

ProSense® TSDA25 Series Temperature Switches



Part No.
TSDA25N-AP-0284-H



Part No.
TSDA25N-OP-0284-H

Features

- Compact temperature switch with simple setup using mechanical adjustment dials
- Extremely durable housing with 316 stainless steel wetted parts
- No internal moving parts ensure long-term stability without setpoint drift
- LEDs indicate switching and operating status
- Two normally open or complementary normally open/normally closed PNP DC switching outputs
- Optional plastic protective cover: PSD-CV
- Use with compatible liquid or gas media
- 3-year warranty



See www.AutomationDirect.com for a wide variety of cable options

ProSense Series Temperature Sensors

Part Number	Description	Pcs/Pkg	Wt(lb)	Price	Optional Cover
TSDA25N-AP-0284-H	ProSense temperature switch, integral Pt1000 RTD, -13 to 284 deg F, 50mm insertion length, 6mm probe diameter, 1/4in male NPT process connection, output 1: switch PNP, N.O., output 2: switch PNP, N.O.	1	0.25	\$89.00	PSD-CV
TSDA25N-OP-0284-H	ProSense temperature switch, integral Pt1000 RTD, -4 to 284 deg F, 50mm insertion length, 6mm probe diameter, 1/4in male NPT process connection, output: switch PNP, N.O./N.C. complementary.	1	0.25	\$89.00	PSD-CV

Note: Purchase cable separately

ProSense TSDA25 Series Technical Specifications

	TSDA25N-AP-0284-H	TSDA25N-OP-0284-H
Operating Voltage	9.6 to 32 VDC**	
Process Connection	1/4" MNPT	
Electrical Connection	M12 connector; gold-plated contacts	
Outputs	Two PNP N.O. switching DC outputs	Two complementary PNP (1-N.O./1-N.C.) switching DC outputs
Current Rating	500 mA each output	
Current Consumption	< 30 mA	
Short-Circuit Protection	Yes (pulsed)	
Reverse Polarity Protection	Yes	
Overload Protection	Yes	
Voltage Drop	< 2 VDC	
Pressure Rating	5802 psi (400 bar)	
Temperature Sensing Range	-13 to 284°F (-25 to 140°C)	-4 to 284°F (-20 to 140°C)
Setpoint scale	-4 to 284°F (-20 to 140°C)	3 to 284°F (-16 to 140°C)
Reset point scale	Fixed 9°F (5°C) below setpoint	-4 to 277°F (-20 to 136°C)
Adjustment of the Switch Point	Setting dials	
Setting Accuracy	± 5.4°F (3°C)	
Repeatability	± 0.1% of full range in °C	
Temperature Drift	± 0.1%, of full temperature range/10°C; 32 to 176°F (0 to 80°C).	
Power-on Delay Time	0.5 seconds	
Measuring Element	1 x Pt 1000, to DIN EN 60751, class A	
Dynamic Response (DIN EN 60751)	*to.5 = 1 sec/ to.9 = 3 sec	

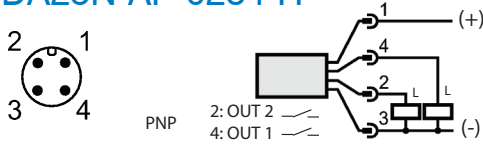
* to.5 = a 50% of full scale change in output when immersed in water at 0.4m/s, to.9 = a 90% FS change.

** Class 2 power supply must be used in order to comply with UL requirements

pro^{sense} TSDA25 Series Temperature Switches

Wiring

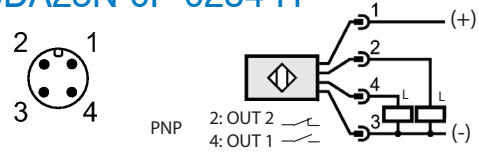
TSDA25N-AP-0284-H



Note: wiring colors are based on AutomationDirect CD12L and CD12M 4-pole cable assemblies.

Cable Assembly Wiring Colors:
Pin 1 - Brown
Pin 2 - White
Pin 3 - Blue
Pin 4 - Black

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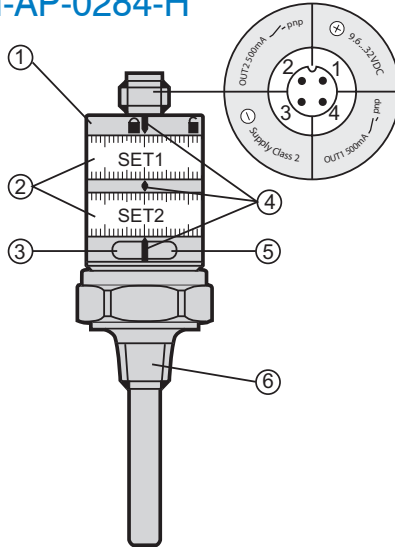


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Setting and Operation

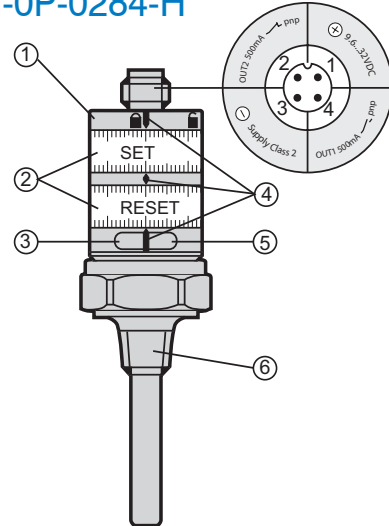
TSDA25N-AP-0284-H



- 1: locking ring
 - 2: setting rings (manually adjustable after unlocking)
 - 3: LED green: lights if OUT1 = ON, temperature \geq [SET1]
 - 4: setting marks
 - 5: LED yellow: lights if OUT2 = ON, temperature \geq [SET2]
 - 6: process connection $\frac{1}{4}$ " NPT
- Pin 4 = OUT1 / Pin 2 = OUT2

To obtain the setting accuracy: Set both rings to the minimum value, then set the requested values.

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- 1: locking ring
 - 2: setting rings (manually adjustable after unlocking)
 - 3: LED green: supply voltage O.K.
 - 4: setting marks
 - 5: LED yellow: value [SET] reached, OUT1 = ON / OUT2 = OFF
 - 6: process connection $\frac{1}{4}$ " NPT
- pin 4 = OUT1 / pin 2 = OUT2

Minimum distance between [SET] and [RESET] = 3°C.

To obtain the setting accuracy: Set both rings to the minimum value, then set the requested values.