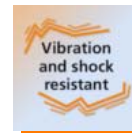


Robust mechatronic flow sensor



Binary and analogue volumetric flow sensors for liquids

- Volumetric flow quantities: 15 l/min, 25 l/min, 50 l/min, 100 l/min, 200 l/min
- Fast response time ≤ 10 ms
- Easy handling: Switch points can be (pre)set continuously
- Variable R or G process connection
- Pressure ranges up to 25 bar, medium temperature up to 180 °C



Mechatronic flow sensor

The flow sensor works to the principle of spring-supported piston: The piston, located in the valve seat in the housing, is lifted by the flowing medium against the spring resistance.

For binary signal output the piston position is detected by an inductive sensor. Analogue sensors however detect the position by means of a magnetic-field sensor.

The spring resistance forces the piston to return to its original position with decreasing flow. This ensures position-independent installation of the flow sensor preventing backflow.

The switch points can be easily set and fixed via a setting screw. The robust mechanical design ensures use in harsh environments. The units are maintenance-free.



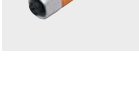
Mechatronic sensor in the coolant circuit of an induction furnace.

Application: liquids

Measuring range [l/min]	Hysteresis [l/min]	Response time [s]	Medium temperature [°C]	Pressure loss [bar]	Process connection	Order no.
M12 connector · output function NO · electrical design DC pnp · binary						
1...15	0.2...1	≤ 0.01	0...85	0.05...0.24	Rp 3/4	SBY332
1...25	0.5...2	≤ 0.01	0...85	0.04...0.44	Rp 3/4	SBY333
2...50	1...3	≤ 0.01	0...85	0.05...0.72	Rp 3/4	SBY334
5...100	3...6	≤ 0.01	0...85	0.05...1.05	Rp 1	SBY346
20...200	5...10	≤ 0.01	0...85	0.05...0.31	Rp 1 1/2	SBY357
M12 connector · electrical design DC PNP · analogue 4...20 mA						
1...25	–	≤ 0.01	-10...100	0.02...0.22	Rp 3/4	SBY433
2...50	–	≤ 0.01	-10...100	0.06...0.29	Rp 3/4	SBY434
4...100	–	≤ 0.01	-10...100	0.1...0.5	Rp 1	SBY446
8...200	–	≤ 0.01	-10...100	0.14...0.52	Rp 1 1/2	SBY457
Silicone cable with M12 connector · electrical design DC · analogue 4...20 mA						
0.3...25	–	≤ 0.01	10...180	0.02...0.22	Rp 3/4	SBT633
0.3...50	–	≤ 0.01	10...180	0.06...0.29	Rp 3/4	SBT634

All data refer to water.

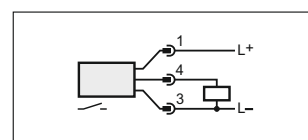
Connection technology

Type	Description	Order no.
	M12 socket, 2 m black, PUR cable	EVC001
	M12 socket, 5 m black, PUR cable	EVC002
	M12 socket, 2 m orange, PVC cable	EVT064
	M12 socket, 5 m orange, PVC cable	EVT001

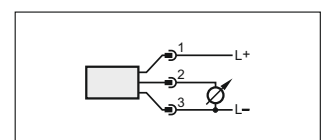
Common technical data

Type SBY, SBT		
Operating voltage	[V]	24 DC (-15 % / +10 %)
Accuracy	[% of the final value]	± 5
Short-circuit protection		•
Reverse polarity / overload protection		• / •
Protection rating, protection class		IP 65 / IP 67, III
Ambient temperature	[°C]	0...60
Materials (wetted parts)	SBY3	stainless steel (301/1.4310), nickel-plated brass, PPS, PP, O-ring: FPM
Materials (wetted parts)	SBT6	stainless steel (316/1.4401), nickel-plated brass, PPS, O-ring: FPM
Materials (wetted parts)	SBY4	stainless steel (316/1.4401), nickel-plated brass, PPS, PP, O-ring: FPM

Wiring diagram



SBY3



SBY4, SBT6