

Data sheet

Pressure transmitter for Industry Applications

DST P140



The Danfoss Sensor Technology (DST) P140 is designed for use in industrial applications like Booster Pumps and Air Compressors.

Drawn from over 30 years of experience with MEMS technology, the DST P140 offers outstanding performance in a compact and durable stainless-steel package.

Running a powerful ARM-based microcontroller, the DST P140 offers diagnostic features and performance features at a competitive level.

Features

- Hermetically sealed media interface (all stainless steel, fully welded)
- Compact and cost effective design for OEM applications
- Superior shock and vibration resistance
- High overload and burst pressure
- Robust electronics platform for harsh electrical environments

Conformity

- CE marked
- RoHS compliant
- EAC declaration
- UL (applied for)
- NSF listed for PSI versions

Technical data
Performance

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

Electrical specifications

Nom. output signal (short-circuit protected)	4 – 20 mA
Supply voltage [UB], polarity protected	8 - 28 V
Supply voltage dependency	≤ ±0.1% FS/10 V
Load [RL] (load connected to 0 V)	RL ≤ (UB-8V)/0.022 A

Environmental conditions

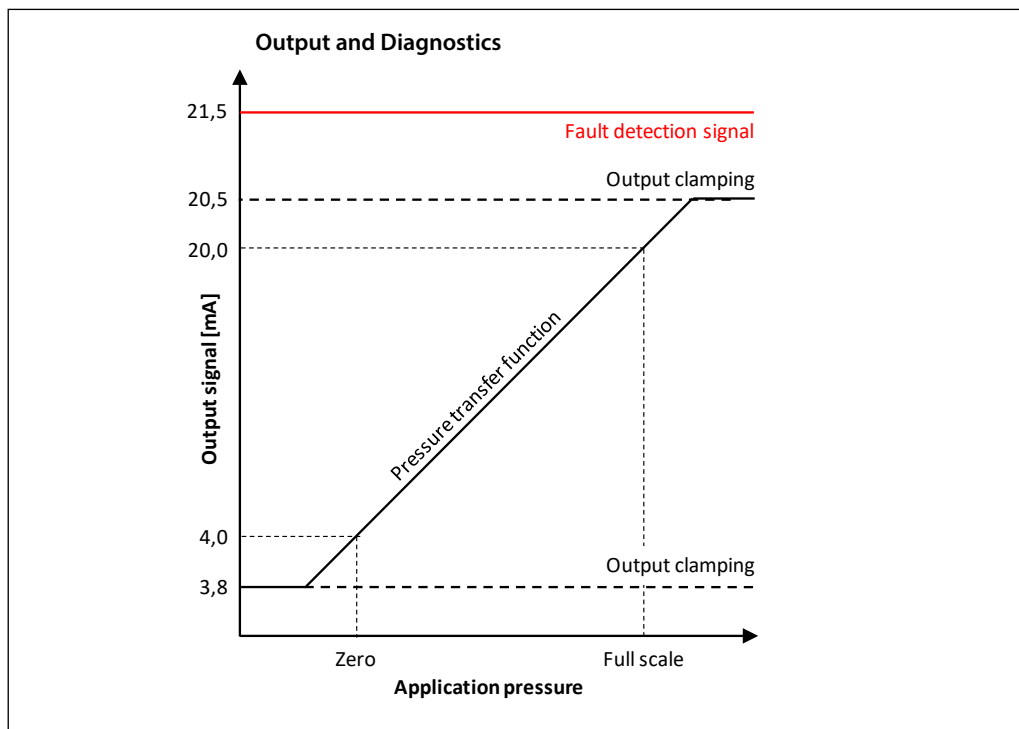
Media temperature range	-20 – 100 °C
Ambient temperature range	-40 – 85 °C
Storage temperature range	-50 – 150 °C
EMC - Emission	EN 61000-6-3
EMC Immunity up to 6 GHz	EN 61000-6-2
Insulation resistance	> 100 MΩ at 500 V
Vibration resistance	Random 10 grms, 5 Hz - 2 kHz IEC 60068-2-64
Shock resistance	Shock 500g / 1 ms IEC 60068 - 2 - 27
Enclosure with mating connector	IP67

Mechanical characteristics

Wetted parts	AISI 304L
	AISI 316L
Electrical connections	see Electrical connection section
Weight (depending on pressure connection and electrical connection)	< 100 g

Output and diagnostics

4 - 20 mA example



Output clamping levels

- Limit the output signal if the pressure rises above or falls below the normal range

Fault detection signal level

- Placed above the pressure output range. Output at this level signals a sensor fault

Contact Danfoss for detailed information and requirements.

Ordering

Type	Pressure referenc	Pressure ranges	Electrical connection	Output signal	Pressure connection	Standard	Code no. ¹⁾
DST P140	Gauge	0 - 4 bar	M12x1.0	4 - 20 mA	G ¼A	ISO 1179-2	075G4034
		0 - 6 bar					075G4035
		0 - 10 bar					075G4027
		0 - 16 bar					075G4029
		0 - 25 bar					075G4031
		0 - 40 bar					075G4033
		0 100 psi	Metri-Pack 150.2 (Round)		¼-18NPT 8 mm Ø	ANSI/ASME B1.20.1	075G4026
		0 - 150 psi					075G4028
		0 - 200 psi					075G4030
		0 - 300 psi					075G4032

¹⁾ Are delivered in I-pack of 60 pcs., and must therefore be ordered in multiplum of 60 pcs.

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Dimensions/Combinations

M12x1.0	Metri-Pack 150.2 (Round)
G 1/4A - ISO 1179-2	1/4-18NPT

Electrical connections

	M12x1.0	Metri-Pack 150.2 (Round)
HEX 27		
Pin-plating	Gold (Au)	Tin (Sn)
	Pin 1: +Supply Pin 2: not connected Pin 3: -Supply	Pin A: -Supply Pin B: +Supply Pin C: not connected

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