

Motor Rotation Monitors

MACHINE **ALERT**

The new MachineAlert family of dedicated function electronic motor protection relays offers state-of-the-art supplementary protective functions that are easily added and applied to motor control circuits. A full range of products exists to allow selective addition of motor protective enhancing functions to meet specific application requirements. The MachineAlert relays are an economical choice for protecting equipment investments and minimizing production downtime.

Protective Functions

- Zero speed / Standstill monitoring
- Frequency monitoring

Advantages

- Microprocessor technology provides highly accurate and repeatable protection
- Built-in LCD and keypad afford a precise, digital setting
- Wide adjustment ranges allow for application flexibility
- Password protection hinders unauthorized programming access
- Compact 22.5 mm and 45 mm Euronorm housings
- Global application with CE, CSA, and UL approvals
- Zero speed monitoring through evaluation of the feedback voltage of a decelerating motor
- Type E1 version also offers standstill monitoring by means of a pulse generator, tachometer, etc. (frequency monitoring for signals of any curve form in the range of 16 ... 100Vp-p)
- Programmable relay trip and reset settings
- Programmable time delay settings



Bulletin Number 819

Typical Applications

- Conveyors
- Centrifuges
- Band Saws
- Grinders

Ordering Information

Supply Voltage	Cat. No.	
	Type E1 Frequency Monitoring Back-EMF Monitoring to 400V AC (IEC) / 300V AC (CSA/UL)	Type E2 Back-EMF Monitoring to 690V AC (IEC) / 600V AC (CSA/UL)
115V AC	819-E1D	819-E2D
230V AC	819-E1A	819-E2A
24V DC	819-E1ZJ	819-E2ZJ

Electrical

Main

Rated Input Voltage (Ue)	Type E1: 400V AC max (IEC); 300V AC max (UL/CSA) Type E2: 690V AC max (IEC); 600V AC max (UL/CSA)
Measurement Range	10 ... 249 Hz, 16 ... 100Vpp (Type E1 only) 1.0 ... 24.9V AC, 0.2V resolution

Supply

Rated Supply Voltage (Us)	115, 230V AC 50/60 Hz 24V DC
Operating Range	AC: 0.8 ... 1.1 Us DC: 0.85 ... 1.1 Us
Maximum Power Consumption	Type E1: 1 VA; Type E2: 2 VA

Output Relay

Type of Contacts	Type E1: (2) Form A, independent relays Type E2: (1) Form C, (1) Form A
Rated Insulation Voltage	250V AC
Rated Operating Voltage	250V AC
Rated Thermal Current	Type E1: 4 A, Type E2: 5 A
Utilization Category	AC15/DC1

Mechanical

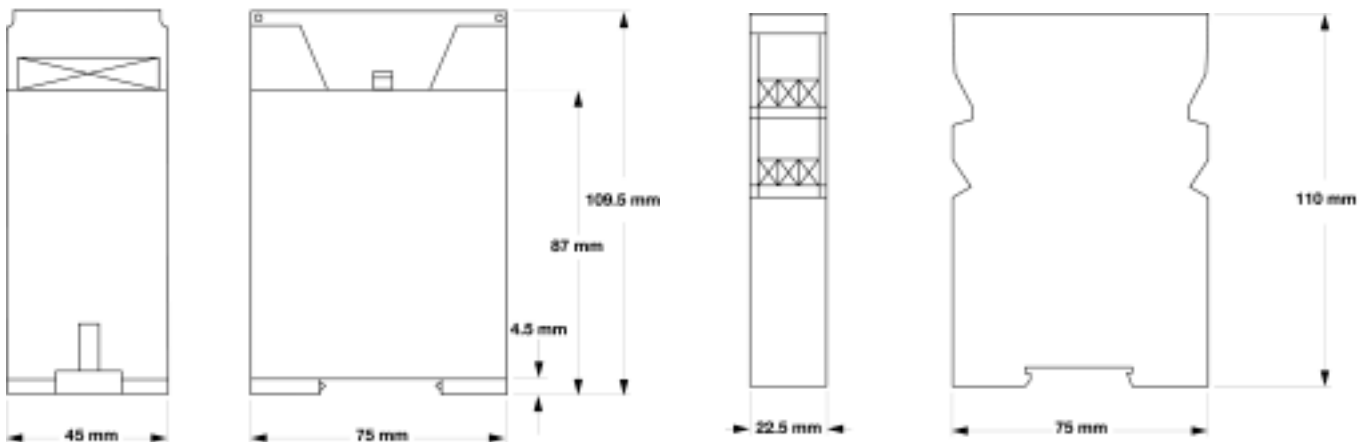
Environmental

Ambient Temperature	-20C ... +80C (storage) -5C ... +60C (operating)
Humidity	5C ... 95% Noncondensing
Maximum Altitude	2000 m
Pollution Environment	Pollution Degree 2
Degree of Protection	IP 20

Terminal Cross Section

Terminal Screws	M3
Conductor Size	Type E1: 0.2 ... 2.5 mm ² /24 ... 12 AWG Type E2: 0.2 ... 2.5 mm ² /22 ... 12 AWG

Dimensional Diagrams



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