

Noshok Temperature Indicators/Transmitters

- High accuracy replacement for bimetal, liquid bulb & glass thermometers
- Large 4 digit LED display
- 4-20 mA programmable linearized output
- Stable Pt100 Class A RTD sensor
- All stainless construction
- IP65, NEMA 4 rating

820


SPECIFICATIONS

Temperature sensor:	RTD (Pt100 DIN EN 60751, Class A)
Case material:	316 stainless steel housing & probe
Maximum pressure:	500 psig (on probe)
Power supply:	9-36 Vdc, polarity protected
Power consumption:	15 mA @ 24 Vdc + output current, 950 mW max.
Current output:	4 mA to 20 mA, 3-wire, linear to temperature; Max load (Ω): (Vsupply-9V) / 20 mA
Isolation:	500 Vdc, input probe to output
Hysteresis:	1% of range standard
Accuracy:	$\pm 0.25\%$ full scale (0.18 °F + 0.40% of reading) max. with default calibration; $\pm 0.125\%$ full scale (0.18 °F + 0.20% of reading) max. with one-point factory or customer calibration
Open circuit detection:	Upscale (22 mA) or downscale (2.5 mA)
Response time:	0.5 sec to 30 sec (software selectable)
Display:	4-digit green LED, decimal point selectable by software
Operating range:	-40°F to 176°F (-40°C to 80°C) ambient
Protection:	NEMA 4, IP65
Optional switch output:	SPDT relay, NPN source or PNP sink transistor
Dimensions:	3.0" dia x 1.8" deep (76.2x45.7mm); Total stem length is selected length plus 1.2"

ORDERING INFORMATION

To Order - Insert Code for Each Letter to Select Catalog Number.
Example: 820-1-1-D-8-32/200-48-090-6

A - B - C - D - E - F - G - H - I

A	Series		
	820	Bottom connection	
	821	Back connection	
B	Accuracy		
	1	$\pm 0.25\%$ full scale	
	2	$\pm 0.125\%$ full scale	
C	Output		
	1	4-20 mA	
D	Burnout		
	U	Upscale	
	D	Downscale	
E	Process Connection		
	0	None	
	2	1/4" NPT male	
	8	1/2" NPT male	
	48	1/2" NPT male w/adjustable compression fittings	
F	Range		
	-50/200	-50 to 120°F	32/200 32 to 200°F
	-50/300	-50 to 300°F	32/300 32 to 300°F
	-50/400	-50 to 400°F	32/400 32 to 400°F
	32/120	32 to 120°F	
G	Electrical Connection		
	36	Integral 36" cable	
	48	M12 x 1 (5-pin)	
H	Stem Length		
	025	2.5"	120 12"
	040	4"	150 15"
	060	6"	180 18"
	090	9"	240 24"
I	Stem Diameter		
	2	1/4"	4 1/2"
	3	3/8"	6 6 mm

- Platinum RTD sensor
- Switch and analog outputs
- 4-digit LED display
- Pushbuttons adjust set points, switch function & analog output span
- Measuring insert replaceable without opening process connection
- IP67 protection with optional cover

850


SPECIFICATIONS

Temperature sensor:	RTD (Pt100 2-wire, Class B)
Wetted materials:	316Ti stainless steel
Housing material:	Stainless steel
Working pressure:	6 mm Stem Diameter: 600 psi 8 mm Stem Diameter: 1,500 psi
Power supply:	12 Vdc to 30 Vdc, unregulated
Power consumption:	50 mA, without load
Signal output:	4 to 20 mA scaleable from 20-100% of range
Switch points:	Individually adjustable via external control keys
Number of switches:	1 or 2 (PNP)
Switch function:	NO/NC; windows & hysteresis function adjustable
Set point adjustment:	0.1° steps within temperature range
Reset point adjustment:	0.1° steps from beginning temperature range until (set point -0.1°)
Switch rating:	100 mA per switch
Accuracy:	Class B $\pm 0.1\%$ of the temperature range
Display:	7 Segment-LED, red 4-digit, height 0.3"; Selectable for °F or °C
Display orientation:	Upper part rotates 330°
Operating range:	-13°F to 158°F (-25°C to 70°C) ambient
Protection:	NEMA 4, IP65 (IEC 529)
Dimensions:	1.4" dia x 4.37" high (36x111mm) plus stem length

ORDERING INFORMATION

To Order - Insert Code for Each Letter to Select Catalog Number.
Example: 850-1-2--50/400-2-090-6-PC

A - B - C - D - E - F - G - H

A	Series		
	850	Temperature Transmitter/Switch	
B	Switch		
	1	Two N.O. or N.C. switches-PNP	
	2	One N.O. or N.C. switch-PNP (with 4-20 mA analog output)	
C	Process Connection		
	2	1/4" NPT male	
	8	1/2" NPT male	
D	Range		
	-50/400	-50 to 400°F	
	32/750	32 to 750°F	
	32/1100	32 to 1100°F	
	-300/1100	-300 to 1100°F	
E	Electrical Connection		
	2	M12 x 1 (4-pin)	
F	Stem Length		
	025	2.5"	
	040	4"	
	060	6"	
	090	9"	
	120	12"	
G	Stem Diameter		
	3	Tapered from 6 mm - 3 mm tip (for fast response)	
	6	6 mm	
	8	8 mm	
H	Option		
	(blank)	None	
	PC	Clear Thermoplastic Polyurethane Protective Cover IP67	