

# proSense® SPT25 Series Pressure Transmitters



The ProSense SPT25 pressure transmitter series is engineered to meet many industrial, commercial, and OEM pressure measurement applications. The all stainless steel welded thin film sensing element provides very fast response time and is compatible with many different media sensing applications. With a robust design resistant to vibration, shock, and EMI/RFI, the SPT25 series provides high accuracy over a wide compensated temperature range. Pressure sensing ranges from vacuum to 5000 psi are available along with a 1/4 inch NPT male threaded process connection. Choose from linear outputs of 4-20 mA or 0-10VDC with electrical connections of either a DIN 175301-803C L-connector or 6.6 foot (2 m) integral shielded cable.

## Applications

- Process control & automation
- Pump & compressor control
- Hydraulic systems
- Pneumatic systems
- Engine monitoring
- Refrigeration equipment
- Presses
- Machine tools

## Features

- All stainless steel welded sensing element
- Fast response time
- Pressure sensing ranges from vacuum to 5000 psi
- 1/4 inch NPT male threaded process connection
- Output options: 4-20 mA or 0-10 VDC
- Integral 6.6 foot shielded cable or DIN form C electrical connections
- Made in the USA
- CE marked
- 3-year warranty



ProSense SPT25 Series Pressure Transmitters (Shielded Cable)					
Part Number	Description	Electrical Connection	Input Voltage	Wt(lb)	Price
<b>SPT25-20-V30A</b>	Pressure transmitter, 4 to 20 mA output, -14.7 vacuum to 30 psi range, 1/4" NPT male port	Integral 6.6 ft (2m) shielded cable	9 - 36 VDC	0.38	<--->
<b>SPT25-20-0030A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 30 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-0060A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 60 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-0100A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 100 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-0150A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 150 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-0200A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 200 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-0300A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 300 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-0500A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 500 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-1000A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 1000 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-1500A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 1500 psi range, 1/4" NPT male port				<--->
<b>SPT25-20-2000A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 2000 psi range, 1/4" NPT male port		<--->		
<b>SPT25-20-3000A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 3000 psi range, 1/4" NPT male port		<--->		
<b>SPT25-20-5000A</b>	Pressure transmitter, 4 to 20 mA output, 0 to 5000 psi range, 1/4" NPT male port		<--->		
<b>SPT25-10-V30A</b>	Pressure transmitter, 0 to 10 V output, -14.7 vacuum to 30 psi range, 1/4" NPT male port		14 - 36 VDC	0.38	<--->
<b>SPT25-10-0030A</b>	Pressure transmitter, 0 to 10 V output, 0 to 30 psi range, 1/4" NPT male port				<--->
<b>SPT25-10-0060A</b>	Pressure transmitter, 0 to 10 V output, 0 to 60 psi range, 1/4" NPT male port				<--->
<b>SPT25-10-0100A</b>	Pressure transmitter, 0 to 10 V output, 0 to 100 psi range, 1/4" NPT male port				<--->
<b>SPT25-10-0150A</b>	Pressure transmitter, 0 to 10 V output, 0 to 150 psi range, 1/4" NPT male port				<--->
<b>SPT25-10-0200A</b>	Pressure transmitter, 0 to 10 V output, 0 to 200 psi range, 1/4" NPT male port				<--->
<b>SPT25-10-0300A</b>	Pressure transmitter, 0 to 10 V output, 0 to 300 psi range, 1/4" NPT male port				<--->
<b>SPT25-10-0500A</b>	Pressure transmitter, 0 to 10 V output, 0 to 500 psi range, 1/4" NPT male port	<--->			
<b>SPT25-10-1000A</b>	Pressure transmitter, 0 to 10 V output, 0 to 1000 psi range, 1/4" NPT male port	<--->			
<b>SPT25-10-1500A</b>	Pressure transmitter, 0 to 10 V output, 0 to 1500 psi range, 1/4" NPT male port	<--->			
<b>SPT25-10-2000A</b>	Pressure transmitter, 0 to 10 V output, 0 to 2000 psi range, 1/4" NPT male port	<--->			
<b>SPT25-10-3000A</b>	Pressure transmitter, 0 to 10 V output, 0 to 3000 psi range, 1/4" NPT male port	<--->			
<b>SPT25-10-5000A</b>	Pressure transmitter, 0 to 10 V output, 0 to 5000 psi range, 1/4" NPT male port	<--->			

# proSense® SPT25 Series Pressure Transmitters



Company Information

Systems Overview

Programmable Controllers

Field I/O

Software

C-more & other HMI

Drives

Soft Starters

Motors & Gearbox

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pressure Sensors

Temperature Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

Terminal Blocks & Wiring

Power

Circuit Protection

Enclosures

Tools

Pneumatics

Safety

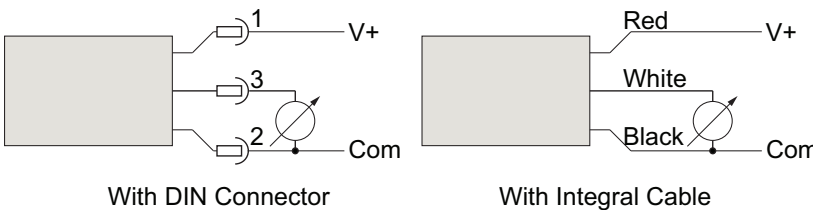
Appendix

Product Index

Part # Index

ProSense SPT25 Series Pressure Transmitters (DIN Connector)					
Part Number	Description	Electrical Connection	Input Voltage	Wt(lb)	Price
SPT25-20-V30D	Pressure transmitter, 4 to 20 mA output, -14.7 vacuum to 30 psi range, 1/4" NPT male port	DIN 175301-803C L-connector	9 - 36 VDC	0.30	<--->
SPT25-20-0030D	Pressure transmitter, 4 to 20 mA output, 0 to 30 psi range, 1/4" NPT male port				<--->
SPT25-20-0060D	Pressure transmitter, 4 to 20 mA output, 0 to 60 psi range, 1/4" NPT male port				<--->
SPT25-20-0100D	Pressure transmitter, 4 to 20 mA output, 0 to 100 psi range, 1/4" NPT male port				<--->
SPT25-20-0150D	Pressure transmitter, 4 to 20 mA output, 0 to 150 psi range, 1/4" NPT male port				<--->
SPT25-20-0200D	Pressure transmitter, 4 to 20 mA output, 0 to 200 psi range, 1/4" NPT male port				<--->
SPT25-20-0300D	Pressure transmitter, 4 to 20 mA output, 0 to 300 psi range, 1/4" NPT male port				<--->
SPT25-20-0500D	Pressure transmitter, 4 to 20 mA output, 0 to 500 psi range, 1/4" NPT male port				<--->
SPT25-20-1000D	Pressure transmitter, 4 to 20 mA output, 0 to 1000 psi range, 1/4" NPT male port				<--->
SPT25-20-1500D	Pressure transmitter, 4 to 20 mA output, 0 to 1500 psi range, 1/4" NPT male port				<--->
SPT25-20-2000D	Pressure transmitter, 4 to 20 mA output, 0 to 2000 psi range, 1/4" NPT male port		<--->		
SPT25-20-3000D	Pressure transmitter, 4 to 20 mA output, 0 to 3000 psi range, 1/4" NPT male port		<--->		
SPT25-20-5000D	Pressure transmitter, 4 to 20 mA output, 0 to 5000 psi range, 1/4" NPT male port		<--->		
SPT25-10-V30D	Pressure transmitter, 0 to 10 V output, -14.7 vacuum to 30 psi range, 1/4" NPT male port		14 - 36 VDC		<--->
SPT25-10-0030D	Pressure transmitter, 0 to 10 V output, 0 to 30 psi range, 1/4" NPT male port				<--->
SPT25-10-0060D	Pressure transmitter, 0 to 10 V output, 0 to 60 psi range, 1/4" NPT male port				<--->
SPT25-10-0100D	Pressure transmitter, 0 to 10 V output, 0 to 100 psi range, 1/4" NPT male port				<--->
SPT25-10-0150D	Pressure transmitter, 0 to 10 V output, 0 to 150 psi range, 1/4" NPT male port				<--->
SPT25-10-0200D	Pressure transmitter, 0 to 10 V output, 0 to 200 psi range, 1/4" NPT male port				<--->
SPT25-10-0300D	Pressure transmitter, 0 to 10 V output, 0 to 300 psi range, 1/4" NPT male port				<--->
SPT25-10-0500D	Pressure transmitter, 0 to 10 V output, 0 to 500 psi range, 1/4" NPT male port	<--->			
SPT25-10-1000D	Pressure transmitter, 0 to 10 V output, 0 to 1000 psi range, 1/4" NPT male port	<--->			
SPT25-10-1500D	Pressure transmitter, 0 to 10 V output, 0 to 1500 psi range, 1/4" NPT male port	<--->			
SPT25-10-2000D	Pressure transmitter, 0 to 10 V output, 0 to 2000 psi range, 1/4" NPT male port	<--->			
SPT25-10-3000D	Pressure transmitter, 0 to 10 V output, 0 to 3000 psi range, 1/4" NPT male port	<--->			
SPT25-10-5000D	Pressure transmitter, 0 to 10 V output, 0 to 5000 psi range, 1/4" NPT male port	<--->			

## 0 to 10 VDC Output Wiring Diagram

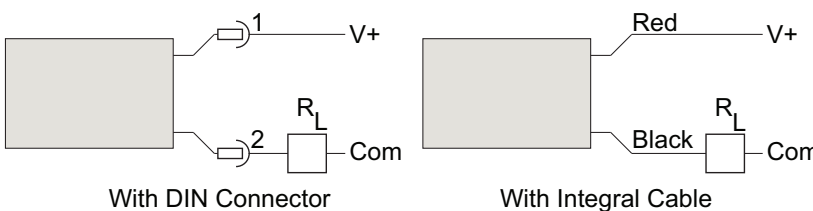


### Shielded Cable Models Wire Designation

Wire Color	0 - 10 VDC Output	4 - 20 mA Output
Red	V +	V +
Black	Com	Output
White	Output	None
Bare*	Shield Drain Wire	Shield Drain Wire

\* Where shielded wiring is being used; Connect the drain wire to the guard terminal on the read out device or measuring instrument if available. In all other cases connect to the power supply negative terminal.

## 4 to 20 mA Output Wiring Diagrams



### DIN Form C Models Pin Designation

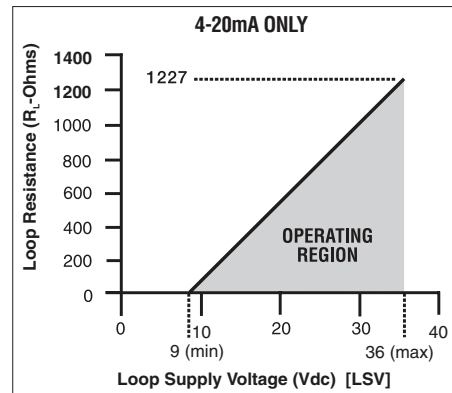
Pin No.	0 - 10 VDC Output	4 - 20 mA Output
1	V+	V+
2	Com	Output
3	Output	None
4	Case Ground	Case Ground

# proSense® SPT25 Series Pressure Transmitters

ProSense SPT25 Series General Specifications	
<b>Housing Material</b>	20% Glass Reinforced Nylon, Fire retardant to UL94 V1 / 304 Series Stainless steel
<b>Materials (wetted parts)**</b>	304 Series Stainless steel / 17-4PH Stainless Steel
<b>Operating Temperature</b>	-40 to 257°F (-40 to 125°C)
<b>Medium Temperature</b>	-40 to 257°F (-40 to 125°C)
<b>Storage Temperature</b>	-40 to 257°F (-40 to 125°C)
<b>Protection</b>	IP 67 for cabled models IP 65 For DIN connector models
<b>Accuracy*</b>	± 0.50% of full range
<b>Temperature Coefficient</b>	0.15% of full range / 10°F (0.25% of full range / 10°C)
<b>Reference Temperature</b>	70°F ± 1°F (21°C ± 1°C)
<b>Compensated Temperature</b>	-4 to 185°F (-20 to 85°C)
<b>Insulation Resistance</b>	Greater than 100 megohms at 100 VDC
<b>Shock Resistance</b>	100 gs, 6 ms
<b>Vibration Resistance</b>	Random vibration (20 g) over temperature range (-40° to 125°C). Exceeds typical MIL. STD. requirements
<b>Drop Test</b>	Withstands 1 meter on concrete 3 axis
<b>Response Time</b>	Less than 1 msec
<b>Warm-up time</b>	Less than 500 msec
<b>Position Effect</b>	Less than ±0.01% span, typical
<b>Insulation Breakdown Voltage</b>	100 VAC
<b>Reverse Polarity &amp; Miswired Protected</b>	Yes
<b>Durability</b>	Tested to 50 million cycles
<b>Humidity</b>	0 to 100% R.H., no effect
<b>Stability</b>	Less than ±0.25% full range / year
<b>Agency Approvals</b>	CE
<i>*Note - Includes non-linearity, hysteresis &amp; non-repeatability.</i>	
<i>** Not cleaned for oxygen service</i>	

ProSense SPT25 Series Technical Specifications	
<b>Technical Specifications SPT25-20-xxxx</b>	
<b>Operating Voltage</b>	9 – 36 VDC
<b>Analog Output</b>	4 – 20 mA
<b>Maximum Load</b>	Determine Maximum Loop Resistances $\frac{V_L - 9 \text{ VDC}}{0.022 \text{ amps}} = R_L$ For example [(24 VDC – 9 VDC) / 0.022 amps] = 681Ω
<b>Technical Specifications SPT25-10-xxxx</b>	
<b>Operating Voltage</b>	14 – 36 VDC
<b>Current Consumption</b>	4 mA
<b>Minimum Load</b>	10 kΩ

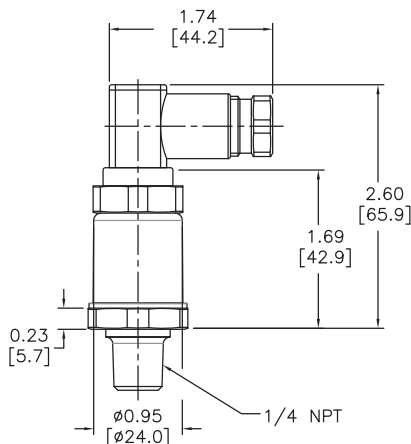
Power Supply Voltage vs Loop Resistance



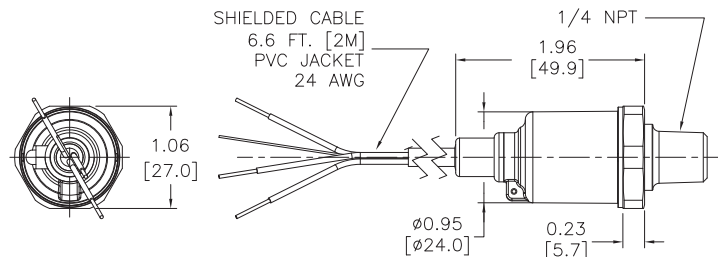
ProSense SPT25 Proof & Burst Pressures		
	<b>Proof</b>	<b>Burst</b>
<b>500 psi &amp; below</b>	200% full scale	1000% full scale
<b>1000 – 2000 psi</b>	200% full scale	500% full scale
<b>3000 psi</b>	200% full scale	500% full scale
<b>5000 psi</b>	150% full scale	500% full scale

## Dimensions

inches [mm]



DIN Connector Models



Shielded Cable Models