

# Differential pressure manometer with tube spring meter - Type DIR ... -



- **ROUND HOUSING NG 100 AND 160 MM FOR CHEMICAL USE**
- **DIFFERENTIAL PRESSURE  $\Delta p$  CAN BE DIRECTLY READ OFF**

## DESCRIPTION

Differential pressure meters of the DIR type with two tube springs are used for simultaneously measuring two different pressures, with direct indication of the differential pressure  $\Delta p$ .

They consist of two tube spring systems that work independently of one another. Each system has its own pressure connection, labelled with + and -. Both types of pressure are transmitted to a double meter with concentric needle shafts. The pressure are indicated via a scale dial and an indicator.

## TECHNICAL DATA

Housing	bayonet housing 100 and 160 mm $\varnothing$ with bayonet ring seal made of material number 1.4301 with pressure relief membrane * * Note: a) Version with housing made of steel plate, black, with parts in contact with the medium made of Cu-Sn/MS. b) Version with housing made of steel plate, black, with parts in contact with the medium made of chromium/nickel/steel.
Pressure connection	EN 837-1, G 1/2 B made of stainless steel, material number 1.4571, consecutive, key width 22, labelling with + and -, seen from the dial, the plus connection is at the back
Measuring system	stainless steel measuring spring, material number 1.4571, welded into the connection cone
Indicators	brass / nickel silver
Dial	aluminium, white scale with black labels
Viewing pane	laminated safety glass
Quality class EN 837-1	class 1.6 of the maximum scale value
Environmental temperature	- 40° C to + 60°C
Medium temperature	+ 60°C (soft solder), + 100°C (hard solder)
Capacity according to EN 837-1	for static load: Maximum scale value for alternating load: 0.9 times the maximum scale value
Protection type EN 60529	IP 65 = filled devices, G-addition IP 54 = unfilled devices

## ORDERING INFORMATION (type key)

### Basic type / housing size

DIR	Differential pressure manometer with tube springs
... G	Glycerine filling
... OE	Oil filling for limit value transmitter (instead of GL)
... .. 100 mm	Nominal size 100 mm
... .. 160 mm	Nominal size 160 mm
... .. . U	Bottom connection
... .. . . FR	Front ring
... .. . . BFR	Front ring with bracket
... .. . . HBR	Rear attachment edge
... .. . . .	Measuring ranges / add-ons / limit values / special features (please state in plain text or add code)

### Ordering code - Example:

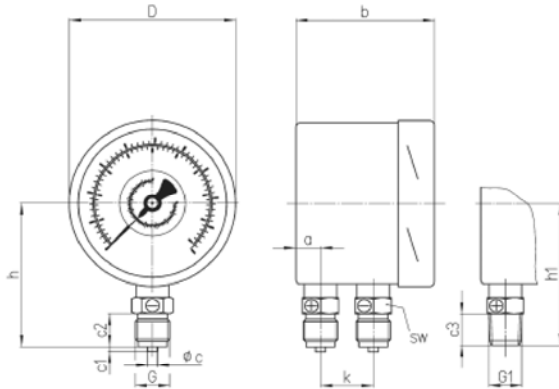
**DIRG100/U/FR/2.5 bar)**

[Differential pressure manometer with tube springs, 100 mm, filled with glycerine, bottom connection, front ring, 2.5 bar, ... (optional additions)]

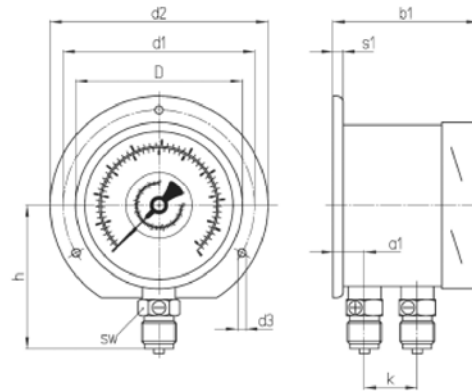
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## Housing designs, reference letters, dimensions and mass

Parallel connections at bottom  
without reference letters

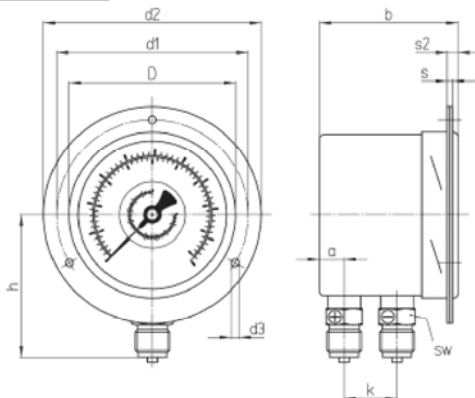


Parallel connections at bottom  
Rear edge  
Reference letter: Rh

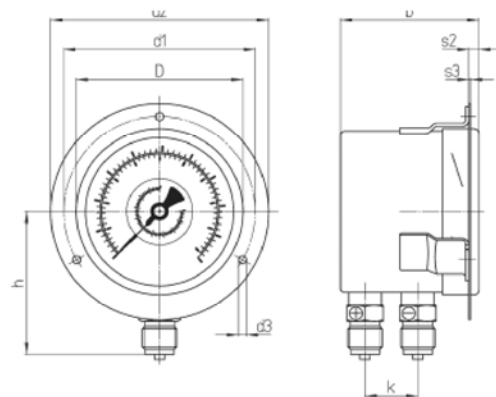


Parallel connections at bottom  
Front ring  
Reference letter: Fr

Unfilled version



Filled version



For dry version, types DRCh / DiRCh:  
Fixed front ring with slots and loose cover ring.

For filled housing, types DRChG / DiRChG:  
With lugs welded to the housing and a loose front ring.

### Dimensions (mm)

Nominal size D	a	a1	b	b1	c	c1	c2	c3	d1	d2	d3	G	G1	h <sup>±1</sup>	h1 <sup>±1</sup>	k	SW	s	s1	s2	s3
100	15	19	85	89	6	3	20	19	116	132	4,8	G ½ B	½" NPT	87	86	32	22	2	6	6	1
160	33	37	104	106,5	6	3	20	19	178	196	5,8	G ½ B	½" NPT	117	116	32	22	2	6	6	1

### Mass (kg) approx.:

NG:	unfilled	filled
100	DRCh	1,50
	DiRCh	
160	DRCh	3,50
	DiRCh	

Our products are constantly in further development, therefore subjects to modifications.