

Type 8070 can be combined with...



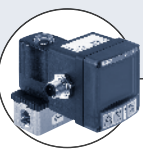
Type 8025

Flow transmitter
Wall-mounted or
Panel-mounted version



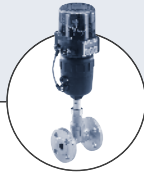
Type 8023

4–20 mA
output module



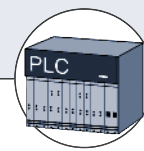
Type 8623-2

PI Flow-
Controller



Type 2712 (8630)

Continuous
TopControl System



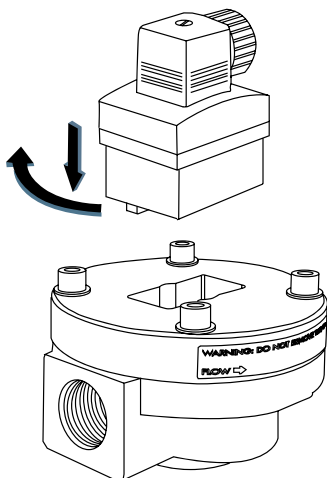
PLC

This positive displacement fitting is specially designed for flow measurement or batch control of highly viscous fluids like glue, honey or oil.

This measuring element must be associated to an electronic module SE30, SE32, SE35 with hall sensor principle only, quickly and easily connected together by a Quarter-Turn.

The design of this fitting 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 makes it suitable for both gravity and pump (in-line) applications.

Burkert Quarter-Turn Technology



- High accuracy $\pm 0.5\%$
- 1/2" TO 4" (DN 15 to 100)
- INLINE Quarter-Turn technology
- For highly viscous fluids
- Electronics for indication, monitoring, transmitting, On/Off control and batch control

General data

Compatibility

with electronic SE30, SE32, SE35 with Hall sensor principle

Materials of wetted parts

Body	Aluminium, Stainless steel (316L/1.4401)
Rotor	PPS, Aluminium, St. steel (316L/1.4401)
Shaft	Stainless steel
Seal	FKM (EPDM or PTFE on request)

Complete device data (fitting + electronic module)

Pipe diameter

Threaded process connection	1/2" to 4" (DN 15 to 100)
Flanged process connection	1/2"; 1"; 1 1/2"; 2"; 3" (G or NPT) 25; 40; 50; 80 or 100 mm DIN 16 flange 1"; 1 1/2"; 2"; 3" or 4" ANSI 150LB flange

Measuring range

viscosity >5 cps	0.50 to 320 gpm (2 to 1200 l/min)
viscosity <5 cps	0.78 to 320 gpm (3 to 616 l/min)

Medium temperature max.

Aluminium body	176°F (80°C)
Stainless steel body	248°F (120°C)

Fluid pressure max.

DN 15	800 PSI (55 bar) (threaded process connection)
DN 25	800 PSI (55 bar) or flanges rules where fitted
DN 40 / DN 50	260 PSI (18 bar)
DN 80	175 PSI (12 bar)
DN 100	145 PSI (10 bar)

Viscosity

1000 cps. max (higher on request)

Accuracy

$\pm 0.5\%$ of Reading

Repeatability

0.03% of Reading

Environment

Ambient temperature

operating and storage 32°F up to 140°F (0°C up to +60°C)

Standards and approvals

Protection class

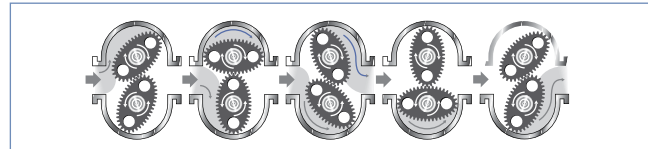
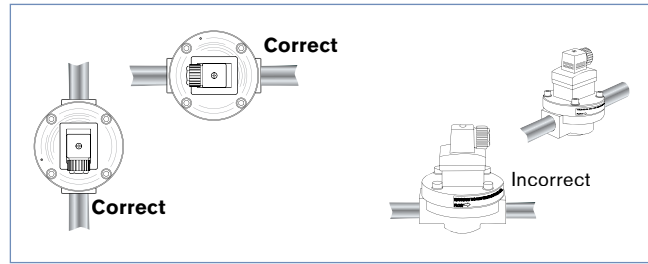
IP66 (NEMA 6)

Installation and operation

The fitting can handle particle sizes up to 0.25 mm. To prevent damage from dirt or foreign matter, we strongly recommend the installation of a 60 mesh strainer as close as possible to the inlet side of the meter. The pipe must be filled with liquid and free from air bubbles. Avoid air purge of the system.

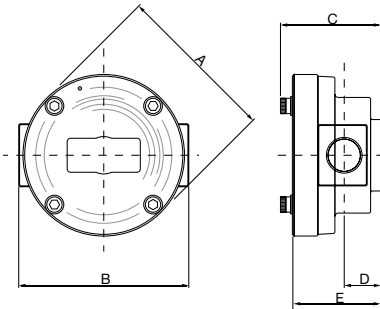
Ensure the fitting is installed so that the rotor shafts are always in a horizontal position. Flow direction is marked by an arrow on the body.

When fluid passes through the fitting, rotors turn. This rotation produces a measuring frequency in the associated hall sensor, which is proportional to the flow.



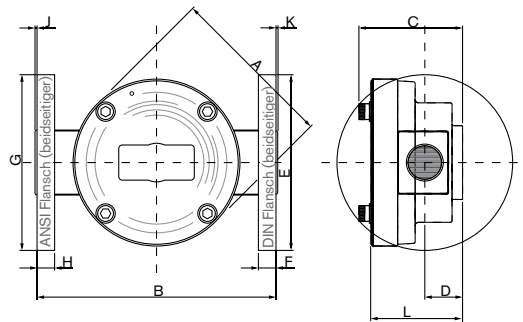
Dimensions [mm]

Threaded connection



Orifice DN	A	B Stainless steel	B Aluminium	C	D	E
15	96	100	100	61	20	55
25	112	143	133	91	35	85
40	144	150	150	120	45	112
50	178	210	210	150	55	140
80	220	256	256	212	77	202

Flanged connection



Orifice DN	A	B St. St.	B Al.	C	D	E	F	G	H	J	K	L
25	112	170	170	91	35	115	16	108	16.0	1.6	1.6	85
40	144	212	212	120	45	150	16	127	17.5	1.6	1.6	112
50	178	240	214	150	55	165	18	152	19.0	1.6	1.6	140
80	220	344	344	212	77	200	22	191	22.5	1.6	1.6	202
100	291	385	385	230	108	220	22	229	22.5	1.6	1.6	234

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Ordering chart for fitting S070

Orifice DN	Process connection	Flow Range		Body material	Rotor material	Gasket	Item no.
		> 5 cps	< 5cps				
15	NPT 1/2	0.5 - 8.0 g/min (2 - 30 l/min)	0.8 - 6.6 g/min (3 - 25 l/min)	Aluminium	PPS	FKM	443 995
				Stainless steel	Stainless steel	FKM	444 000
	G 1/2	0.5 - 8.0 g/min (2 - 30 l/min)	0.8 - 6.6 g/min (3 - 25 l/min)	Aluminium	PPS	FKM	443 985
				Stainless steel	Stainless steel	FKM	443 990
25	NPT 1	1.6 - 32 g/min (6 - 120 l/min)	2.6 - 26 g/min (10 - 100 l/min)	Aluminium	PPS	FKM	443 996
				Stainless steel	Stainless steel	FKM	444 001
	1" ANSI 150 LB flange	1.6 - 32 g/min (6 - 120 l/min)	2.6 - 26 g/min (10 - 100 l/min)	Aluminium	PPS	FKM	553 636
				Stainless steel	Stainless steel	FKM	553 633
	G 1	1.6 - 32 g/min (6 - 120 l/min)	2.6 - 26 g/min (10 - 100 l/min)	Aluminium	PPS	FKM	443 986
				Stainless steel	Stainless steel	FKM	443 991
	25 mm DIN 16 flange	1.6 - 32 g/min (6 - 120 l/min)	2.6 - 26 g/min (10 - 100 l/min)	Aluminium	PPS	FKM	553 637
				Stainless steel	Stainless steel	FKM	553 634
40	NPT 1 1/2	2.6 - 66 g/min (10 - 250 l/min)	4.0 - 62 g/min (15 - 235 l/min)	Aluminium	PPS	FKM	443 997
				Stainless steel	Stainless steel	FKM	444 002
	1 1/2" ANSI 150 LB flange	2.6 - 66 g/min (10 - 250 l/min)	4.0 - 62 g/min (15 - 235 l/min)	Aluminium	PPS	FKM	443 998
				Stainless steel	Stainless steel	FKM	444 003
	G 1 1/2	2.6 - 66 g/min (10 - 250 l/min)	4.0 - 62 g/min (15 - 235 l/min)	Aluminium	PPS	FKM	443 987
				Stainless steel	Stainless steel	FKM	443 992
	40 mm DIN 16 flange	2.6 - 66 g/min (10 - 250 l/min)	4.0 - 62 g/min (15 - 235 l/min)	Aluminium	PPS	FKM	443 988
				Stainless steel	Stainless steel	FKM	443 993
50	NPT 2	4.0 - 93 g/min (15 - 350 l/min)	8.0 - 79 g/min (30 - 300 l/min)	Aluminium	PPS	FKM	553 641
				Aluminium	PPS	FKM	443 999
	2" ANSI 150 LB flange	4.0 - 93 g/min (15 - 350 l/min)	8.0 - 79 g/min (30 - 300 l/min)	Stainless steel	Stainless steel	FKM	444 004
				Aluminium	PPS	FKM	553 640
	G 2	15 - 350 l/min (15 - 350 l/min)	30 - 300 l/min (30 - 300 l/min)	Aluminium	PPS	FKM	553 640
				Aluminium	PPS	FKM	553 640
50 mm DIN 16 flange	15 - 350 l/min (15 - 350 l/min)	30 - 300 l/min (30 - 300 l/min)	Aluminium	PPS	FKM	443 989	
			Stainless steel	Stainless steel	FKM	443 994	
80	NPT 3	5.0 - 194 g/min (20 - 733 l/min)	17 - 163 g/min (66 - 616 l/min)	Aluminium	Aluminium	FKM	553 643
				Aluminium	Aluminium	FKM	553 644
	3" ANSI 150 LB flange	5.0 - 194 g/min (20 - 733 l/min)	17 - 163 g/min (66 - 616 l/min)	Aluminium	Aluminium	FKM	553 644
				Aluminium	Aluminium	FKM	553 642
G 3	5.0 - 194 g/min (20 - 733 l/min)	17 - 163 g/min (66 - 616 l/min)	Aluminium	Aluminium	FKM	553 642	
			Aluminium	Aluminium	FKM	553 642	
80 mm DIN 16 flange	5.0 - 194 g/min (20 - 733 l/min)	17 - 163 g/min (66 - 616 l/min)	Aluminium	Aluminium	FKM	553 645	
			Aluminium	Aluminium	FKM	553 645	
100	4" ANSI 150 LB flange	32 - 317 g/min (120 - 1200 l/min)	-	Aluminium	Aluminium	FKM	553 646
	100 mm DIN 16 flange	32 - 317 g/min (120 - 1200 l/min)	-	Aluminium	Aluminium	FKM	553 647

Ordering chart spare parts for fitting Type S070

Description	Orifice Size		Materials	Item no.
	[mm]	[inch]		
Rotor	DN 15	1/2"	PPS	550 933
			Stainless steel	550 934
	DN25	1"	PPS	550 937
			Stainless steel	550 938
	DN40	1 1/2"	PPS	550 941
			Stainless steel	550 942
DN50	2"	PPS	550 945	
		Stainless steel	550 946	

Description	Orifice Size		Materials	Item no.
	[mm]	[inch]		
O-ring	DN 15	1/2"	EPDM	550 929
			FKM	550 930
	DN25	1"	EPDM	550 935
			FKM	550 936
	DN40	1 1/2"	EPDM	550 939
			FKM	550 940
DN50	2"	EPDM	550 943	
		FKM	550 944	

Transmitter electronics compact Type SE35 for S070 fitting

Specifications	Power supply	Electrical connection	Item no.
Flow transmitter with 4 - 20mA, pulsed output, 2 totalizers	12-30 V DC	Cable grommet plug	444 005 Y
Flow transmitter with 4 - 20mA, pulsed output, 2 totalizers	12-30 V DC	Cable grommet entry (1 ea)	444 006 Z
Flow transmitter with 4 - 20mA, pulsed output, 2 totalizers, 2 relays	12-30 V DC	Cable grommet entry (1 ea)	444 007 S
Batch controller with 2 totalizers, 1 flow, 2 relays	12-30 V DC	Cable grommet entry (2 ea)	443 360 J
Flow transmitter with 4 - 020mA, pulsed output, 2 totalizers	115-230 VAC	Cable grommet entry (2 ea)	423 922 E
Flow transmitter with 4 - 20mA, pulsed output, 2 totalizers, 2 relays	115-230 VAC	Cable grommet entry (2 ea)	423 924 G
Batch controller with 2 totalizers, 1 flow, 2 relays	115-230 VAC	Cable grommet entry (2 ea)	423 926 A

Sensor electronics compact Type SE35 for S070 fitting

Specifications	Power supply	Cable supply	Item no.
Hall sensor	12-30 VDC	DIN 43650 PG 9	423 913 D
Hall sensor "low power", only connectable to Types 8025, 8021, 8023 and SE34	from 8025/8023	DIN 43650 PG 9	423 914 E

Standard output signal accessories

Specifications	Power supply	Cable supply	Item no.
Calibrated pulse output module Type 8021	12-30 VDC	1x PG 9	418 895 P
4 - 20mA output module Type 8023	12-24 VDC	1x PG 9	130 428 V
Control unit for 4 - 20mA output module Type 1077-3	12-24 VDC	None	130 446 X

Ordering chart for fitting S070

SE32 display and electronic for S070 fitting			
Voltage supply	Input signal	Output signal	Item no.*
12-30 VDC	---	NPN	US08572
12-30 VDC	---	PNP	US08571
12-30 VDC	---	NPN and PNP	US08570
12-30 VDC	---	Relay	US08569
12-30 VDC	4 - 20mA ¹⁾	Relay	US08568
ASi Bus	ASi	ASi + relay	US08567
12-30 VDC	4 - 20mA ¹⁾	4 - 20mA ²⁾ + relay	US08566

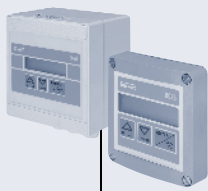
¹⁾ Ext. set point

²⁾ Process value

* Plugs included with part number

Interconnection possibilities with the sensor Type S070

Remote electronics



Type 8025
Transmitter / Batch controller

Wall-mounted or panel-mounted
4-20 mA output
Relay output
Pulse output



Type 8034
Indicator

Panel-mounted only



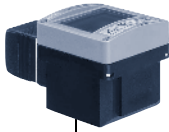
Type 8032
Switch/Transmitter

Wall-mounted
Relay output

Intrinsic safety barrier

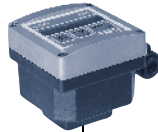


Compact electronic modules



Type 8072*
Switch

4-20 mA output
Transistor output
Relay output
4-20 mA input (external setpoint)



Type 8075*
Transmitter / Batch controller

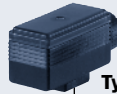
4-20 mA output
Relay output
Pulse output

Converter modules



Type 8023
Blind transmitter

4-20 mA output



Type 8021
Pulse divider

Pulse output

Type SE30Ex

2-wire current modulation according to NAMUR or NPN/PNP output



Sensor



Type 8070*

Frequency output

Fitting



Type S070
INLINE fitting

* Use only version with HALL transducer

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