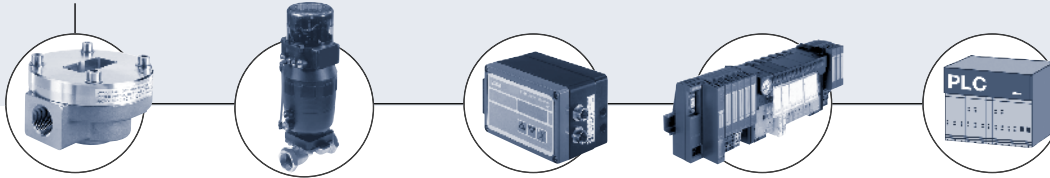


- Large graphical display
- Indication, monitoring, transmitting and On/Off control in one device
- Complete communication due to external setpoint, process value or AS-interface
- Medium with high viscosity

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.

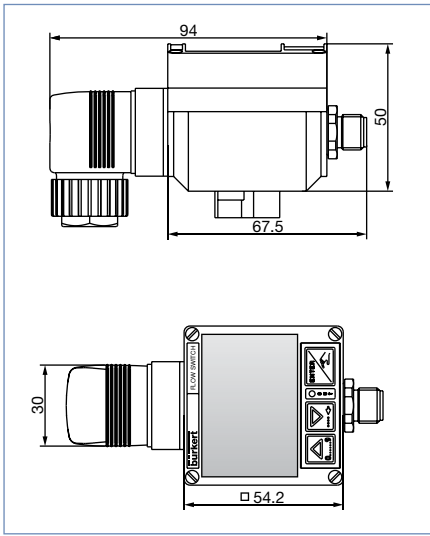
Technical data

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

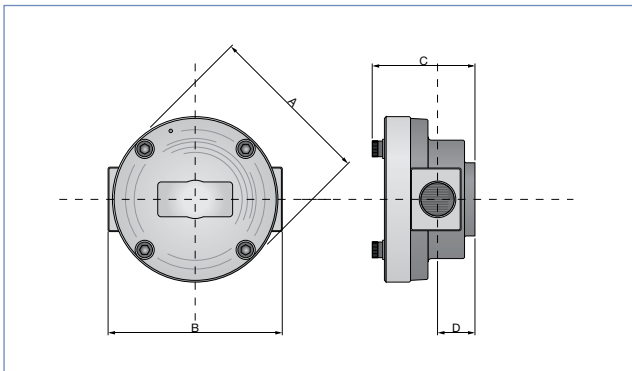
Other materials	Electronics housing Front plate foil	PC +20% glass-fibre Polyester
Sensor element		Oval rotor of fitting type S070
Operating voltage		12 to 30 V DC, reverse polarity protected
Outputs	Transistor (programmable) Relay (programmable) Process value (option)	NPN/PNP, open collector, 5 to 30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

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

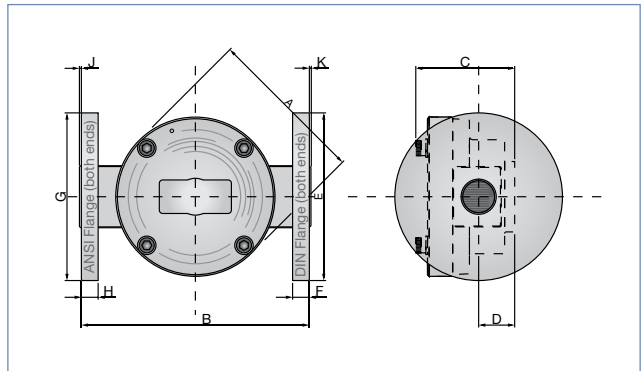
Dimensions [mm]



Dimensions [mm] fitting S070, internal thread



Dimensions [mm] fitting S070, ANSI flanges



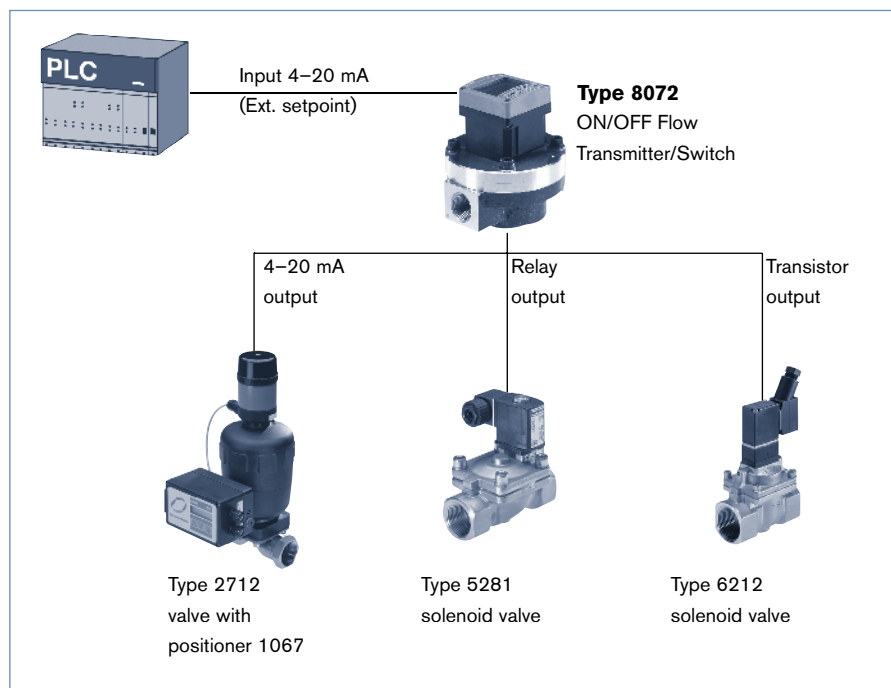
Variable dimensions (internal thread fitting)

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. *
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 ¹⁾	Relay	5-pin circular connector M12 and conduit/cable plug type 2508 DIN 43650
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 ¹⁾	4–20 mA ²⁾ + Relay	8-pin circular connector M12 and conduit/cable plug type 2508 DIN 43650	US08566

¹⁾External setpoint ²⁾Process value *Plugs included in part number

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