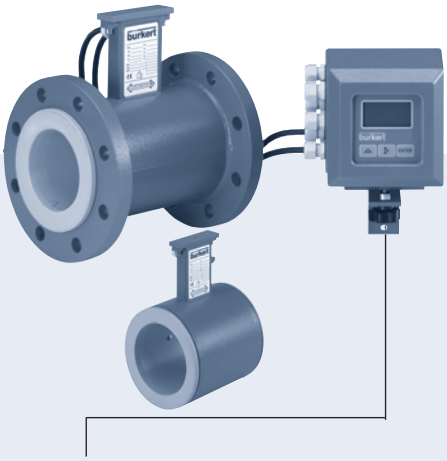
bürkert
FLUID CONTROL SYSTEMS



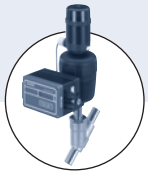
Full Bore Magflowmeter - General purpose version

- Combination of magflowsensor body Type S054 or S055 and transmitter / batch controller SE56
- Continuous measurement or Batch Control
- Version without (S054) or with (S055) flanges
- For water treatment and general purpose applications

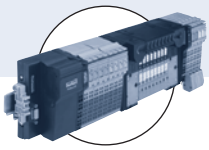
Type S055 can be combined with...

Type 6223
Solenoid control valve

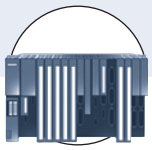
Type 2731 (8630)
TopControl system



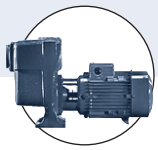
Type 2702 (1067)
SideControl system



Type 8644
Valve islands



PLC

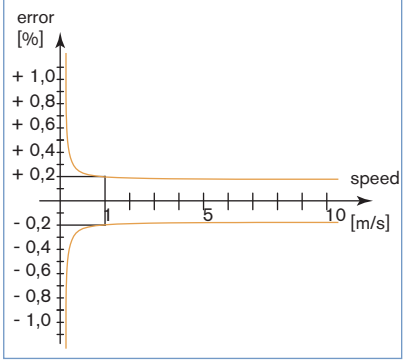


Pumps

The complete full bore magflowmeter Type 8055, which consists of a magnetic sensor body Type S054 or S055 connected to the flow transmitter / batch controller Type SE56 (blind in compact version or with display in compact or separate version), is designed for applications with conductivities as low as 5 µS/cm.

Combined with a valve as the actuating element, the complete full bore magflowmeter-Type 8055 can control high-precision dosing operations and flow measurement in potable water treatment and waste water treatment.

Accuracy diagram



Technical data	
General data - S054/S055 sensor body	
Compatibility	SE56 electronics (see corresponding datasheet)
Materials	
Body	Carbon steel painted [or stainless steel 304 or 316]*
Electrode	Stainless steel 316L (3 in standard) [or Hastelloy C, Titanium, Tantalum, Platinum-rhodium]*
Lining	PP (max. 16 bar) [or PTFE]*
Gasket	FKM or EPDM* (with PP lining) [or without gasket (with PTFE lining)]
Electrical connection	2 cable glands (PG9)
Complete system data 8055 (S054/S055 sensor + SE56 electronics)	
Pipe diameter	DN 25 up to DN 100 [up to DN 2000]*
Measuring range	0 ... 0.72 m^3/h up to 0 ... 280 m^3/h
Process connection	S054: wafer - S055: Flange DIN, ANSI [JIS]*
Medium temperature	
Compact version	0 up to 60°C (with PP lining) [-20 up to 100°C (with PTFE lining)]
Separate version	0 up to 60°C (with PP lining) [-20 up to 150°C (with PTFE lining)]
Medium pressure max.	PN 16 (with PP lining) or [up to PN 64 (with Ebonite or PTFE lining)]*
Vacuum resistance	200 mbar absolute at 100°C
Accuracy [1]	±0.2% of reading (see diagram, opposite)
Repeatability	< ±0.1%
Minimum conductivity	5 µS/cm (or 20 µS/cm with demineralized water)
Environment - S054/S055 sensor body	
Ambient temperature	-20 up to: 60°C (with display version) or 40°C (with blind version)
Standard - S054/S055 sensor body	
Protection class	IP67 (Compact version); IP68 (Separate version)
Standard	EN55011 (Group 1, Class B)
EMI	IEC1000-4-2/3/4/5/6/11
Safety	EN61010

* on request
[1] under reference conditions: water temperature = 20°C, ambient temperature = 25°C, test time > 60 s., converter warm-up > 60', constant flow rate during the test, pressure = 500 mbar, liquid speed > 1m/s

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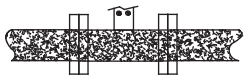
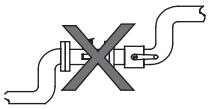
Installation

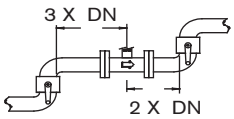
Avoid the functioning with the pipe partially empty.



During the functioning the pipe must be completely full.

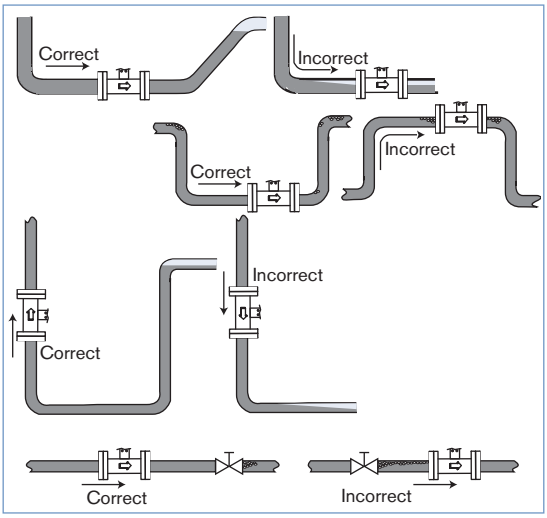


Avoid the installation near curves or hydraulic accessories.



Observe the upstream and downstream distances.

The flow rate sensor body can be installed into either horizontal or vertical pipes. Mount the S054 or S055 sensor body in these correct ways to obtain an accurate flow measurement.

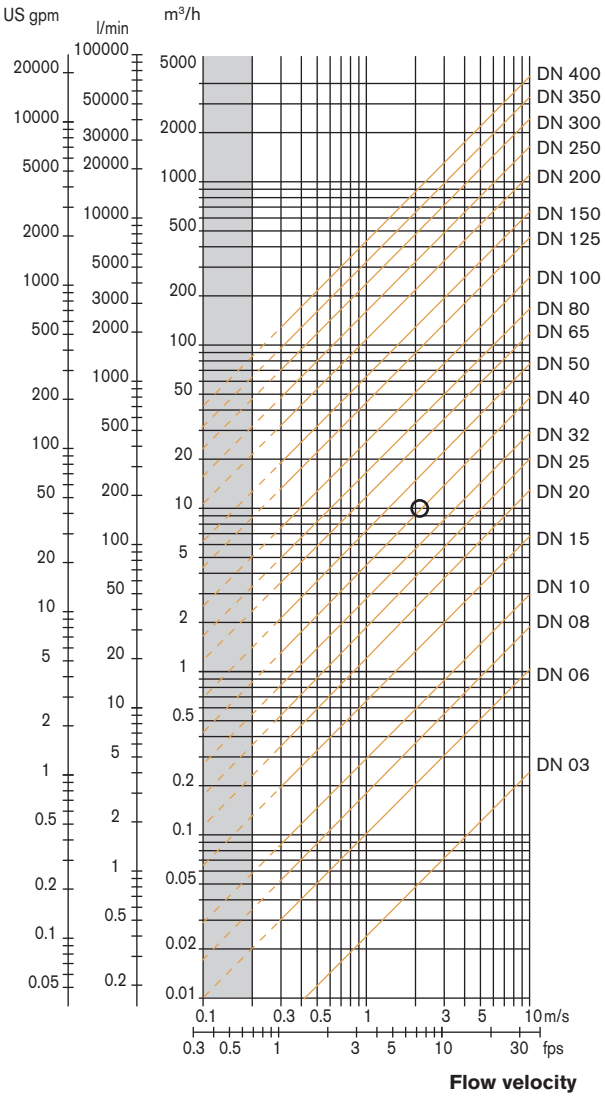


Selection of fitting / pipe size

Example:

- Specification of nominal flow: 10 m3/h
- Ideal flow velocity: 2...3 m/s
- For these specifications, the diagram indicates a pipe size of DN40

Flow rate



The suitable pipe size is selected using the diagram Flow / Velocity / DN, upside.
The flow sensor body is not designed for gas flow measurement.

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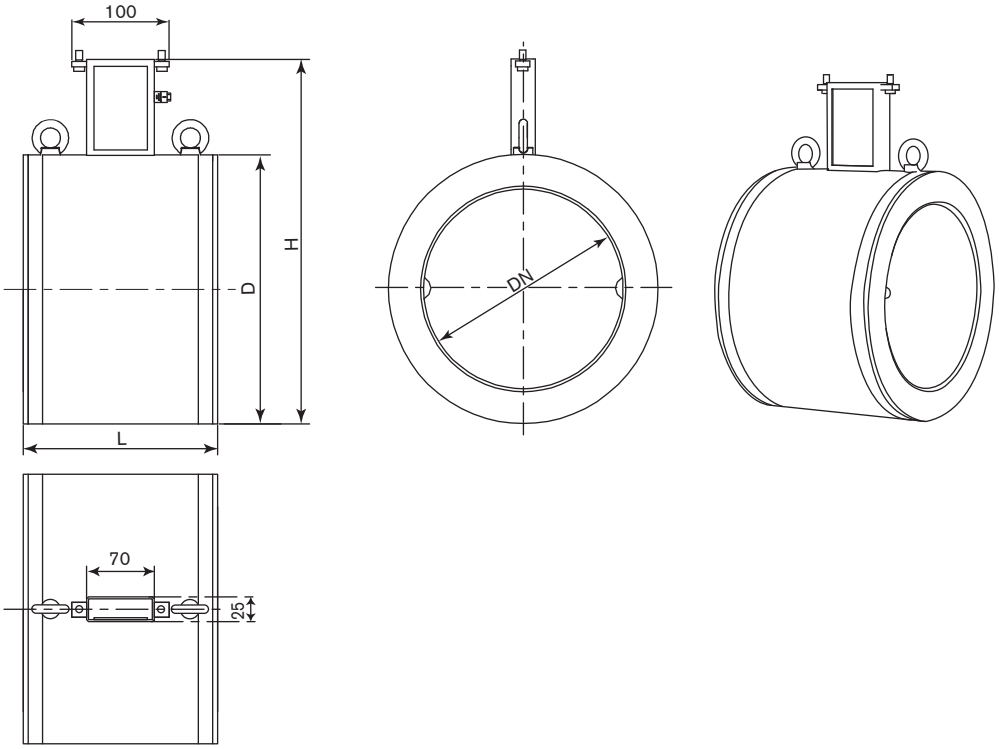
Dimensions [mm] of Type S054 sensor body - wafer version

NOTE: Dimensions of SE56 flowtransmitter, see corresponding datasheet.



DN	L*	H	D
25	100	147	56
32	100	153	62
40	100	161	70
50	100	177	86
65	150	199	108
80	150	209	118
100	150	235	144

* tolerance +0 mm -3 mm

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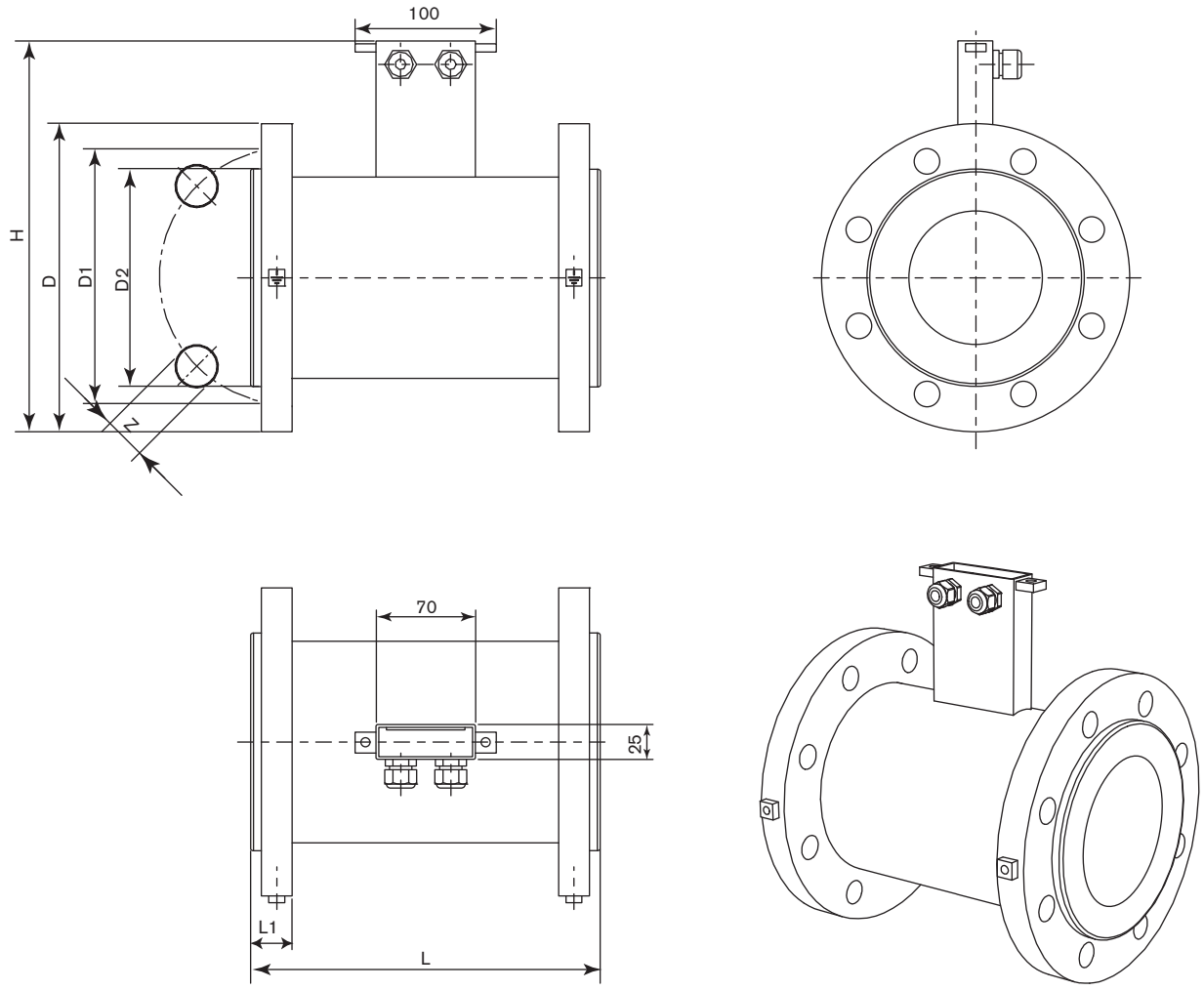
Dimensions [mm] of Type S055 sensor body - flanges version

NOTE: Dimensions of SE56 flowtransmitter, see corresponding datasheet.



S055 with flanges PN16

DN	H	L	Standard	L1	Z	D2	D1	D
25	185 182	200	DIN 2501 ANSI 150 RF	16.5 16.8	4 x 14 4 x 15.9	51 43.5	85 79.4	115 107.9
32	203 192	200	DIN 2501 ANSI 150 RF	18.5 18.4	4 x 18 4 x 15.9	62 53	100 88.9	140 117.5
40	213 202	200	DIN 2501 ANSI 150 RF	19.0 20.5	4 x 18 4 x 15.9	72 62.5	110 98.4	150 127
50	228 222	200	DIN 2501 ANSI 150 RF	21.5 22.5	4 x 18 4 x 19	87 81.6	125 120.6	165 152.4
65	248 245	200	DIN 2501 ANSI 150 RF	21.5 25.2	4 x 18 4 x 19	107 100.7	145 139.7	185 177.8
80	263 258	200	DIN 2501 ANSI 150 RF	24.0 27.8	8 x 18 4 x 19	122 113.4	160 152.4	200 190.5
100	283 287	250	DIN 2501 ANSI 150 RF	27.0 28.8	8 x 18 8 x 19	142 151.5	180 190.5	220 228.6

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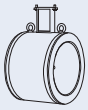
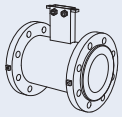
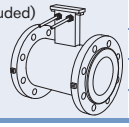
Ordering chart for universal magflowmeter 8055

A complete magflowmeter Type 8055 consists of:

- a full bore sensor body, wafer version Type S054 or flanges version Type S055
- a flow transmitter Type SE56

Please order the relevant sensor body and the flow transmitter / batch controller separately!

Full bore Sensor body Type S054 or S055

Description	Orifice [mm]	Process connection	Flow rate range [m³/h] min. 0..0.4 m/s	Flow rate range [m³/h] max. 0..10 m/s	Body material	Number of electrode	Electrode material	Lining material	Item no.
Type S054 Compact version 	25	Wafer type	0 ... 0.72	0 ... 18	Carbon steel	3 (2 measure + 1 for ground)	SS 316L	PP	554 532
	32	Wafer type	0 ... 1.16	0 ... 29	Carbon steel	3 (2 measure + 1 for ground)	SS 316L	PP	559 435
	40	Wafer type	0 ... 1.80	0 ... 45	Carbon steel	3 (2 measure + 1 for ground)	SS 316L	PP	554 101
	50	Wafer type	0 ... 2.88	0 ... 72	Carbon steel	3 (2 measure + 1 for ground)	SS 316L	PP	554 700
	65	Wafer type	0 ... 4.80	0 ... 120	Carbon steel	3 (2 measure + 1 for ground)	SS 316L	PP	559 436
	80	Wafer type	0 ... 7.20	0 ... 180	Carbon steel	3 (2 measure + 1 for ground)	SS 316L	PP	554 142
	100	Wafer type	0 ... 11.20	0 ... 280	Carbon steel	3 (2 measure + 1 for ground)	SS 316L	PP	554 342
Type S055 Compact version 	25	DIN 2501	0 ... 0.72	0 ... 18	Carbon steel	2 (2 measure)	SS 316L	PP	553 540
		ANSI 150 RF	0 ... 0.72	0 ... 18	Carbon steel	2 (2 measure)	SS 316L	PP	554 353
	32	DIN 2501	0 ... 1.16	0 ... 29	Carbon steel	2 (2 measure)	SS 316L	PP	553 541
		ANSI 150 RF	0 ... 1.16	0 ... 29	Carbon steel	2 (2 measure)	SS 316L	PP	560 047
	40	DIN 2501	0 ... 1.80	0 ... 45	Carbon steel	2 (2 measure)	SS 316L	PP	553 542
		ANSI 150 RF	0 ... 1.80	0 ... 45	Carbon steel	2 (2 measure)	SS 316L	PP	560 048
	50	DIN 2501	0 ... 2.88	0 ... 72	Carbon steel	2 (2 measure)	SS 316L	PP	553 485
		ANSI 150 RF	0 ... 2.88	0 ... 72	Carbon steel	2 (2 measure)	SS 316L	PP	554 354
	65	DIN 2501	0 ... 4.80	0 ... 120	Carbon steel	2 (2 measure)	SS 316L	PP	553 393
		ANSI 150 RF	0 ... 4.80	0 ... 120	Carbon steel	2 (2 measure)	SS 316L	PP	558 785
	80	DIN 2501	0 ... 7.20	0 ... 180	Carbon steel	2 (2 measure)	SS 316L	PP	553 394
		ANSI 150 RF	0 ... 7.20	0 ... 180	Carbon steel	2 (2 measure)	SS 316L	PP	554 351
	100	DIN 2501	0 ... 11.20	0 ... 280	Carbon steel	2 (2 measure)	SS 316L	PP	553 489
		ANSI 150 RF	0 ... 11.20	0 ... 280	Carbon steel	2 (2 measure)	SS 316L	PP	554 352
Type S055 Separate version with 10 m cable (included) 	25	DIN 2501	0 ... 0.72	0 ... 18	Carbon steel	2 (2 measure)	SS 316L	PP	448 492
	32	DIN 2501	0 ... 1.16	0 ... 29	Carbon steel	2 (2 measure)	SS 316L	PP	448 493
	40	DIN 2501	0 ... 1.80	0 ... 45	Carbon steel	2 (2 measure)	SS 316L	PP	448 494
	50	DIN 2501	0 ... 2.88	0 ... 72	Carbon steel	2 (2 measure)	SS 316L	PP	448 495
	65	DIN 2501	0 ... 4.80	0 ... 120	Carbon steel	2 (2 measure)	SS 316L	PP	448 496
	80	DIN 2501	0 ... 7.20	0 ... 180	Carbon steel	2 (2 measure)	SS 316L	PP	448 497
	100	DIN 2501	0 ... 11.20	0 ... 280	Carbon steel	2 (2 measure)	SS 316L	PP	448 498

Flow transmitter Type SE56 (for more data, refer to datasheet Type SE56)

Description	Power supply	Outputs	Body material	Electrical connection	Item no.
With local display compact version	90 - 265 V AC	2 transistors	Aluminium	6 cable glands	558 745
			Stainless steel	6 cable glands	559 780
		2 transistors + 4...20 mA	Aluminium	6 cable glands	558 747
			Stainless steel	6 cable glands	558 306
With local display remote version	90 - 265 V AC	2 transistors	Aluminium	6 cable glands	559 781
			Stainless steel	6 cable glands	558 310
		2 transistors + 4...20 mA	Aluminium	6 cable glands	558 750
			Stainless steel	6 cable glands	558 308
Blind compact version	20 - 30 V DC	Transistor	Stainless steel	2 cable glands	559 132
		Transistor + 4...20 mA	Stainless steel	2 cable glands	559 133
		Transistor + Profibus DP	Stainless steel	2 cable glands	559 134

Further versions on request

Separate sensor body version Type S054. Please also use the "request for quotation" form on page 8 for ordering a customized sensor body. go to page

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Ordering chart for spare parts/accessories for sensor body Type S054 or S055

Description	Item no.
Electrodes cable for connection between sensor body and electronics Type SE56*, Poliolefina insulation, 10 m long	448 518
Coils cable for connection between sensor body and electronics Type SE56*, 10 m long	448 519

* see corresponding datasheet

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