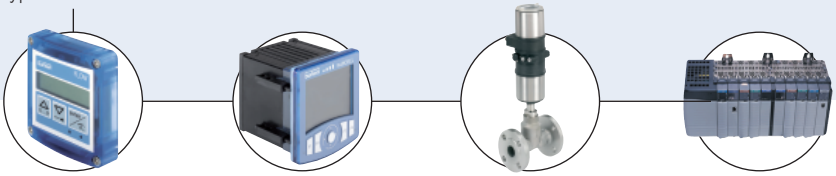
bürkert
FLUID CONTROL SYSTEMS

Positive displacement low flow sensor for continuous measurement and batch control

- For highly viscous fluids
- Electronics for indication, monitoring, transmitting, On/Off control and batch control

Type 8071 can be combined with...



Type 8025
Remote Universal flow transmitter

Type 8619
multiCELL transmitter/Controller

Type 2101 (8692)
Continuous TopControl system

PLC

This positive displacement sensor is specially designed for measurement or batch control of highly viscous fluids like glue, honey or oil.
This sensor can be easily connected to the universal transmitter Type 8025 or the batch controller Type 8025.

The design of this low flow sensor is based on the oval rotor principle. This has proven to be a reliable and highly accurate volumetric method of measuring flow. Exceptional repeatability and high accuracy over a wide range of viscosities and flowrates are features of that design. The low pressure drop and high pressure rating make it suitable for both gravity and pump (in-line) applications.

All sensors provide Open Collector NPN frequency output and frequency output on Reed contact via 1 meter 5-wire cable with open ends.

General data	
Compatibility	with Type 8025 Universal transmitter or batch controller (see corresponding data sheet)
Materials	
Body	Aluminium, PPS, stainless steel 316F (1.4401)
Rotor	PPS, stainless steel 316F (1.4401)
Shaft	Hastalloy C, PPS, stainless steel 316F (1.4401)
Seal	FKM - EPDM (FFKM on request)
Electrical connections	5-wire cable, 1 m length

Environment	
Ambient temperature	(operating and storage)
Aluminium or PPS body	+80 °C *(176 °F)* max.
Stainless steel body	+120 °C *(248 °F)* max.
Relative humidity	≤ 85%, without condensation

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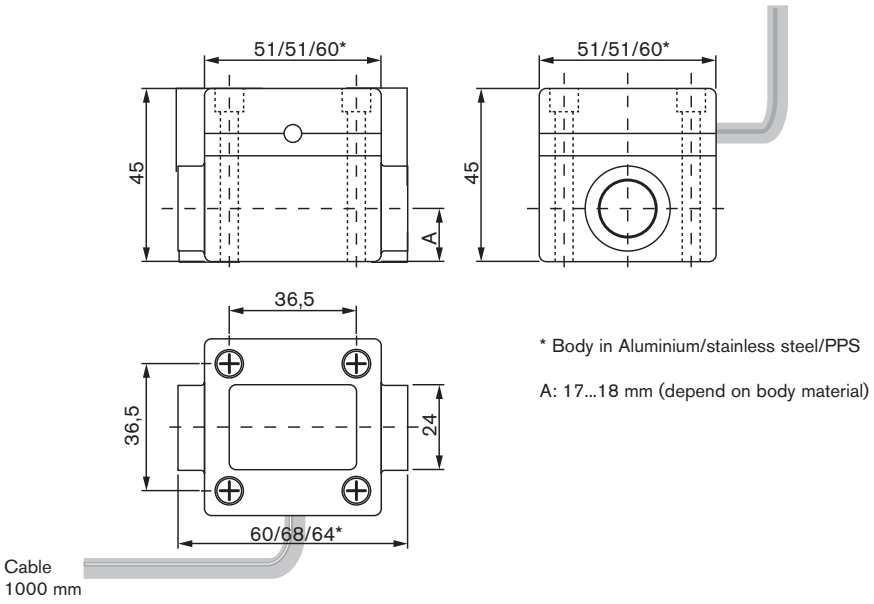
Complete device data	
Process connection	Thread 1/8"; 1/4" (G or NPT)
Measuring range	0.5 to 500 l/h *(0.13 to 132 gph)*
Fluid temperature max.	Aluminium or PPS body: 80 °C *(176 °F)* Stainless steel body: 120 °C *(248 °F)*
Fluid pressure max.	Aluminium or PPS body: 5 bar *(72 PSI* Stainless steel body: 55 bar *(798 PSI)* (550 bar *(7980 PSI)* on request)
Viscosity	1 Pa.s. max. (higher on request)
Max. particle size	75 µm - To prevent damage from dirt or foreign matter, we strongly recommend the installation of a 75 µm (200 mesh) strainer as close as possible to the inlet side of the meter.
Accuracy	≤ ± 1% of Reading
Repeatability	≤ 0.03% of Reading
Electrical data	
Sensor type	Hall effect sensor or Reed contact
Current consumption	≤ 9 mA (Hall effect sensor)
Output frequency	
Hall effect sensor	Open collector, NPN, max. 25 mA, 4.5 to 24 V DC
Reed contact	switching voltage 30 V DC max. current, 0.5 A
K-factor	
0.5-50 l/h	1552 pulses/l
2-100 l/h	1000 pulses/l
15-500 l/h	400 pulses/l
Standards, directives and approvals	
Protection class	IP54 (NEMA 13)

Dimensions [mm]



* Body in Aluminium/stainless steel/PPS

A: 17...18 mm (depend on body material)

Ordering chart for sensor Type 8071

Process connection	Flow Range > 1 mPa.s.	Flow Range < 1 mPa.s.	Body material	Max. pressure	Rotor / shaft material	Gasket	Item no.
G 1/8	0.5-50 l/h (0.13 to 13.2 gph)	5-50 l/h (1.32 to 13.2 gph)	Aluminium	5 bar	Stainless steel	FKM	552 818
			Stainless steel	55 bar	Stainless steel	FKM	552 820
NPT 1/8	0.5-50 l/h (0.13 to 13.2 gph)	5-50 l/h (1.32 to 13.2 gph)	Aluminium	5 bar	Stainless steel	FKM	552 819
			Stainless steel	55 bar	Stainless steel	FKM	552 821

Process connection	Flow Range > 5 mPa.s.	Flow Range < 5 mPa.s.	Body material	Max. pressure	Rotor / shaft material	Gasket	Item no.
G 1/4	2-100 l/h (0.53 to 26.4 gph)	12.5-100 l/h (3.3 to 26.4 gph)	PPS	5 bar	PPS / Hastalloy C	FKM	432 288
						EPDM	550 072
			Stainless steel	55 bar	Stainless steel	FKM	433 864
						EPDM	551 817
	15-500 l/h (4.00 to 132 gph)	40-500 l/h (10.56 to 132 gph)	PPS	5 bar	PPS / Hastalloy C	FKM	430 856
						EPDM	434 364
			Stainless steel	55 bar	Stainless steel	FKM	437 518
						EPDM	553 651
	15-500 l/h for high viscosity*		Stainless steel	55 bar	Stainless steel	FKM	552 426
NPT 1/4	2-100 l/h (0.53 to 26.4 gph)	12.5-100 l/h (3.3 to 26.4 gph)	PPS	5 bar	PPS / Hastalloy C	FKM	448 654
			Stainless steel	55 bar	Stainless steel	FKM	448 656
	15-500 l/h (4.00 to 132 gph)	40-500 l/h (10.56 to 132 gph)	PPS	5 bar	PPS / Hastalloy C	FKM	448 655
			Stainless steel	55 bar	Stainless steel	FKM	448 657
	15-500 l/h for high viscosity*		Stainless steel	55 bar	Stainless steel	FKM	553 652

* > 1 Pa.s.

Ordering chart for accessories

Description	Item no.
Set of two rotors in stainless steel for measuring range 0.5 -50 l/h	560 180
Set of two rotors in stainless steel for measuring range 2-100 l/h	550 919
Set of two rotors in stainless steel for measuring range 15-500 l/h	550 920
Set of two rotors in PPS for measuring range 2-100 l/h	550 921
Set of two rotors in PPS for measuring range 15-500 l/h	550 922
FKM gasket	550 923
EPDM gasket	550 924
FFKM gasket	550 959
Set of stainless steel cap with hall sensor and Reed contact	553 653
Set of PPS cap with hall sensor and Reed contact	553 654

Further versions on request

Materials
Set of aluminium steel cap with hall sensor and Reed contact

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

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