

Data sheet

Pressure transmitter SIL-2

DST P92S



The DST P92S OEM pressure transmitter is designed for use in Mobile and Industrial hydraulic applications.

The transmitter is suitable for use in a functional safety environment with a requirement of PLd, ISO 13849-1 or SIL2, IEC 61508.

Further Danfoss holds a third party approval from TÜV to ensure easy implementation into any safety system.

Features

- Designed for use in severe hydraulic applications
- For operating temperature up to 85 °C
- Pressure range 0-10 bar to 0-1200 bar
- Dual output signal: 4-20 / 20-4 mA
- Cyclic diagnostic
- Start up diagnostic
- Wetted parts made of stainless steel

Conformity

- PLd DIN EN ISO 13849-1
- SIL2 IEC 61508
- CE marked
- E1 type approval

Technical data

Accuracy (incl. non linearity, hysteresis and repeatability)	< 0.5% FS ¹⁾
Overall accuracy under reference conditions	+/- 1 %FS [0 - 80°C] +/- 1,5%FS [-25 - 0°C] +/- 2,5%FS [-40 - -25°C]
Long-run stability	<0,2%FS p.a.
Response time liquids (10 – 90%)	1 ms

¹⁾ 1, Load 100Ω, temperature in steady state, accuracy valid for output 1

Overload and burst pressure

Standard pressure [bar]	40	60	100	160	250	400	600
Overload pressure [bar]	80	120	200	320	500	800	1200
Burst pressure [bar]	400	600	1000	1600	2500	4000	>4000

Environmental conditions

Media temperature range	-40 – 125 °C
Operating temperature range	-40 - 85 °C
Storage temperature range	-40 – 100 °C
Voltage supply	9 - 32 Vdc, allowable ripple @50Hz: 10%
Electrical Protection	Short circuit protected, signal on GND/VCC and reverse polarity protection
Electric Magnetic Compatibility Directive [EMC]	2014/30/EU
EMC	EN61326-1 EN61326-3-1 E1 type approval: All vehicle types with a 12V or 24V - electrical wiring and battery (-) at the body
Vibration stability	20 g EN60068-2-6
Shock mechanical	500 g EN60068-2-27
Enclosure	1.4301/ PBT-GF30
Material with medium contact	1.4548/Viton
Weight	50 g
Enclosure	IP 67

Functional safety

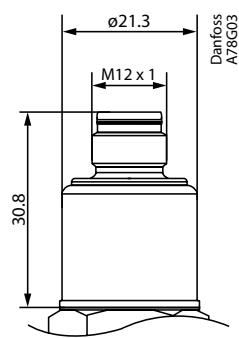
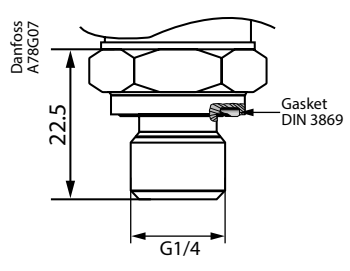
Machinery Directive [MD]	2006/42/EC	
IEC 61508:2010	SIL 2	Safety related subsystem, type B
	1oo1 architecture	SFF 95% (incl. control unit)
	HFT 0	PFH 8.4 *10 ⁹
EN ISO 13849-1:2015	PL d	CCF 70 points
	Category 2	MTTF _d high >100 years
	DC medium (incl. control unit)	
Safety function	Safety conversion of the measured pressure into two proportional opposing current signals. Refer also to the Safety guide.	

Ordering
Available code numbers

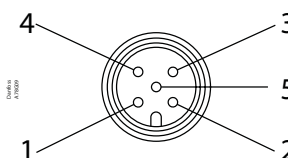
Type	Code no	Measuring range	Pressure connection	Electrical connection
DST P92S	078G1000	0-40 bar	G1/4 DIN 3852-E	M12
DST P92S	078G1001	0-60 bar	G1/4 DIN 3852-E	M12
DST P92S	078G1002	0-100 bar	G1/4 DIN 3852-E	M12
DST P92S	078G1003	0-160 bar	G1/4 DIN 3852-E	M12
DST P92S	078G1004	0-250 bar	G1/4 DIN 3852-E	M12
DST P92S	078G1005	0-400 bar	G1/4 DIN 3852-E	M12
DST P92S	078G1006	0-600 bar	G1/4 DIN 3852-E	M12

For other requests please contact Danfoss.

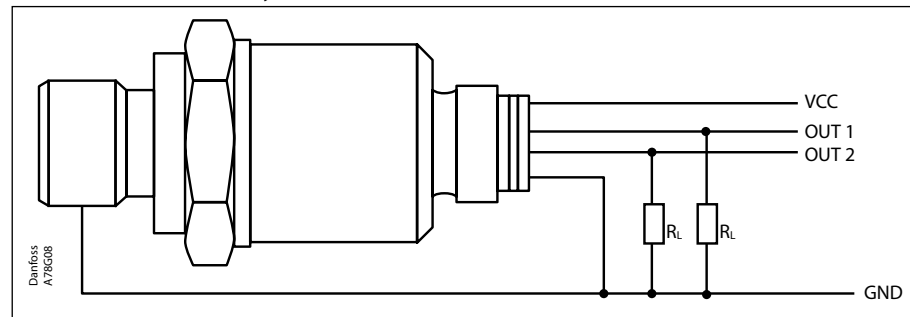
Dimensions

M 12x1, 5 pol PBT	
G 1/4 DIN3852-E Viton gasket Note: HEX is 22 mm across flats	
Recommended torque	Max. 35 Nm

Electrical connections

	
Enclosure (IP protection fulfilled together with mating connector)	IP67
Material	PBT
Electrical connections, 4 -20/20-4 mA (3 wire)	Pin 1: VCC Pin 2: Output 2 [20-4 mA] Pin 3: GND Pin 4: Output 1 [4-20 mA] Pin 5: Do not connect

Recommended terminal layout



For detailed load reference please refer to the Safety guide.