DrSense[®] SPT25 Series Pressure Transmitters



Applications

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

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 psig are available along with a 1¼ 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.

Features

- All stainless steel welded sensing element
- Fast response time
- Pressure sensing ranges from vacuum to 5000 psig
- 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

Click on the thumbnail or go to <u>https://www.automationdirect.com/</u> <u>VID-PR-0001</u> for a short video on Pro-Sense Air Differential and Pressure Transmitters



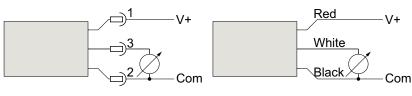
CE

| ProSense SPT25 Series Pressure Transmitters (Shielded Cable) | | | | | |
|--|--|-----------------------|---------------|--------|------------|
| Part Number | Description | Electrical Connection | Input Voltage | Wt(lb) | Price |
| <u>SPT25-20-V30A</u> | Pressure transmitter, 4 to 20 mA output, -14.7 vacuum to 30 psig range, 1/4" NPT male port | | | | \$;;008tf: |
| SPT25-20-0030A | Pressure transmitter, 4 to 20 mA output, 0 to 30 psig range, 1/4" NPT male port | - | | | \$;008t3: |
| SPT25-20-0060A | Pressure transmitter, 4 to 20 mA output, 0 to 60 psig range, 1/4" NPT male port | _ | | | \$;008t4: |
| <u>SPT25-20-0100A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 100 psig range, 1/4" NPT male port | | | | \$;008t5: |
| <u>SPT25-20-0150A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 150 psig range, 1/4" NPT male port | | | | \$;008t6: |
| <u>SPT25-20-0200A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 200 psig range, 1/4" NPT male port | | | | \$;008t7: |
| <u>SPT25-20-0300A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 300 psig range, 1/4" NPT male port | | 9 - 36 VDC | | \$;008t8: |
| <u>SPT25-20-0500A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 500 psig range, 1/4" NPT male port | | | | \$;008t9: |
| <u>SPT25-20-1000A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 1000 psig range, 1/4" NPT male port | | | | \$;008ta: |
| <u>SPT25-20-1500A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 1500 psig range, 1/4" NPT male port | | | | \$;008tb: |
| <u>SPT25-20-2000A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 2000 psig range, 1/4" NPT male port | | | - 0.38 | \$;008tc: |
| <u>SPT25-20-3000A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 3000 psig range, 1/4" NPT male port | | | | \$;008td: |
| <u>SPT25-20-5000A</u> | Pressure transmitter, 4 to 20 mA output, 0 to 5000 psig range, 1/4" NPT male port | Integral 6.6 ft (2m) | | | \$;008te: |
| <u>SPT25-10-V30A</u> | Pressure transmitter, 0 to 10 V output, -14.7 vacuum to 30 psig range, 1/4" NPT male port | shielded cable ´ | | | \$;008t2: |
| <u>SPT25-10-0030A</u> | Pressure transmitter, 0 to 10 V output, 0 to 30 psig range, 1/4" NPT male port | | | | \$008sx: |
| <u>SPT25-10-0060A</u> | Pressure transmitter, 0 to 10 V output, 0 to 60 psig range, 1/4" NPT male port | | | | \$008sy: |
| <u>SPT25-10-0100A</u> | Pressure transmitter, 0 to 10 V output, 0 to 100 psig range, 1/4" NPT male port | | | | \$008sz: |
| <u>SPT25-10-0150A</u> | Pressure transmitter, 0 to 10 V output, 0 to 150 psig range, 1/4" NPT male port | | | | \$;008s]: |
| <u>SPT25-10-0200A</u> | Pressure transmitter, 0 to 10 V output, 0 to 200 psig range, 1/4" NPT male port | | | | \$;008s[: |
| <u>SPT25-10-0300A</u> | Pressure transmitter, 0 to 10 V output, 0 to 300 psig range, 1/4" NPT male port | | 14 - 36 VDC | - | \$008s_: |
| <u>SPT25-10-0500A</u> | Pressure transmitter, 0 to 10 V output, 0 to 500 psig range, 1/4" NPT male port | | | | \$008s#: |
| <u>SPT25-10-1000A</u> | Pressure transmitter, 0 to 10 V output, 0 to 1000 psig range, 1/4" NPT male port | | | | \$;008s!: |
| <u>SPT25-10-1500A</u> | Pressure transmitter, 0 to 10 V output, 0 to 1500 psig range, 1/4" NPT male port | | | | \$008s?: |
| <u>SPT25-10-2000A</u> | Pressure transmitter, 0 to 10 V output, 0 to 2000 psig range, 1/4" NPT male port | | | | \$;008s,: |
| <u>SPT25-10-3000A</u> | Pressure transmitter, 0 to 10 V output, 0 to 3000 psig range, 1/4" NPT male port | | | | \$;008t0: |
| SPT25-10-5000A | Pressure transmitter, 0 to 10 V output, 0 to 5000 psig range, 1/4" NPT male port | | | | \$;008t1: |

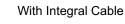
DrSense SPT25 Series Pressure Transmitters

| ProSense SPT25 Series Pressure Transmitters (DIN Connector) | | | | | |
|---|--|-----------------------|---------------|--------|-----------|
| Part Number | Description | Electrical Connection | Input Voltage | Wt(lb) | Price |
| <u>SPT25-20-V30D</u> | Pressure transmitter, 4 to 20 mA output, -14.7 vacuum to 30 psig range, 1/4" NPT male port | | | | \$008sv: |
| <u>SPT25-20-0030D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 30 psig range, 1/4" NPT male port | | | | \$008sh: |
| <u>SPT25-20-0060D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 60 psig range, 1/4" NPT male port | | | | \$-008si: |
| <u>SPT25-20-0100D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 100 psig range, 1/4" NPT male port | | | | \$-008sj: |
| <u>SPT25-20-0150D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 150 psig range, 1/4" NPT male port | | | | \$008sk: |
| <u>SPT25-20-0200D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 200 psig range, 1/4" NPT male port | | | | \$-008sl: |
| <u>SPT25-20-0300D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 300 psig range, 1/4" NPT male port | | 9 - 36 VDC | | \$008sn: |
| <u>SPT25-20-0500D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 500 psig range, 1/4" NPT male port | | | | \$008so: |
| <u>SPT25-20-1000D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 1000 psig range, 1/4" NPT male port | | | | \$008sp: |
| <u>SPT25-20-1500D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 1500 psig range, 1/4" NPT male port | | | | \$008sq: |
| <u>SPT25-20-2000D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 2000 psig range, 1/4" NPT male port | | | | \$008ss: |
| <u>SPT25-20-3000D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 3000 psig range, 1/4" NPT male port | | | | \$;008st: |
| <u>SPT25-20-5000D</u> | Pressure transmitter, 4 to 20 mA output, 0 to 5000 psig range, 1/4" NPT male port | DIN 175301-803C | | 0.30 | \$008su: |
| <u>SPT25-10-V30D</u> | Pressure transmitter, 0 to 10 V output, -14.7 vacuum to 30 psig range, 1/4" NPT male port | L-connector | | 0.30 | \$008sg: |
| <u>SPT25-10-0030D</u> | Pressure transmitter, 0 to 10 V output, 0 to 30 psig range, 1/4" NPT male port | | | | \$008s4: |
| <u>SPT25-10-0060D</u> | Pressure transmitter, 0 to 10 V output, 0 to 60 psig range, 1/4" NPT male port | | | | \$008s5: |
| <u>SPT25-10-0100D</u> | Pressure transmitter, 0 to 10 V output, 0 to 100 psig range, 1/4" NPT male port | | | | \$008s6: |
| <u>SPT25-10-0150D</u> | Pressure transmitter, 0 to 10 V output, 0 to 150 psig range, 1/4" NPT male port | | | | \$008s7: |
| <u>SPT25-10-0200D</u> | Pressure transmitter, 0 to 10 V output, 0 to 200 psig range, 1/4" NPT male port | | | | \$008s8: |
| <u>SPT25-10-0300D</u> | Pressure transmitter, 0 to 10 V output, 0 to 300 psig range, 1/4" NPT male port | | 14 - 36 VDC | | \$008s9: |
| <u>SPT25-10-0500D</u> | Pressure transmitter, 0 to 10 V output, 0 to 500 psig range, 1/4" NPT male port |] | | | \$008sa: |
| <u>SPT25-10-1000D</u> | Pressure transmitter, 0 to 10 V output, 0 to 1000 psig range, 1/4" NPT male port | | | | \$008sb: |
| <u>SPT25-10-1500D</u> | Pressure transmitter, 0 to 10 V output, 0 to 1500 psig range, 1/4" NPT male port | | | | \$008sc: |
| <u>SPT25-10-2000D</u> | Pressure transmitter, 0 to 10 V output, 0 to 2000 psig range, 1/4" NPT male port |] | | | \$008sd: |
| <u>SPT25-10-3000D</u> | Pressure transmitter, 0 to 10 V output, 0 to 3000 psig range, 1/4" NPT male port | | | | \$008se: |
| <u>SPT25-10-5000D</u> | Pressure transmitter, 0 to 10 V output, 0 to 5000 psig range, 1/4" NPT male port | | | | \$;008sf: |

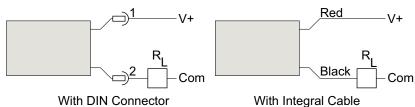
0 to 10 VDC Output Wiring Diagram



With DIN Connector



4 to 20 mA Output Wiring Diagrams



| Shielded Cable Models Wire Designation | | | | |
|--|--------|-------------------|--|--|
| Wire Color 0 - 10 VDC Output 4 - 20 mA Out | | 4 - 20 mA Output | | |
| Red | V + | V + | | |
| Black | Com | Output | | |
| White | Output | None | | |
| Bare* Shield Drain Wire Shield Drain W | | Shield Drain Wire | | |

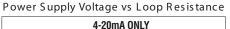
* Where shielded wiring is being used; Connect the drain wire to the guard terminal on the read out device or measuring instrument if available. In all other cases connect to the power supply negative terminal.

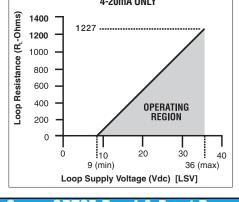
| DIN Form | C Models Pir | 1 Designation |
|-----------------|-------------------|------------------|
| Pin No. | 0 - 10 VDC Output | 4 - 20 mA Output |
| 1 | V+ | V+ |
| 2 | Com | Output |
| 3 | Output | None |
| 4 | Case Ground | Case Ground |

OrSense SPT25 Series Pressure Transmitters

| DroConco CDT25 C | origo Constal Specifications | |
|---|--|--|
| Prosense SP125 S | eries General Specifications 20% Glass Reinforced Nylon, Fire retardant to | |
| Housing Material | UL94 V1 / | |
| | 304 Series Stainless steel | |
| Materials (wetted parts)** | 304 Series Stainless steel / 17-4PH Stainless Steel | |
| Operating Temperature | –40 to 257°F (–40 to 125°C) | |
| Medium Temperature | –40 to 257°F (–40 to 125°C) | |
| Storage Temperature | –40 to 257°F (–40 to 125°C) | |
| Protection | IP 67 for cabled models IP 65 For DIN connector models | |
| Accuracy* | ± 0.50% of full range | |
| Temperature Coefficient | 0.15% of full range / 10°F (0.25% of full range / 10°C) | |
| Reference Temperature | 70°F ± 1°F (21°C ± 1°C) | |
| Compensated Temperature | –4 to 185°F (–20 to 85°C) | |
| Insulation Resistance | Greater than 100 megohms at 100 VDC | |
| Shock Resistance | 100 gs, 6 ms | |
| Vibration Resistance | Random vibration (20 g) over temperature range (-40° to 125°C). Exceeds typical MIL. STD. requirements | |
| Drop Test | Withstands 1 meter on concrete 3 axis | |
| Response Time | Less than 1 msec | |
| Warm-up time | Less than 500 msec | |
| Position Effect | Less than ±0.01% span, typical | |
| Insulation Breakdown Voltage | 100 VAC | |
| Reverse Polarity & Miswired Protected | Yes | |
| Durability | Tested to 50 million cycles | |
| Humidity | 0 to 100% R.H., no effect | |
| Stability | Less than ±0.25% full range / year | |
| Agency Approvals | CE | |
| *Note - Includes non-linearity, hysteresis & non-repeatability. | | |
| ** Not cleaned for oxygen service | | |
| | | |

| ProSense SPT25 Series Technical | | | | |
|--|---|--|--|--|
| Specifications | | | | |
| Technical Specifications SI | | | | |
| Operating Voltage | 9 – 36 VDC | | | |
| Analog Output | 4 – 20 mA | | | |
| Maximum Load | 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] = 681 Ω | | | |
| Technical Specifications SPT25-10-xxxx | | | | |
| Operating Voltage | 14 – 36 VDC | | | |
| Current Consumption 4 mA | | | | |
| Minimum Load | 10 kΩ | | | |





| ProSense SP | <u> T25 Proof & Bu</u> | rst Pressures |
|------------------|----------------------------|------------------|
| | Proof | Burst |
| 500 psig & below | 200% full scale | 1000% full scale |
| 1000 – 2000 psig | 200% full scale | 500% full scale |
| 3000 psig | 200% full scale | 500% full scale |
| 5000 psig | 150% full scale | 500% full scale |

See our website www.AutomationDirect.com for complete Engineering drawings.

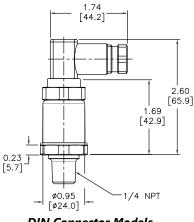
| | SHIELDED CABLE 6.6 FT. [2M] PVC JACKET 24 AWG | | 1/4 NPT |
|----------------|--|------------------|---------|
| 1.06 [27.0] | | Ø0.95 [Ø24.0] | 0.23 |

Shielded Cable Models

| DIN Connector Specifications | | |
|-------------------------------|------------------|--|
| Number of contacts 3 + PE | | |
| Cable glands PG 7 | | |
| Conductor size max. | 0.75 mm² / 18AWG | |
| Type of termination | Screw | |
| Suitable cables 4.5 mm to 6mm | | |
| Standard DIN | EN 175 301-803-C | |

Dimensions

inches [mm]



DIN Connector Models