

HIGH ACCURACY PRESSURE AND TEMPERATURE TRANSMITTER WITH CANopen

Model CN422



TYPICAL APPLICATIONS

- Automotive test stands
- Railroads
- Hydraulics
- Heavy machinery
- Engines
- General industrial applications

FEATURES

- High accuracy silicon pressure and temperature sensing element
- Ranges from 0-3 to 0-500 PSI (0-0.2 to 0-34 bar)
- Absolute, gage and vacuum
- Linearity correction and temperature compensation option available
- $\pm 0.08\%$ combined accuracy (optional $\pm 0.04\%$)
- Small size - 7/8" diameter (23mm) and <4" (102mm in length)
- Rugged stainless steel construction
- Boot Loader
- Sync behavior
- Autobaud
- Fixed or floating point
- CANopen DS301/DS404

HIGH PERFORMANCE

The CANopen CN422 is a versatile high-performance and highly accurate test and control sensor with CANopen protocol. The electronics and silicon sensor design have a combined accuracy over temperature of better than $\pm 0.08\%$ with an optional improved accuracy of better than $\pm 0.04\%$. The CN422 is small in size, but packs a high-performance punch.

PLUG 'N PLAY

The CN422 is truly plug 'n play and operates based on the DS301 and DS404 standards. It has autobaud features and can be used in any standard CANopen system. Device parameters are available via the CANopen interface and can be read or set with common CAN software. In addition to pressure, the CN422 also provides the internal temperature of the unit adjacent to the process fitting.

CUSTOMIZABLE

The CN422 was designed from the ground up to be flexible. Implemented with a Boot Loader, the CN422 can be updated to a new version of firmware or even customized to meet the specified needs of your application. Should your application require the measurement or management of parameters that are different than, or outside the published CANopen protocol, we can create a custom version of firmware.

SUPPORTABLE AND RELIABLE

The CN422 is a smart device with diagnostics and it can be configured and recalibrated in the field. With high accuracy, CE mark and quick delivery, this product provides a flexible alternative to the market.

For more information, contact Viatran.



PERFORMANCE

Full Scale Pressure Range	0-3 to 0-5000 PSI (0-0.2 to 0-345 bar)
Non-Linearity, Hysteresis & Repeatability	$\leq \pm 0.08\%$ FSO (combined, RSS)
Long Term Stability	$\leq \pm 0.1\%$ FSO/6 months
Compensated Temperature	32°F to 180°F (0°C to 82°C)
Operating Temperature	-40°F to 185°F (-40°C to 85°C)
Maximum Fluid Temperature	-40°F to 250°F (-40°C to 121°C)
Combined Thermal Effect (zero & span)	$\leq \pm 2\%$ FSO

ELECTRICAL

Supply Voltage	9 to 30 Vdc
Power Supply Regulation	$\leq \pm 0.005\%$ FSO per Volt
Circuit Protection	Short circuit and reverse polarity protected; CE
Voltage Spike Protection	Withstand 1000 volt spike per EN 61000-4-5
RFI/EMI Suppression	CE Marked, EN 61326
Insulation Resistance	≥ 200 M Ohm
Electrical Connections	5-pin Micro (M12) per IEC 60947
PIN	DESCRIPTION
1	CAN_SHIELD (optional)
2	V+
3	V-
4	CAN_H
5	CAN_L
Output Configuration	CANopen digital data via CANbus interface
Response Time	50 Hz
Software Protocol	In accordance with DS301 (CAN open) DS404 (analog input device profile)
Diagnostic Bits Available	Over pressure
.....	Over temperature
.....	Open gage

MECHANICAL CONNECTION

Pressure Connection	1/8" - 27 NPT female
Proof Pressure	3 times range or 1200 PSI (82 bar) whichever is less
Burst Pressure	5 times range or 2400 PSI (165 bar) whichever is less
Pressure Cavity Range	1.5 mL
Mounting	May be supported by process piping

MATERIALS OF CONSTRUCTION

Wetted Parts	316L stainless steel
Housing	316 stainless steel
Weight	5 oz (142 g) nominal
Identification	Etched onto body

OPTIONS

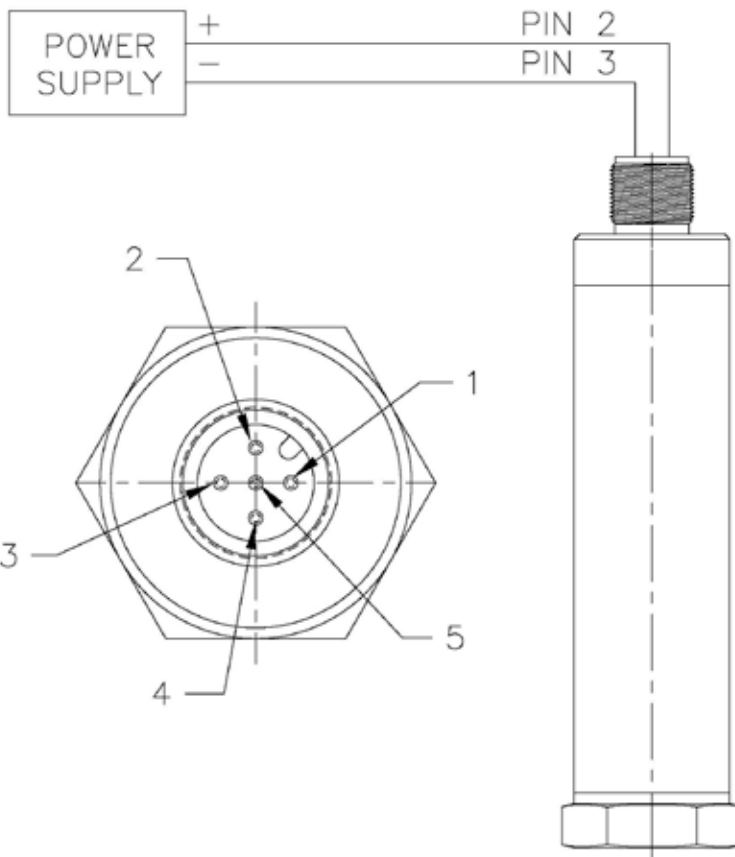
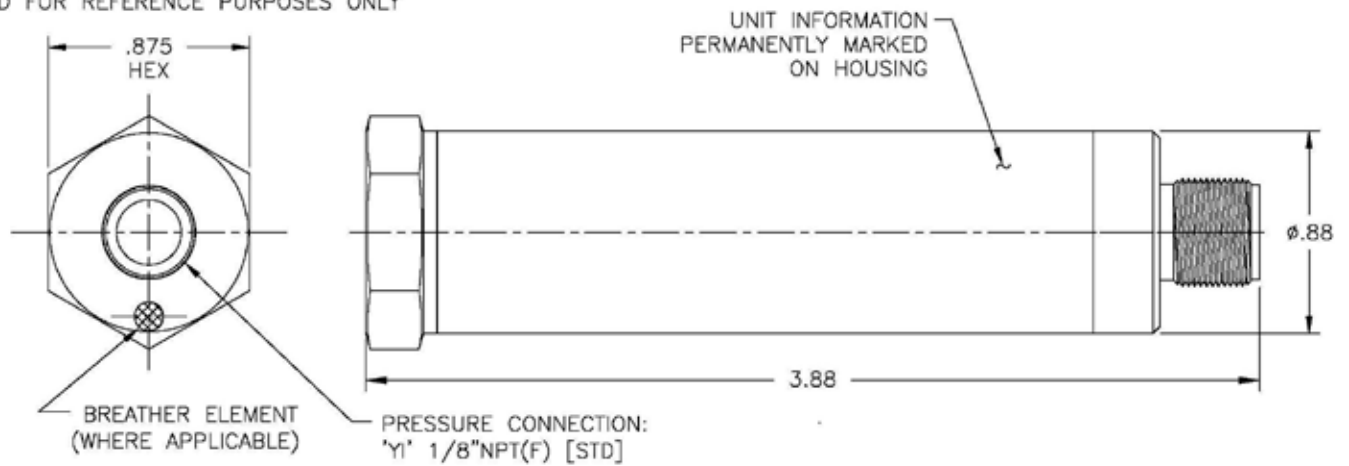
DN	Improved accuracy ($\pm 0.04\%$ NL, H.R each)
DG	Improved temperature performance
TU	Compound special ranging
DH	Special range
EA	Special calibration
DQ	Cleaning for oxygen service
NH	Customer specified marking

Alternate Pressure Ports

YC	MS33656-04
YA	MS33649-04
YH	1/8" NPT male
YJ	1/4" NPT female
YK	1/4" NPT male
WQ	G1/4 female
VE	1/4 AN bulkhead mount
VF	1/4 tube Swagelok bulkhead
VH	M12x1.5 mm male
VG	M12x1.5 mm female

NOTE:

1. ALL STAINLESS STEEL CONSTRUCTION
2. ALL DIMENSIONS ARE NOMINAL, IN INCHES AND FOR REFERENCE PURPOSES ONLY



CONNECTOR PIN LETTER	FUNCTION
1	SHIELD
2	V+
3	V-
4	CAN HIGH
5	CAN LOW