

BOLL Differential Pressure Indicator TYPE 4.36.1, TYPE 4.36.2 TYPE 4.46.1, TYPE 4.46.2

APPLICATION

The BOLL Differential Pressure Indicator is a robust and compact device indicating the contamination level of the filter elements.

The differential pressure between filter inlet and filter outlet is the measurable indicator for the contamination degree of the filter element. When the preset maximum value of differential pressure is reached, the filter needs to be cleaned.

The color of the disc segments visible in the two displays indicates the contamination degree: The red segment rises proportionally to the level of contamination. When the segment is completely red, the differential pressure limit is reached.

DESIGN AND OPERATION

Inside the device is a plunger which is held in zero position by a spring. As differential pressure rises with increasing contamination, the plunger is displaced against the resistance of the spring. By magnetic transmission the display disc turns according to the movement of the plunger and shows more and more red segments. The setting of the requested differential pressure is effected by factory installation of a corresponding spring.

Differential Pressure Indicators with integral electronic contacts are provided with two switches which can be independently used either as switching contact or alarm contact. At 75% and at 100% of the preset differential

pressure threshold value, the contacts of the two reed-switches are activated magnetically.

The housing of the Differential Pressure Indicator is made of coated die-

cast aluminium and for use at an operating pressure of up to 100 bar. In case of type 4.46 the internal parts are made of stainless steel and for use at an operating pressure of up to 160 bar.

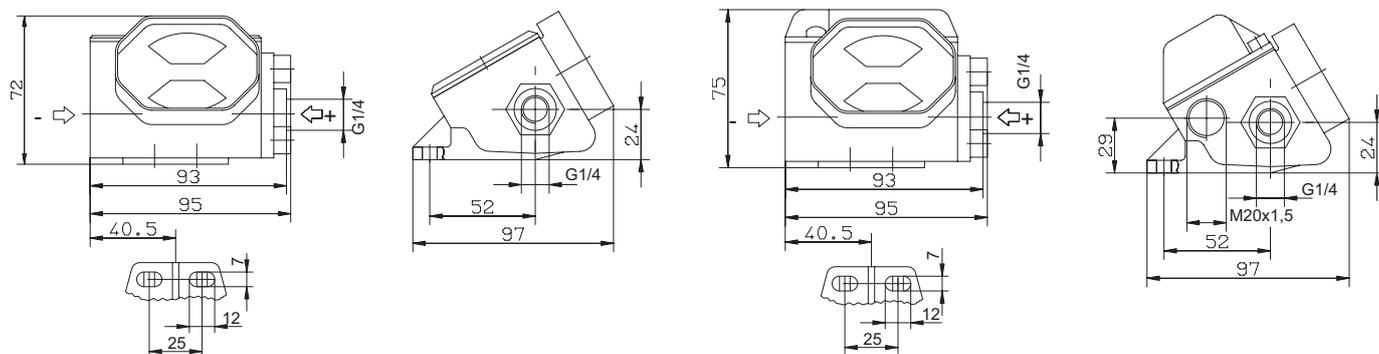


Types of differential pressure indicators

Application / Medium	Execution		with contacts		
	without contacts	with contacts		Type of connector for electrical wiring	
	Type	Type	Type of contact		
			Make contact	Make break contact	
Oil, Liquid fuels, Cooling Lubricants	4.36.1	4.36.2	1x	1x	1 x M20 x 1.5 Harting plug type R 15 M M20 x 1.5 Harting plug type Han 7D M20 x 1.5
		4.36.2.2		2x	
		4.36.2.3		3x	
Water and chemicals compatible with austenitic steels and Viton	4.46.1	4.46.2	1x	1x	1 x M20 x 1.5 Harting plug type R 15 M M20 x 1.5 Harting plug type Han 7D M20 x 1.5
		4.46.2.2		2x	
		4.46.2.3		3x	

Technical data

Type	4.36.1	4.36.2		4.46.1	4.46.2	
Circuit diagram						
Protection class		IP 65			IP 65	
Electrical data						
Switching voltage	V max.		250	220	250	220
Frequency	Hz max.		0-60	0-60	0-60	0-60
Switching current	A max.		1,0	0,8	1,0	0,8
Switching capacity	W/VA max.		60/60	40/60	60/60	40/60
Material	Die-cast Al.	Die-cast Al.		Die-cast Al.	Housing die-cast Al., inter- nals in contact with medium all austenitic steel	
Operating data						
Operating pressure	bar max.	100	100	160	160	
Medium temperature	°C max.	150	150	150	150	
Ambient temperature	°C max.	80	80	80	80	
Differential pressure range	Δp	0,5; 0,8; 1,2; 2,0; 3,0 bar (to be stipulated by purchaser)				



Type approval by: DNV, BV, RINA, LRS, GL