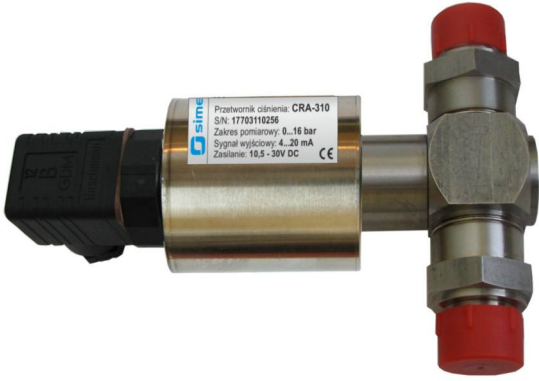


CRA-310



- differential pressure transmitter
- any range from 0 ÷ 20 mbar do 0 ÷ 16 bar
- output: 4...20 mA (2-wire) or 0...20 mA / 0...10V (3-wire)
- medium temperature up to 120°C (direct measurement)
- certificate of Institute of Public Health for contact with potable water
- piezoresistant silicon sensor
- resistant to overload with full static pressure

The CRA-310 transmitter is applicable to the measurement of differential pressure of gases, vapours and liquids. The active element is a piezoresistant silicon sensor separated from the medium by separating diaphragm and a specially selected type of manometric fluid. The electronics is placed in a casing with a degree of protection IP 54. The electrical connection is a DIN 43650 connector. Potentiometers can be used to shift the zero position and the range by up to 10%, without altering the settings. The transmitter is not heavy, so it can be installed directly onto impulse lines. For fitting in any desired position on a Ø25 pipe the mounting bracket is recommended. The version with C type process connection can be fitted directly to a 3- or 5-valve manifold. The factory-mounted transmitters with VM type valve manifold are recommended. A transmitter without a valve manifold can be fitted in any position on a 2" pipe or on a wall using the C-2" mounting bracket. When the special process connections are required for the measurement of levels and pressures (e.g. at food and chemical industries), the transmitter is provided with a diaphragm seal.

TECHNICAL DATA

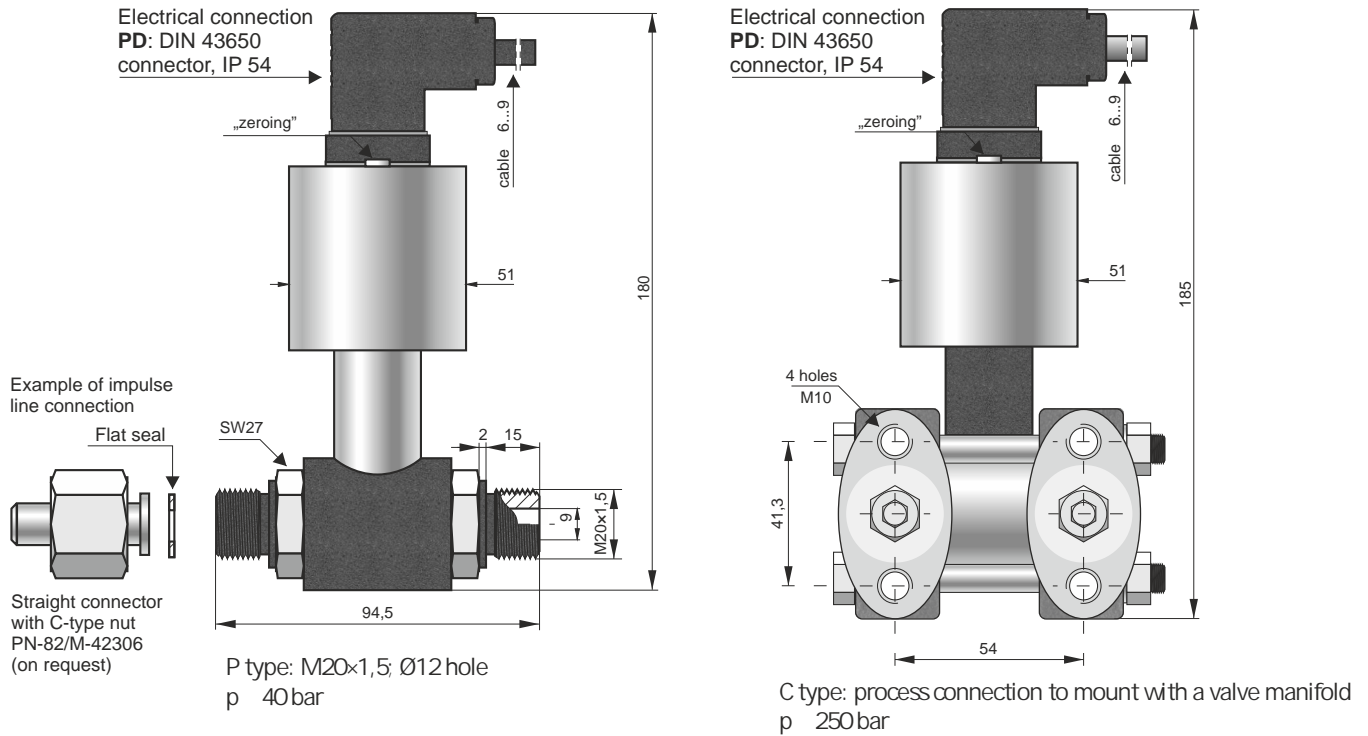
Power supply	10 ÷ 39V DC (2-wire system), 13 ÷ 39V DC (3-wire system)
Error due to supply voltage changes	0,005% / V
Measuring range	0 ÷ 20 mbar to 0 ÷ 16 bar
Output signal	4...20 mA (2-wire); 0...20 mA (3-wire); 0...10V (3-wire)
Hysteresis, repeatability	0,05%
Electrical connection	DIN 43650 connector
Compensation range	0°C ÷ 70°C
Operating temperature range	-25°C ÷ 80°C (ambient temperature)
Medium temperature range	-25°C ÷ 120°C (direct measurement) over 120°C (measurement with the use of impulse line, radiator or diaphragm seal)
Protection class	IP 54
Material of the wetted parts	316L stainless steel
Material of the casing	304 stainless steel

	Measuring range			
	10 kPa	100 kPa	200 kPa	1600 kPa
Overpressure limit (repeated, without hysteresis)*	25 MPa (4 MPa for P type connection), equivalent to allowable static pressure			
„Zero“ error from static pressure	0,1% / 1 MPa			
Accuracy	0,4%		0,25%	
Thermal error	typ. 0,3% / 10°C max. 0,4% / 10°C		typ. 0,2% / 10°C max. 0,3% / 10°C	

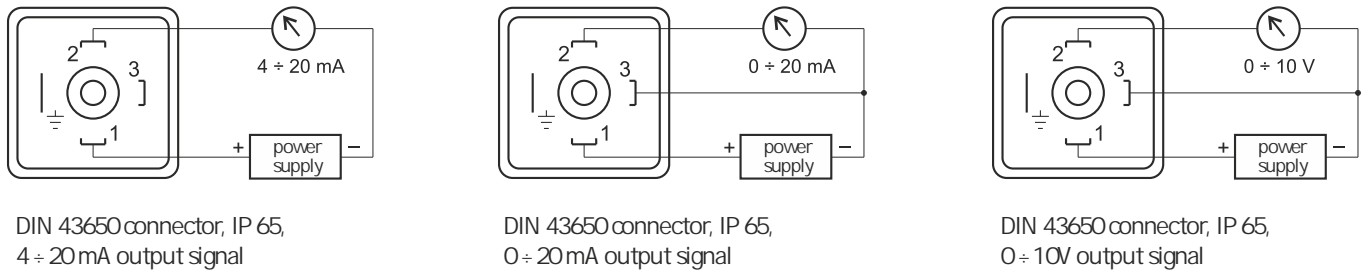
CAUTION: the medium must not be allowed to freeze in the impulse line or close to the process connection of the transmitter.



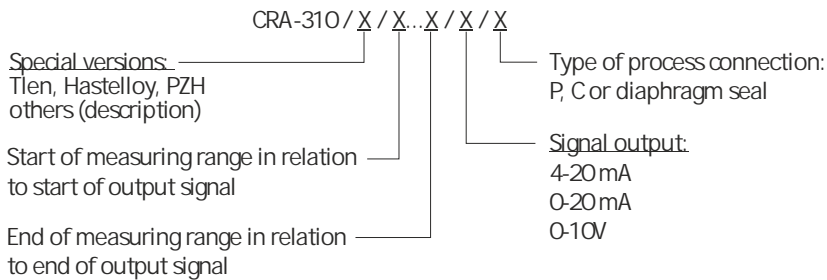
DIMENSIONS / TYPES OF PROCESS CONNECTIONS



WIRING DIAGRAMS



ORDERING



Special versions, certificates:

Hastelloy	wetted parts of the transducer measuring head made of Hastelloy C 276
Tlen	for oxygen service (sensor filled with fluorolube fluid)
PZH	certificate of Institute of Public Health for contact with potable water
others	description of required parameters, after consultation with the consultant

Ordering sample:

CRA-310 / 160...0 bar / 4-20 mA / P

CRA-310 differential pressure transmitter, standard version, measuring range 0...160 mbar, output signal 4-20 mA in inversion, process connection M20x1,5 with hole 12 mm.

