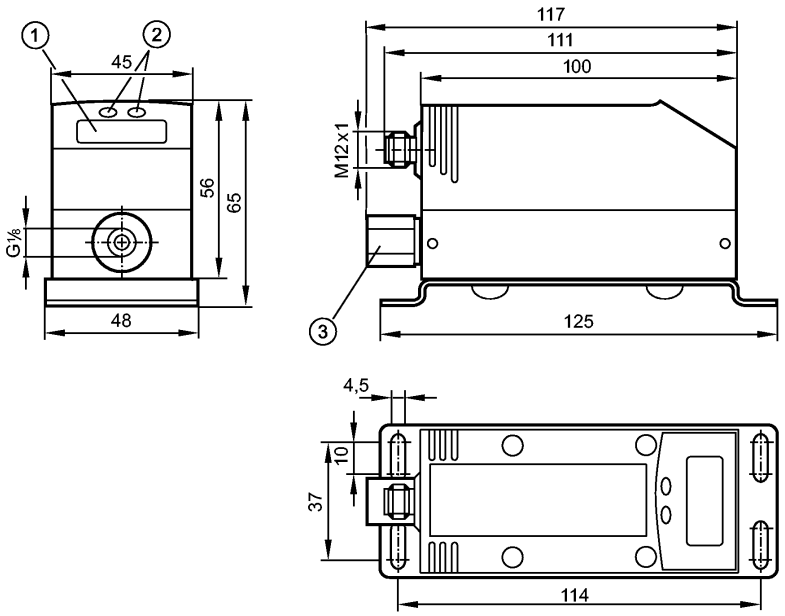
SQ0500

SQR18DXBFPKG/US-100

Flow sensors



1: 4-digit alphanumeric display
2: Programming buttons
3: flow conditioner

Product characteristics		
Flow meter		
Quick disconnect		
Process connection: G ⅛		
Function programmable		
2 outputs OUT1 = flow monitoring (binary), flow rate meter (pulse), preset meter (binary) OUT2 = flow monitoring or temperature monitoring (analog or binary)		
Monitoring range		
0...240 ml/min		
Measuring range		
1...200 ml/min		
0...60 °C		
Application		
Application		Water, water-based media
Pressure rating	[bar]	10
Medium temperature	[°C]	0...60
Electrical data		
Electrical design		DC PNP
Operating voltage	[V]	19...30 DC [1])
Current consumption	[mA]	< 110
Protection class		III
Reverse polarity protection		yes
Outputs		
Output function		OUT1: normally open / closed programmable or pulse OUT2: normally open / closed programmable or analog (4...20 mA scaleable)

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Current rating	[mA]	2 x 250
Voltage drop	[V]	< 2
Short-circuit protection		yes (non-latching)
Short-circuit proof		yes
Overload protection		yes
Analog output		4...20 mA
Max. load	[Ω]	< 500
Pulse output		consumed quantity meter
Measuring / setting range		
Flow monitoring		
Measuring range	[ml/min]	1...200
Display range	[ml/min]	0...240
Set point, SP	[ml/min]	6...200
Reset point, rP	[ml/min]	1...195
Analog start point, ASP	[ml/min]	0...150
Analog end point, AEP	[ml/min]	50...200
in steps of	[ml/min]	1
Measuring dynamics		1:200
Volumetric flow quantity monitoring		
Pulse value		0.1...2000000000 ml
in steps of		0.1...1000000 ml
Pulse length	[s]	0.0125...2
Temperature monitoring		
Measuring range	[°C]	0.0...60.0
Display range	[°C]	0.0...72.0
Set point, SP	[°C]	1.8...60.0
Reset point, rP	[°C]	0.3...58.5
Analog start point, ASP	[°C]	0.0...45.0
Analog end point, AEP	[°C]	15.0...60.0
in steps of	[°C]	0.1
Accuracy / deviations		
Flow monitoring		
Accuracy		± (15 % MW + 2 % MEW) ***)
Repeatability		± 3% MW
Reaction times		
Power-on delay time	[s]	5
Flow monitoring		
Response time	[s]	< 0.3 (dAP = 0) *) / 2.5 (dAP = 0) **)
Damping, dAP	[s]	0 - 0.2 - 0.4 - 0.6 - 0.8 - 1...5
Environment		
Ambient temperature	[°C]	0...60
Storage temperature	[°C]	-25...85
Protection		IP 65
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: EN 61000-4-6 HF conducted:	2 kV 10 V
Shock resistance		DIN IEC 68-2-27:	30 g (11 ms)
Vibration resistance		DIN IEC 68-2-6:	5 g (55...2000 Hz)
MTTF	[Years]	231	

Mechanical data

Process connection		G ⅛
Materials (wetted parts)		stainless steel 316L / 1.4404; NBR
Housing materials		stainless steel 316L / 1.4404; PC; PBT-GF 20; POM; FKM
Weight	[kg]	0.458

Displays / operating elements

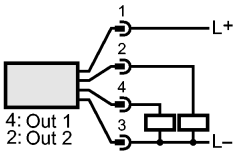
Display	Display unit	3 x LED green (ml/min, ml, °C)
	Function display	2 x LED yellow
	Switching status	2 x LED yellow
	Measured values	4-digit alphanumeric display
	Programming	4-digit alphanumeric display

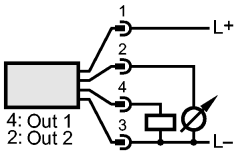
Electrical connection

Connection	M12 connector

Wiring

Programming of the output function
----------OUT1----------
- Switching output
Hno = hysteresis / normally open
Hnc = hysteresis / normally closed
Fno = window function / normally open
Fnc = window function / normally closed
- ImP = pulse output for flow rate meter / signal output for preset meter
----------OUT2----------
- Switching output
Hno = hysteresis / normally open
Hnc = hysteresis / normally closed
Fno = window function / normally open
Fnc = window function / normally closed
- Analog output
I = current output (4...20 mA)





Remarks

Remarks	MW = measured value MEW = final value of the measuring range [1]) to EN50178, SELV, PELV *) for rising flow **) for falling flow ***) The values apply for the following conditions: - application: water - medium temperature: 20 °C - operating temperature: 22...28 °C - Unit with mounted flow conditioner

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		Pressure drop without flow conditioner: max. 5 mbar. Pressure drop with flow conditioner: max. 23 mbar.
Pack quantity	[piece]	1