



COMPACT flow measuring device

- For continuous multiparameter monitoring
- Measuring and monitoring of flow, temperature and conductivity
- Quick and flexible start-up via IO-Link and wireless short-distance communication via radio waves
- Easy adjustment to suit the process by using adapters

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

Can be combined with

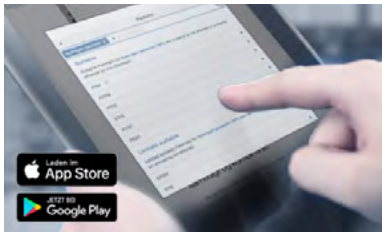
	Type 8619 multiCELL – multi-channel/ multi-function transmitter/ controller	►
	Type 8611 eCONTROL – Universal controller	►
	Type 8025 Insertion flowmeter or batch controller with paddle wheel and flow transmitter or remote batch controller	►

Type description

The Type 8050 is a compact magnetic-inductive flow measuring device that will help you monitor your processes. Thanks to its compact and robust design, this device is the perfect solution for applications where space needs to be saved. Additional connection adapters simplify integration into the process and the wireless connection makes start-up easier.

3. Materials

3.1. Bürkert resistApp



Bürkert resistApp – Chemical resistance chart

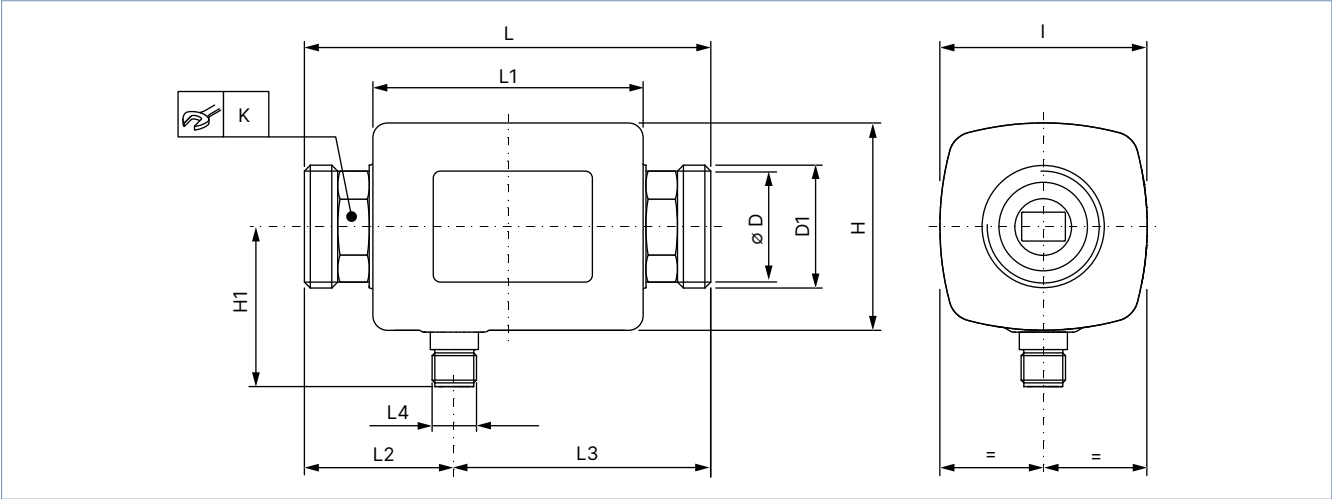
You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

4. Dimensions

4.1. Flowmeter with external thread pipe connection

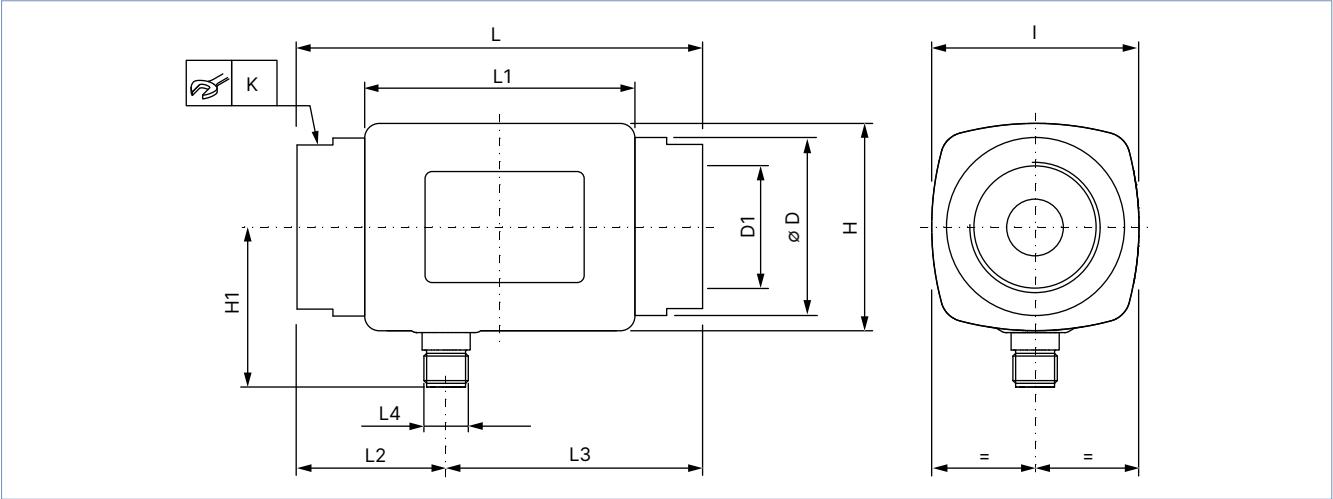
Note:
Dimensions in mm, unless otherwise stated



DN	H	H1	L	L1	L2	L3	Ø D	D1 [inch]	I	K
15	56	43	110	73	40.5	M12 × 1	12	G ½	56	AF 24
20	56	43	110	73	40.5	M12 × 1	15	G ¾	56	AF 27
25	56	43	110	73	40.5	M12 × 1	15	G 1	56	AF 27
50	86	58	200	113	80	M12 × 1	43	G 2	86	AF 52

4.2. Flowmeter with internal thread pipe connection

Note:
Dimensions in mm, unless otherwise stated



DN	H	H1	L	L1	L2	L3	L4	Ø D	D1 [inch]	I	K
15	56	43	110	73	40.5	69.5	M12 × 1	29.5	NPT ½	56	AF 27
20	56	43	110	73	40.5	69.5	M12 × 1	36	NPT ¾	56	AF 32
25	56	43	110	73	40.5	69.5	M12 × 1	42	NPT 1	56	AF 41
50	86	58	180	113	80	120	M12 × 1	73.5	NPT 2	86	AF 70

5. Product installation

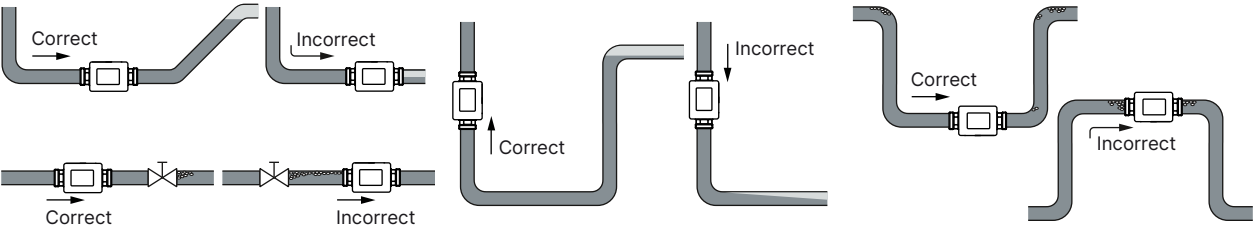
5.1. Installation notes

Flow measurement

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

- During flowmeter operation the pipe must be completely full.
- No upstream and downstream distances need to be considered.

The sensor can be installed into either horizontal or vertical pipes. All correct installation positions described in the following allow accurate flow measurement. However, we recommend that you install the sensor in an **ascending** pipe for optimal flow measurement.



6. Product operation

6.1. Measurement principle

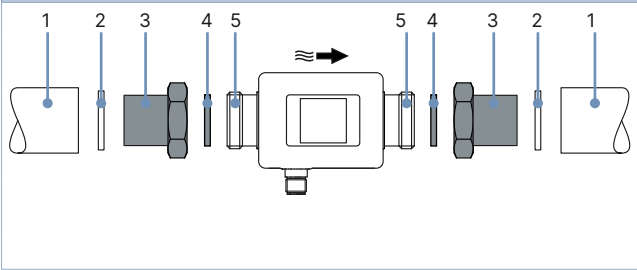
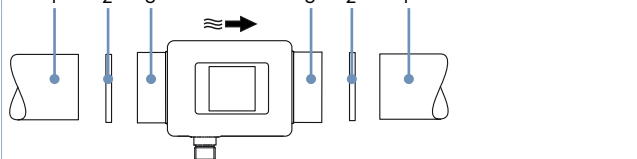
Faraday's law serves as the physical basis for magnetic flow measurement. Magnetic coils are arranged around the pipeline to generate a magnetic field. Conductive liquids, flowing through this field, induce an electrical voltage between two metal electrodes, positioned opposite each other and in contact with the liquid. These electrodes allow the direct measurement of the induced electrical alternating voltage.

7. Product accessories

Note:

- The installation of the flowmeter in a pipeline requires the use of adapters and seals, depending on the device variant.
- The drawings show the assembly with both variants of the device.

See **"8.4. Ordering chart accessories"** on page 11 for more information.

Accessories	No.	Description
	1	Pipe with internal thread connection
	2	Seal (not supplied; use suitable commercially available seal material.)
	3	Adapter Further information can be found in chapter "8.4. Ordering chart accessories" on page 11.
	4	Seal (included in delivery, see also chapter "8.4. Ordering chart accessories" on page 11.)
	5	External thread connection of the flowmeter
	1	Pipe with conical external thread connection
	2	Seal (not supplied; use suitable commercially available seal material.)
	3	Internal thread connection of the flowmeter