

# SA3010



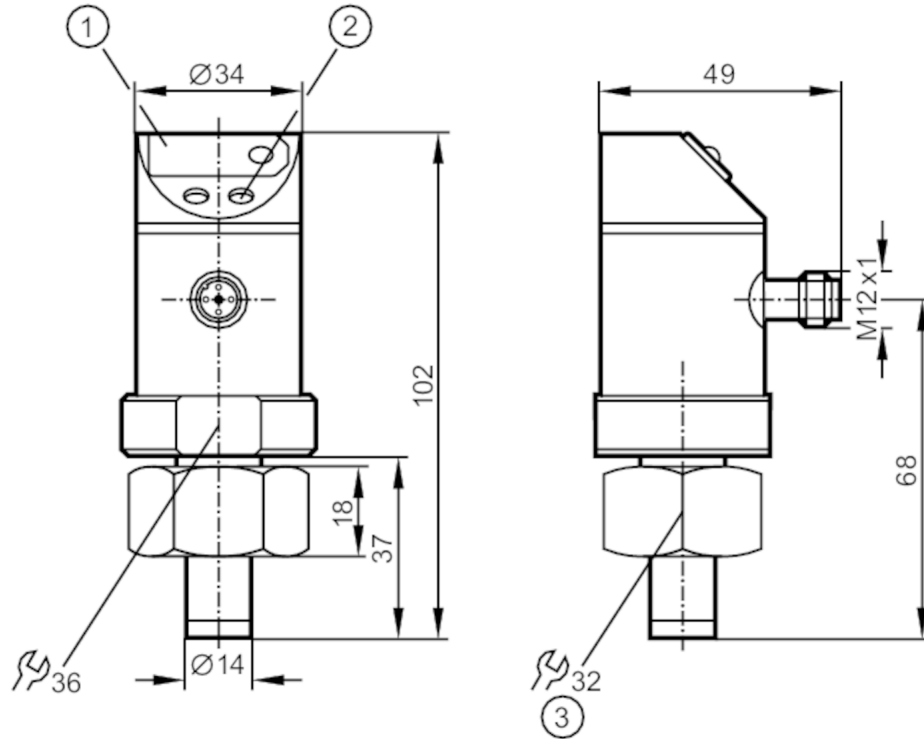
## Flow monitor

SAD18BBDFRKG/W/US-100-IPF

phase-out article

Alternative articles: SA5010

When selecting an alternative article and accessories please note that technical data may differ!



- 1 7-segment LED display
- 2 programming buttons
- 3 internal thread M26 x 1.5



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
Measuring range [l/min]	0...10
Process connection	threaded connection M26 x 1,5 internal thread

### Application

Special feature	Gold-plated contacts
Installation	T-pieces; ((DIN 2353): QL 18-18-18 (NW 15 mm) / QL 22-18-22 (NW 19 mm) / QL 28-18-28 (NW 24 mm))
Media	water
Medium temperature [°C]	0...80
Pressure rating	30 bar   3 MPa

### Electrical data

Operating voltage [V]	20...28 DC
Current consumption [mA]	< 80
Protection class	III



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Reverse polarity protection	yes
Power-on delay time [s]	10
Measuring principle	calorimetric

## Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
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## Outputs

Total number of outputs	2
Output signal	switching signal; analogue signal; (configurable)
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC [V]	2
Permanent current rating of switching output DC [mA]	250; (per output)
Number of analogue outputs	1
Analogue current output [mA]	4...20; (scalable)
Max. load [Ω]	500
Analogue voltage output [V]	0...10; (scalable)
Min. load resistance [Ω]	2000
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

## Measuring/setting range

Measuring range [l/min]	0...10
Display range [l/min]	0...12
Set point SP [l/min]	0.1...12
Reset point rP [l/min]	0...11.9
Analogue start point ASP [l/min]	0...8
Analogue end point AEP [l/min]	4...12
In steps of [l/min]	0.1

## Accuracy / deviations

Flow monitoring	
Repeatability [% of the measured value]	3 (Q < 30%) / 7 (Q < 100%)
Temperature gradient [K/min]	200
Accuracy (in the measuring range)	± 10

## Response times

Flow monitoring	
Response time [s]	5; (10%...90%)
Delay time programmable dS, dr	0...50

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### Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; current/voltage output; inside pipe diameter; start-up delay; adaptation of displayed values; display can be rotated and switched off; Display unit
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### Operating conditions

Ambient temperature	[°C]	-20...60
Protection		IP 67

### Tests / approvals

EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
MTTF	[years]	184

### Mechanical data

Weight	[g]	330.5
Housing		cylindrical
Dimensions	[mm]	Ø 34 / L = 102
Materials		stainless steel (316L/1.4404); PBT; PC; PA; EPDM/X; FKM
Materials (wetted parts)		stainless steel (316L/1.4404); O-ring: FKM 70 Shore A
Process connection		threaded connection M26 x 1,5 internal thread
Probe diameter	[mm]	14

### Displays / operating elements

Display	switching status	2 x LED, red
	measured values	7-segment LED display
	programming	7-segment LED display
Display unit		l/min; gpm; l/h; gph; m³/h

### Remarks

Remarks	NW = nominal diameter
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



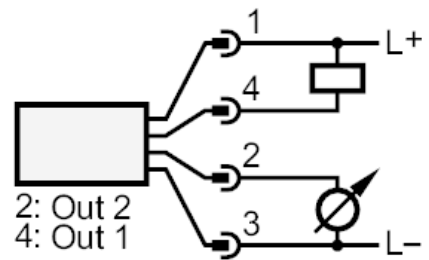
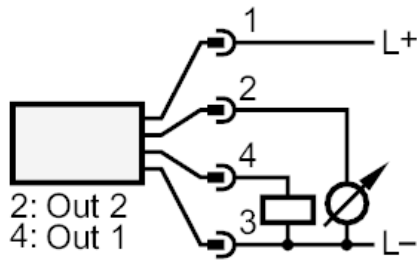
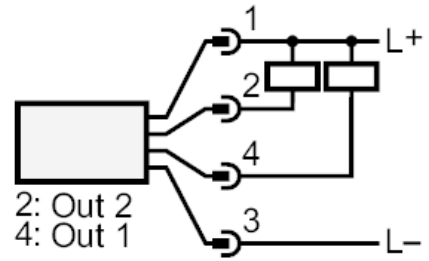
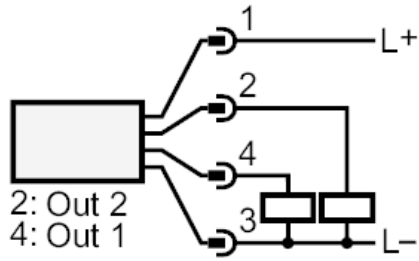
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### Connection



OUT1: switching output  
OUT2: switching output  
analogue output