



VELOMAT

MESSELEKTRONIK GmbH



Pressure transducer DRA-35



Pressure transducer DRA-35

The pressure transducer works according to the principle of pressure force measurement through a liquid and gaseous pressure medium on a diaphragm.

The DRA-35 is designed for the medium air, e.g. in tanks and pipes, and is suitable for static and dynamic measurements.

It is designed as a cylinder with an M16x1 internal thread and has no moving mechanical parts. Two lateral millings allow easy installation with a 30 mm spanner.

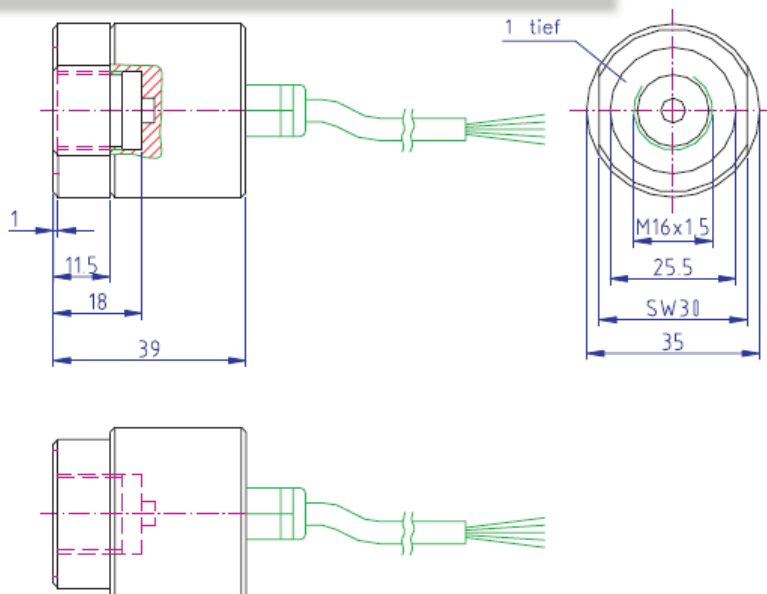
The measuring diaphragm is located in the interior, with strain gauges mounted on the back. The application area for the strain gauges is therefore not in the area of influence of the pressure medium.

The strain gauges measure the deformation caused by the compressive force. An integrated amplifier supplies the measurement signal of 1 ... 90 mA.

In the unloaded state, the nominal output current can be generated by switching on the calibration check signal (software calibration). This makes it possible to check the pressure transducer with its amplifier and the downstream measuring device.

The DRA-35 is intended for direct connection to a control or comparator circuit.

Specification



Mechanical features:

	DRA-35A-20-1.10	DRA-35-100-1.10
Nominal load	20 bar	100 bar
Overload	150 % of the nominal load	
Breaking load	500 % of the nominal load	
Weight	approx. 140 g	approx. 260 g
Fixing	Internal thread M16x1.5	
Material	Aluminium	Steel
Degree of protection	IP 67	

Electrical features:

	DRA-35A-20-1.10	DRA-35-100-1.10
Measuring signal	1 ... 9 mA	
Supply voltage	10 ... 24 V DC	9 ... 30 V DC
Current consumption	max. 35 mA	
Calibration tolerance*	< 0,50 % from the final value	
Non-linearity*	< 0,25 % from the final value	
Hysteresis*	< 0,15 % from the final value	
Temperature error zero point	≤ 0,04 % from the final value / K	
Temperature error sensitivity	≤ 0,04 % from the setpoint / K	
Insulation resistance	< 5000 MΩ	
Operating condition**	-25 °C ... +80 °C	

Pin-assignment

	DRA-35A-20-1.10	DRA-35-100-1.10
Cable end	Ferrule	6-pin DIN round plug
Cable- / connector assignment	Brown - Operating voltage	Pin 1 - Measurement signal output
	Green – Ground	Pin 3 – Ground
	Yellow - Measurement signal output	Pin 4 - Calibration signal
	White - calibration signal (low active)***	Pin 5 - Operating voltage
	Blue – Shielding	Pin 2 / 6 - not assigned
		Screw connection - shielding

Applies to DRA-35A-20-1.10

* These values depend on the fit, section modulus and clamping length. They are achieved with favourable values.

** With permanently installed cable

*** If the calibration connection is not used, it should be connected to the operating voltage together with the brown wire