

## Description

Single point flow monitors with change over MIN/MAX monitoring function, suitable for water, oil, air, and media with similar thermal conductivities (selectable by means of a medium switch). With either no delay, or with a 60 s switch-on delay or 10 s change over delay.

## Features

- Adjustable to wide range of flow rates
- No moving parts in the flow stream
- Operation largely independent of pipe diameter
- LED status indication
- Fast response time
- MIN or MAX switch point
- Suitable for all media (water, oil, and air)
- Medium temperature range: SW118: -25...+70°C; SW119: -25...+100°C



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## Technical data

General data		SW 118 Single Point Flow Monitor in a compact housing	SW 119 Single Point Flow Monitor for surface mounting
Media		liquids, gases	liquids, gases
Monitoring function	flow rate	1 switch point (MIN or MAX)	1 switch point (MIN or MAX)
	wire break/circuit failure		standard
Display	flow rate	1 dual color LED	1 dual color LED
Temperature range	medium and monitoring head	-25 °C...+70 °C/-13 °F...+158 °F	-25 °C...+100 °C/-13 °F...+212 °F
	electronic control unit	-25 °C...+50 °C/-13 °F...+122 °F	-25 °C...+50 °C /-13 °F...+122 °F
Electrical data			
Input voltage		AC 230/115/24 V 50/60 Hz +10 %, -15 % DC 24 V ±10 %	AC 230/115/24 V 50/60 Hz +10 %, -15 % DC 24 V ±10 %
Power consumption		approx. 1.2 VA	approx. 1.2 VA
Relay outputs	flow rate	1 change over contact	1 change over contact
Max. load		AC 250 V/DC 30 V, 5 A Overvoltage category II	AC 250 V/DC 30 V, 5 A Overvoltage category II
Flow monitoring			
Flow response level adjustment  (steplessly by means of a potentiometer)		with gases: 0.5 m/s...50 m/s 1.64 FPS...164 FPS with liquids: 0.01 m/s...2 m/s 0.3 FPS...6.56 FPS	with gases: 0.5 m/s...50 m/s 1.64 FPS...164FPS with liquids: 0.01 m/s...2 m/s 0.3 FPS...6.56 FPS
Repeatability <sup>(1)</sup>		± 3 %	± 3 %
Response delay <sup>(2)</sup>		2 s with water, 4 s with oil, 7 s with air	
Switch point drift through temperature change of the medium		approx. ± 0.7 %/°C	
Mechanical data			
Type and size of monitoring head		G1/2A 1/2"NPT	G1/2A, 1/2"NPT
Pressure resistance of monitoring head <sup>(3)</sup>		100 bar / 1470 PSI	
Degree of protection	monitoring head	IP67	IP67 (connector)
	electronic control unit	IP65	IP65
Materials	fitting	stainless steel 1.4571/V4A/AISI 316Ti	stainless steel 1.4571/V4A/AISI 316Ti
	sensor	stainless steel 1.4571/V4A/AISI 316Ti	stainless steel 1.4571/V4A/AISI 316Ti
	seals	lasered	lasered
	electronic control unit	polycarbonate	polycarbonate
Housing dimensions	electronic control unit	80.5 x 82.5 x 68.5 mm	120 x 80 68 mm
Cable length to monitoring head	standard	-	2 m (6x0.14 mm <sup>2</sup> )
	max. length	-	100 m

<sup>(1)</sup> of the set value, at constant temperature and flow conditions, and stable thermal conductivity.

<sup>(2)</sup> Delay with the switch point set to 1 m/s and the flow at 2 m/s, after a sudden complete stop.

<sup>(3)</sup> Admissible operating pressure to DIN 2401, measured at the max. admissible temperature (= max. medium temperature)

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## Ordering information SW 118

Single Point Flow Monitor	
SW 118	in a compact housing, with integral monitoring head
Input voltage	
AC 230 V 50/60 Hz (standard)	
AC 115 V 50/60 Hz	
AC/DC24 V (AC: 50/60 Hz)	
Process connection	
MK G1/2A (standard)	
MK 1/2"NPT	
Monitoring head material	
ST11 only NPT thread	
ST12 only G1/2A (standard)	

SW 118 - AC230V - MKG1/2A - ST12 ordering example

## Ordering information SW 119

### Electronic Control Unit

Single Point Flow Monitor	
SW 119	for surface mounting, with separate monitoring head
Input voltage	
AC 230 V 50/60 Hz (standard)	
AC 115 V 50/60 Hz	
AC/DC24 V (AC: 50/60 Hz)	

SW 119 - AC230V ordering example

### Monitoring Head

Fitting size	
MK G1/2A (standard)	
MK 1/2"NPT	
Material	
ST11 only NPT thread	
ST12 only G1/2A (standard)	

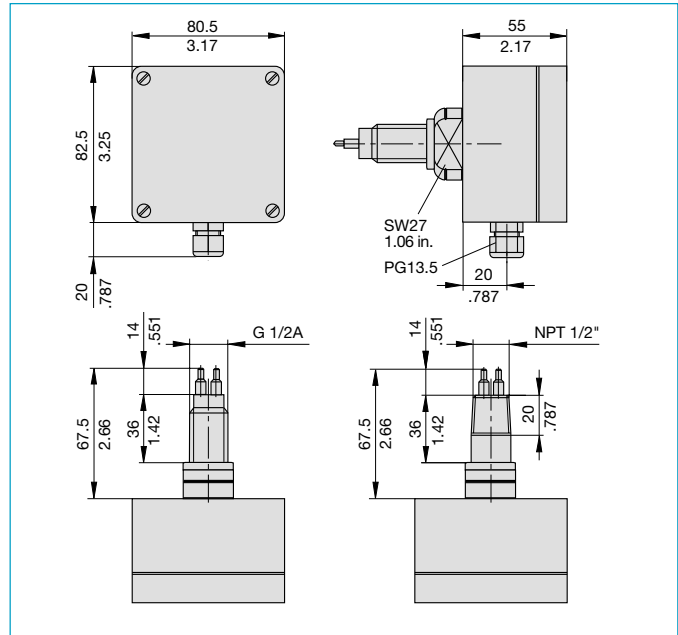
MK G1/2A - ST12 ordering example

## SW 119 - Cable and cable connector

Cable and plug between monitoring head and control unit	
Do + Ka type 2	7pole round connector, PVC insulated cable type LiYCY 6x0,14 mm <sup>2</sup> RAL 7032
Available cable lengths	
...m 2 m, 3 m, 5 m, 8 m, 10 m, 15 m, 20 m, 25 m, 30 m, 40 m, 50 m, 60 m, 70 m, 80 m, 90 m and 100 m	

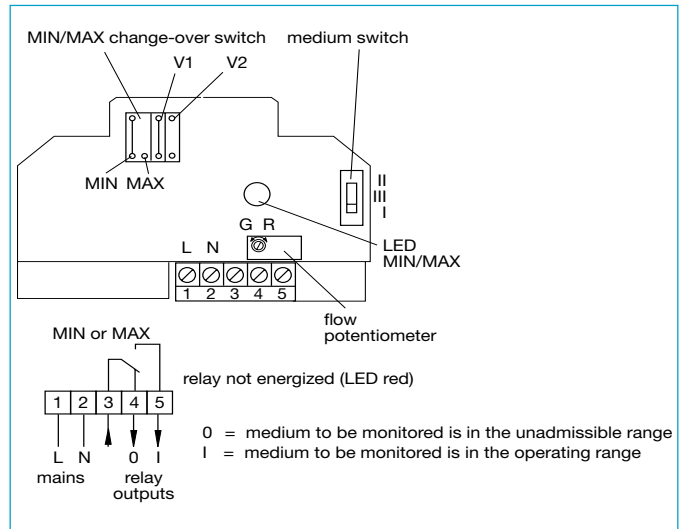
Do + Ka type 2 - 2 m ordering example

## Dimensions SW 118

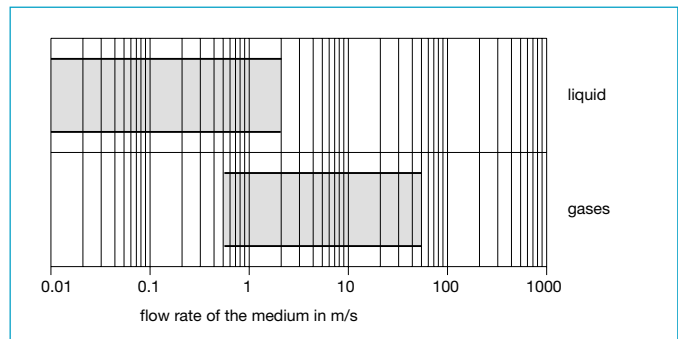


This is a metric design and millimeter dimensions take precedence ( $\frac{\text{mm}}{\text{inch}}$ )

## Connection diagram SW 118

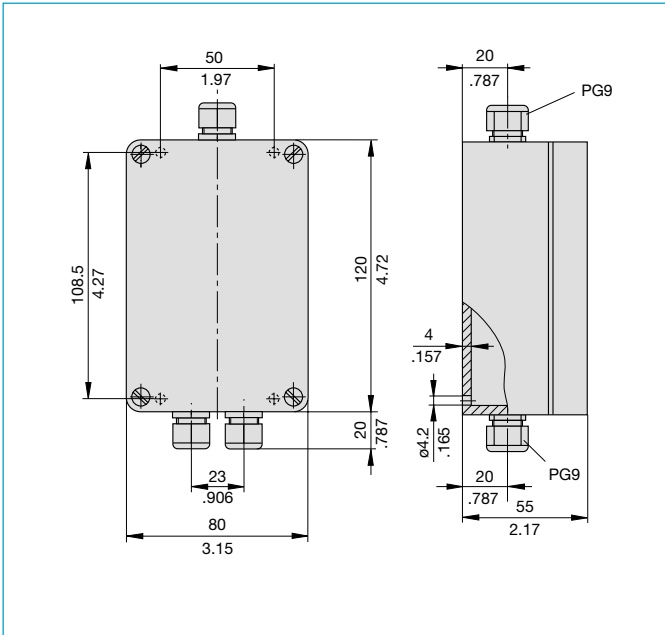


## Flow ranges



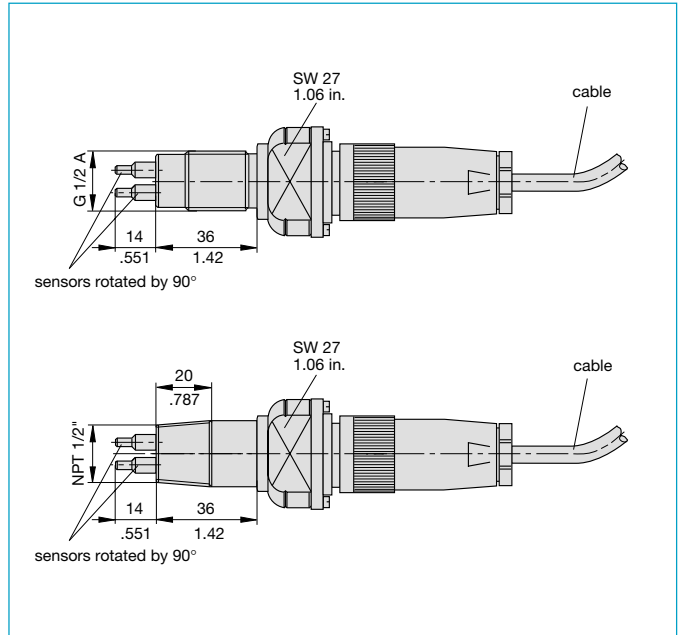
# E-T-A® Single Point Flow Monitors SW 118 / SW 119

## Dimensions Electronic Control Unit SW 119



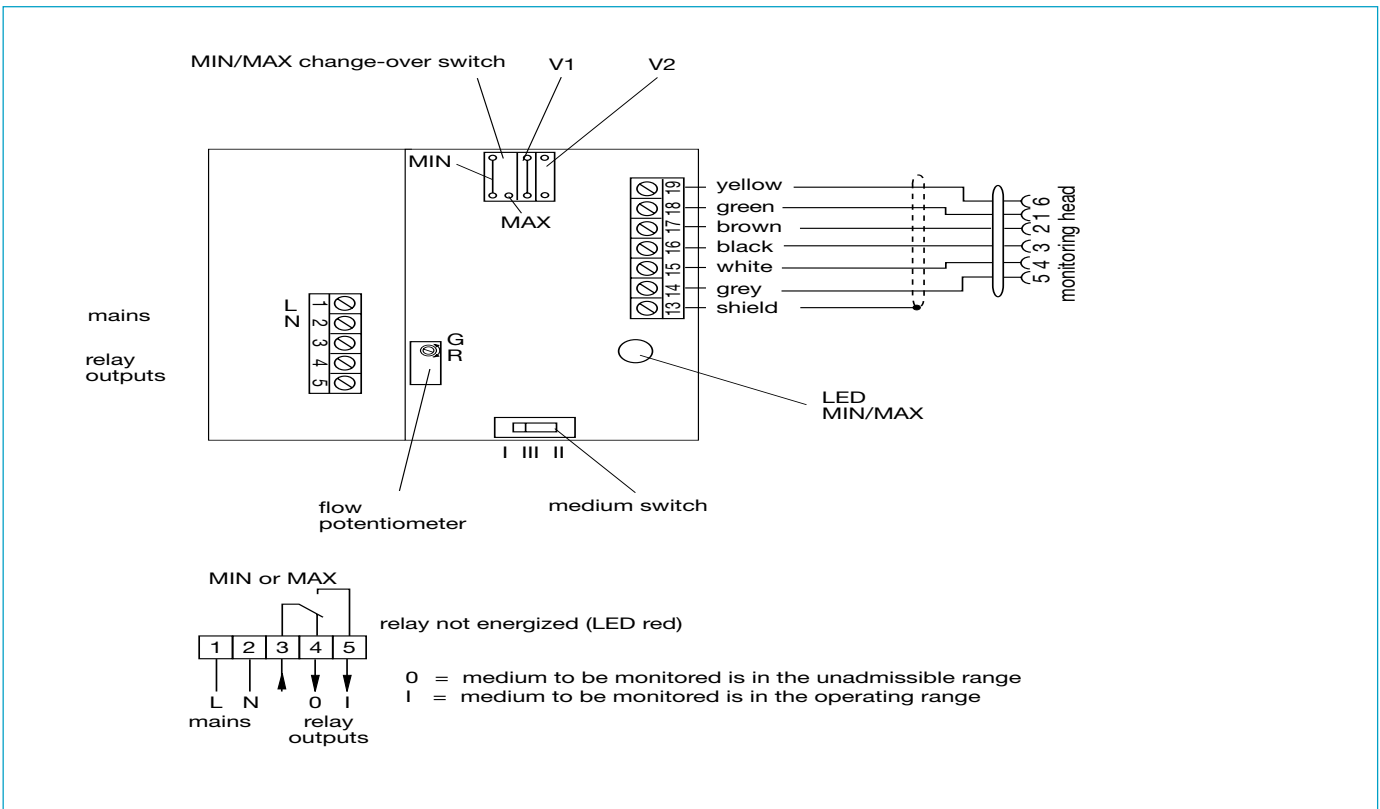
This is a metric design and millimeter dimensions take precedence ( $\frac{\text{mm}}{\text{inch}}$ )

## Dimensions Monitoring Head SW 119



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## Connection diagram SW 119



All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.