

Data Sheet

Pressure transmitter CANopen

DST P10B

The DST 10B OEM pressure transmitter is designed for use in industrial applications like Booster Pumps and Air Compressors.

Danfoss DST P10B is developed to comply with CANopen.

It is a cost effective way to control complex machines and make also replacements cost-efficient while offering additional benefits such as diagnostic and communication.

The DST P10B is available in the pressure range 4 to 40 bar. The measuring element is made of stainless steel and covers a media temperature range of -40 to 100 °C.

Features:

- Designed for use in Booster Pumps and Air Compressors
- For ambient temperature up to 100 °C
- Pressure range 0-4 bar to 0 - 40 bar
- Integrated CANopen interface per DS-301
 - Device profile DS-404
- Wetted parts made of stainless steel
- Fully welded design and, therefore, no use of gasket in combination with wetted parts

Product specification

Technical data

Table 1: Performance

Accuracy @ 20 °C	≤ ±0.5% FS
Total error band	0 - 100 °C: 2% -40 - 0 °C: 3%
Response time	< 2.5 ms
Overload pressure	4 × FS
Burst pressure	5 × FS
Durability, P: 10-90% FS	>10 mil. cycles

Table 2: Electrical specifications

Nom. output signal (short-circuit protected)	CANopen
Supply voltage [UB], polarity protected	8 - 32 Vdc
Termination resistor between CAN_H and CAN_L	120 Ohm (recommended)

Table 3: Environmental conditions

Media temperature range	-40 - 100 °C		
Ambient temperature range	-40 - 100 °C		
Storage temperature range	-40 - 150 °C		
EMC - Emission	EN 61000-6-3		
EMC Immunity up to 6 GHz	EN 61000-6-2		
Insulation resistance	> 100 MΩ at 500 V		
Vibration resistance	Random	10 grms, 5 Hz - 2 kHz	IEC 60068-2-64
Shock resistance	Shock	500 g / 1 ms	IEC 60068 - 2 - 27
Enclosure with mating connector	IP67		

Table 4: Mechanical characteristics

Wetted parts	AISI 304L
	AISI 316L (diaphragm)
Housing	AISI 304L
Electrical connections	Color: Black, Material: PBT-GF30%
Weight (depending on pressure connection)	< 100 g

Table 5: CANopen

CANopen	Sample rate	1953 samples/s (max.)
	Digital filter	configurable moving average filter
	Output protocol	CANopen DS301/DS404 (according to CiA)
	Electrical connection	M12x1,0 according to EN60947-5-2 (2008), 5 pins

Electrical connections

Table 6: Electrical connections

Pin-plating	Au plated pins
Pin configuration	Pin 1: PE, Housing Pin 2: VCC Pin 3: GND Pin 4: CAN_H Pin 5: CAN_L

Dimensions / combinations

Figure 1: M12 and G1/4A - ISO
1179-2

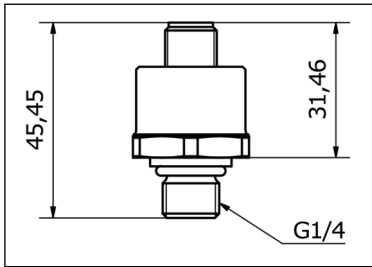
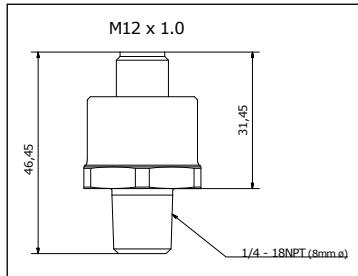


Figure 2: M12 and 1/4-18NPT
(8mm ø)



Ordering

Table 7: DST P10B - Standard code numbers

Type	Pressure range	Pressure reference	Electrical connector	Elec. connector standard	Pressure connection	Pres. connection standard	Output signal	Code no. (Industry Pack)	Code no. (Multi Pack)
DST P10B	0 - 4 bar	Gauge	M12 x 1.0 (5 pins, Au plated)	EN60947-5-2 (2008)	G1/4-A	DIN EN ISO1179-2 (formerly: DIN 3852 E), incl. O-ring , DIN 3869	CANopen, DS301/DS404 (according to CiA)	075G4149	075G1190
	0 - 6 bar							075G4150	075G1191
	0 - 10 bar							075G4151	075G1192
	0 - 16 bar							075G4152	075G1193
	0 - 25 bar							075G4153	075G1194
	0 - 40 bar	Sealed Gauge			1/4-18 NPT (8mm Ø)	ANSI/ASME B1.20.1		075G4154	075G1195
	0 - 100 psi	Gauge						075G4157	075G1198
	0 - 150 psi							075G4158	075G1199
	0 - 200 psi							075G4159	075G1200
	0 - 300 psi							075G4160	075G1201

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

Some approvals may change over time. You can check the most current status at danfoss.com or contact your local Danfoss representative if you have any questions.

Conformity

- CE
- CiA certified (in progress)
-  (in progress)
- UKCA

i NOTE:

In respect to Customer Change Notification, only changes in relation to Form Fit and Function can be informed upon!

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