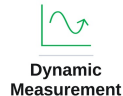


DIFFERENTIAL PRESSURE TRANSDUCER, HIGH STATIC



NOMINAL PRESSURE (FS)

Pressure type	Nominal pressure (FS)	Zero at	Code
Differential (R)	0.5 · 1 · 2.5 bar	atmospheric pressure	R
Differential (R)	5 · 10 · 20 bar	atmospheric pressure	R
Static (A)	50 · 100 · 250 · 350 · 500 · 700 bar	absolute vacuum	A
Static (A)	1000 · 1500 · 2000 bar	absolute vacuum	A

Two ports, A+ and B-, for a differential reading with a high static pressure on both sides. The LabDF2 version reaches $\leq \pm 0.05\%$ and is offered for the 10 and 20 bar differential ranges. The sensitivity itself is adjustable by $\pm 75\%$, which lets one transducer cover a range of spans. The three highest static ranges carry the G 1/2" process coupling.



TECHNICAL DATA

PRECISION

Linearity and hysteresis	$\leq \pm 0.20 \% \cdot \text{LabDF2} \leq \pm 0.05 \%$
Calibration tolerance	$\leq \pm 0.1 \%$
Temperature effect on zero (1 °C)	$\leq \pm 0.015 \%$
Temperature effect on sensitivity (1 °C)	$\leq \pm 0.015 \%$
Adjustable sensitivity	$\pm 75 \%$
Zero balance	$\pm 10 \%$, adjustable
Zero adjustment	Internal, accessible by unscrewing the connector
Response frequency	0.5 to 1 kHz
Reference temperature	+23 °C

MECHANICAL PROPERTIES

Sensor material	Stainless steel 17-4 PH, monolithic
Sealing	Entirely laser welded, resin encapsulated
Protection class	IP65 · EN 60529
Process coupling	Two G 1/4" male ports · G 1/2" male for the highest ranges
Tightening	Wrench 27 mm · 28 N·m
Body · length	Ø 25 mm · 118 mm across the ports
Working temperature range	-10...+70 °C
Storage temperature range	-20...+80 °C

FIELD OF USE — Filter and pump monitoring at high line pressure, flow across an orifice in hydraulic circuits, and level in pressurised vessels.

MECHANICAL LIMITS

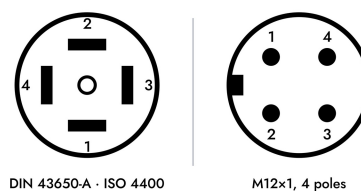
Service pressure	100 %	May be applied continuously without leaving the specification.
Max. permissible pressure	150 %	May be applied without permanent change of the characteristics.
Breaking pressure	> 300 %	Pressure at which mechanical failure may occur.
Highly dynamic pressure	75 %	Amplitude permitted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

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

ELECTRICAL PROPERTIES

Output signal	4–20 mA (3 wires)
Output signal, voltage	$\pm 5 \text{ V} \cdot \pm 10 \text{ V}$
Nominal power supply, 4–20 mA and $\pm 5 \text{ V}$	12–24 Vdc
Nominal power supply, $\pm 10 \text{ V}$	15–24 Vdc
Max. power supply	28 Vdc
Max. absorption	30 mA (3 wires)
Loading resistance, voltage	min. 3 kΩ
Loading resistance, current	0 to 470 Ω
Insulation resistance	> 2 GΩ
Electrical connection	DF2: connector DIN 43650-A · LabDF2: M12x1 with a 4-pole shielded cable, 3 m

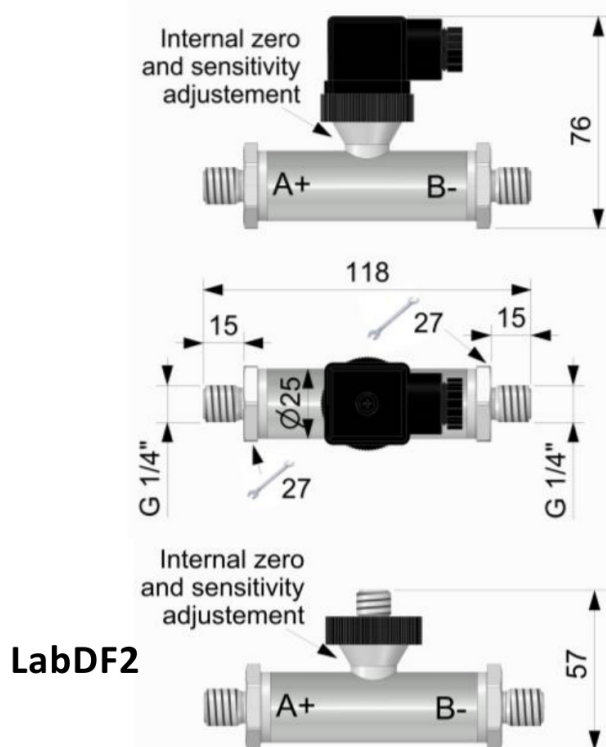
ELECTRICAL CONNECTION



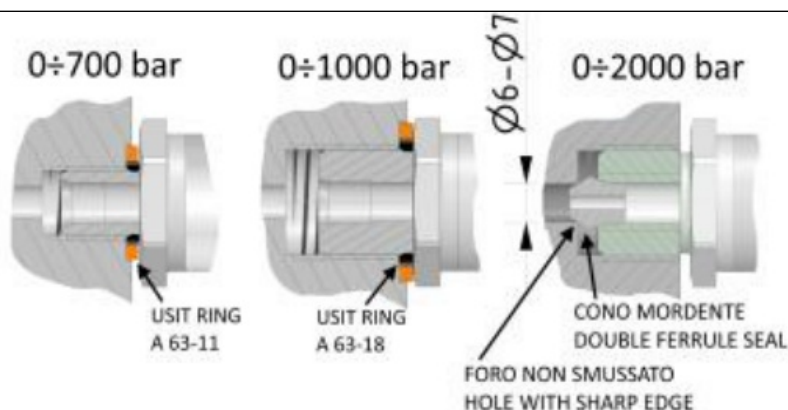
3 WIRES	DIN · M12	Moulded cable
Supply +	1 · 1	RED
Supply – · reference	2 · 3	BLACK
Output	3 · 4	WHITE
Earth · shield	4 · 2	On the body



DIMENSIONS (mm)



Dimensions in mm, from top: DF2 with the DIN connector (76 mm high), the same seen from above, LabDF2 with the adjustment screw (57 mm high). Ports A+ and B- at 15 mm from each end.



Typical installation. Up to 700 bar with a USIT ring A 63-11, up to 1000 bar with a USIT ring A 63-18, above that with a double ferrule seal in a hole with a sharp edge, $\varnothing 6$ to $\varnothing 7$.



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
LabDF2	Option	Laboratory version, $\leq \pm 0.05\%$, for 10 and 20 bar differential
Voltage output	Option	$\pm 5\text{ V}$ or $\pm 10\text{ V}$ instead of 4–20 mA
Calibration report	On request	Factory calibration

