

ENGINEERING
TOMORROW

Danfoss

New **engine & transmission pressure sensor** offers improved **reliability, durability** and **performance**

Introducing the DST P100 pressure sensor



Quality built-in
IATF16949:2016
compliant

PRODUCT HIGHLIGHTS

Premium **MEMS** technology at a **competitive price**

Get the strong, reliable characteristics of an oil filled sensing element based on the MEMS technology at a cost-effective price point.

The physical properties of silicon provide a superior dynamic range leading to scalable performance and outstanding long-term stability and proof/burst pressure capabilities. The DST P100 sensor is built with a robust, stainless steel, welded design — eliminating the need for an internal gasket on the media side and reducing the number of potential leak points. The hermetically-sealed design provides excellent media compatibility and making it ready for today's and future medias and additives.



THE DST P100 sensor is:

- **Robust and reliable.** Product packaging of the MEMS sensor and electronics allows for vibration resistance, thermal management properties and protection against moisture ingress.
- **Compliant.** The DST P100 meets strict automotive and off-highway EMI/EMC standards.
- **Forward-looking.** The diagnostic capabilities with this sensor will benefit OEMs today — saving on troubleshooting costs — and well into the future, as more products integrate electronic features.
- **Scalable.** The new electronics platform enables OEMs to fine-tune the sensor performance specific to their engine applications.
- **Thoroughly tested.** A “test-to-failure” method is an important part of the Danfoss product development process, providing increased product specification and insight into product design. This method also allows for faster optimization and testing, improving time-to-market.
- **Flexible.** Already available in various configurations and designed for customization.

Shock and vibration
tested up to

1500G
30Grms

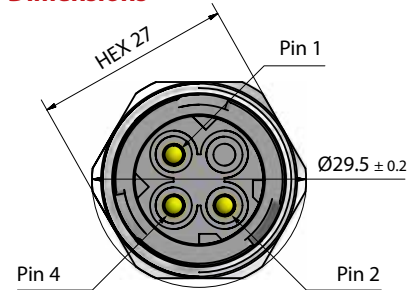
Self-diagnostic Features

Increase machine uptime and reduce troubleshooting costs with the self-diagnostic features available with the DST P100 sensor — like automatic sensor failure detection, power-up diagnostics, run-time diagnostics and harness fault detection.

Mechanical Specifications

Pressure Ranges (absolute and gauge)	0 – 4.5 bar through 0 - 50 bar (0 – 65 psi through 0 - 725 psi)
Total Error Band	Optimized for application fit $\pm 1\%$ F.S. typical
Operating Temperature Range	-40°C to 135°C (-40°F to 275°F)
Overload Pressure	4x fullscale pressure
Burst Pressure	>250 bar (>3625.94 psi)
Endurance	>10 million cycles, 10%-110% F.S.
Response Time	<2 ms Programmable filtering available
Wetted Materials	304L Stainless Steel 316L Stainless Steel

Dimensions



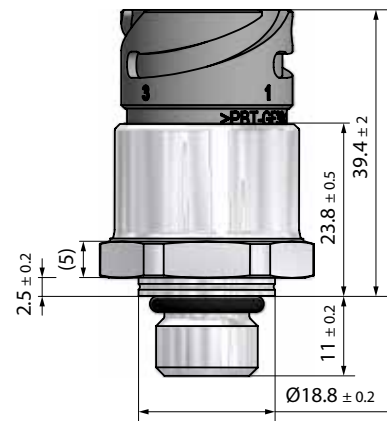
Available electrical connectors:

- Bayonet, ISO 15170
- Packard Metri-Pack, 150 series
- Tyco AMPSEAL-16

Please contact Danfoss for other options.

Available pressure ports:

- Various options available



Shown with Bayonet (ISO 15170) connector and M14x1.5 (ISO 6149-2) pressure port.

Please contact Danfoss for other available configurations.

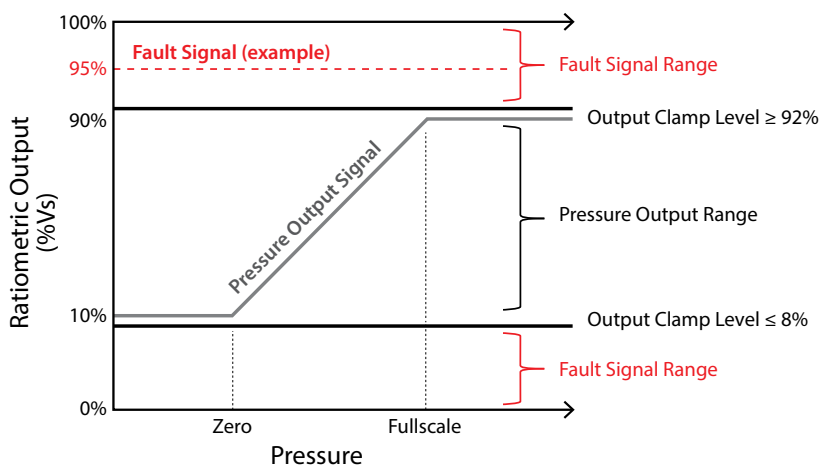
Electrical Specifications

Output Modes	Ratiometric (programmable, ex. 10%-90% Vss) Absolute Voltage (programmable, ex. 1-5Vdc) Current (programmable, ex. 4-20mA)
Output Limiting (clipping)	Programmable
Over and Reverse Voltage	Protected
Short Circuit	Protected
Miswiring	Protected
Diagnostic Fault Signal	Programmable
EMC	ISO 11452-2 Level IV (100V/m) ISO 11454-4 Level IV (200mA)
ESD	IEC 6100-4-2 8kV contact, 15kV air

Please contact Danfoss for full specifications and available configurations.

Flexible Output and Diagnostics

Ratiometric example



The DST P100's output and fault signals can be programmed to fit application requirements:

- **Pressure output range**
Defines the measuring range of the sensor
- **Output clamp levels**
Limit the pressure output signal if the pressure exceeds the normal range
- **Fault signal**
Placed in fault signal range above or below the pressure output range. Output at this level signals a sensor.
- **Harness fault** (optional)
Harness fault available based on pull up and pull down design in application.

For more information, visit sensors.danfoss.com

A dedicated **partner** you can rely on

Danfoss develops new product solutions with both its customers and its extensive application expertise in mind. Years of producing reliable, effective solutions for the engine and powertrain markets have provided valuable insight that can then be leveraged to work for you.

DANFOSS IS COMMITTED TO WORKING WITH YOU TO FIND THE RIGHT SOLUTION FOR YOUR UNIQUE APPLICATION NEEDS.



System solutions

Danfoss products are designed to provide value on their own and as part of an optimized system.



Application expertise

Your challenges are also our challenges. We understand your unique needs because we partner with you every step of the way for a wide variety of industrial applications.

For more information, visit sensors.danfoss.com

Danfoss A/S

Nordborgvej 81 · 6430 Nordborg · Denmark · Tlf: +45 7488 2222 · danfoss.com

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