bürkert
FLUID CONTROL SYSTEMS

Inline flowmeter with paddle wheel, ELEMENT design

- Measurement tube size DN 06 to DN 65
- Configurable outputs: one or two transistor output(s) and one or two 4...20 mA current output(s)
- Removable display/configuration module with backlight for showing flow rate and volume with two totalisers
- Automatic calibration using Teach-in, all outputs can be checked without the need for actual flow

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

Type 8611 ▸
eCONTROL – Universal controller

Type 2030 ▸
2/2-way diaphragm valve with pneumatic plastic actuator (Type CLASSIC)

Type 2101 ▸
Pneumatically operated 2/2-way globe valve ELEMENT for decentralised automation

Type 8692 ▸
Digital electropneumatic positioner for integrated mounting on process control valves

Type 8644 ▸
AirLINE SP electropneumatic automation system

Type 8619 ▸
multiCELL – multi-channel/ multi-function transmitter/ controller

Type description

Device Type 8036 with paddle wheel is designed especially for flow measurement of particle-free liquids in a variety of applications such as water or wastewater monitoring, chemical processing, and more.

The device consists of a compact Inline sensor-fitting with paddle wheel (Type S030) and a transmitter (Type SE36). Assembly is quick and simple thanks to a mounting/ bayonet catch system. Bürkert's "Inline Quarter-Turn" technology guarantees leak-free operation.

Bürkert's proprietary sensor-fitting system ensures simple installation of the devices into all pipelines from DN 06 to DN 65.

The device is available with either 2 configurable outputs (1 transistor output (NPN) and 1 current output 4 mA to 20 mA, 2-wire), or with 3 configurable outputs (2 transistor outputs (NPN/PNP) and 1 current output 4 mA to 20 mA, 2-wire), or with 4 configurable outputs (2 transistor outputs (NPN/PNP) and two 4 mA to 20 mA current outputs, 3-wire).

The device converts the measurement signal, displays various values in different units (if the display/configuration module is installed), and calculates the output signals transmitted via one or two M12 connectors. With the help of either one or two transistor outputs, the measuring device can control an electrical valve, activate an alarm, and establish one or two control loops using one or two current outputs.

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

© Christian Bürkert GmbH & Co. KG, Subject to alteration

Visit product website ▸

Table of contents

1. General technical data 3

2. Approvals and conformities 6

2.1. General notes ... 6
2.2. Conformity ... 6
2.3. Standards ... 6
2.4. Pressure Equipment Directive (PED) ... 6
Device used in a pipe ... 6
2.5. North America (USA/Canada) ... 6

3. Materials 6

3.1. Bürkert resistApp ... 6
3.2. Material specifications ... 7

4. Dimensions 7

4.1. Transmitter Type SE36 ... 7
4.2. Transmitter Type SE36 mounted in an Inline sensor-fitting Type S030 ... 8

5. Performance specifications 8

5.1. Pressure temperature diagram ... 8

6. Product installation 9

6.1. Installation notes ... 9
Flow measurement ... 9

7. Product operation 10

7.1. Measurement principle ... 10

8. Product design and assembly 10

8.1. Product assembly ... 10

9. Networking and combination with other Bürkert products 11

10. Ordering information 11

10.1. Bürkert eShop ... 11
10.2. Recommendation regarding product selection ... 11
10.3. Bürkert product filter ... 12
10.4. Ordering chart ... 12
Transmitter Type SE36 ... 12
10.5. Ordering chart accessories ... 12

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

1. General technical data

Note:
If the device is mounted in a humid environment or outside, then the maximum voltage allowed is **35 V DC** instead of 36 V DC.

Product properties	
Material	
Make sure the device materials are compatible with the fluid you are using. Further information can be found in chapter "3.1. Bürkert resistApp" on page 6.	
Further information on the materials can be found in chapter "3.2. Material specifications" on page 7.	
Non-wetted parts	
Cover	Polycarbonate (PC), transparent (opaque on request)
Housing	Stainless steel 1.4404 (316L), PPS
Screw	Stainless steel 1.4401 (316 (A4))
Grounding terminal and screw	Stainless steel 1.4301 (304 (A2))
Bayonet system	PC
Display/configuration module	PC
Navigation key	PBT
Seal	EPDM, silicone
Fixed connector holder	PPS CF30
Fixed connector	Nickel-plated brass (stainless steel on request)
Wetted parts	
Sensor armature	Brass, stainless steel, PVC, PP or PVDF (depending on the Inline sensor-fitting variant Type S030)
Axis and bearing	Ceramics (Al_2O_3)
Paddle wheel	PVDF
Sensor-fitting body	Brass, stainless steel, PVC, PP or PVDF (depending on the Inline sensor-fitting variant Type S030)
Seal	FKM or EPDM (depending on the Inline sensor-fitting variant Type S030)
Compatibility	Any pipe from DN 06...DN 65 which are fitted with Bürkert Type S030 Inline sensor-fitting. For the selection of the nominal diameter of the Inline sensor-fittings, see **data sheet Type S030** ▶.
Pipe diameter	DN 06...DN 65
Dimensions	Further information can be found in chapter "4. Dimensions" on page 7
Measurement principle	Paddle wheel
Measuring range	• Flow rate: 0.5...1200 l/min (0.13...320 gpm) • Flow velocity: 0.3...10 m/s
Product accessory	
Display/configuration module	Grey dot matrix 128 × 64 with backlighting
Performance data	
Measurement deviation	• Teach-in: ± 1 % of the measured value [1)] at teach-in flow rate value • Standard K-factor: ± 2.5 % of the measured value [1)]
Linearity	± 0.5 % of full scale [1)]
Repeatability	± 0.4 % of the measured value [1)]
4...20 mA output uncertainty	± 1 % of current range
Electrical data	
Operating voltage	• 2 or 3 outputs transmitter (2-wire) variant: 14...36 V DC, filtered and regulated • 4 outputs transmitter (3-wire) variant: 12...36 V DC, filtered and regulated Connection to main supply: permanent (through external SELV (Safety Extra Low Voltage) and LPS (Limited Power Source) power supply
Power source (not supplied)	Limited power source according to UL/EN 62368-1 standards or limited energy circuit according to UL/EN 61010-1 paragraph 9.4
DC reverse polarity protection	Yes
Overvoltage protection	Yes
Current consumption	With sensor • ≤ 1 A (with transistors load) • 2 or 3 outputs transmitter (2-wire) variant: ≤ 25 mA (at 14 V DC without transistors load, with current loop) • 4 outputs transmitter (3-wire) variant: ≤ 5 mA (at 12 V DC without transistors load, without current loop)

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

Power consumption	Max. 40 W
Output	• Transistor (digital output): – 1 transistor output (transmitter 2-wire): – NPN, open collector – max. 700 mA – 1...36 V DC – 2 transistor outputs (transmitter 2 or 3-wire): – adjustable as sourcing or sinking (respectively both as PNP or NPN), open collector – max. 700 mA – 0.5 A max. per transistor if the 2 transistor outputs are wired – NPN-output: 1...36 V DC – PNP-output: Power supply • Current (analogue output): – 4...20 mA – adjustable as sourcing or sinking (in the same mode as transistor) – max. loop impedance: – 1 current output (transmitter 2-wire): 1100 Ω at 36 V DC, 610 Ω at 24 V DC, 180 Ω at 14 V DC – 2 current outputs (transmitter 3-wire): 1100 Ω at 36 V DC, 610 Ω at 24 V DC, 100 Ω at 12 V DC
Voltage supply cable	The female M12 connector and/or the male M12 connector are not included in the delivery and must be ordered separately, see chapter "10.5. Ordering chart accessories" on page 12. For these connectors, use a shielded cable with: • diameter: 3...6.5 mm • cross section of wires: max. 0.75 mm²
Medium data	
Fluid temperature	With Inline sensor-fitting Type S030 in: • PVC: 0...+ 50 °C (+ 32...+ 122 °F) • PP: 0...+ 80 °C (+ 32...+ 176 °F) • PVDF, stainless steel or brass: - 15...+ 100 °C (+ 5...+ 212 °F) See **data sheet Type S030** ▶ for more information.
Fluid pressure	With Inline sensor-fitting Type S030 in: • plastic: max. PN 10 • metal: max. PN 16 (PN 40 on request) See **data sheet Type S030** ▶ for more information.
Viscosity	Max. 300 cSt
Rate of solid particles	Max. 1 %
Maximum particle size	0.5 mm
Product connections	
Pipe connection	With Inline sensor-fitting Type S030 in: • Plastic: true union with nut and solvent/fusion socket, spigot or external thread • Metal: internal or external thread, weld ends, clamp or flange See **data sheet Type S030** ▶ for more information.
Electrical connection	• 2 or 3 outputs transmitter (2-wire) variant: 1 × 5-pin M12 male connector • 4 outputs transmitter (3-wire) variant: 1 × 5-pin M12 male and 1 × 5-pin M12 female connectors
Approvals and conformities	
Directives	
CE directive	Further information on the CE Directive can be found in chapter "2.3. Standards" on page 6
Pressure equipment directive	Complying with article 4, paragraph 1 of 2014/68/EU directive Further information on the pressure equipment directive can be found in chapter "2.4. Pressure Equipment Directive (PED)" on page 6.
North America (USA/Canada)	UL Recognized for the USA and Canada

Environment and installation	
Ambient temperature	Operation and storage: - 10...+ 60 °C (+ 14...+ 140 °F)
Relative air humidity	≤ 85 %, without condensation
Height above sea level	Max. 2000 m
Operating condition	Continuous
Equipment mobility	Fixed
Application range	Indoor and outdoor Protect the device against electromagnetic interference, ultraviolet rays and, when installed outdoors, against the effects of climatic conditions.
Degree of protection 2.)	IP65, IP67 (according to EN60529), NEMA 4X (according to NEMA250) under the following simultaneous conditions: • device wired • cover screwed tight • M12 connector mounted and tightened
Installation category	Category I according to UL/EN 61010-1
Pollution degree	Degree 2 according to UL/EN 61010-1

1.) Under reference conditions i.e. measurement medium = water, ambient and water temperature = + 20 °C (+ 68 °F), observing the minimum inlet and outlet sections and the appropriate inner diameter of the pipe.

2.) Not evaluated by UL

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

2. Approvals and conformities

2.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants of the device can be supplied with the below mentioned approvals or conformities.

2.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

2.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

2.4. Pressure Equipment Directive (PED)

The device conforms to article 4, paragraph 1 of the Pressure Equipment Directive (PED) 2014/68/EU under the following conditions:

Device used in a pipe

Note:

- The data in the table is independent of the chemical compatibility of the material and the fluid.
- PS = maximum admissible pressure (in bar), DN = nominal diameter of the pipe

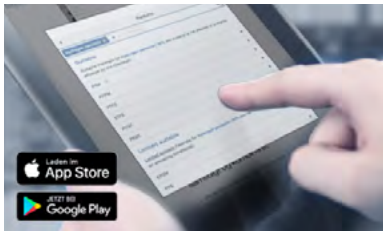
Type of fluid	Conditions
Fluid group 1, Article 4, Paragraph 1.c.i	DN ≤ 25
Fluid group 2, Article 4, Paragraph 1.c.i	DN ≤ 32 or PS*DN ≤ 1000
Fluid group 1, Article 4, Paragraph 1.c.ii	DN ≤ 25 or PS*DN ≤ 2000
Fluid group 2, Article 4, Paragraph 1.c.ii	DN ≤ 200 or PS ≤ 10 or PS*DN ≤ 5000

2.5. North America (USA/Canada)

Approval	Description
c UL us	**Optional: UL Recognized for the USA and Canada** The products are UL Recognized for the USA and Canada according to: • UL 61010-1 (ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL, AND LABORATORY USE – Part 1: General Requirements) • CAN/CSA-C22.2 No. 61010-1

3. Materials

3.1. Bürkert resistApp



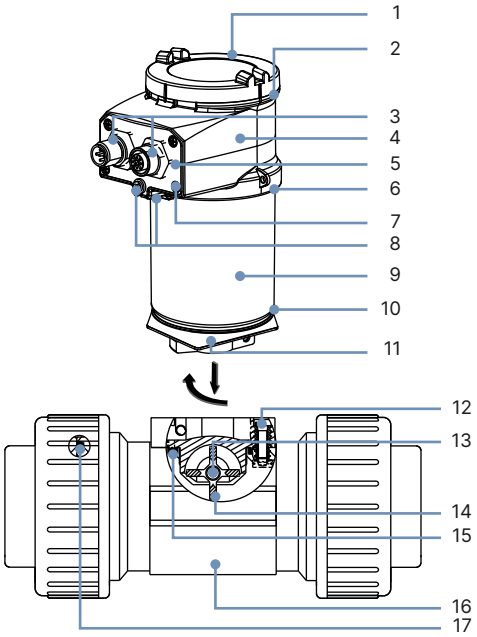
Bürkert resistApp – Chemical resistance chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

Start chemical resistance check

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

3.2. Material specifications

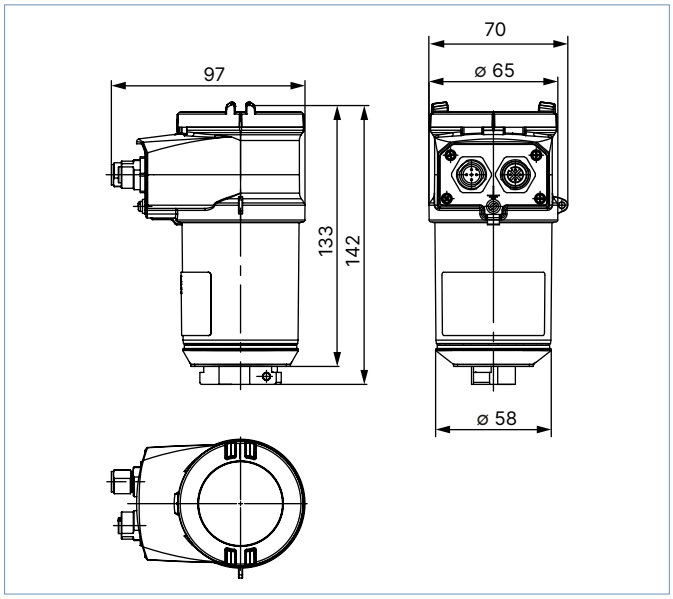


No.	Element	Material
1	Cover	PC
2	Seal	Silicone
3	Connector (female /male M12)	Nickel-plated brass
4	Housing (top)	PPS
5	Connector holder	PPS CF30
6	Seal	EPDM
7	Screws	Stainless steel 1.4301 (304 (A2))
8	Grounding terminal and screw	Stainless steel 1.4401 (316 (A4))
9	Housing (body)	Stainless steel 1.4404 (316L)
10	Seal	EPDM
11	Housing (base)	PPS
12	Screws	Stainless steel 1.4301 (304 (A2))
13	Axis and bearings	Ceramics (Al_2O_3)
14	Paddle wheel	PVDF
15	Seal	FKM or EPDM (depending on the sensor-fitting variant S030)
16	Sensor-fitting body	Stainless steel 1.4404 (316L), brass, PVC, PP, PVDF (depending on S030 variant)
17	Seals	FKM or EPDM (depending on S030 variant and only for true union connection with nut and solvent/fusion socket)

4. Dimensions

4.1. Transmitter Type SE36

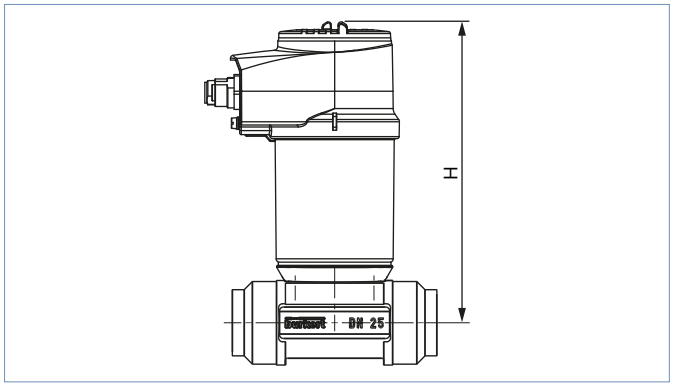
Note:
Dimensions in mm, unless otherwise stated



DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

4.2. Transmitter Type SE36 mounted in an Inline sensor-fitting Type S030

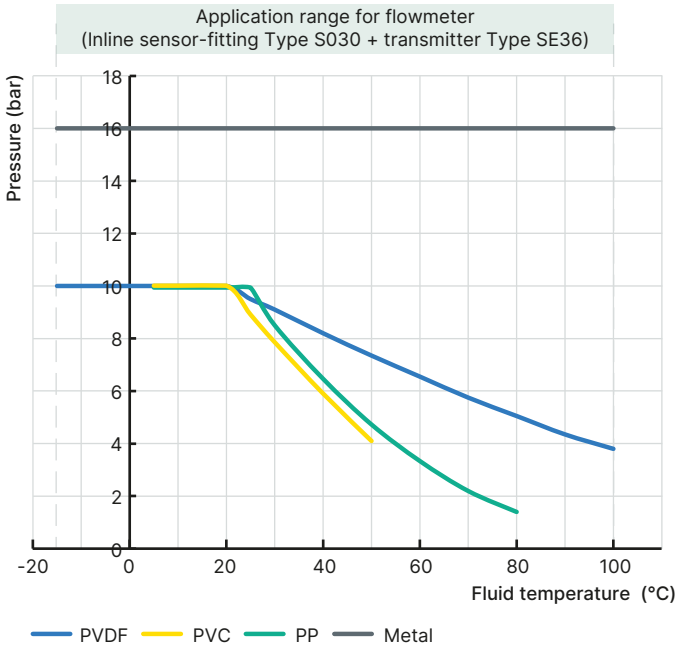
Note:
Dimensions in mm, unless otherwise stated



DN	H
06	162
08	162
15	167
20	165
25	165
32	168
40	172
50	179
65	179

5. Performance specifications

5.1. Pressure temperature diagram



DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

6. Product installation

6.1. Installation notes

Flow measurement

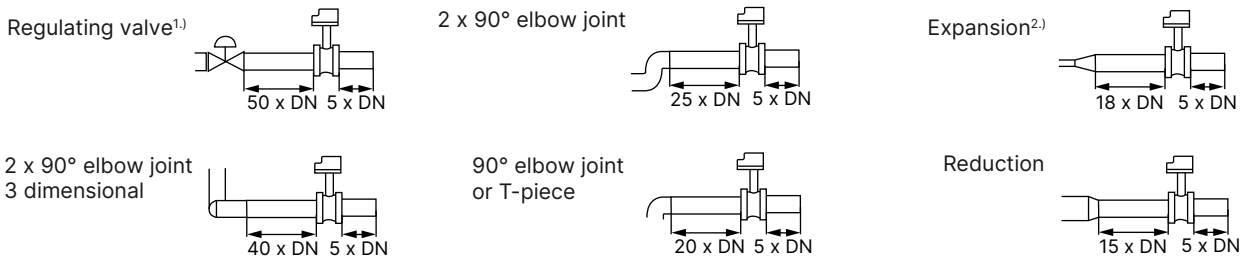
Note:
The device is not suitable for use in gaseous media and steam.

Minimum straight distances upstream and downstream of the sensor must be observed. These stabilizing distances depend on the pipe's design. Increasing these distances or installing a flow conditioner may be necessary to obtain the best accuracy. For more information, refer to EN ISO 5167-1.

EN ISO 5167-1 specifies the straight inlet and outlet distances that must be complied with when installing fittings in pipe lines in order to achieve calm flow conditions. The most commonly used elements that could lead to turbulence in the flow are shown below. The related minimum inlet and outlet distances that ensure a calm flow are also specified.

Make sure that the measurement conditions at the point of measurement are calm and problem-free.

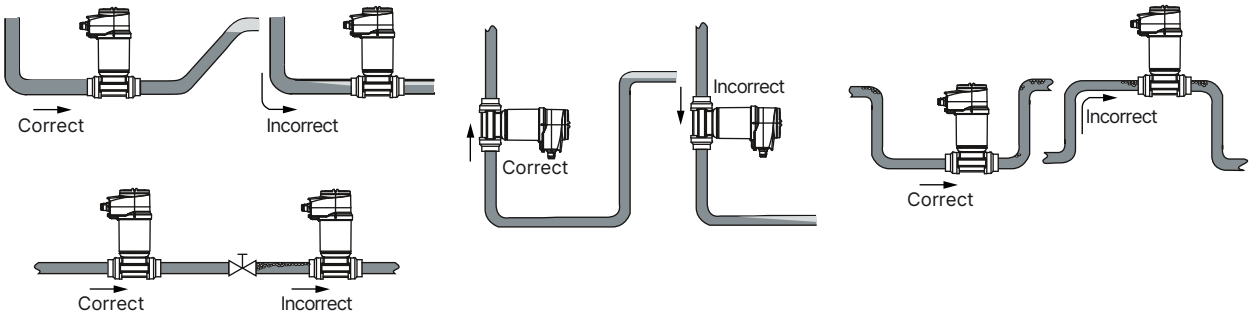
DN = nominal diameter **Fluid direction ⇨**



1.) If the valve cannot be mounted after the measuring device, the minimal distances have to be respected.
2.) If an expansion cannot be avoided, the minimal distances have to be respected.
Take the minimum flow velocity into account.

The device can be installed in either horizontal or vertical pipes, but following additional conditions should be respected:

- The pipe always has to be filled with fluid at all times near the device.
- The pipe design must be such that no air bubbles or cavitation can form within the medium near the device at any time.



Pressure and temperature ratings must be respected according to the selected fitting material. The suitable pipe size is selected using the diagram in the chapter "Selection of the nominal diameter" of the **data sheet Type S030 ▶**.

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

7. Product operation

7.1. Measurement principle

When liquid flows through the pipe, the paddle wheel with 4 inserted magnets is set in rotation, producing a measuring signal in the sensor (coil or Hall sensor depending on variant). The frequency of this signal is proportional to the flow velocity of the fluid.
A K factor, specific to each pipe, enables the conversion of this frequency into a flow rate/volume.
This K factor is available in the Inline-sensor-fittings' user manual, see **Type S030** ▶.

The electronics converts the measured signal into several outputs (according to the device variant) and displays the actual value. The totalizers are used to obtain the volume of fluid that has passed through the pipe.
The electrical connection is provided via a male connector or via male connector M12 and a female connector M12, depending on variant.

8. Product design and assembly

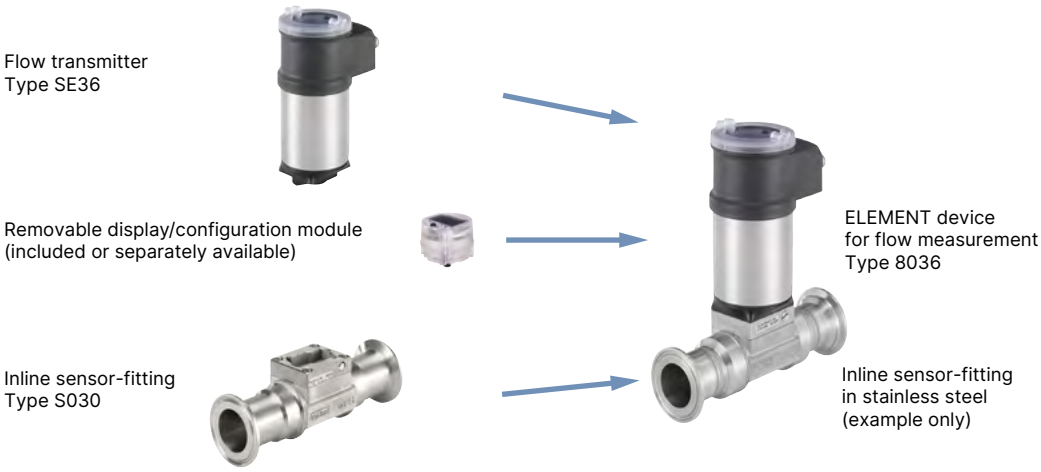
8.1. Product assembly

Note:

- The device Type 8036 is made up of a Bürkert Inline sensor-fitting Type S030 equipped with a paddle wheel sensor and a transmitter Type SE36.
- The Inline sensor-fitting Type S030 ensures simple installation into pipes from DN 06...DN 65. The transmitter Type SE36 can easily be installed into any sensor-fitting system Type S030, by means of a bayonet fastening, see **data sheet Type S030** ▶ for more information.

The housing of the device contains the electronic module and a removable display/configuration module.

The device operates without the display/configuration module, but it is required for device configuration (i.e. set or restore parameters, configure information to be displayed, enter access codes...) and also for visualizing continuously the measured and processed data.



DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

9. Networking and combination with other Bürkert products

Example:

Type 8036

Type 8801 ▶ Valve system On/Off ELEMENT	**Type 0142** ▶ Diaphragm valve 2/2-way servo-assisted	**Type 8611** ▶ eCONTROL - Universal controller	**Type 8619** ▶ multiCELL - transmitter/controller

10. Ordering information

10.1. Bürkert eShop

Bürkert eShop – Easy ordering and quick delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

Order online now

10.2. Recommendation regarding product selection

Note:
When only ordering devices without a display/configuration module, make sure that you have at least one display/configuration module to configure the device. Otherwise you must also order one (see chapter "10.5. Ordering chart accessories" on page 12).

A flowmeter Type 8036 consists of a compact flow transmitter Type SE36, a removable display/configuration module and a Bürkert Inline sensor-fitting Type S030.

See **data sheet Type S030** ▶ for more information.

Two or three different components must be ordered to obtain a complete device. The following information is required:

- **Article no.** of the compact Type SE36 flow transmitter available with or without display/configuration module (see chapter "10.4. Ordering chart" on page 12)
- **Article no.** of the removable display/configuration module, if necessary (see chapter "10.5. Ordering chart accessories" on page 12)
- **Article no.** of the Type S030 Inline sensor-fitting (see **data sheet Type S030** ▶)

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026

10.3. Bürkert product filter

Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements?
Use the Bürkert product filter and find suitable articles for your application quickly and easily.

Try out our product filter

10.4. Ordering chart

Transmitter Type SE36

Note:

- All settings as well as the digital output have to be configured with the display/configuration module (must be ordered separately).
- The following Article no.s. have a transparent cover as standard.

Operating voltage	Output	UL approval	Electrical connection [1.)]	Article no.	
				Without display/ configuration module	With display/ configuration module
14...36 V DC	2 outputs: 1 x transistor NPN + 1 × 4...20 mA (2 wires)	–	5-pin M12 male connector	560880	561880
		UL-Recognized		560883	561883
	3 outputs: 2 x transistors NPN/PNP + 1 × 4...20 mA (2 wires)	–		560881	561881
		UL-Recognized		560884	561884
12...36 V DC	4 outputs: 2 x transistors NPN/PNP + 2 × 4...20 mA (3 wires)	–	5-pin M12 male and 5-pin M12 female connectors	560882	561882
		UL-Recognized		560885	561885

1.) Must be ordered separately (see chapter "10.5. Ordering chart accessories" on page 12): M12 male/female connectors (only 1 M12 female for the variant with one 4...20 mA output, 1 M12 male and 1 M12 female for the variant with two 4...20 mA outputs of the device)

10.5. Ordering chart accessories

Description	Article no.
Spare part	
Opaque cover with seal (1 screw cover with EPDM seal + 1 quarter turn closing cover with silicone seal)	560948
Transparent cover with seal (1 screw cover with EPDM seal + 1 quarter turn closing cover with silicone seal)	561843
Electrical connection	
M12 female connector with plastic threaded clamping ring, 5-pin, straight, to be wired	917116
M12 male connector with plastic threaded clamping ring, 5-pin, straight, to be wired	560946
M12 female connector with moulded cable (shielded), 5-pin, straight, cable length: 2 m	438680
M12 male connector with moulded cable (shielded), 5-pin, straight, cable length: 2 m	559177
Configuration accessories	
Removable display/configuration module (with instruction sheet)	559168

DTS 1000128708 EN Version: - Status: RL (released | freigegeben | valide) printed: 28.10.2026