



DP 5.04

DELTAP® DIFFERENTIAL PRESSURE INDICATOR

DESCRIPTION

Differential pressure indicators serve to monitor a variable pressure difference.

They can be used with fuels, lubricating oils, hydraulic oils, emulsions and water, for example.

The distinguishing characteristic of series 5.04 is that all parts coming into contact with the medium are made of rust-proof and acid-resistant Cr-Ni-Steel.

WORKING PRINZIPLE

A hermetically sealed piston moves with increasing pressure difference against the force of a calibrated measuring spring.

The piston position corresponding to the respective differential pressure is constantly magnetically conveyed to the indicator disk at a rotation angle analogue to the differential pressure. This analogically indicates the increasing differential pressure from blue=Differential pressure 0 bar to red=Differential pressure maximum.

In addition, electrical signals can be generated at up to two switching points within the indication range. NO contacts, NC contacts and changeover contacts are available for this purpose

MATERIALS (STANDARD DESIGN)

Housing: 1,4435 (CrNi Steel) (for medium-contact)

Pistons: 1,4435 (CrNi Steel) (for medium-contact)

Measuring element: 1.4310 (CrNi Steel) (for medium-contact)

Seal: (roll membrane): NBR

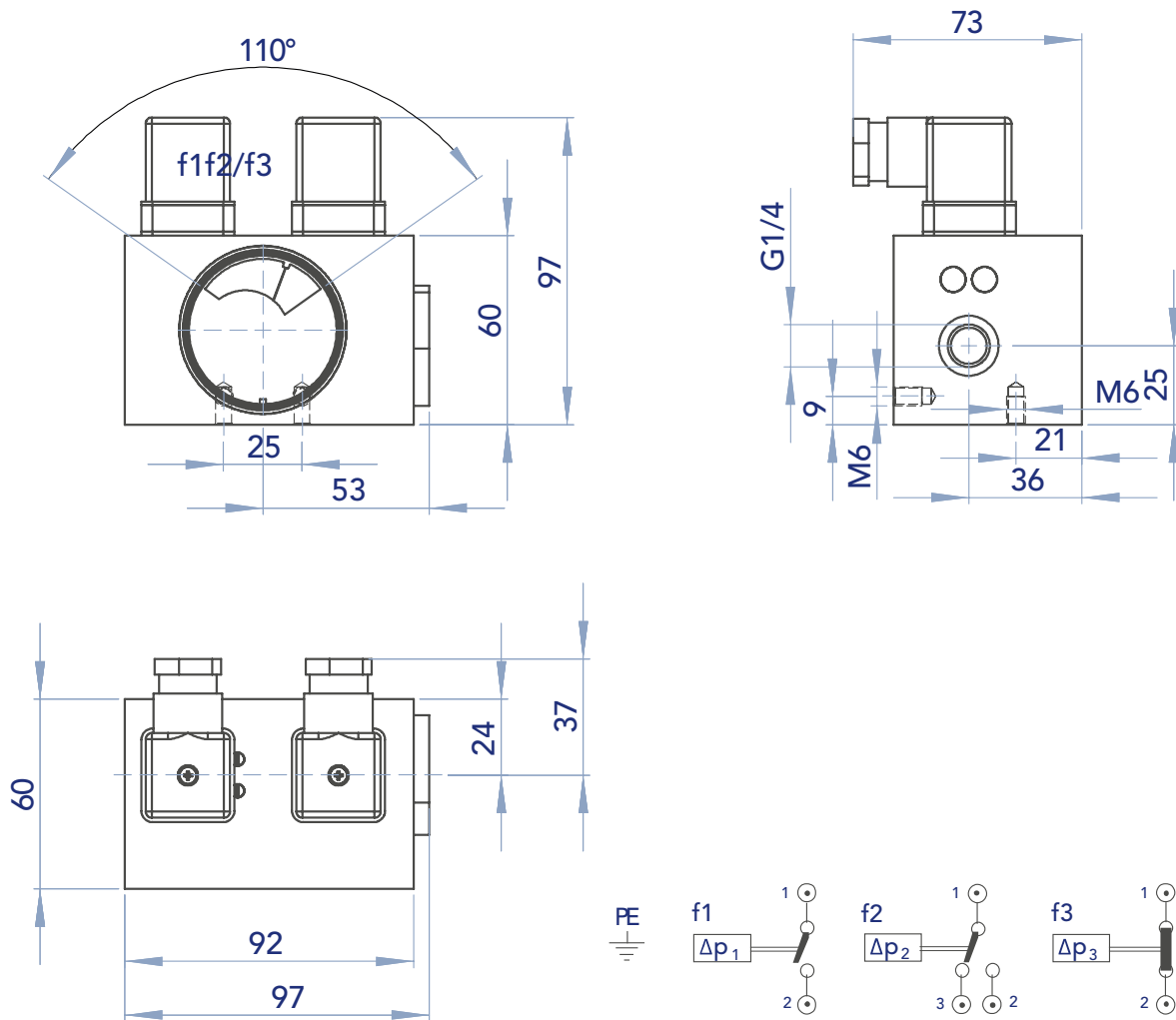
Cable gland: PA (polyamide)



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DIMENSIONS



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TECHNICAL DATA

Perm. operating overpressure :	640 bar
Perm. operating temperature	Medium: max. 120°C
Environmental / housing temperature:	Max. 120°C (dep. on attachment parts)
Cable gland:	Max. 100°C
Basic measuring range	Standard: beginning at 0 to $\Delta p_{\max} = 0,3 - 0,5 - 0,6 - 0,7 - 0,8 - 1,0 - 1,2 - 1,3 - 1,5 - 1,6 - 2,0 - 2,5 - 3,0 - 3,5 - 4,2$ bar Optionally: beginning at 0.8 to $\Delta p_{\max} = 2.2$ bar
Measuring range extension (high pressure attachment):	Pressure transmission of the entire measuring range; possible factors: x 2.0 / x 3.0 / x 4.0
Optical signalling:	V-shaped 110° ($0.1 \dots 1.0 \times \Delta p_{\max}$) via rotating indicator disk blue (clean)/red(contaminated)
Installation position:	Any
Electrical signalling:	Can be equipped with 0 / 1 / 2 / 3 contacts Type f1: NO contact (standard switchpoint at $0.75 \times \Delta p$) Type f2: Changeover contact (standard switchpoint at $1.0 \times \Delta p$) Type f3: NC contact (standard switchpoint at $1.0 \times \Delta p$) Other switchpoints on request
Switching accuracy:	± 0.05 bar ($\Delta p_{\max} \leq 2.0$ bar); ± 0.08 bar ($\Delta p_{\max} > 2.0$ bar)
Switching capacity:	Contact type f1: 120W / 250 V / 3.0 A / 120 VA Contact type f2: 30W / 250 V / 1.0 A / 60 VA Contact type f3: 30W / 250 V / 1.0 A / 60 VA

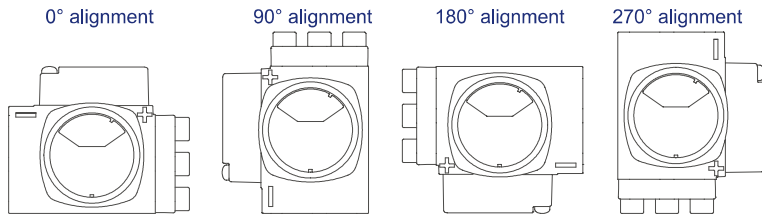
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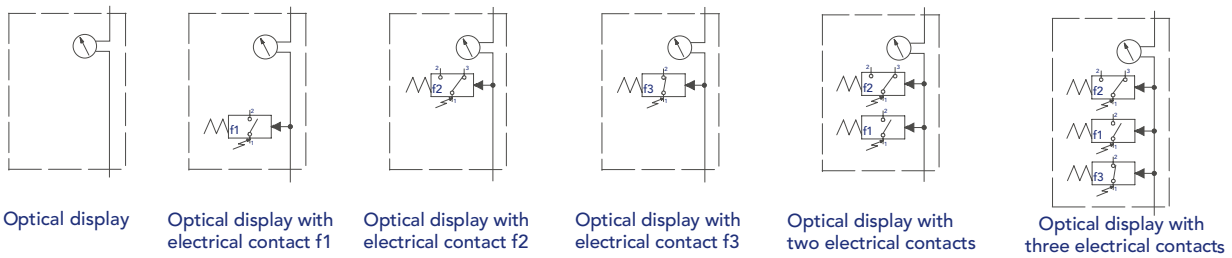
CONNECTIONS

Fixture:	2x threaded holes at the bottom M6, spacing 25mm 2x threaded holes at the rear M6, spacing 25mm
Fluid connections:	Internal thread both sides G1/4 , suitable screw joints DIN 2353
Switch contacts (standard):	Connector DIN 43650; contacts: 3+PE; protection class: IP65 Wire cross-section 0.34...1.5mm ² , cable outlet 6...8mm

VIEWING GLASS ALIGNMENT



SCHEMATIC DIAGRAM



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ORDERING AND OPTION CHART

Type code (ordering example).

The type code can be found on the type plate.

DP 5.04-2,0 (2,0=Δp measuring range) Basic device without electrical contacts

Includes:	Spring made of 1.4310
	Pistons made of Ms 58
	Roll membrane NBR

DP 5.04	2,0	T	f1.1.4	f2.2.0	V	HD	1	PT	Y	N
Viewing glass lettering (Standard deltaP®)										
N Neutral										
S Special design acc. to customer specification										
Viewing glass alignment (Standard 0° see Page 2)										
X 90°										
Y 180°										
Z 270°										
Option: spec. housing material (standard CrNi Steel)										
MS Brass (Ms58)										
PT PTFE										
Al Aluminium										
Electr. connection/connector										
1 1x DIN 43650 connector										
2 2x DIN 43650 connector										
3 1x circular connector M12 4-pole										
4 2x circular connector M12 4-pole										
Piston design (standard roll membrane)										
HD For HD attachment										
LP For PTFE lip seal										
O For O-ring										
P With Kotef seal (PTFE ring)										
Option: spec. seal material (standard NBR)										
V Fluorocarbon polymer										
E EPDM (ethylene propylene diene monomer)										
K Kotef seal (PTFE ring)										
L PTFE lip seal										
Changeover contact f2/NC contact										
F2.X.X Switchpoint in bar (standard 100% Δp _{max})										
F3.X.X Switchpoint in bar (standard 100% Δp _{max})										
Other switchpoints on request										
NO contact f1										
F1.X.X Switch point in bar / standard 75% Δp _{max})										
Other switchpoints on request										
Measuring element										
.T PTFE- coated spring										
Measuring range										
X.X Δp _{max} see page 1										
Series										
DP 5.04 Differential pressure indicator deltaP® Series 5.04										