

FLUSH DIAPHRAGM TRANSDUCER, FLANGE, mV/V



- FLUSH DIAPHRAGM ON A FLANGE
- MEDIUM UP TO +150 °C
- 10 TO 1000 bar



IP65

Stainless Steel
17-4 PH · 1.4542

Fully Laser Welded



Dynamic Measurement

NOMINAL PRESSURE (FS)

Pressure type	Nominal pressure (FS)	Zero at	Code
Gauge (R)	10 · 20 bar	atmospheric pressure	R
Absolute (A)	50 · 100 · 250 · 350 bar	absolute vacuum	A
Absolute (A)	500 · 700 · 1000 bar	absolute vacuum	A

A flush diaphragm on a flange, with a silicone cable instead of a connector: no bore in front of the sensing face and nothing on the transducer that the medium temperature could reach. The medium may be up to +150 °C. Two frame sizes — up to 700 bar the flange is Ø 38 mm, at 1000 bar Ø 45 mm.



TECHNICAL DATA

PRECISION

Combined error	$\leq \pm 0.50 \%$
Sensitivity tolerance	$\leq \pm 0.1 \%$
Temperature effect on zero (1 °C)	$\leq \pm 0.015 \%$
Temperature effect on sensitivity (1 °C)	$\leq \pm 0.015 \%$
Zero balance	$\leq \pm 0.5 \%$
Response frequency	15 to 87 kHz
Reference temperature	+23 °C

MECHANICAL PROPERTIES

Diaphragm	Flush, in the face of the flange
Sensor material	Stainless steel 17-4 PH, monolithic
Sealing	Entirely laser welded, resin encapsulated
Protection class	IP65 · EN 60529
Process coupling	Flange, G 1/4" thread on the back
Flange · length, to 700 bar	Ø 38 mm · 61 mm
Flange · length, 1000 bar	Ø 45 mm · 68 mm
Working temperature range	-10...+150 °C
Storage temperature range	-20...+150 °C

FIELD OF USE — Hot, viscous and fibrous media — extrusion, injection moulding, asphalt and food process plant, wherever a bore in front of the diaphragm would block.

MECHANICAL LIMITS

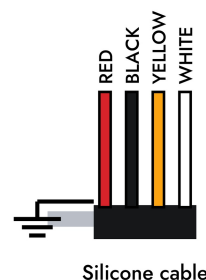
Service pressure	100 %	May be applied continuously without leaving the specification.
Max. permissible pressure	150 %	May be applied without permanent change of the characteristics.
Breaking pressure	> 300 %	Pressure at which mechanical failure may occur.
Highly dynamic pressure	75 %	Amplitude permitted for rapidly alternating pressure.

All four values refer to the nominal pressure of the version ordered.

ELECTRICAL PROPERTIES

Output signal	1 mV/V or 2 mV/V
Sensitivity tolerance	$\leq \pm 0.1 \%$
Nominal power supply	1–15 V
Max. power supply	18 V
Input resistance	420 Ω typical
Output resistance	350 Ω typical
Insulation resistance	> 2 G Ω
Electrical connection	Silicone cable, 3 m — no connector

ELECTRICAL CONNECTION



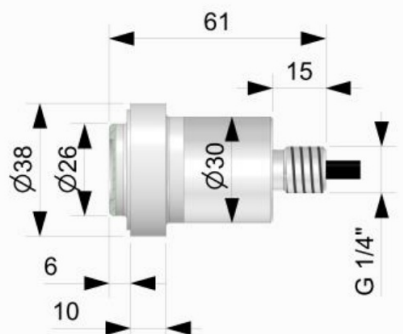
BRIDGE	Cable
Excitation and output	RED · BLACK · YELLOW · WHITE
Earth	Connected to the body of the transducer

Terminal assignment as in the manufacturer's connection diagram; the drawing does not name the wire colours individually. The silicone cable carries the medium temperature better than a moulded PVC one.

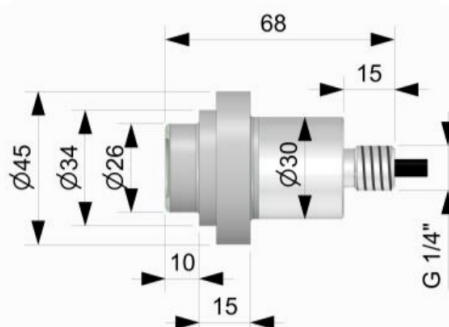


DIMENSIONS (mm)

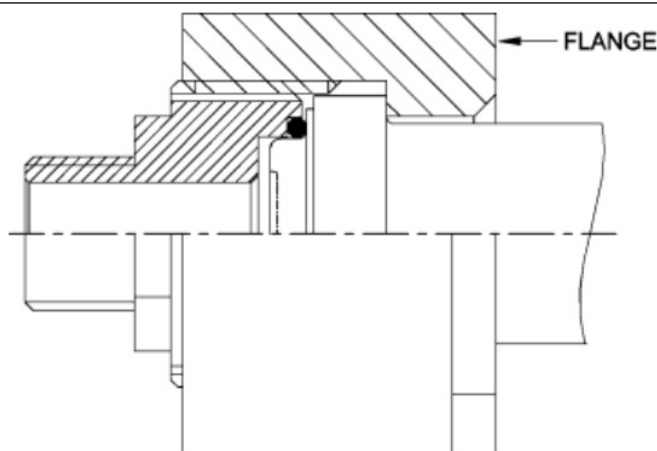
from 10
to 700 bar



1000 bar



Dimensions in mm, above the version up to 700 bar (flange Ø 38 mm), below the 1000 bar version (flange Ø 45 mm).



Typical installation: the flange is clamped against the process surface and the diaphragm lies in its plane.



COMPLIANCE AND CERTIFICATION

Protection rating	IP65 according to EN 60529 · entirely laser welded and resin encapsulated
Compliance	CE, RoHS, REACH
Applied standards	EN 61326-1 (2013) · EN 61010-1 (2013)
Directives and regulations	2014/30/EU · 2014/35/EU · 2011/65/EU (RoHS) · 2012/19/EU (WEEE) · 1907/2006 (REACH)
Quality system	Certified according to EN ISO 9001 · Dasa-Rägister IQ-1100-01
Declaration of conformity	Issued by the manufacturer on 01/04/2016, covering all options listed in the sales catalogue
On request	Calibration report

OPTIONS AND ACCESSORIES

Item	Availability	Data
Sensitivity	Option	1 mV/V or 2 mV/V
Calibration report	On request	Factory calibration

