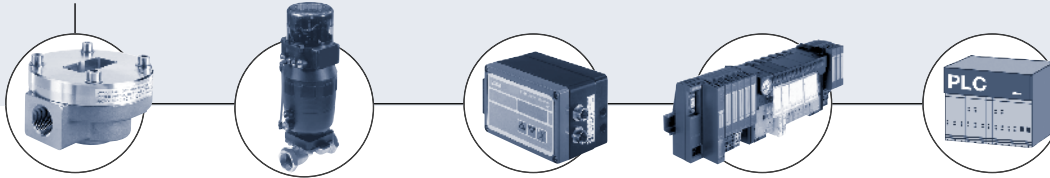




- Large graphical display
- Indication, monitoring, transmitting and On/Off control in one device
- Complete communication due to external setpoint, process value or AS-interface
- Medium with high viscosity

Type 8072 can be combined with...

**Type S070**

Fitting

**Type 2031/8631**

ON/OFF valve with  
Top Control

**Type 1067**

Continuous SIDE  
Control

**Type 8644**

Valve island with  
electronic I/O

**PLC**

This intelligent positive displacement flow switch with an extra large display is specially designed to switch a valve and to establish a monitoring system or an On/Off control loop.

The switching points can be programmed with the 3-key keypad under the display or optionally, from an external PLC over a 4–20 mA loop. Additionally the process value

can be transmitted to the PLC by means of a 4–20 mA signal. The connection to the process in the piping is done with quarter-turn technique of the INLINE fittings.

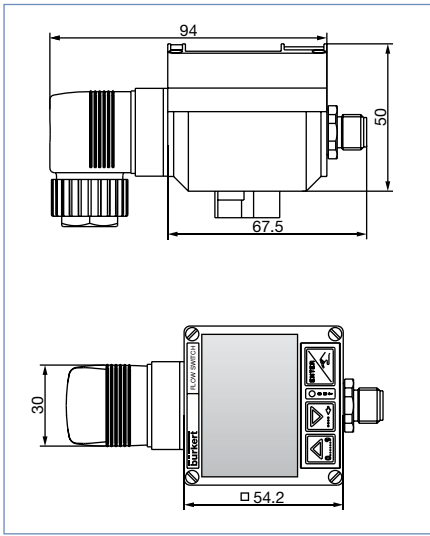
**Technical data**

<b>Pipe diameter</b>	1/2 in – 3 in (DN15 – DN50)
<b>Measurement range</b>	
>5cP	0.26 to 93 gpm (1 to 350 l/min)
<5cP	6.6 to 79 gpm (3 to 300 l/min)
<b>Medium speed</b>	max. 23 ft/s (7 m/s)
<b>Maximum particle size</b>	0.25 mm
<b>Viscosity</b>	max. 1000 cP
<b>Measuring accuracy</b>	±0.5% of measured value
<b>Repeatability</b>	0.03%
<b>Relative humidity (RH)</b>	≤ 80% non condensated
<b>Media temperature</b>	
Aluminium body	176°F (+80°C)
Stainless steel body	212°F (+100°C)
<b>Ambient temperature</b>	32°F to 140°F (0°C to +60°C)
<b>Storage temperature</b>	32°F to 140°F (0°C to +60°C)
<b>Max. fluid pressure</b>	Flange version 230 PSI Aluminium and stainless steel body 800 PSI
<b>Installation fittings</b>	Type S070 see ordering chart
<b>Wetted materials</b>	
Stainless steel fitting	Stainless steel 316 (1.4401)
Aluminium fitting	PPS, stainless steel
Seal	FKM (EPDM or PTFE optional)

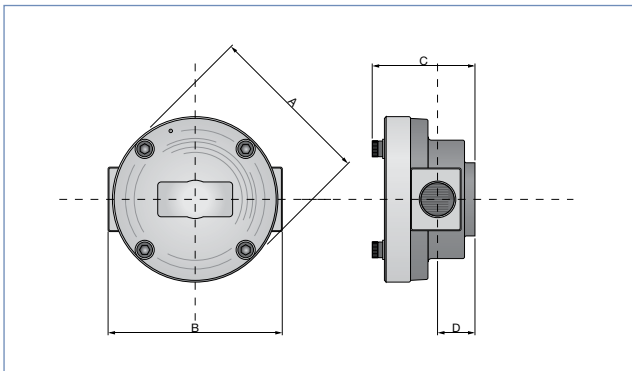
<b>Other materials</b>	Electronics housing Front plate foil	PC +20% glass-fibre Polyester
<b>Sensor element</b>		Oval rotor of fitting type S070
<b>Operating voltage</b>		12 to 30 V DC, reverse polarity protected
<b>Outputs</b>	Transistor (programmable)  Relay (programmable)  Process value (option)	NPN/PNP, open collector, 5 to 30 V DC, 700 mA max., protected against short circuits 3 A/250 VAC or 3 A/30 VDC, 3 A/48 VAC or 3 A/30 VDC <sup>1)</sup> 4–20 mA, galvanic insulation, loop resistance: 1100 Ω at 32 V, 800 Ω at 24 V, 500 Ω at 18 V
<b>Input external setpoint</b>		4–20 mA, galvanic insulation, max input impedanz 250 W
<b>Current consumption</b>		Max. 80 mA, no load
<b>Recommended cable for power supply</b>		Max. 100 m long, shielded, 0.14 to 0.5 mm <sup>2</sup>
<b>Electrical connection</b>	Cable plug/Multipol connector	Type 2508, DIN 43650 Form A / 4,5,8-pin, M12
<b>AS-interface</b>		Fieldbus
<b>Protection class</b>		IP65 with connectors plugged-in

<sup>1)</sup> Valid for: External setpoint input, process value output and AS-Interface

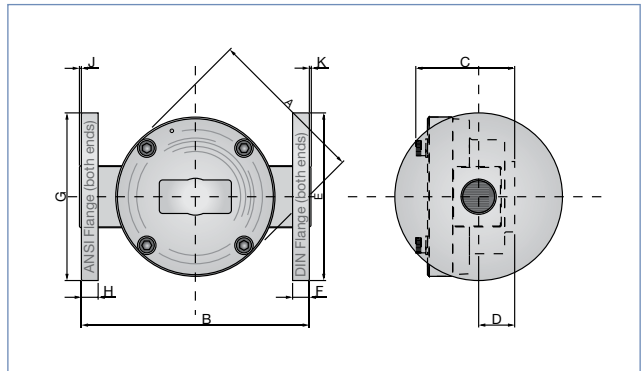
Dimensions [mm]



Dimensions [mm] fitting S070, internal thread



Dimensions [mm] fitting S070, ANSI flanges



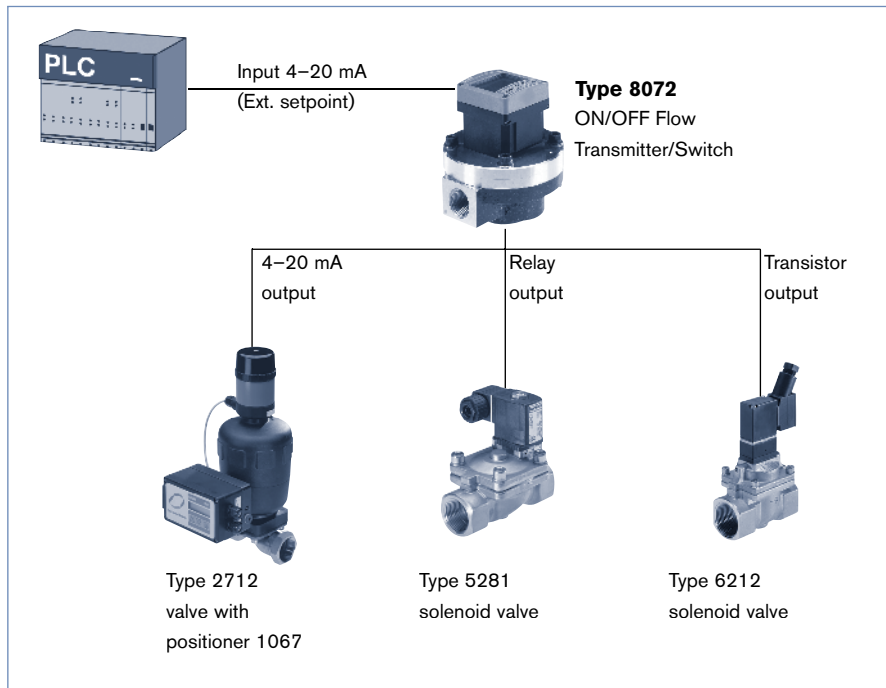
Variable dimensions (internal thread fitting)

DN [mm]	A [mm]	B [mm] Stainless steel	B [mm] Aluminium	C [mm]	D [mm]
15	96	100	100	61	20
25	112	143	133	91	35
40	144	150	150	120	45

Variable dimensions (flange fitting)

DN [mm]	A [mm]	B [mm] Stainless steel	B [mm] Aluminium	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	J [mm]
40	144	212	212	120	45	150	16	127	17.5	1.6
50	178	240	240	150	55	165	18	152	19.0	1.6

Interconnection possibilities with 8072



Standards

Standards	
EMC	EN 50081-1, 50082-2
Security	EN6101-2
Vibration	EN68-2-6
Shock	EN 68-2-27

Ordering chart display and electronic type SE32 for fitting S070

Voltage/ frequency	Inputs	Outputs	Connection possibilities	Item n.o. *
12 – 30 VDC	-	NPN transistor	Conduit/cable plug Type 2508, DIN 43650	US08572
	-	PNP transistor	Conduit/cable plug Type 2508, DIN 43650	US08571
	-	NPN and PNP transistors	5-pin circular connector M12	US08570
	-	Relay	5-pin circular connector M12 and conduit/cable plug type 2508 DIN 43650	US08569
	4-20 mA <sup>1)</sup>	Relay	5-pin circular connector M12 and conduit/cable plug type 2508 DIN 43650	US08568
ASi Bus	ASi	ASi + Relay	4-pin circular connector M12 and conduit/cable plug type 2508 DIN 43650	US08567
12 – 30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	8-pin circular connector M12 and conduit/cable plug type 2508 DIN 43650	US08566

<sup>1)</sup>External setpoint <sup>2)</sup>Process value \*Plugs included in part number

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## Ordering chart for fitting S070 (Aluminium)

Orifice DN [mm]	Process connection	Measuring range > 5 cP [g/min]	Measuring range < 5 cP [g/min]	Oval rotor material	Bearing material	Seal material	Item no.
1/2" (15)	1/2" NPT	0.5 – 8.0	0.8 – 6.6	PPS	St.St. 316 /1.4401	FKM	443 995 L
1" (25)	1" NPT	1.6 – 32	2.6 – 26	PPS	St.St. 316 /1.4401	FKM	443 996 M
1 1/2" (40)	1 1/2" NPT	2.6 – 66	4.0 – 62	PPS	St.St. 316 /1.4401	FKM	443 997 N
2" (50)	2" NPT	4.0 – 93	8.0 – 79	PPS	St.St. 316 /1.4401	FKM	553 641 E
3" (80)	3" NPT	5.0 – 194	17 – 163	Aluminium	St.St. 316 /1.4401	FKM	553 643 G

## Ordering chart for fitting S070 (Stainless steel 316 / 1,4401)

Orifice DN [mm]	Process connection	Measuring range > 5 cPo [l/min]	Measuring range < 5 cPo [l/min]	Oval rotor material	Bearing material	Seal material	Item no.
1/2" (15)	1/2" NPT	0.5 – 8.0	0.8 – 6.6	St.St.316 /1.4401	St.St.316 /1.4401	FKM	444 000 F
1" (25)	1" NPT	1.6 – 32	2.6 – 26	St.St.316 /1.4401	St.St.316 /1.4401	FKM	444 001 U
1 1/2" (40)	1 1/2" NPT	2.6 – 66	4.0 – 62	St.St.316 /1.4401	St.St.316 /1.4401	FKM	444 002 V
1" (25)	1" ANSI 150 lb Flange	1.6 – 32	2.6 – 26	St.St.316 /1.4401	St.St.316 /1.4401	FKM	553 633 W
1 1/2" (40)	1 1/2" ANSI 150 lb Flange	2.6 – 66	4.0 – 62	St.St.316 /1.4401	St.St.316 /1.4401	FKM	444 003 W
2" (50)	2" ANSI 150 lb Flange	4.0 – 93	8.0 – 79	St.St.316 /1.4401	St.St.316 /1.4401	FKM	444 004 X

## Ordering chart for accessories

Accessories	Item no.
5-pin M12 female cable connector with plastic threaded locking ring	917 116 D
5-pin M12 female connector moulded-on cable (2 m, shielded)	438 680 F
4-pin M12 male cable connector with plastic threaded locking ring	448 856 D
4-pin M12 male connector moulded-on cable (2 m, shielded)	448 857 E
8-pin M12 female cable connector with plastic threaded locking ring	444 799 G
8-pin M12 female connector moulded-on cable (2 m)	444 800 E
2-pin M12 female coupler module for ribbon cable (AS-Interface version only)	440 653 M