

READ THESE INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION



**OPERATION & MAINTENANCE**  
**WATCHDOG**

Caution: As with any electrical equipment, the Watchdog should be installed by trained personnel using appropriate safety practices per the National Electric Code, including electrical disconnect and lockout practices, reference ANSI Z244.1.

**GENERAL**

The Watchdog timer relay is a single pole, double throw relay with a field adjustable timed input trigger. The relay is designed to monitor a pulse stream received from a speed monitoring device such as the PPI Magnetic Speed Switch and provide a continuously open or closed relay connection. Upon receiving the first high voltage pulse on the input connection, the relay will energize. As long as each proceeding pulse is received within the amount of time specified on the field adjustable timer, the relay will remain energized. If the selected time passes without receiving a pulse, the relay will de-energize until the next pulse is received.

This device is not intended for use in hazardous areas as defined by the NEC, articles 500-504. An intrinsically safe Watchdog is not presently available.


**WIRING INSTRUCTIONS**

1. Read and understand all wiring instructions prior to installation.
2. Disconnect and lock out power before starting wiring procedure.
3. The Watchdog is not weatherproof and must be mounted in a suitable enclosure. It can be mounted on a 35mm DIN rail.
4. Make the connections according to the appropriate schematic below.

**OPERATING INSTRUCTIONS**

1. The Watchdog timer relay has multiple function settings. The preferred setting to work with a PPI Magnetic Speed Switch is detailed below.
  - Function Setting: E (Retriggerable One Shot)
  - Time Range Setting: S-10 (10 seconds)
  - Time Adjustment setting per conveyor needs. (Example .5 corresponds to 0.5 x 10 second range = 5 seconds)
2. Set the timer to a value greater than the amount of time between the pulses received and the relay will remain energized continuously during normal operation. The time between pulses can be calculated with the following formula:  $60 / \text{Shaft RPM} / \text{Speed Switch pulses per revolution}$ . The Watchdog timer can be adjusted from 0.1 seconds to 10 days between pulses.
3. The green LED will indicate that the unit has power. The red LED will blink to indicate the output timer.

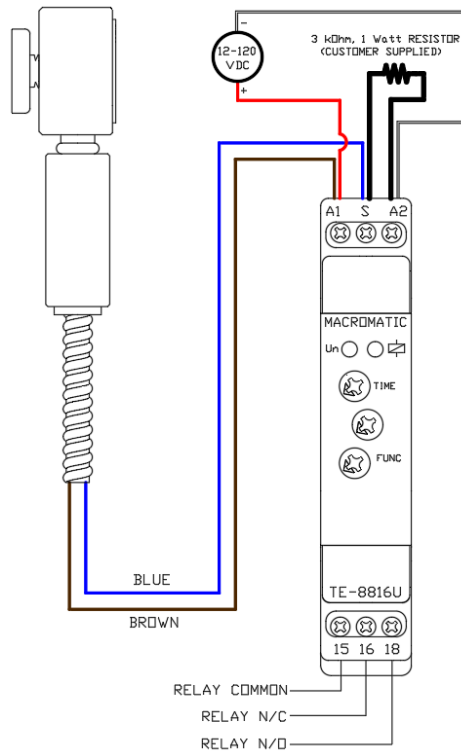
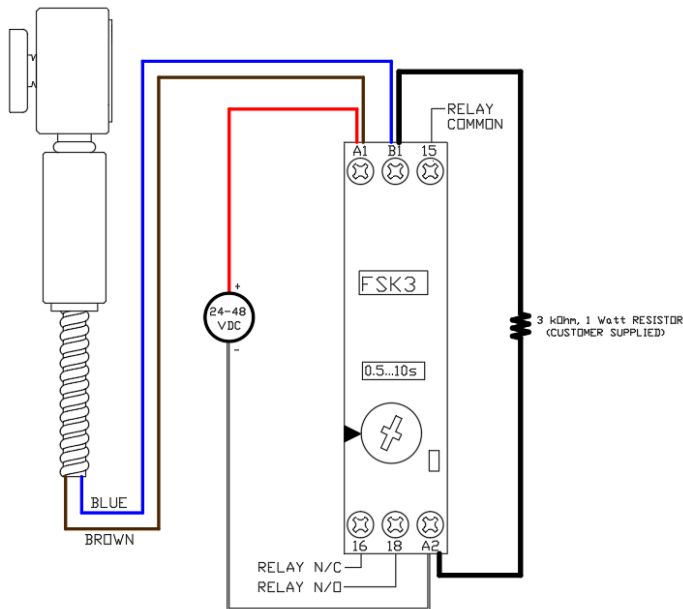
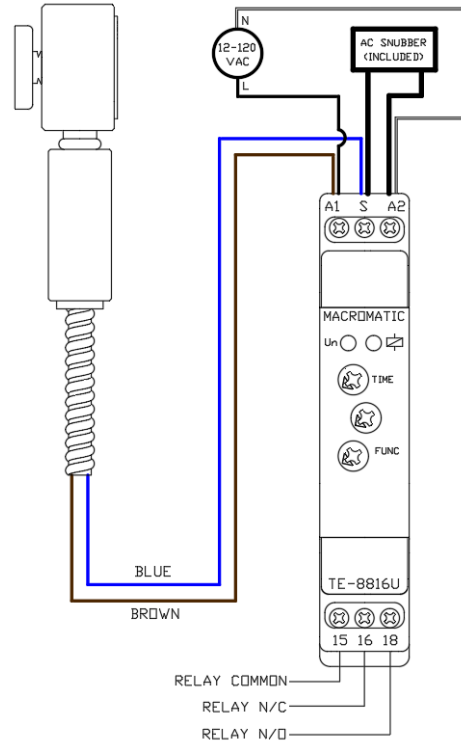
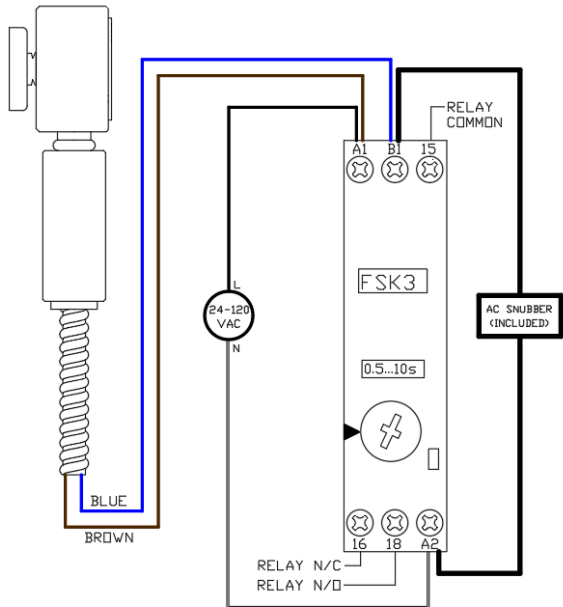
**SPECIFICATIONS**

Old Model RZ7-FSK3CU23		New Model TE-8816U
TECHNICAL SPECIFICATIONS		
24-48 VDC / 24-120 VAC, 50/60 Hz	Voltage Range	12-120V AC/DC, 50/60Hz
≥30 ms DC / ≥50 ms AC	Minimum Input Pulse Duration	≥50 ms
0.5 to 10 seconds	Maximum Pulse Period	0.1 seconds to 10 days
1.5 A, 250 VAC / 3 A, 120 VAC	Output Rating	15 A, 240V AC
-13°F to 113°F	Ambient Temperature	-4°F to 131°F
CONNECTIONS		
TERMINAL	CONNECTION	TERMINAL
A1	L / DC+	A1
A2	N / DC-	A2
B1	Signal Input	S
15	Relay - Common	15
16	Relay - N/C	16
18	Relay - N/O	18

# SCHEMATICS

**Old Model  
RZ7-FSK3CU23**

**New Model  
TE-8816U**



**CORPORATE OFFICE** • P.O. Box 287 • Pella, IA 50219  
800.247.1228 • 641.628.3115 • 641.628.3658 FAX