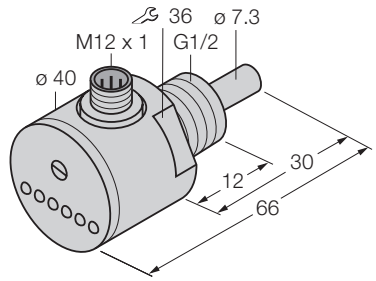
Flow control
insertion style sensor with integrated processor
FCS-G1/2A4-AP8X-H1141



- **flow control and processor incorporated in a single compact housing**
- **simple adjustment via potentiometer**
- **LED-chain for flow status indications**
- **stainless steel sensor housing, A4 (1.4571 / AISI316TI)**
- **pressure resistance: 100 bar**
- **temperature range: -20...+80 °C**
- **customer-specific versions on request: special lengths, threads, materials and functions**

Type	FCS-G1/2A4-AP8X-H1141
Ident-No.	6870004
Mounting mode	Insertion-style-sensor
Operating range water	1... 150cm/s
Operating range oil	3... 300 cm/s
Availability	typ. 8 s (2...15 s)
Switch-on time	typ. 2 s (1...15 s)
Switch-off time	typ. 2 s (1...15 s)
Response time to change in temperature	max. 12 s
Temperature gradient	≤ 250 K/min
Medium temperature	-20... 80 °C
Rated operational voltage (DC) U_B	19... 28 VDC
Current consumption	≤ 80 mA
Output function	normally open, PNP
Short-circuit protection	yes
Reverse polarity protection	yes
Max. voltage drop at I_e	≤ 1,5 V
Switching current	0,4 A
Degree of protection	IP67
Housing material	metal, A4 1.4571 (AISI 316Ti)
Sensor material	Stainless steel, A4 (1.4571)
Max. fixing torque of coupling nut	max. 100 Nm
Wiring	connector, M12 x 1
Pressure resistance	100 bar
Mechanical connection	G1/2
Indication 'below setpoint'	LED red
Indication 'at setpoint'	LED yellow
Indication 'above setpoint'	4 x LED green

Wiring diagram



Function principles

Calorimetric flow controls monitor the flow rate of gaseous and liquid media, irrespective of the viscosity and electric conductivity of the medium. Calorimetric operation is based on the heat transport/heat loss principle, i.e., when fluid moves over the heated sensing probe, heat is conducted away from the sensor. The rate of heat loss is a measure of the flow speed.

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