



SE56 standard  
with display,  
Housing in  
stainless steel



SE56 basic



SE56 blind

Type SE56 must be combined with...



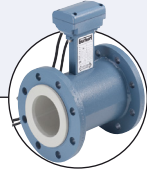
**Type S051**

Magnetic sensor fitting  
- for low flow



**Type S054**

Magnetic sensor fitting  
- Wafer



**Type S055**

Magnetic sensor fitting  
- Flange



**Type S056**

Magnetic sensor fitting  
- Hygienic

## Transmitter for electromagnetic-inductive flow sensor fittings

- Must be equipped with sensor fitting S051, S054, S055 or S056
- Continuous measurement or batch control
- High accuracy
- PROFIBUS DP, HART available

The electronics Type SE56 (blind in compact version or with display in compact or remote version) connected to the magnetic flow sensor fitting Type S051, S054, S055 or S056 is designed for applications with liquids with a minimum conductivity of 5  $\mu\text{S}/\text{cm}$ .

The device can be parameterize either with 3 keypads (version with display) or by computer via a serial interface.

As standard, the equipment is supplied with one or two transistor outputs and one digital input. As options, other features are available: such as high frequency output, current output, PROFIBUS DP, HART.

### Technical data - Electronics SE56 standard with display



<b>Compatibility</b>	S051, S054, S055, S056 sensor fitting (see separate data sheet 8051, 8054/8055, 8056)
<b>Housing materials</b>	Die casting aluminium or stainless steel 304 electro-polish
<b>Display</b>	Graphic display 8 lines x 16 Characters, 128 x 64 pixels with back light
<b>Keyboard</b>	3 membrane keys
<b>Electrical connection</b>	6 cable glands PG 11



Medium temperature, please see separate data sheets of the complete magflowmeter 8051, 8054/8055, 8056

### Environment

<b>Ambient temperature</b>	
Operating and storage	-20 ... +60 °C (-4 ... +140 °F)
<b>Relative humidity</b>	≤ 85 %, without condensation
<b>Height above sea level</b>	-200 ... +6000 m

### Standards, directives and certifications

<b>Protection</b>	Class I, IP67, category of installation II
<b>Standards and directives <math>\square</math> <math>\text{€}</math></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)

**Technical data - Electronics SE56 standard with display (continued)**

Electrical data	
<b>Power supply</b>	90 ... 265 V AC - 44 Hz...66 Hz
<b>Power consumption</b>	max. 25 VA
<b>Cable length</b>	max. 20 m (distance between sensor fitting and electronics)
<b>Input circuit</b>	1 digital, selectable function
<b>Outputs</b>	
Transistor	2 outputs, selectable open collector as pulse/frequency (1250 Hz, 100 mA, 40 V DC) or alarm (adjustable usage)
Current	1 output, 4 ... 20 mA - RL = 1000 Ω (+ a second output)*
Serial interface*	RS-485, RS232, PROFIBUS DP or HART
<b>Velocity range</b>	0.4 ... 10 m/s

\* on request.

Electrical data (continued)	
<b>Measurements tolerance</b>	Flow rate (volume) = ± 0.05 % of reading Out 4/20 mA = ± 0.08 % of reading Frequency out = ± 0.08 % of reading
<b>Measurement deviation<sup>1)2)</sup></b>	± 0.2 % of reading
<b>Repeatability</b>	± 0.1 % of reading
<b>Galvanic isolation</b>	All the input/outputs are galvanically isolated from power supply
<b>Data storage</b>	An EEPROM stores the measured values (in case of power failure)
<b>Special functions</b>	Bidirectional measure Dual measurement range Diagnostic function Empty pipe detection Remote configuration (for connection to PC or hand terminal through remote configuration tool kit) Batch function

<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

**Technical data - Electronics SE56 blind**


General data	
<b>Compatibility</b>	S051, S054, S055, S056 sensor fitting (see separate data sheet 8051, 8054/8055, 8056)
<b>Materials</b>	
Housing	Stainless steel
Cover	PPS
Seal	EPDM
<b>Display</b>	None
<b>Parameterization</b>	Through remote configuration tool kit (accessories Article no. 559 374)
<b>Electrical connection</b>	2 cable glands PG 9



Medium temperature, please see separate data sheets of the complete magflow-meter 8051, 8054/8055, 8056

Electrical data	
<b>Power supply</b>	20 ... 30 V DC
<b>Power consumption</b>	max. 10 W
<b>Input</b>	1 digital, selectable function
<b>Outputs</b>	
Transistor	2 outputs, selectable open collector as pulse/frequency (1250 Hz, 100 mA, 40 V DC) or alarm (adjustable usage)
Current	1 output, 4 ... 20 mA - RL = 800 Ω passive
Serial interface*	RS-485 or PROFIBUS DP

\* on request.

Electrical data (continued)	
<b>Measurement deviation<sup>1)2)</sup></b>	± 0.2 % of reading
<b>Repeatability</b>	± 0.1 % of reading
<b>Galvanic isolation</b>	All the input/outputs are galvanically isolated from power supply
<b>Data storage</b>	An EEPROM stores the measured values (in case of power failure)
<b>Special functions</b>	Bidirectional measure Diagnostic function Empty pipe detection Remote configuration (for connection to PC or hand terminal) Batch function
<b>Velocity range</b>	0.4 ... 10 m/s

Environment	
<b>Ambient temperature</b>	Operating and storage -20 ... +40 °C (-4 ... +104 °F)
<b>Relative humidity</b>	≤ 85 %, without condensation
<b>Height above sea level</b>	-200 ... +6000 m

Standards, directives and certifications	
<b>Protection</b>	Class I, IP67, category of installation II
<b>Standards and directives ☐ €</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)

<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

## Technical data - Electronics SE56 basic



General data	
<b>Compatibility</b>	S051, S054, S055, S056 sensor fitting (see corresponding data sheet)
<b>Materials</b>	
Housing	PA6 with glass fibre
<b>Display</b>	Alphanumeric display 2 lines x 16 Characters, without back light
<b>Parameterization</b>	Through remote configuration tool kit (accessories Article no. 559 374) or 3 keys inside
<b>Electrical connection</b>	3 cable glands PG 11



Medium temperature, please see separate data sheets of the complete magflow-meter 8051, 8054/8055, 8056

Electrical data	
<b>Power supply</b>	90 ... 265 V AC or 12 ... 60 V DC
<b>Power consumption</b>	max. 6 W
<b>Input</b>	1 digital, selectable function
<b>Outputs</b>	
Transistor	2 outputs, selectable open collector as pulse/frequency (1250 Hz, 100 mA, 40 V DC) or alarm (adjustable usage)
Current	1 output, 4 ... 20 mA - RL = 800 Ω passive
Serial interface*	RS-485

\* on request.

Electrical data (continued)	
<b>Measurements tolerance</b>	Flow rate (volume) = $\pm 0.1\%$ of reading Out 4/20 mA = $\pm 0.12\%$ of reading Frequency out = $\pm 0.12\%$ of reading
<b>Measurement deviation<sup>1)2)</sup></b>	$\pm 0.8\%$ of reading
<b>Repeatability</b>	$\pm 0.2\%$ of reading
<b>Galvanic isolation</b>	All the input/outputs are galvanically isolated from power supply
<b>Data storage</b>	An EEPROM stores the measured values (in case of power failure)
<b>Special function</b>	Bidirectional measure Diagnostic function Empty pipe detection Plug in (protected plug for connection to PC or hand terminal)
<b>Velocity range</b>	0.4 ... 10 m/s

Environment	
<b>Ambient temperature</b>	
Operating	-10 ... +50 °C (14 ... +122 °F)
Storage	-20 ... +50 °C (-4 ... +122 °F)
<b>Relative humidity</b>	$\leq 85\%$ , without condensation
<b>Height above sea level</b>	-200 ... +6000 m

## Standards, directives and certifications

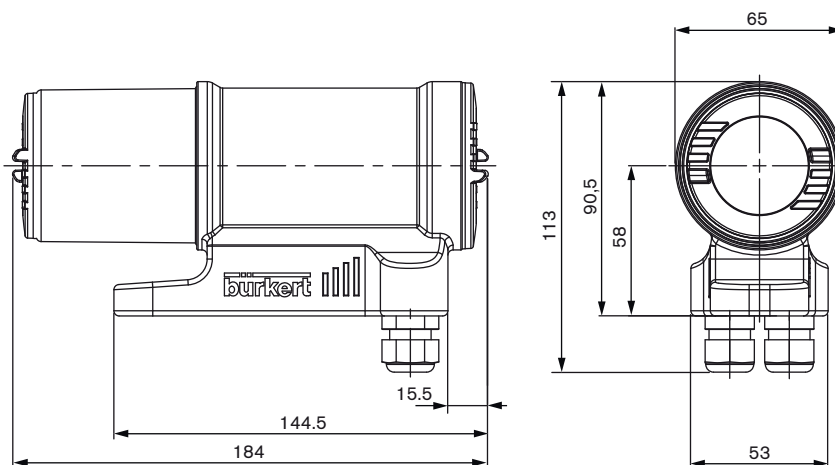
<b>Protection</b>	Class I, IP65, category of installation II
<b>Standards and directives €</b>	The applied standards, which verify conformity with the EU Directives, can be found on the EU Type Examination Certificate and/or the EU Declaration of conformity (if applicable)

<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

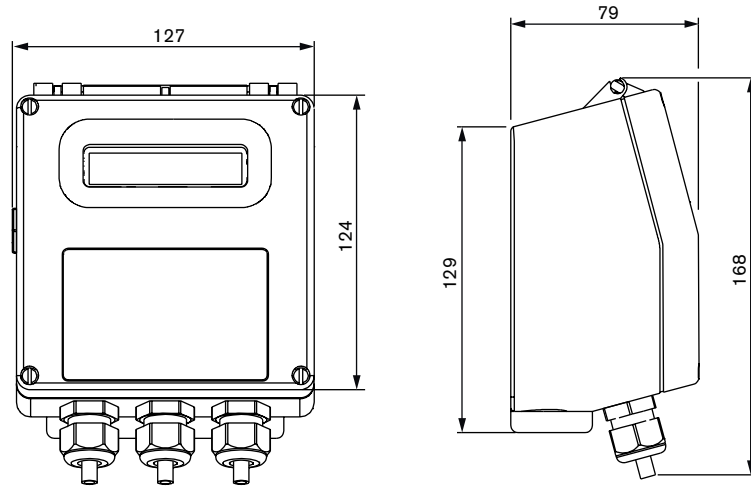
## Dimensions [mm]

## Electronics SE56 blind

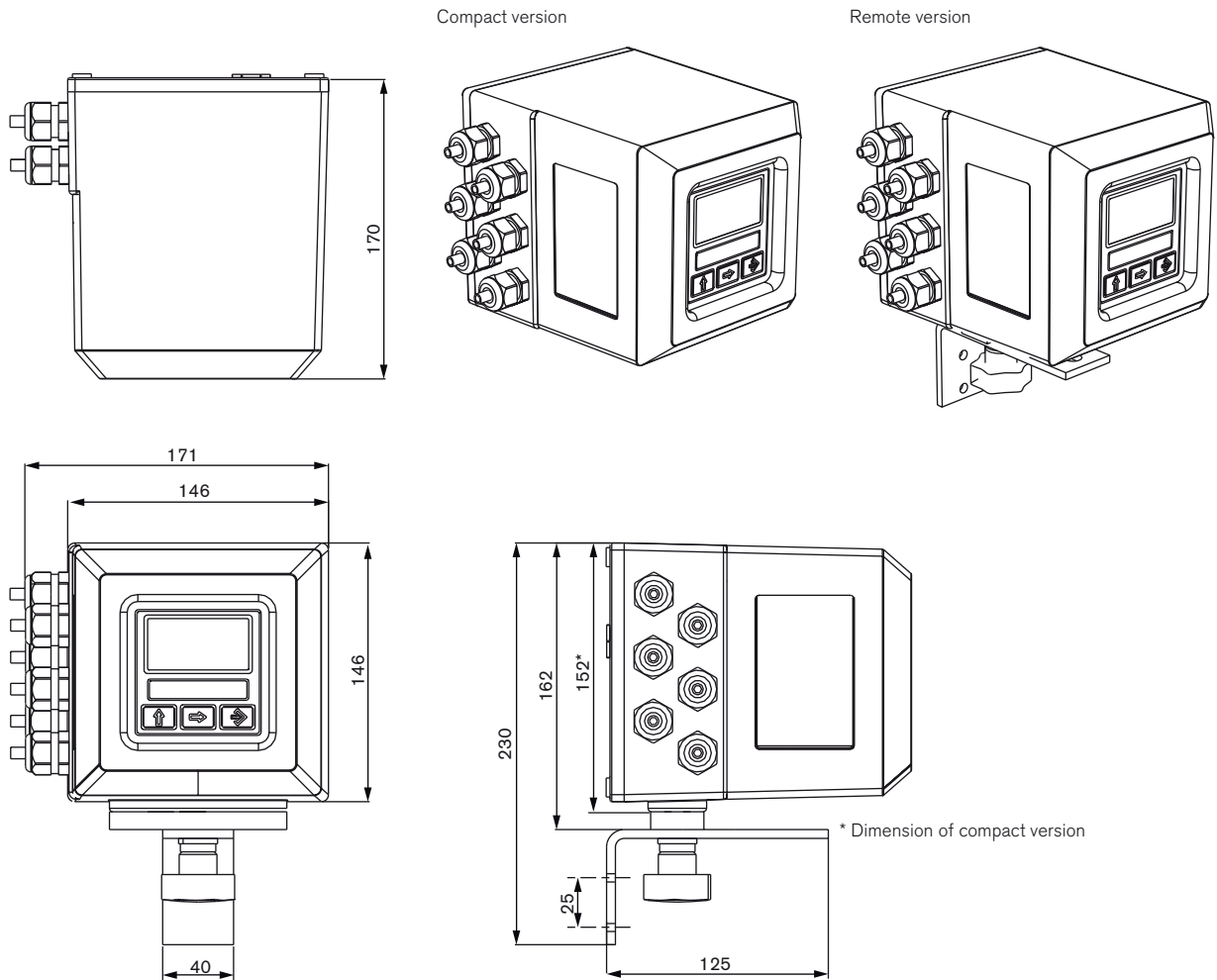


Dimensions [mm]

Electronics SE56 Basic



Electronics SE56 standard with display

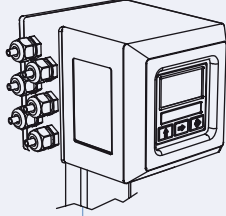


Ordering information for complete full bore magflowmeter Type 8051, 8054/8055 or 8056

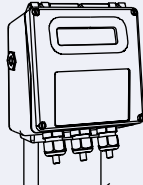
A complete full bore magflowmeter consists of a sensor fitting and an electronics SE56.

Examples for variations of complete full bore magflowmeter (electronics + sensor fitting)

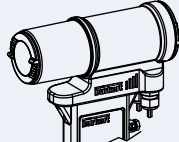
Electronics Type SE56



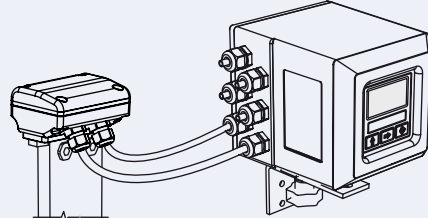
Standard with display compact version



Basic (with or without display) compact version



Without display (blind) compact version

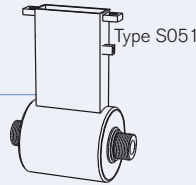


Standard with display remote version

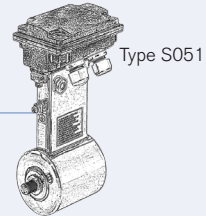
Magflowmeter Type 8051

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.



Compact version sensor fitting

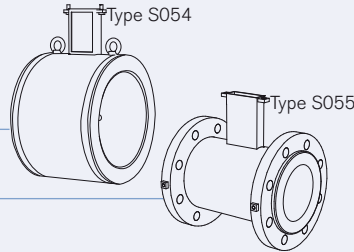


Remote version sensor fitting

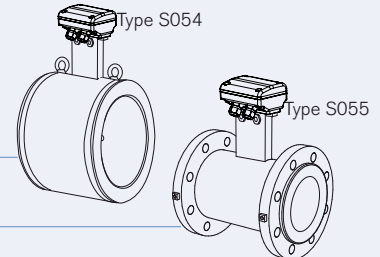
Magflowmeter Type 8054/8055

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.



Compact version sensor fitting

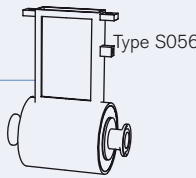


Remote version sensor fitting

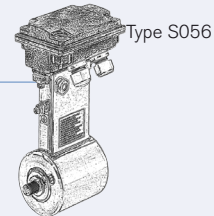
Magflowmeter Type 8056

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.



Compact version sensor fitting



Remote version sensor fitting

The following information is necessary for the selection of a complete full bore magflowmeter:

- item no. of the sensor fitting **Type S051, Type S054/Type S055 or Type S056** (see separate data sheets of the complete magflowmeter 8051, 8054/8055, 8056)
- item no. of the electronics **Type SE56** (Ordering chart on page 6)

## Ordering chart for electronics Type SE56 for magflowmeter

Description	Power supply	Output	Body material	Electrical connection	Article no.
Standard compact version with display	90 ... 265 V AC	2 transistors	Aluminium	6 cable glands	558745
			Stainless steel	6 cable glands	559780
		2 transistors + 4 ... 20 mA	Aluminium	6 cable glands	558747
			Stainless steel	6 cable glands	558306
Standard wall-mounting version with display	90 ... 265 V AC	2 transistors	Aluminium	6 cable glands	559781
			Stainless steel	6 cable glands	558310
		2 transistors + 4 ... 20 mA	Aluminium	6 cable glands	558750
			Stainless steel	6 cable glands	558308
Basic compact version with display	90 ... 265 V AC	2 transistors	Nylon	3 cable glands	562439
		2 transistors + 4 ... 20 mA	Nylon	3 cable glands	562440
	12 ... 60 V DC	2 transistors	Nylon	3 cable glands	562443
		2 transistors + 4 ... 20 mA	Nylon	3 cable glands	562444
Basic compact version without display	90 ... 265 V AC	2 transistors	Nylon	3 cable glands	562441
		2 transistors + 4 ... 20 mA	Nylon	3 cable glands	562442
	12 ... 60 V DC	2 transistors	Nylon	3 cable glands	562445
		2 transistors + 4 ... 20 mA	Nylon	3 cable glands	562446
Blind compact version	20 ... 30 V DC	up to 4 transistors	Stainless steel	2 cable glands	559132
		up to 4 transistors + 4 ... 20 mA	Stainless steel	2 cable glands	559133
		up to 4 transistors + PROFIBUS DP	Stainless steel	2 cable glands	559134

 Further versions on request

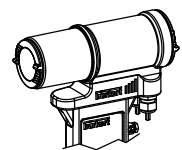
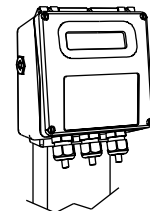
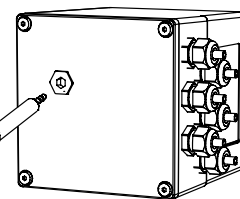
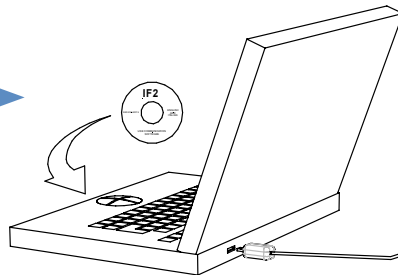
Please also use the "request for quotation" form on page 7 for ordering a customized electronics.

## Ordering chart - accessories

Description	Article no.
Remote configuration tool kit	559374

## Configuration accessories

Remote configuration tool kit



## Electronics Type SE56 for magflowmeter - request for quotation

## Note

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

Please fill out and send to your nearest Bürkert facility\* with your inquiry or order.

NOTE : Please take into account that the electronics Type SE56 must be associated with a sensor fitting Type S051, S054, S055 or S056.

Company:	Contact person:
Customer No.:	Department:
Address:	Tel. / Fax.:
Postcode / Town:	E-mail:

## Electronics SE56 standard with display

Quantity: Desired delivery date: 

- **Mounting version**  Compact  Wall-mounting  Panel-mounting (body only in plastic)
- **Body material**  Aluminium  Stainless steel
- **Power supply**  90 ... 265 V AC  18 ... 63 V DC / 15 ... 45 V AC  10 ... 35 V DC
- **Outputs**  4 ... 20 mA  RS 485  PROFIBUS DP
- 2 transistors  2 transistors + 4 ... 20 mA  2 transistors (one of them: 10 KHz)
- 2 transistors + 1 x RS-232  2 transistors + 4 ... 20 mA + 1 x RS -232
- HART Protocol  2 Relays 60 V AC  2 Relays 250 V AC

## Electronics SE56 blind, compact, in stainless steel, 20 ... 30 V DC

Quantity: Desired delivery date: 

- **Outputs**  4 ... 20 mA  RS-485  PROFIBUS DP

## Electronics SE56 basic, compact, in plastic

Quantity: Desired delivery date: 

- **Display**  With  Without
- **Power supply**  90 ... 265 V AC  12 ... 60 V DC / 18 ... 45 V AC
- **Outputs**  4 ... 20 mA  RS-485

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

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