

proSense® TTD25 Series Temperature Transmitter



TTD25C

Features

- High accuracy 2-wire temperature transmitter
- 1000 ohm, Class A platinum RTD sensing element
- 4-20mA analog output signal
- Probes made of durable 316 stainless steel
- Temperature ranges of 0-100°C or 0-300°F

Agency Approvals

- cULus File number E 324411
- CE
- RoHS



ProSense Temperature Transmitter Series						
Part Number	Description	Pcs/Pkg	Wt(lb)	Price	Use With	Cable Assemblies
TTD25C-20-0100C-H	4-20 mA output, 6 mm (0.24") dia. probe, 4-pin micro M12 plug. Temperature range: 0 to 100°C.	1	0.30	\$136.00	CF06-25N	CD12L-0B-020-A0 CD12L-0B-020-C0 CD12M-0B-070-A1 CD12M-0B-070-C1 CDP12-0B-010-AA CDP12-0B-030-AA CDP12-0B-010-BB CDP12-0B-030-BB (order separately - See Proximity Sensor section for cable specs)

ProSense TTD25 Series Technical Specifications	
Part Number	TTD25C-20-0100C-H
Operating Voltage	10 to 30 VDC
Electrical Connection	M12 connector; gold-plated contacts
Process connection	Use CF06-25N
Short-Circuit Protection	Yes (non-latching)
Overload Protection	Yes
Reverse Polarity Protection	Yes
Analog Output	4 to 20 mA (min/max 3.85 to 22 mA)
Maximum Load	720Ω at 24 VDC; Rmax = (Supply voltage - 9.6)*50
Pressure Rating	725 psi (50 bar) (This value applies to the sensor only. For installation in adapters, use the adapter data sheet indications)
Accuracy	± 0.3°C
Resolution	<0.02°C
Measuring Element	1 x Pt 1000, to DIN EN 60751, class A
Measuring Range	32 to 212°F (0 to 100°C)
Dynamic Response (DIN EN 60751)	*t0.5 = 1 sec/ t0.9 = 3 sec
Minimum Installation Depth	0.6 in (15 mm)
Housing Material	Stainless steel (316S12); stainless steel (304S15); stainless steel (303S22); PA
Materials (wetted parts)	Stainless steel (316S12)
Ambient Temperature	-13 to 158°F (-25 to 70°C)
Storage Temperature	-40 to 212°F (-40 to 100°C)
Protection	IP 68 / IP 69K, Class III
Insulation Resistance	> 100MΩ (500VDC)
Shock Resistance	50g (DIN / IEC 68-2-27, 11ms)
Vibration Resistance	20g (DIN / EN 68-2-6, (10 to 2000 Hz)
EMC	
EN 61000-4-2 ESD	4 kV CD/8 kV AD
EN 61000-4-3 HF Radiated	10 V/m
EN 61000-4-4 Burst	2 kV
EN 61000-4-5 Surge	1 kV
EN 61000-4-6 HF Conducted	10 V

* t0.5 = a 50% of full scale change in output when immersed in water at 0.4m/s, t0.9 = a 90% FS change.



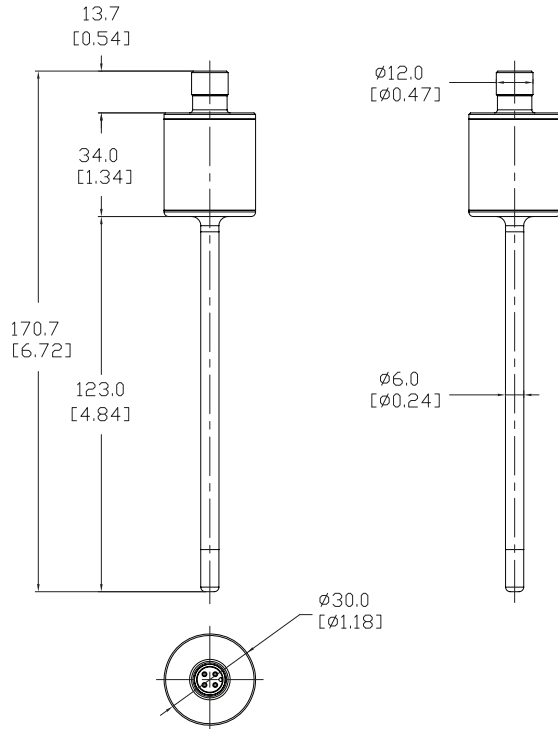
NOTE: CHECK THE CHEMICAL COMPATIBILITY OF THE SENSOR'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED.
www.automationdirect.com/static/specs/prosensechemresistance.pdf

TTD25C series may be used with RTDTW-10-010-50N Thermowell & CF06-25N fitting when isolation is required. Please refer to "Thermowells for RTD Probes with M12 Cable Connector" pages for further information.

pro^{sense}® TTD25 Temperature Transmitters

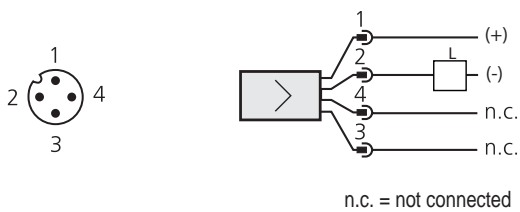
TTD25C Series Dimensions

mm [inches]



NOTE: USE PROSENSE COMPRESSION FITTING CF06-25N TO MOUNT TTD25C SERIES TEMPERATURE TRANSMITTER.

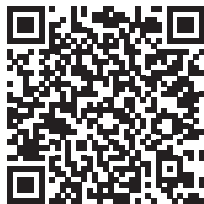
Wiring Diagram



Cable Assembly Wiring Colors:

- Pin 1 - Brown**
- Pin 2 - White**
- Pin 3 - Blue**
- Pin 4 - Black**

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



Scan the QR Code above or click to view the TTD25C-20-0100C-H product insert.

pro^{sense}® Compression Mounting Fittings for Temperature Probes

Compression Mounting Fittings for Temperature Probes				
Part Number	Description	Pcs/Pkg	Wt(lb)	Price
BCF18-125N	Compression fitting, brass, for 1/8 inch diameter temperature probes, 1/8 inch NPT male thread	1	0.5	\$2.75
BCF14-125N	Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/8 inch NPT male thread	1	0.5	\$2.75
BCF18-25N	Compression fitting, brass, for 1/8 inch diameter temperature probes, 1/4 inch NPT male thread	1	0.5	\$3.25
BCF14-25N	Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/4 inch NPT male thread	1	0.5	\$3.25
BCF18-50N	Compression fitting, brass, for 1/8 inch diameter temperature probes, 1/2 inch NPT male thread	1	0.5	\$4.75
BCF14-50N	Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/2 inch NPT male thread	1	0.5	\$4.75
CF18-125N	Compression fitting, 316 stainless steel, for 1/8 inch diameter temperature probes, 1/8 inch NPT male thread	1	0.5	\$7.00
CF14-125N	Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/8 inch NPT male thread	1	0.5	\$7.00
CF18-25N	Compression fitting, 316 stainless steel, for 1/8 inch diameter temperature probes, 1/4 inch NPT male thread	1	0.5	\$8.00
CF14-25N	Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/4 inch NPT male thread	1	0.5	\$8.00
CF18-50N	Compression fitting, 316 stainless steel, for 1/8 inch diameter temperature probes, 1/2 inch NPT male thread	1	0.5	\$11.50
CF14-50N	Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/2 inch NPT male thread	1	0.5	\$12.00
CFTF-18	Teflon™ ferrule for brass or stainless steel compression fittings and 1/8 diameter temperature probes	5	0.5	\$6.75
CFTF-14	Teflon ferrule for brass or stainless steel compression fittings and 1/4 diameter temperature probes	5	0.5	\$7.25
CF06-25N	1/4 NPT stainless steel compression fitting for 0.24 inch (6 mm) diameter RTD probe with M12 connector.	1	0.18	\$25.50
CF10-50N	1/2 NPT stainless steel compression fitting for 10 mm (0.4 inch) diameter RTD probe with M12 connector.	1	0.20	\$27.00
CF18-BC	Bayonet compression fitting, for 1/8" diameter probe sheath sensors	1	0.1	\$8.75
BB125N-50N	Reducing bushing, brass, 1/2 MNPT x 1/8 FNPT, hex head	1	0.1	\$4.75



NOTE: CHECK THE CHEMICAL COMPATIBILITY OF THE SENSOR'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED.

*Working pressure of compression fitting should not exceed 500 psi. However we recommend any pressure application use a thermowell

CF14-125N



CF14-50N



CF14-25N



CF18-BC



CF06-25N



CF10-50N



BCF18-125N



BCF18-25N



BCF18-50N



BB125N-50N



CFTF-14



CFTF-18



pro^{sense}® Compression Mounting Fittings for Temperature Probes

BCF14-125N



BCF14-25N



BCF14-50N



CF18-25N



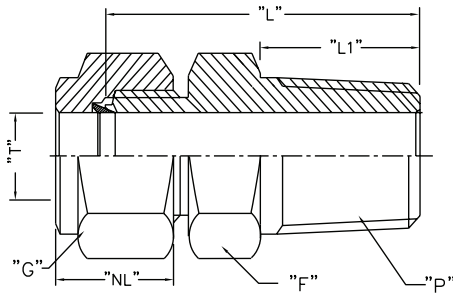
CF18-50N



CF18-125N



Dimensions



Note: All threaded connections should be hand tightened and then turned 1 to 2 full turns for proper sealing.

Actual torque required for a proper seal of NPT threads is influenced by tolerance, sealant, lubricant, etc.

ProSense Compression Fittings									
Part No.	Weight (lb)	Description	"T" Tube O.D.	"P" NPT(M)	"L" Body Length*	"L1" Thread Length**	"F" Body Hex**	"G" Nut Hex**	"NL" Nut Length**
BCF18-125N/CF18-125N	0.5	1/8" OD x 1/8" NPT(M)	0.128/0.132	1/8" NPT(M)	0.909"	0.393"	0.5"	0.433"	0.492"
BCF14-125N/CF14-125N	0.5	1/4" OD x 1/8" NPT(M)	0.253/0.257	1/8" NPT(M)	1.0"	0.393"	0.5"	0.559"	0.5"
BCF18-25N/CF18-25N	0.5	1/8" OD x 1/4" NPT(M)	0.128/0.132	1/4" NPT(M)	1.114"	0.551"	0.551"	0.433"	0.492"
BCF14-25N/CF14-25N	0.5	1/4" OD x 1/4" NPT(M)	0.253/0.257	1/4" NPT(M)	1.188"	0.551"	0.551"	0.559"	0.5"
BCF18-50N/CF18-50N	0.5	1/8" OD x 1/2" NPT(M)	0.128/0.132	1/2" NPT(M)	1.377"	0.748"	0.866"	0.433"	0.492"
BCF14-50N/CF14-50N	0.5	1/4" OD x 1/2" NPT(M)	0.253/0.257	1/2" NPT(M)	1.437"	0.748"	0.866"	0.559"	0.5"
CF06-25N	0.18	6 mm OD x 1/4" NPT(M)	0.236/0.240	1/4" NPT(M)	1.174"	0.59"	0.67"	0.55"	0.587"
CF10-50N	0.20	10 mm OD x 1/2" NPT(M)	0.394/0.399	1/2" NPT(M)	1.458"	0.55"	1.06"	0.75"	0.608"

Note: All dimensions are in inches

* w 0.07

** w 0.03

Note: Once the compression fitting has been fully tightened on the probe, the ferrule will be locked onto the probe and cannot be removed or reused.

*Working pressure of compression fitting should not exceed 500 psi. However we recommend any pressure application use a thermowell



Scan the QR Code or click to view the CF06 & CF10 Compression Fitting Installation Instructions



Bayonet Mounting Adapter for Temperature Sensors

Bayonet Mounting Adapter for Temperature Sensors					
Part Number	Description	Material	Pcs/Pkg	Wt(lb)	Price
BA-078	Bayonet adapter, 7/8 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT	Stainless Steel (304)	1	0.5	\$1.50
BA-100	Bayonet adapter, 1 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT		1	0.5	\$1.50
BA-114	Bayonet adapter, 1-1/4 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT		1	0.5	\$2.00
BA-112	Bayonet adapter, 1-1/2 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT		1	0.5	\$2.00
BA-200	Bayonet adapter, 2 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT		1	0.5	\$2.25
BA-212	Bayonet adapter, 2-1/2 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT		1	0.5	\$2.50
BA-300	Bayonet adapter, 3 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT		1	0.5	\$2.75
BA-312	Bayonet adapter, 3-1/2 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT		1	0.5	\$3.00
CF18-BC	Adjustable bayonet compression fitting, for 1/8" diameter probe sheath sensors			1	0.1
BB125N-50N	Reducing bushing, 1/2 MNPT x 1/8 FNPT, hex head	Brass	1	0.1	\$4.75

BA-078



BA-100



BA-114



BA-112



BA-200



BA-212



CF18-BC



BA-300



BB125N-50N



BA-312



NOTE: CHECK THE CHEMICAL COMPATIBILITY OF THE SENSOR'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED.