



Features

- Microprocessor based with no moving parts for longer life and reduced downtime
- Rugged, corrosion-resistant 316L stainless steel housing features an IP67 enclosure rating to withstand harsh industrial conditions
- Media temperature range from -50...150°C (-58...302°F)
- Operating temperatures from -40...85°C (-40...185°F)
- 4...20 mA analog output PC programmable via the M12 connector
- Stainless steel probe

Applications

- Automotive industry
- Machine tool
- Hydraulics
- Batch temperature control
- Food and beverage
- Pharmaceuticals

Specifications

Certifications	cULus, CE Marked for all applicable directives, and 3 A authorized only with sanitary adaptor
Supply Voltage	10...35V DC
Output	4...20 mA analog
Supply Current	<23 mA (no load)
Analog Output Impedance	Max. $(V_{\text{supply}} - 10V)/0.23 \text{ A}$
Accuracy	<0.2°C
Repeatability	<0.1°C
Temperature Drift	<0.1°C per year
Media Temperature [C (F)]	-50...150° (-58...302°)
Operating Temperature [C (F)]	-40...85° (-40...185°)
Housing Material	316 stainless steel
Wetted Parts	316L stainless steel
Enclosure Type Rating	IP67
Switch Cycles, Min.	>10,000,000
Response Time	< 3 s

Solid-State Condition Sensing Switches

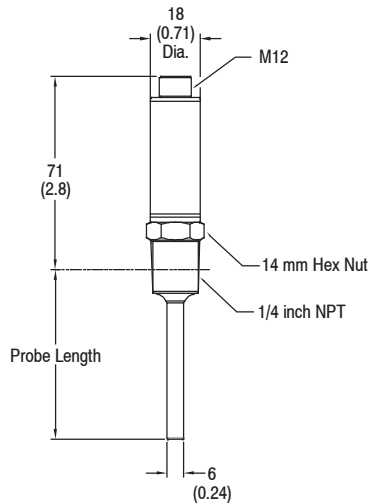
837E Nondisplay Temperature Switches

Product Selection

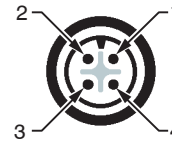
Process Connection	Media Temperature [C (F)]	Probe Length	Cat. No.
			4...20 mA Analog Output
1/4 inch NPT (Male)	-50...150° (-58...302°)	50 mm (1.96 in.)	837E-TD1BN1A1-D4
	-50...150° (-58...302°)	100 mm (3.93 in.)	837E-TD1BN1A2-D4
	-50...150° (-58...302°)	200 mm (7.87 in.)	837E-TD1BN1A4-D4
1/2 inch NPT (Male)	-50...150° (-58...302°)	50 mm (1.96 in.)	837E-TD1BN2A1-D4
	-50...150° (-58...302°)	100 mm (3.93 in.)	837E-TD1BN2A2-D4
	-50...150° (-58...302°)	200 mm (7.87 in.)	837E-TD1BN2A4-D4
G1/4 BSPP	-50...150° (-58...302°)	50 mm (1.96 in.)	837E-TD1BN3A1-D4
	-50...150° (-58...302°)	100 mm (3.93 in.)	837E-TD1BN3A2-D4
	-50...150° (-58...302°)	200 mm (7.87 in.)	837E-TD1BN3A4-D4
Sanitary Connection			
1...1.5 inch Clamp	-50...150° (-58...302°)	50 mm (1.96 in.)	837E-TD1BNBA1-D4
	-50...150° (-58...302°)	100 mm (3.93 in.)	837E-TD1BNBA2-D4
	-50...150° (-58...302°)	200 mm (7.87 in.)	837E-TD1BNBA4-D4
2 inch Clamp	-50...150° (-58...302°)	50 mm (1.96 in.)	837E-TD1BNCA1-D4
	-50...150° (-58...302°)	100 mm (3.93 in.)	837E-TD1BNCA2-D4
	-50...150° (-58...302°)	200 mm (7.87 in.)	837E-TD1BNCA4-D4
Recommended cordset: 2 m (6.5 ft) 4-pin DC Micro (straight) ①			889D-F4AC-2
Recommended cordset: 2 m (6.5 ft) 4-pin DC Micro (right angle) ①			889D-R4AC-2

① Additional cable lengths are available. Shielded cables may be used to protect analog signal quality in an electrically noisy environment—refer to the *On-Machine Connectivity* catalog for options.

Approximate Dimensions [mm (in.)]



Wiring Diagram



Pin No.	Description	Wire Color
1	Power supply 10...35V DC, current output 4...20 mA	Brown
2	Connection of PC configuration cable, shortened pin	White
3	Power supply 0V DC, current output 4...20 mA	Blue
4	Connection of PC configuration cable, shortened pin	Black

Accessories

Description	Cat. No.
Configuration kit (includes converter cable and ReadWin 2000 software)	836E-NSR
Cable adaptor, PC programming	836E-NSRT
1...1.5 inch sanitary clamp	836E-NH7B
2 inch sanitary clamp	836E-NH7C

Sanitary Connectors

