SCHUH TECHNOLOGY®
Accuracy, Warranty and Quality

ORDER CODE: FS103 (Flow Switch)

FS103 is a thermal flow switch, with 1 x SPDT or PNP or NPN output option and can be used:
To monitor the flow rate of the fluid in the pipeline
To use as a safety function such as cut in or cut off a system with low flow rate
Pump control system
Special feature: Small & compact plus easy installation
All Stainless steel construction with no moving part
Continuous monitoring, with LED bar graph for indication of switch point and flow
Low pressure losses.

APPLICATION

Automation & control system
Liquid transfer system
Boiler flow control
Fan or Blower system
Pump & compressor
Hydraulic and pneumatic control

SPECIFICATION

ELECTRICAL CONNECTION: **3**=M12, 5 pin plug connector (Female)
MEASURE RANEG: 1..150 cm/s (Water), 3..300 cm/s (oil), 0..400 cm/s (Gas)
ADJUSTMENT OF THE SET POINT: Potentiometer with flat screwdriver
DISPLAY: 6 LED light with 3 colour, Red, Yellow and Green
OUTPUT: **R**=Relay, **N**=NPN, **P**=PNP
PROCESS CONNECTION: **G2**=½"BSP or **N2**=½"NPT
POWER SUPPLY: **S**=24 ±20% VDC
INITIALIZATION TIME: Typical values 8sec (2..15sec)
RESPONSE TIME: Typical values 2 sec (1..15sec)
TEMPERATURE GRADIENT: Maximum 250°C/min ;
PRESSURE RATING: withstand to maximum 100 Bar
ALARM LOAD CAPACITY: 220Vac 3A (Relay), DC max. 90 mA (PNP or NPN)
WETTED PART: SS316 Sensor probe Ø8mm by
15=L length: 15mm, **18**=18mm, **40**=40mm, **60**=60mm
CASE: SS304
IP PROTECTION: IP67
OPERATING TEMPERATURE: -20..80°C
AMBIENT TEMPERATURE: -10..70°C
AJUSTMENT OF THE SET POINT: Potentiometer with flat screwdriver
STORAGE TEMPERATURE: -20..85°C
WEIGH: 0.5 Kg

Order Code: Model-Electrical Conn-Output-Connection-Power Supply-Probe length

E.g.: FS103-R-G2-S-60

Thermal Flow switch, M12 cable type, SPDT O/P, ½"BSP, I/P 24Vdc, Sensor probe length 60mm

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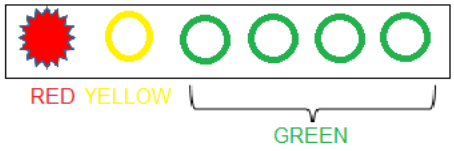
Operating principle flow monitoring

The FS103 detects the flow speed to the calorimetric measuring principle and switches the output as follow:

（1） Medium flow / reduce the flow rate
（2） Medium presence / absence
（3） Medium flow / low or no flow

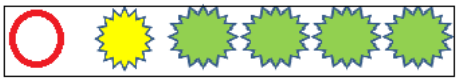
Operating display

6 different colours of lights to display the alarm status and the trend of flow rate.
The 6 indicator is defined as follows:



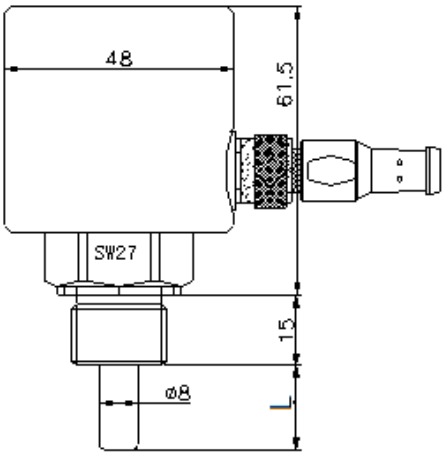
(1) The red indicator light on indicate normal operation and has not reached set point

(2) The yellow indicator light up means flow set point is meet / exceed and relay activated



(3) The 4 green indicators are used to indicating the speed of flow rate.
The more the number of green light up show the flow is higher.
Continuously, the running light from left to right is fast represent flow moving up and if slower running light it result in slower flow.

Dimension in mm



L Length			
15mm	18mm	40mm	60mm

Wiring