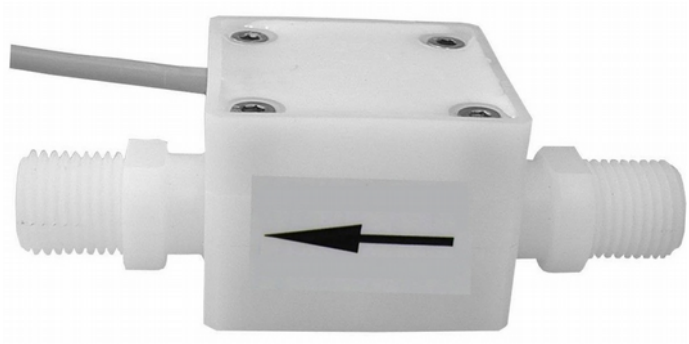
DR54

Plastic Paddle Wheel Flow Meter for Small Quantities

- **for liquids**
- **measuring ranges 4...60 up to 20...300 l/h**
- **housing made of POM or ECTFE**
- **independent of position**
- **no inlet or outlet pipe runs needed**
- **max. pressure: 10 bar**
- **max. temperature: 80 °C**



Description:

The paddle wheel flowmeters of the DR54 series measure the flow of water and water-like media even in small measuring ranges. They consist of a sensor and an optional transmitter. The sensor has a paddle wheel which is mounted in a housing made of POM or ECTFE and is rotated by the flowing medium. This rotary motion is picked up by a Hall sensor system and emitted as a flow-proportional frequency signal. A convenient control unit with display is available as an option, which can also be mounted on the flowmeter.

Typical applications:

The DR54 impeller flowmeters are very resistant to many process media due to their design made of insensitive plastics. Almost all low-viscosity liquids can be measured reliably and cost-effectively with this device.

- cooling circuits
- osmosis plants
- electroplating / photo industry
- agriculture / gardening
- filling plants / washing plants

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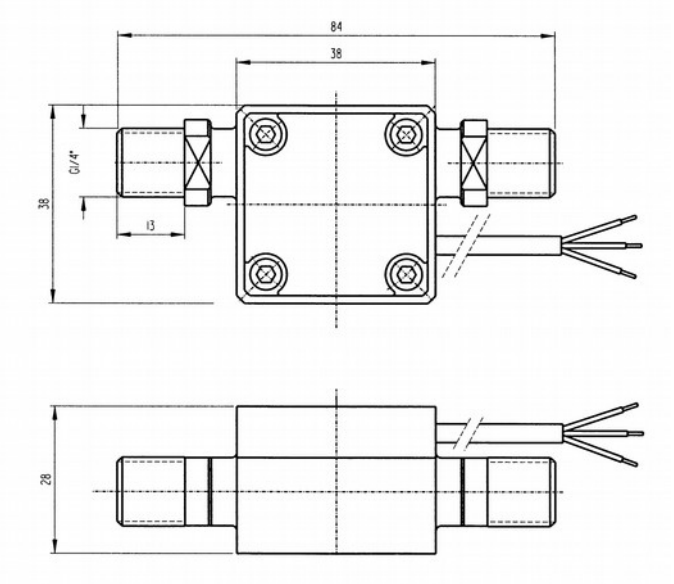
Models:

- Plastic POM
- Plastic ECTFE

Technical Data:

Measuring ranges:	1: 4...60 l/h 2: 6...130 l/h 3: 12...250 l/h 4: 20...300 l/h
Accuracy:	+/- 2,5 % of average value
Repeatability:	+/- 1 %
Serial dispersion:	Max. 2%
Max. process pressure:	10 bar (higher on request)
Max. process temp.:	-10...60 °C (output 4...20 mA or control unit) -10...80 °C (output Push-Pull) (higher on request)
Bearing:	pivot bearing
Power supply:	4,5...24 VDC (Push-Pull) 8...24 VDC (4...20 mA output)
Process connection:	different, see order code
Paddle wheel:	6 paddles (1 or 3 pulses/turn)
Materials:	
housing:	POM or ECTFE
bearing:	POM, ECTFE, ruby or Al_2O_3
pivot:	stainless steel, sapphire or Al_2O_3
gaskets:	FKM, EPDM, FFKM (Kalrez)
Output signal:	Push-Pull or 4...20 mA
Push-Pull pulse output:	pulses see table
analogue output:	4...20 mA (2-wire)
Electrical connection:	PVC-cable, free cable ends M12 plug at PVC cable cubic plug acc. to EN 175301-803A
Mounting position:	any, horizontal in direction of arrow best ventilation
Protection class:	IP65

Dimensions:



Order Code:

Order number:	DR54.	P.	1.	A.	1.	A.	F.	P.	1.	0

Paddle wheel flow meter

Housing material:
P = plastic POM
E = plastic ECTFE

Measuring ranges:
1: 4...60 l/h
2: 6...130 l/h
3: 12...250 l/h
4: 20...300 l/h

Process connection:
A = G ¼ male
B = hose connection Ø 6 mm
C = hose connection Ø 9 mm
D = male 5/8“ UNF

Pulses / number of magnets:
1 = 1 pulse/turn (1 magnet)
3 = 3 pulses/turn (3 magnets)
(increase of pulse frequency on request)

Material bearing / pivot*:
A = housing material (POM or ECTFE) / stainless st.
B = ruby / stainless steel
C = ruby / sapphire
D = Al_2O_3 / Al_2O_3

Gaskets:
F = FKM
E = EPDM
K = FFKM

Output signal:
P = Push-Pull
A = 4...20 mA
9 = without (only in combination with control unit AZ50)

Electrical connection:
1 = 1 m PVC cable (3-wire)
2 = 1,9 m PVC cable (3-wire)
3 = 3 m PVC cable (3-wire)
4 = M12 plug at PVC cable 1,9 m
5 = cubic plug acc. to EN 175301-803A
6 = prepared for control unit AZ50

Options:
0 = without
MP = with mounting plate for wall mounting
9 = please specify in plain text

***For optimum selection of materials, please specify medium, measuring range, operating pressure and temperature.**

Accessory:

AZ50 control unit with comfortable display, analogue output, switching points, etc.

Push-Pull Pulse Output:

Measuring range	Start-up at [l/h]	Q_{max} [l/h]	Pulse/turn	Pulses/ liter
4...60 l/h	1	80	1	2930
			3	8300
6...130 l/h	2,5	150	1	1900
			3	5660
12...250 l/h	6	250	1	1190
			3	3560
20...300 l/h	10	350	1	415
			3	1230

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