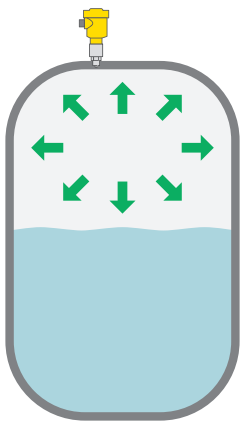


# Process pressure



## Process pressure measurement

Pressure transmitters measure the pressure of liquids, gases and vapours in pipes or closed vessels. The pressure of the measured medium acts on a pressure measuring cell, which converts it into an electronic signal.

The process pressure transmitters are ideal for detecting the relative or absolute pressure in applications with condensation or rapid temperature changes.

## The advantages

- ✓ Pressure transmitters handle a very wide measuring range: from vacuum to extreme pressures
- ✓ High operational reliability through integrated self-monitoring
- ✓ High overload resistance, long-term stability and thermal shock compensation of the dry, ceramic-capacitive measuring cell

BASIC

VEGABAR 18



BASIC

VEGABAR 19



Application	Liquids and gases	Liquids and gases, even at high pressure
Deviation	0.5 %	0.5 %
Measuring cell Measuring cell seal	Ceramic measuring cell FKM	Metallic measuring cell -
Process fitting	½" standard thread, 316L	½", 1", standard thread, optional front-flush; 316L
Process temperature	-40 ... +100 °C	-40 ... +100 °C
Measuring range	Relative 0 ... +25 bar (0 ... +2500 kPa)	Relative 0 ... +100 bar (0 ... +10000 kPa)
Overload resistance	Up to 150-fold measuring range	Up to 4-fold measuring range
Signal output	Two-wire: 4 ... 20 mA	Two-wire: 4 ... 20 mA
Approvals	-	-
Benefit	✓ Low-cost version with extremely small installation dimensions	✓ Universally applicable due to fully welded metallic measuring cell construction

# Process pressure

BASIC

**VEGABAR 28**



BASIC

**VEGABAR 29**



BASIC

**VEGABAR 38**



	VEGABAR 28	VEGABAR 29	VEGABAR 38
Application	Liquids and gases	Liquids and gases, even at high pressure	Liquids and gases
Deviation	0.3 %	0.3 %	0.3 %
Measuring cell	Ceramic measuring cell	Metallic measuring cell	Ceramic measuring cell
Measuring cell seal	FKM, EPDM, FFKM	–	FKM, EPDM, FFKM
Process fitting	Thread, optionally with front-flush and hygienic fittings, universal connection for hygienic adapter; 316L, Duplex, PEEK	Optional front-flush thread and hygienic fittings, universal connector for hygiene adapter; 316L	Optional front-flush thread and hygienic fittings, universal connector for hygiene adapter; 316L, Duplex, PEEK
Process temperature	-40 ... +130 °C/ 1 h @ +135 °C steam	-40 ... +130 °C/ 1 h @ +135 °C steam	-40 ... +130 °C/ 1 h @ +135 °C steam
Measuring range	Absolute and relative -1 ... +60 bar (-100 ... +6000 kPa)	Absolute and relative -1 ... +1000 bar (-100 ... +100000 kPa)	Absolute and relative -1 ... +60 bar (-100 ... +6000 kPa)
Overload resistance	up to 150-fold measuring range	up to 4-fold measuring range	up to 150-fold measuring range
Signal output	Two-wire: 4 ... 20 mA Three-wire: IO-Link, transistor (PNP/NPN), 4 ... 20 mA (active)	Two-wire: 4 ... 20 mA Three-wire: IO-Link, transistor (PNP/NPN), 4 ... 20 mA (active)	Two-wire: 4 ... 20 mA Three-wire: IO-Link, transistor (PNP/NPN), 4 ... 20 mA (active)
Display/adjustment	PACTware/DTM, VEGA Tools app, IODD, Bluetooth, full-colour multidirectional (360°) switching status indication	PACTware/DTM, VEGA Tools app, IODD, Bluetooth, full-colour multidirectional (360°) switching status indication	Integrated on-site display and 3-key operation, PACTware/DTM, VEGA Tools app, IODD, Bluetooth, full-colour multidirectional (360°) switching status indication
Approvals	ATEX, UKEX, IECEx, cULus, NEPSI, EAC, INMETRO, IA, CCOE, TIIS, KOSHA/KTL, SEPRO, CE 1935/2004, FDA, China FDA, Ship	ATEX, UKEX, IECEx, cULus, NEPSI, EAC, INMETRO, IA, CCOE, TIIS, KOSHA/KTL, SEPRO, CE 1935/2004, FDA, 3-A, EHEDG, China FDA, Ship	ATEX, UKEX, IECEx, cULus, NEPSI, EAC, INMETRO, IA, CCOE, TIIS, KOSHA/KTL, SEPRO, CE 1935/2004, FDA, China FDA, Ship
Benefit	✓ Highly visible, adjustable full-colour multidirectional (360°) switch status indication	✓ Simple integration into control systems through IO-Link communication	✓ Simple setup thanks to large on-site display with VDMA operation and additional texts

BASIC	PRO	PRO	PRO
VEGABAR 39	VEGABAR 81	VEGABAR 82	VEGABAR 83
			
Liquids and gases, even at high pressure	Liquids and gases with high temperatures	Liquids and gases	Liquids and gases also with high pressures
0.3 %	0.1 %	0.2 %; 0.1 %; 0.05 %	0.2 %; 0.1 %; 0.075 %
Metallic measuring cell –	Chemical seal system –	CERTEC®, MINI-CERTEC® FKM, EPDM, FFKM	Piezoresistive/thin film strain gauge/METEC® –
Optional front-flush thread and hygienic fittings, universal connector for hygiene adapter; 316L	Thread from G½, ½ NPT, flanges from DN 25, 1", hygienic fittings of 316L, Alloy, Duplex, Tantalum, gold	Thread from G½, ½ NPT, flanges from DN 15, ½", hygienic fittings; 316L, Alloy, Duplex, PVDF, PEEK	Thread from G¼, ¼ NPT, flanges from DN 25, 1", hygienic fittings; 316L, Alloy
-40 ... +130 °C/ 1 h @ +135 °C steam	-90 ... +400 °C	-40 ... +150 °C	-40 ... +200 °C
Absolute and relative -1 ... +1000 bar (-100 ... +100000 kPa)	Absolute and relative -1 ... +1000 bar (-100 ... +100000 kPa)	Absolute and relative -1 ... +100 bar (-100 ... +10000 kPa)	Absolute and relative -1 ... +1000 bar (-100 ... +100000 kPa)
up to 4-fold measuring range	Depending on chemical seal system	up to 200-fold measuring range	up to 150-fold measuring range
Two-wire: 4 ... 20 mA Three-wire: IO-Link, transistor (PNP/NPN), 4 ... 20 mA (active)	4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus
Integrated on-site display and 3-key operation, VEGA Tools app, IODD, Bluetooth, full-colour multidirectional (360°) switching status indication	PLICSCOM, PACTware/DTM, VEGADIS 81, VEGADIS 82, VEGA Tools app	PLICSCOM, PACTware/DTM, VEGADIS 81, VEGADIS 82, VEGA Tools app	PLICSCOM, PACTware/DTM, VEGADIS 81, VEGADIS 82, VEGA Tools app
ATEX, UKEX, IECEx, cULus, NEPSI, EAC, INMETRO, IA, CCOE, TIIS, KOSHA/KTL, SEPRO, CE 1935/2004, FDA, 3-A, EHEDG, China FDA, Ship	ATEX, UKEX, IECEx, FM, CSA, NEPSI, EAC (GOST), INMETRO, CCOE, SEPRO, Overfill protection, Ship, SIL2/3, CE 1935/2004, FDA	ATEX, UKEX, IECEx, FM, CSA, NEPSI, EAC (GOST), INMETRO, CCOE, SEPRO, Overfill protection, Ship, SIL2/3, CE 1935/2004, FDA, 3-A	ATEX, UKEX, IECEx, FM, CSA, NEPSI, EAC (GOST), INMETRO, CCOE, SEPRO, Overfill protection, Ship, SIL2/3, CE 1935/2004, FDA, 3-A, EHEDG
✓ Simple setup thanks to large on-site display with VDMA operation and additional texts	✓ Optimal process adaptation through selection of various wetted materials, media and temperature couplers	✓ High resistance to abrasion and corrosion through use of high-quality Sapphire Ceramic®	✓ Reliable measurement even at high pressures