and temperature are equal to or better than ANSI C39.1-1981. Safety (dielectric test, leakage and other hazards): instruments are equal to or better than ANSI C39.5-1974. The above tolerance limits apply to the standard ranges listed in this bulletin. Special instruments may vary from these limits. Rated circuit to ground voltage = 500 Vrms (700 Peak).

DC Ranges					
DC Microamperes	5 to 1000				
DC Milliamperes	1 to 1000				
DC Amperes	1 to 50 <sup>1</sup>				
DC Millivolts	5 to 1000				
DC Volts	1 to 500				

Process Ranges				
DC Milliamperes	1-5 4-20 10-50			
DC Volts	1-5, 0-10			

AC Ranges (Rectifier Type)				
AC Microamperes	100 to 1000			
AC Milliamperes	1 to 1000			
AC Amperes	1 to 50			
AC Millivolts	250 & 500			
AC Volts	1 to 500			

## Thermocouple Pyrometers

Contact Factory

1 Ruggedized models available in a range of 1 to 9 amperes DC



Contact Factory for Additional Specifications on the C Series Locking-Coil Meter-Relays