



SE56 standard with display in stainless steel



SE56 basic



SE56 blind

## Electronics for electromagnetic flowmeters

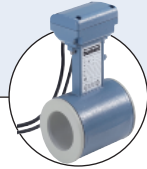
- Must be equipped with sensor fitting S051, S054, S055 or S056
- Continuous measurement or batch control
- High accuracy
- Data logger, PROFIBUS DP, HART available

Type SE56 must be combined with...



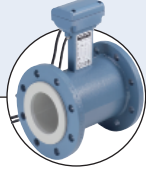
**Type S051**

Magnetic sensor fitting - for low flow



**Type S054**

Magnetic sensor fitting - Wafer



**Type S055**

Magnetic sensor fitting - Flange



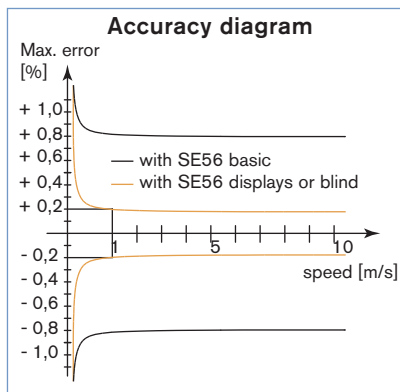
**Type S056**

Magnetic sensor fitting - Hygienic

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, data logger 2 MB, PROFIBUS DP, HART.



### Technical data (electronics SE56 standard with local display)



<b>Compatibility</b>	S051, S054, S055, S056 sensor (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, 128x64 pixels with back light
<b>Keyboard</b>	3 membrane keys
<b>Electrical connection</b>	6 cable glands PG11



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

### Environment

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

### Standard

<b>Protection</b>	Class I, IP67, category of installation II
<b>Standard</b>	
EMC	EN 61326-1
Emission	EN 55011 (Group1, Class B)
Immunity	IEC 1000-4-2/3/4/5/6/11
Safety	EN 61010

## Technical data (electronics SE56 standard with local display) - continued

Electrical data	
<b>Power supply</b>	90...265 V AC - 44 Hz up to 66 Hz
<b>Power consumption</b>	max. 25 VA
<b>Cable length</b>	max. 20 m (distance between sensor and transmitter)
<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* Datalogger*	RS 485, RS232, PROFIBUS DP or HART 2 MB, 32 values + 64 alarm events
<b>Velocity range</b>	0.4 m/s ... 10 m/s

\* on request.

Electrical data (continued)	
<b>Measurements tolerance</b>	Flow rate (volume) = $\pm 0.05\%$ of reading Out 4/20 mA = $\pm 0.08\%$ of reading Frequency out = $\pm 0.08\%$ of reading
<b>Accuracy <sup>1)</sup></b>	$\pm 0.2\%$ of reading (see diagram, on page 1)
<b>Repeatability</b>	$\pm 0.1\%$ 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

## Technical data (electronics SE56 blind)



General data	
<b>Compatibility</b>	S051, S054, S055, S056 sensor (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 Item No. 559 374)
<b>Electrical connection</b>	2 cable glands PG9



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>Accuracy <sup>1)</sup></b>	$\pm 0.2\%$ of reading (see diagram, on page 1)
<b>Repeatability</b>	$\pm 0.1\%$ 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 m/s ... 10 m/s

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

Standard	
<b>Protection</b>	Class I, IP67, category of installation II
<b>Standard</b>	
EMC	EN 61326-1
Emission	EN 55011 (Group 1, Class B)
Immunity	IEC 1000-4-2/3/4/5/6/11
Safety	EN 61010

## Technical data (electronics SE56 basic)



## General data

<b>Compatibility</b>	S051, S054, S055, S056 sensor (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 Item No. 559 374) or 3 keys inside
<b>Electrical connection</b>	3 cable glands PG11



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>Accuracy</b>	$\pm 0.8\%$ of reading (see diagram, on page 1)
<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>FS value</b>	0.4...10 m/s

## Environment

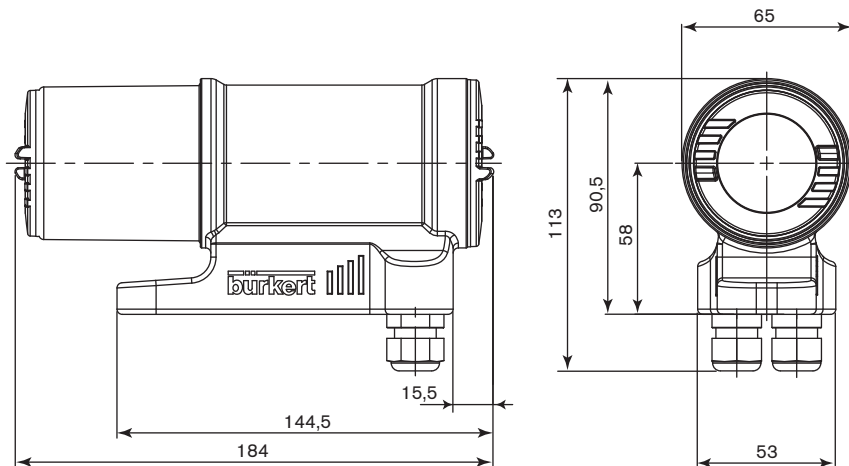
<b>Ambient temperature</b> Operating	-10°C up to 50°C (14°F to 122°F)
Storage	-20°C up to 50°C (-4°F to 122°F)
<b>Relative humidity</b>	$\leq 85\%$ , without condensation
<b>Height above sea level</b>	-200 m up to 6000 m

## Standard

<b>Protection</b>	Class I, IP65, category of installation II
<b>Standard</b> EMI	EN 55011 (Group1, Class B)
Safety	EN 61326-1, IEC 1000-4-2/3/4/5/6/11 EN 61010

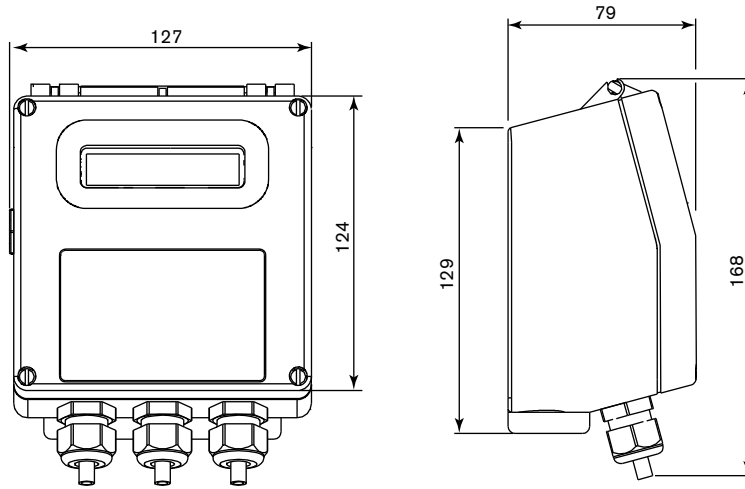
## Dimensions [mm]

## Electronics SE56 blind

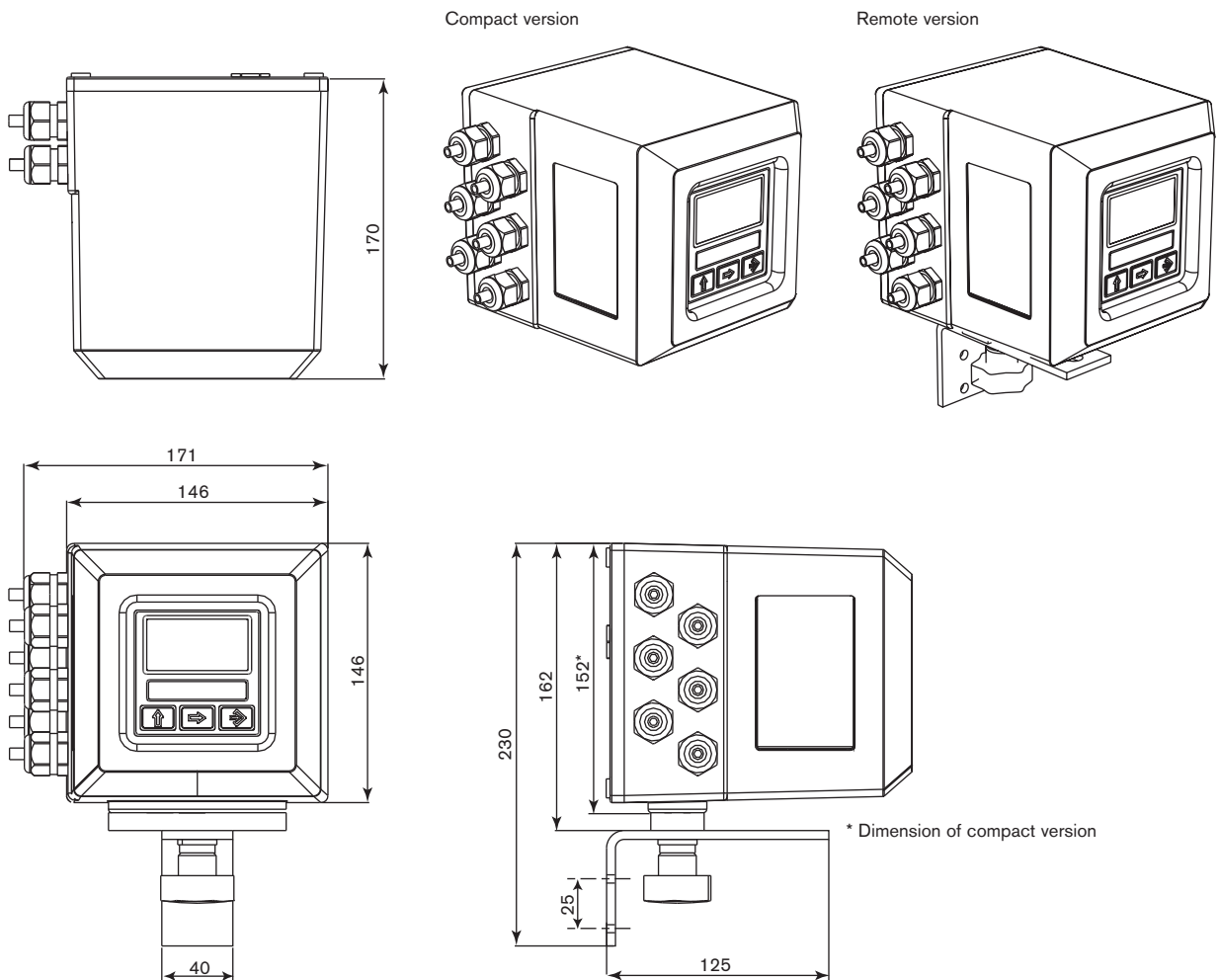


Dimensions [mm]

Electronics SE56 Basic



Electronics SE56 standard with local display

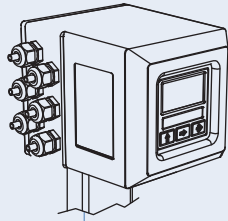


## Ordering information for complete full bore magflowmeter Type 8051, 8054/8055 or 8056

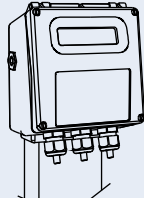
A complete full bore magflowmeter consists of a sensor fitting and an electronics SE56. The electronics is only delivered in combination with the sensor fitting as a part of a complete magflowmeter.

### Examples for variations of complete full bore magflowmeter

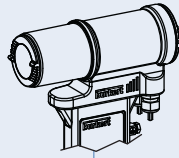
#### Electronics Type SE56



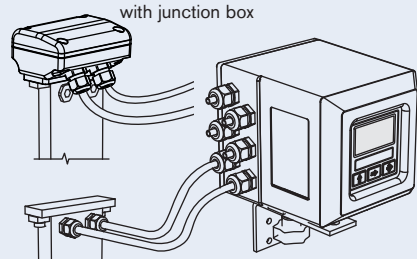
Standard with display  
compact version



Basic (with or without display)  
compact version



Without display (blind)  
compact version

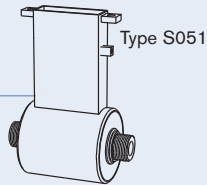


Standard with display  
remote version

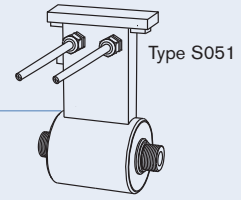
#### Magflowmeter Type 8051

##### 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

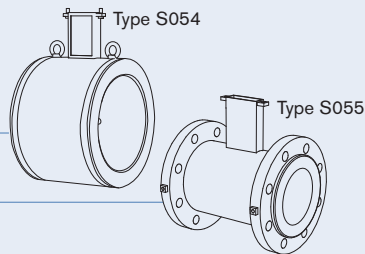


Remote version  
sensor fitting

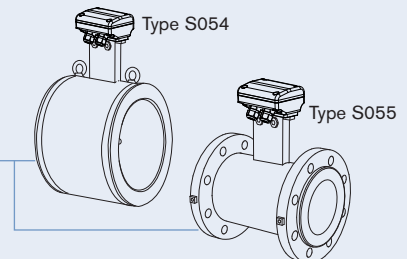
#### Magflowmeter Type 8054/8055

##### 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

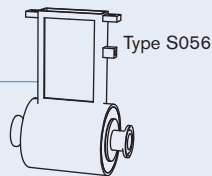


Remote version  
sensor fitting

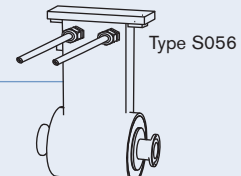
#### Magflowmeter Type 8056

##### 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	Item no.
Standard compact version with local 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 local 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	562 440
	12...60 V DC	2 transistors	Nylon	3 cable glands	562 443
		2 transistors + 4...20 mA	Nylon	3 cable glands	562 444
Basic compact version without display	90...265 V AC	2 transistors	Nylon	3 cable glands	562 441
		2 transistors + 4...20 mA	Nylon	3 cable glands	562 442
	12...60 V DC	2 transistors	Nylon	3 cable glands	562 445
		2 transistors + 4...20 mA	Nylon	3 cable glands	562 446
Blind compact version	20...30 V DC	up to 4 transistors	Stainless steel	2 cable glands	559 132
		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

**i Further versions on request**

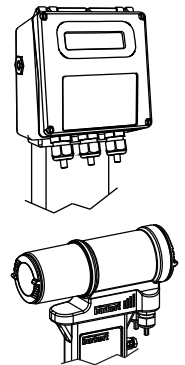
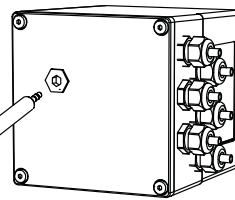
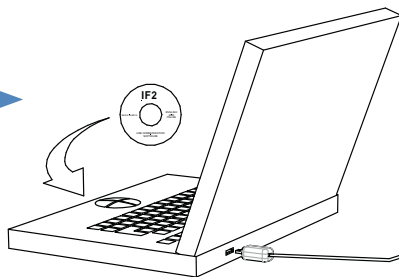
Please also use the "request for quotation" form on page 7 for ordering a customized electronics [go to page](#) .

## Ordering chart - spare parts/accessories

Electrical connection	Item no.
Remote configuration tool kit	559 374

## 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 local 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
  Data Logger 2 MB  
 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

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.

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