



Type S056

Type SE56

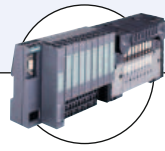
Type 8056 can be combined with...

**Type 6223**

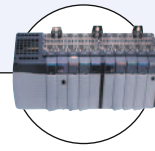
Solenoid control valve

**Type 8693**


Digital process controller

**Type 8644**

Valve islands

**PLC**

## Full bore magmeter, hygienic process connections

- Combination of magflowsensor fitting S056 and electronics SE56
- Continuous measurement or Batch Control
- Sanitary version,  certificate
- Dedicated to food & beverage or pharmaceutical applications
- Low-flow measurements on from 3 l/h

The complete full bore magflowmeter Type 8056, which consists of a magnetic sensor fitting Type S056 connected to an electronics Type SE56 (blind in compact version or with display in compact or remote version) is designed for applications with liquids with a minimum conductivity of 5  $\mu\text{S}/\text{cm}$ .

Combined with a valve as the actuating element, the complete magflowmeter Type 8056 can control high-precision dosing operations and flow measurement in food & beverage or pharmaceutical industry.

### General data - S056 sensor fitting

<b>Compatibility</b>	SE56 electronics (see corresponding data sheet)
<b>Materials</b>	
Body	stainless steel 304
Electrode (2 in standard)	Stainless steel 316L
Lining	PTFE
Seal	FKM or EPDM* (conform to FDA)
<b>Electrical connection</b>	2 cable glands PG9

### Data complete flowmeter 8056 - (S056 sensor fitting + SE56 electronics)

<b>Pipe diameter</b>	DN03...DN100
<b>Measuring range</b>	0...10 l/h to 0...280 m <sup>3</sup> /h
<b>Process connection</b>	DIN11851, Clamp ISO2852 or Clamp BS4825 [SMS1146 (from DN10)]*
<b>Medium temperature</b>	see medium temperature chart on page 3
<b>Medium pressure max.</b>	PN16 (232 PSI)
<b>Vacuum resistance</b>	200 mbar (2.9 PSI) absolute at 100°C (212°F)
<b>Measurement deviation<sup>1) 2)</sup></b>	± 0.2% of reading (SE56 standard; SE56 blind) ± 0.8% of reading (SE56 basic)
<b>Repeatability</b>	± 0.1% (SE56 standard; SE56 blind) ± 0.2% (SE56 basic)
<b>Minimum conductivity</b>	5 $\mu\text{S}/\text{cm}$ (or 20 $\mu\text{S}/\text{cm}$ with demineralized water)

\* on request

<sup>1)</sup> under reference conditions: water temperature = 20°C, ambient temperature = 25°C, constant flow rate during the test, liquid speed > 1 m/s

<sup>2)</sup> = "measurement bias" as defined in the standard JCGM 200:2012

Environment	
<b>Ambient temperature with</b>	
SE56 standard	-20...+60°C (-4 ...+140°F) (operating and storage)
SE56 basic	-10...+50°C (+14...+122°F) (operating), -20...+50°C (-4...+122°F) (storage)
SE56 blind	-20...+40°C (-4...+104°F) (operating and storage)
Standards, directives and certifications	
<b>Protection class</b>	IP65 and IP67 (compact version, SE56 standard or SE56 blind); IP65 (remote version, SE56 standard), IP68 (remote version and junction box filled with resin, SE56 standard); IP65 (compact version, SE56 basic)
<b>Standards and directives CE</b>	The applied standards, which verify conformity with the EU Directives, can be found on the EU Type Examination Certificate and/or the EU Declaration of conformity (if applicable)

## Ordering information for complete flowmeter Type 8056

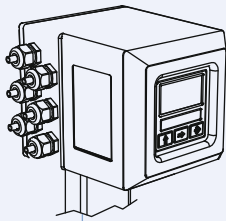
A complete flowmeter Type 8056 consists of a sensor fitting S056 and an electronics SE56.

The following information is necessary for the selection of a complete flowmeter:

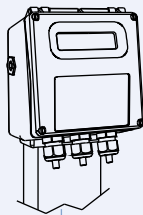
- **item no.** of the sensor fitting **Type S056** (see Ordering Chart on page 6)
- **item no.** of the electronics **Type SE56** (see corresponding data sheet or Ordering chart on page 7)

### Examples for variations of complete flowmeter (electronics + sensor fitting)

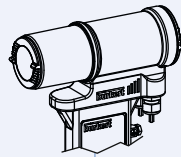
#### Electronics Type SE56



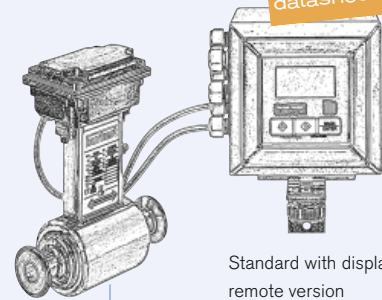
Standard with display  
compact version



Basic (with or without display)  
compact version

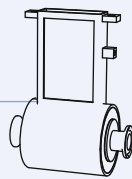


Without display (blind)  
compact version

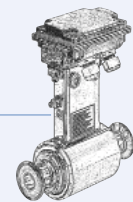


Standard with display  
remote version

#### Sensor fitting Type S056



**Compact version**  
sensor fitting



**Remote version**  
sensor fitting

### More info.

For more technical information about this product, click on this box... you will come to our website for this product where you can download the datasheet.

## Design and operating principle

The sensor fitting Type S056 consists of a stainless steel pipe section internally lined with insulating material. Two electrodes mounted opposite to each other on the internal surface of the tube generate an electrical signal. The coils generating the magnetic field are placed outside the pipe.

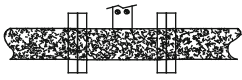
The signal generated by the sensor fitting S056 must be amplified and processed by an electronics (SE56) which outputs an electrical signal proportional to the fluid flow velocity respectively to the flow rate.

Faraday's induction law is the basis for this magnetic flow measurement.

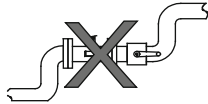
Installation



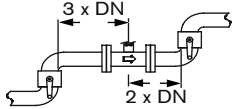
Avoid the functioning with the pipe partially filled.



During flowmeter operation the pipe must be completely full.

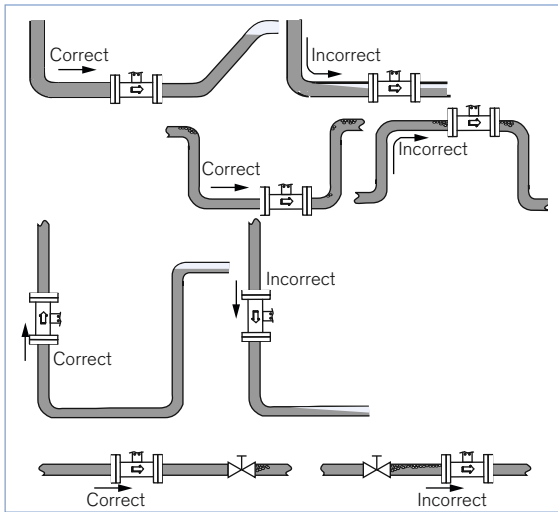


Avoid the installation near curves or hydraulic accessories.



Observe the upstream and downstream distances.

The sensor fitting can be installed into either horizontal or vertical pipes. Mount the sensor fitting in the below as correct indicated ways to obtain an accurate flow measurement.



The suitable pipe size is selected using the diagram Flow/Velocity/DN (see diagram to the right).

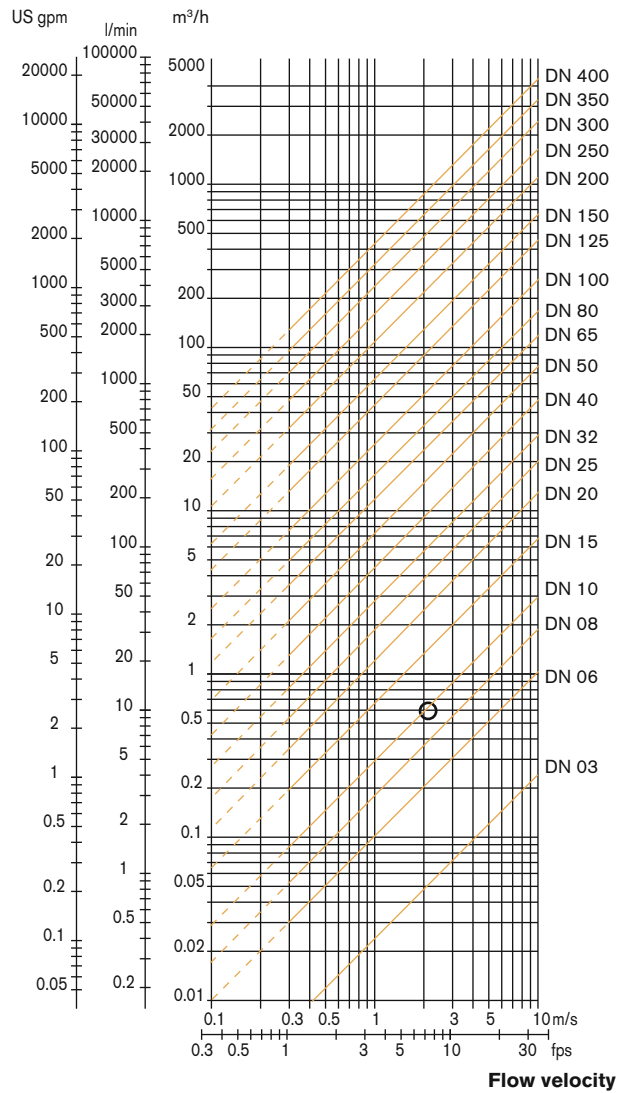
The flow sensor fitting is not designed for gas flow measurement.

Flow/Velocity/DN diagram

Example:






- Flow: 10 l/min
- Ideal flow velocity: 2...3 m/s
- For these specifications, the diagram indicates a pipe size of DN10

Flow rate



DTS 1000101313 EN Version: L Status: RL (released | freigegeben | validé) printed: 13.01.2017

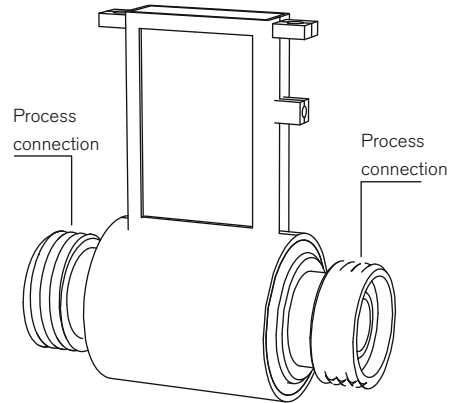
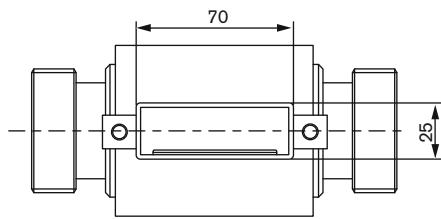
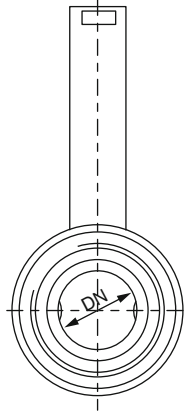
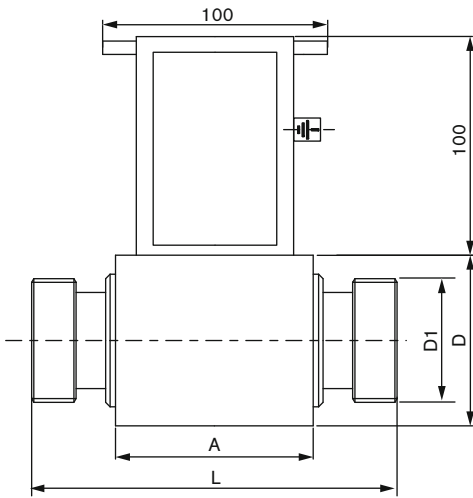
Medium temperature chart

	SE56 standard compact 	SE56 standard remote 	SE56 basic compact 	SE56 blind compact 
 S056 Sensor fitting (compact or remote version)	-20...+100°C (-4...+212°F)	-20...+130°C (-4...+266°F)	-10...+100°C (14...+212°F)	-20...+100°C (-4...+212°F) [up to 130°C (up to 266°F) for max. 1 hour]

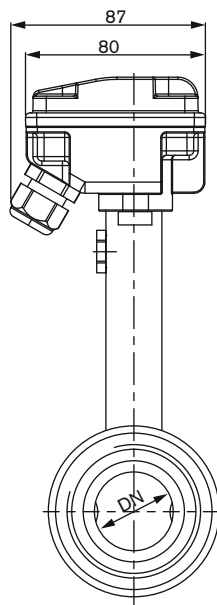
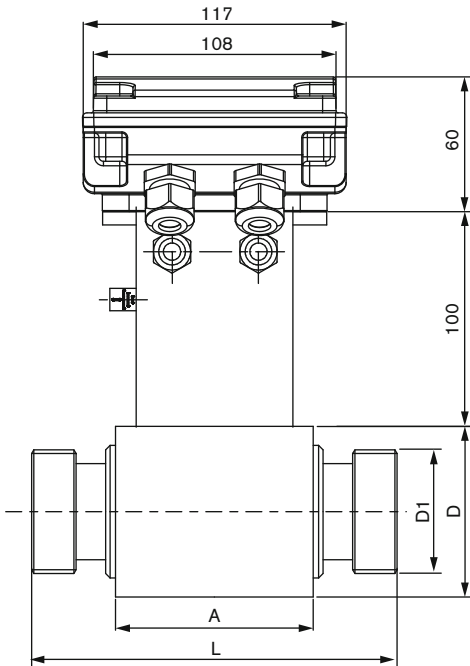
Dimensions [mm] of Type S056 sensor fitting - sanitary version DIN 11851

NOTE: Dimensions of SE56 electronics, see corresponding data sheet.

Compact version



Remote version, with junction box

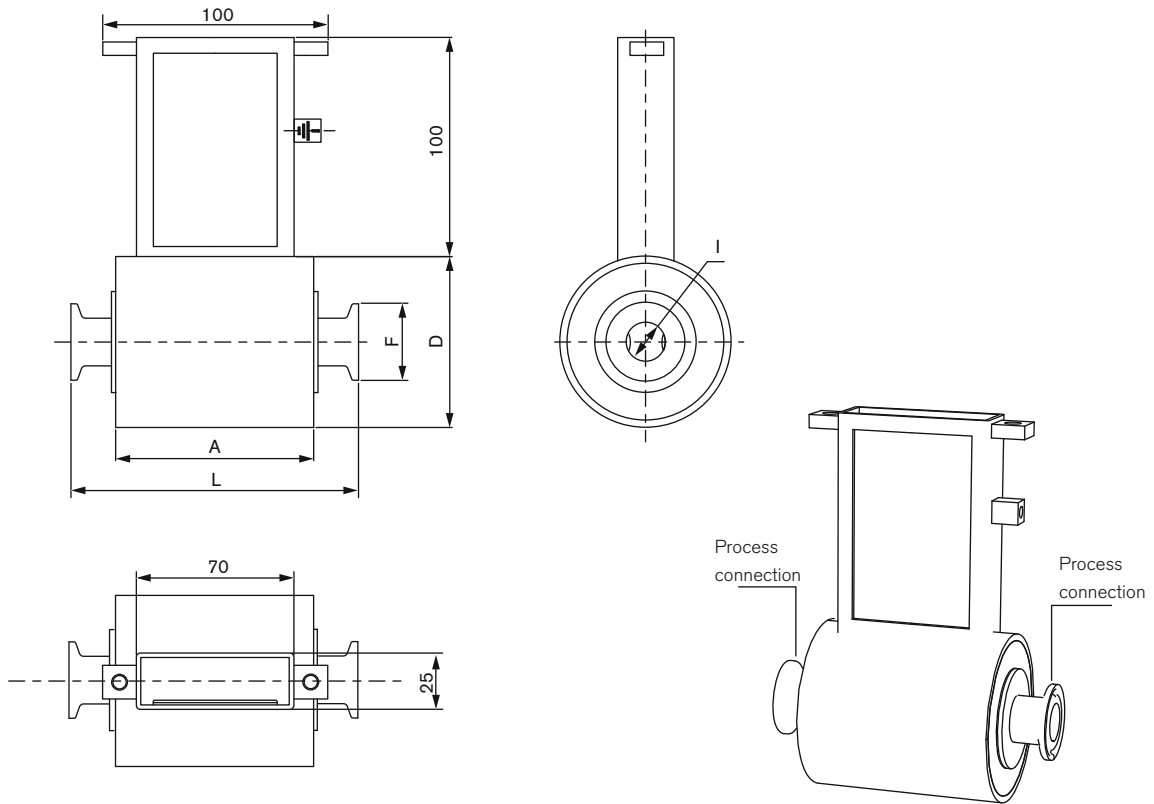


DN	A	L	D	Process connection	D1
03	77	128	76	DN10	RD28 x 1/8
06	77	128	76	DN10	RD28 x 1/8
10	77	128	76	DN10	RD28 x 1/8
15	77	128	76	DN15	RD34 x 1/8
20	77	128	76	DN20	RD44 x 1/6
25	100	180	76	DN25	RD52 x 1/6
32	100	180	89	DN32	RD58 x 1/6
40	100	180	89	DN40	RD65 x 1/6
50	100	180	114	DN50	RD78 x 1/6
65	100	180	140	DN65	RD95 x 1/6
80	100	200	140	DN80	RD110 x 1/4
100	100	200	168	DN100	RD130 x 1/4

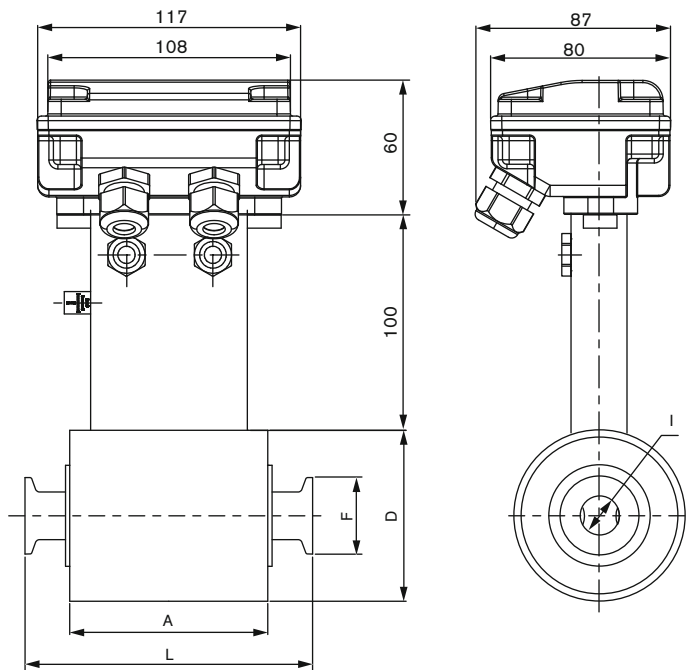
Dimensions [mm] of Type S056 sensor fitting - sanitary version Clamp ISO2852 or BS4825

NOTE: Dimensions of SE56 electronics, see corresponding data sheet.

Compact version



Remote version, with junction box



DN	A	L	D	Standard	F	I
03	77	128	76	Clamp ISO2852	34	12.7
				Clamp BS4825	25.4	9.5
06	77	128	76	Clamp ISO2852	34	12.7
				Clamp BS4825	25.4	9.5
10	77	128	76	Clamp ISO2852	34	12.7
				Clamp BS4825	25.4	9.5
15	77	128	76	Clamp ISO2852	34	17.2
				Clamp BS4825	25.4	15.85
20	77	128	76	Clamp ISO2852	34	21.3
				Clamp BS4825	50.5	22.2
25	100	180	76	Clamp ISO2852	50.5	22.6
				Clamp BS4825	50.5	22.2
40	100	180	89	Clamp ISO2852	50.5	35.6
				Clamp BS4825	50.5	34.9
50	100	180	114	Clamp ISO2852	64	48.6
				Clamp BS4825	64	47.6
65	100	180	140	Clamp ISO2852	77.5	60.3
				Clamp BS4825	77.5	60.3
80	100	200	140	Clamp ISO2852	91	72.9
				Clamp BS4825	91	72.9
100	100	200	180	Clamp ISO2852	119	97.6
				Clamp BS4825	119	97.6

## Ordering chart for flowmeter 8056

A complete flowmeter Type 8056 consists of:

- a sensor fitting, wafer version Type S056
- an electronics Type SE56

Please order the relevant sensor fitting and the electronics separately!

## Sensor fitting Type S056

Description	DN [mm]	Flow rate range		Body material	Number of electrodes	Electrode material	Material: Lining/Seal	Process connection	Item no.
		min. 0..0.04 m/s	max 0..10 m/s						
Compact version	03	0...10 [l/h]	0...250 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	555 732
								Clamp ISO2852	554 004
								Clamp BS4825	559 786
	06	0...40 [l/h]	0...1000 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	559 430
								Clamp ISO2852	559 431
								Clamp BS4825	553 325
	10	0...120 [l/h]	0...3000 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	559 432
								Clamp ISO2852	554 904
								Clamp BS4825	554 350
	15	0...240 [l/h]	0...6000 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	553 527
								Clamp ISO2852	553 555
								Clamp BS4825	553 533
	20	0...500 [l/h]	0...12500 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	553 528
								Clamp ISO2852	559 433
								Clamp BS4825	553 534
	25	0...0.72 [m³/h]	0...18 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	553 486
								Clamp ISO2852	554 151
								Clamp BS4825	553 535
	32	0...1.16 [m³/h]	0...29 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	553 529
								Clamp ISO2852	553 741
Clamp BS4825								553 536	
40	0...1.80 [m³/h]	0...45 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	553 530	
							Clamp ISO2852	553 536	
							Clamp BS4825	553 536	
50	0...2.88 [m³/h]	0...72 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	553 531	
							Clamp ISO2852	555 120	
							Clamp BS4825	553 537	
65	0...4.80 [m³/h]	0...120 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	553 532	
							Clamp ISO2852	554 116	
							Clamp BS4825	553 538	
80	0...7.20 [m³/h]	0...180 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	555 089	
							Clamp ISO2852	559 434	
							Clamp BS4825	559 791	
100	0...11.20 [m³/h]	0...280 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	on request	
							Clamp ISO2852	on request	
							Clamp BS4825	on request	
Remote version with 10 m cable (included)	03	0...10 [l/h]	0...250 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	551 506
								Clamp ISO2852	551 501
								Clamp BS4825	559 787
	06	0...40 [l/h]	0...1000 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	551 507
								Clamp ISO2852	551 502
								Clamp BS4825	559 788
	10	0...120 [l/h]	0...3000 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	551 508
								Clamp ISO2852	551 503
								Clamp BS4825	559 759
	15	0...240 [l/h]	0...6000 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	551 509
								Clamp ISO2852	551 504
								Clamp BS4825	554 082

Description	DN [mm]	Flow rate range		Body material	Number of electrodes	Electrode material	Material: Lining/Seal	Process connection	Item no.
		min. 0..0.04 m/s	max. 0..10 m/s						
Remote version with 10 m cable (included)	20	0...500 [l/h]	0...12500 [l/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	551 510
								Clamp ISO2852	551 505
								Clamp BS4825	553 925
	25	0...0.72 [m³/h]	0...18 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	448 480
								Clamp ISO2852	448 499
								Clamp BS4825	559 789
	32	0...1.16 [m³/h]	0...29 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	448 481
								Clamp BS4825	554 147
	40	0...1.80 [m³/h]	0...45 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	448 482
								Clamp ISO2852	448 501
								Clamp BS4825	554 147
	50	0...2.88 [m³/h]	0...72 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	448 483
Clamp ISO2852								448 502	
Clamp BS4825								554 138	
65	0...4.80 [m³/h]	0...120 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	448 484	
							Clamp ISO2852	448 503	
							Clamp BS4825	559 790	
80	0...7.20 [m³/h]	0...180 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	448 485	
							Clamp ISO2852	448 504	
							Clamp BS4825	558 854	
100	0...11.20 [m³/h]	0...280 [m³/h]	SS 304	2	SS 316L	PTFE/FKM	DIN 11851	448 486	
							Clamp ISO2852	448 505	
							Clamp BS4825	on request	

### Further versions on request

Please also use the "request for quotation" form on page 9 for ordering a customized sensor fitting.

### Electronics Type SE56 (for more data, refer to data sheet Type SE56)

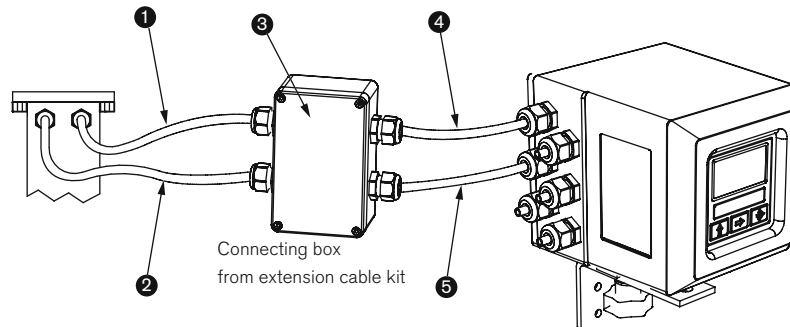
Description	Power supply	Outputs	Body material	Electrical connection	Item no.
Standard compact version with display	90...265 V AC	2 transistors	Aluminium	6 cable glands	558 745
			Stainless steel	6 cable glands	559 780
		2 transistors + 4...20 mA	Aluminium	6 cable glands	558 747
			Stainless steel	6 cable glands	558 306
Standard wall-mounting version with display	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
Basic compact version with display	90...265 V AC	2 transistors	Nylon	3 cable glands	562 439
			2 transistors + 4...20 mA	Nylon	3 cable glands
	18...63 V DC	2 transistors		Nylon	3 cable glands
			2 transistors + 4...20 mA	Nylon	3 cable glands
Basic compact version without display	90...265 V AC	2 transistors		Nylon	3 cable glands
			2 transistors + 4...20 mA	Nylon	3 cable glands
	18...63 V DC	2 transistors		Nylon	3 cable glands
			2 transistors + 4...20 mA	Nylon	3 cable glands
Blind compact version	20...30 V DC	up to 4 transistors		Stainless steel	2 cable glands
		up to 4 transistors + 4...20 mA	Stainless steel	2 cable glands	559 133
		up to 4 transistors + PROFIBUS DP	Stainless steel	2 cable glands	559 134

## Ordering chart for spare parts/accessories for sensor fitting Type S056

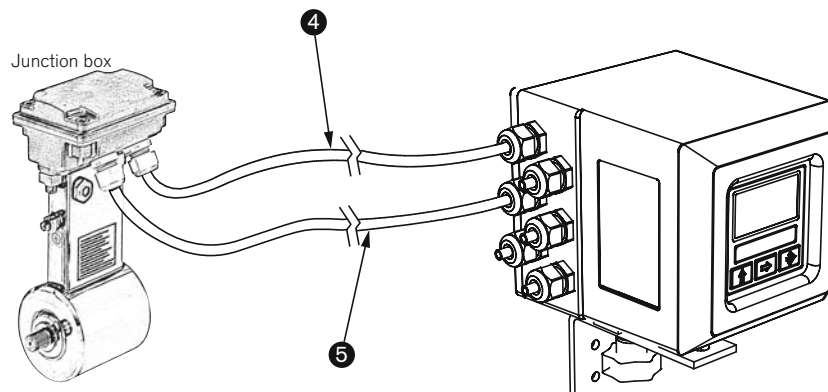
Description	Purpose	No. on drawing	Item no.
Electrode cable, 10 m long	for connection between sensor fitting <b>without junction box</b> Type S054/S055, S051 or S056 and electronics Type SE56*	1	448 518
	for connection between sensor fitting <b>with junction box</b> Type S054/S055, S051 or S056 and electronics Type SE56* or for connection between extension cable kit and electronics Type SE56*	4	562 851
Coil cable, 10 m long	for connection between sensor fitting <b>without junction box</b> Type S054/S055, S051 or S056 and electronics Type SE56*	2	448 519
	for connection between sensor fitting <b>with junction box</b> Type S054/S055, S051 or S056 and electronics Type SE56* or for connection between extension cable kit and electronics Type SE56*	5	562 852
Extension cable kit	including a connecting box and resin	3	562 853


\* (see corresponding data sheet)

## Sensor fitting Type S056 without junction box



## Sensor fitting Type S056 with junction box


 Further versions on request

 Electrical connection  
Electrode and coil cables length



## Sanitary sensor fitting Type S056 - request for quotation

Please fill out this form and send to your local Bürkert Sales Centre\* with your inquiry or order.

## Note

You can fill out the fields directly in the PDF file before printing out the form.



## NOTE:

Please take into account that the sensor fitting Type S056 must be associated with one of the electronics Type SE56. If only the sensor fitting is ordered, please indicate on your order the version (standard, blind or basic) or better the item no. of the electronics Type SE56 with which it will be associated

Company:	Contact person:
Customer no.:	Dept.:
Address:	Tel./Fax:
Town / Postcode:	E-mail:

■ Full Bore Magflow sensor fitting sanitary version

Quantity:

Desired delivery date:

■ Pipe diameter

DN03

DN06

DN10

DN15

DN20

DN25

DN32

DN40

DN50

DN65

DN80

DN100

■ Process fitting connection:

DIN 11851

Clamp  
ISO 2852

Clamp  
BS 4825

SMS 1146 (from DN10)

■ Materials:

Body in stainless steel 304 and 2 electrodes in stainless steel 316L

Seal  FKM

EPDM

■ Flowmeter version:

Compact

Remote (10 m cable included)

■ Cable length:

meter (for cable length > 20 m a preamplifier is included. **Caution! Price increase**)

Electronics SE56



When you click on the orange box "More info.", you will come to our website for the resp. product where you can download the data sheet, and then you can fill out the SE56 request for quotation form.

To find your nearest Bürkert facility, click on the orange box →

[www.burkert.com](http://www.burkert.com)

In case of special application conditions,  
please consult for advice.

Subject to alteration.  
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