

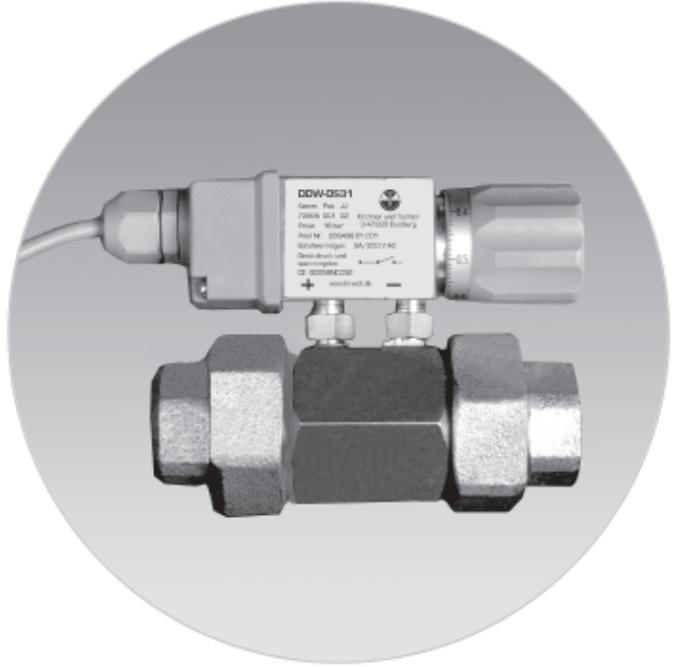
Flow monitor

DDW-DS31

Design and application

The DDW-DS31 flow monitor is used for monitoring the flow of water, oils, and neutral fluids. The device operates on the differential-pressure principle. A drop in the differential pressure occurs at a pipe constriction that is proportional to the square of the volume rate of flow through the pipeline. This differential pressure is used to actuate the micro switch. The user sets the switch locally by a hand wheel in the range of 25 - 100% of the flow span.

The flow monitor is supplied in sizes Rp 1/4 to Rp 2, including pipe union, or with external thread/internal thread connection.



- compact design
- easy operator control
- two part union
- external thread connection
- internal thread connection
- spout connection
- monitoring span 1:4
- micro switch, N/O contact
- high overload withstand capability
- meets CE requirements
- CEE 0085BN0052

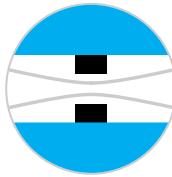


Kirchner und Tochter

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Flow monitor

DDW-DS31



Series

Vision	Description
DDW-DS31-Rp	Flow meter with pipe union
DDW-DS31-Gi	Flow meter with internal thread
DDW-DS31-Ga	Flow meter with external thread

Technical data

Readable setting range	25 – 100 %
Monitoring span	1 : 4
Process temperature	0... + 80 °C (100 °C*)
Max. stat. operating pressure	16 bar
Differential pressure	600 mbar
Residual pressure loss	approx. 240 mbar
Repeatability	3% FS
Hysteresis	5% at Q-max. 10% at Q-min
Switching range	infinitely adjustable in the range of 25-100% of flow rate
Switching function	N/O contact, optionally N/C contact**
Type of protection	IP 54
Max. supply voltage	250 V AC 30 V DC
Max. switching current	5 A 0,4 A
Max. contact rating	250 VA 10 W
Electrical connection	permanently installed cable 2.5 m
Connection	
Pipe union (Rp)	nut with parallel external fastening screw thread to DIN ISO 228 Part 1. insert with fitting thread to DIN 2999 ISO 7-1
External thread (Ga)	parallel external fastening screw thread to DIN ISO 228 Part 1.
Internal thread (Gi)	parallel internal fastening screw thread to DIN ISO 228.

*HT- design

** meet the requirements of protection according to the low voltage directive 73/23/EEC and its modification 93/68/EEC.

Dimensions

DDW-DS31-Rp

DDW-DS31			
Rp	L ₁	L ₂	SW ¹⁾
1/4	80	124	41
3/8	80	124	46
1/2	80	128	46
3/4	80	128	50
1	80	136	60
1 1/4	80	146	70
1 1/2	80	149	70
2	90	164	85

All dimensions in mm

¹⁾ width over flats of hexagonal body

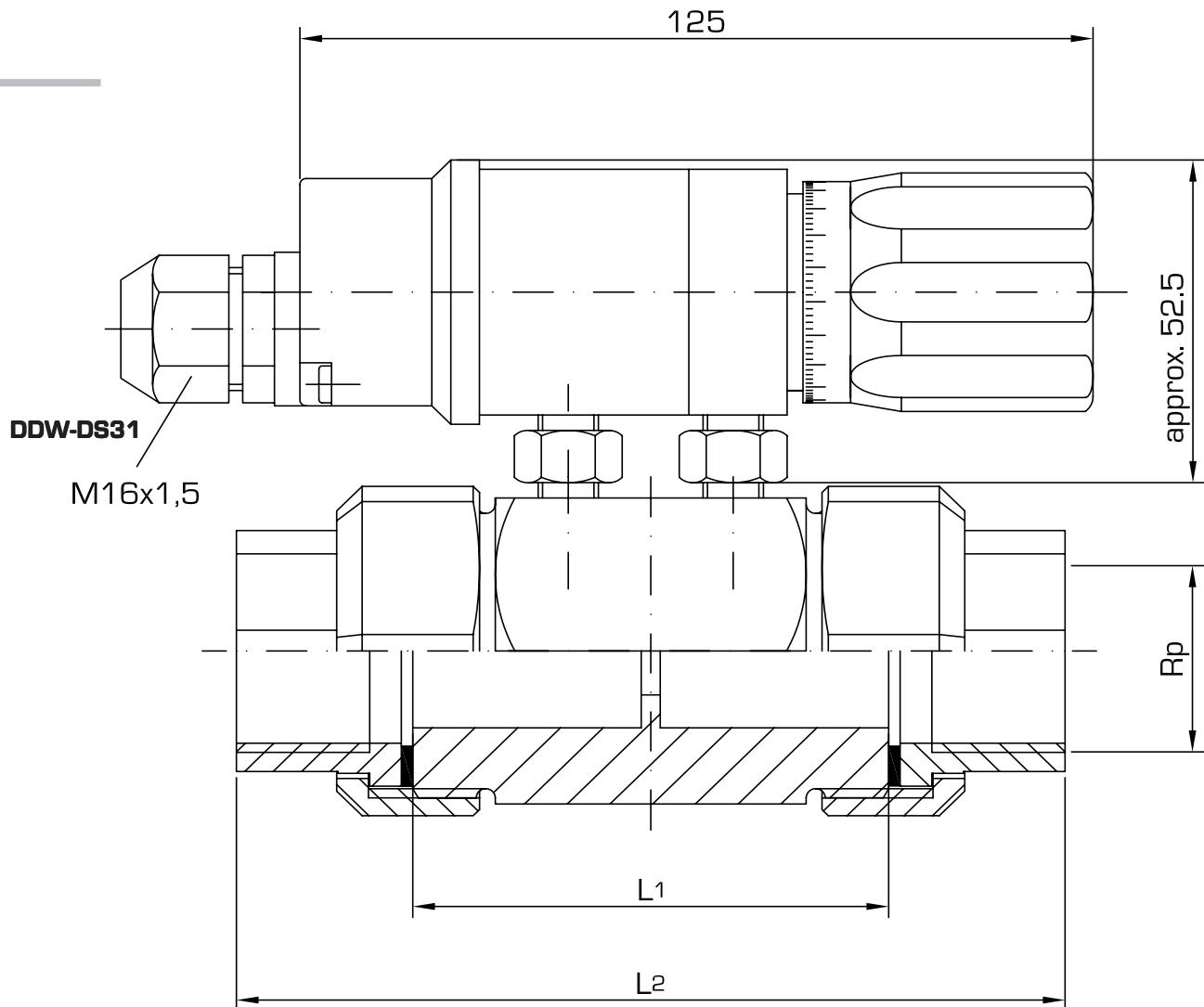
Dimensions

DDW-DS31-Gi/-Ga

Gi	Ga	L ₁	SW
1/4	3/4	80	41
3/8	3/4	80	46
1/2	1 1/8	80	46
3/4	1 1/4	80	50
1	1 1/2	80	60
1 1/4	2	80	70
1 1/2	2 1/4	80	70
2	2 3/4	90	85

Materials

Wetted parts	brass, Aluminium hard coated screw unions: malleable cast iron, galvanized
Diaphragm	Viton, optionally NBR
Gaskets	NBR, optionally Viton



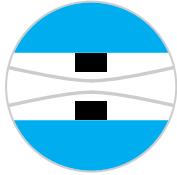
Measuring ranges

Rp	Volume flow rate (full-scale range) m³/h H ₂ O	
	minimum	maximum
1/4	0.3	1.2
3/8	0.4	2.3
1/2	0.7	4.5
3/4	1.3	8.5
1	2	13.5
1 1/4	3.5	24
1 1/2	5	32
2	7.5	52

Information on other measuring ranges and differential pressures supplied on request.

Flow monitor

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The equipment from KIRCHNER has been tested in compliance with applicable CE-regulations of the European Community.

The respective declaration of conformity is available on request.

The KIRCHNER QM-System will be certified in accordance with DIN EN ISO 9001:2000. The quality is systematically adapted to the continuously increasing demands.



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