

3.4 Exchangeability

Every SLQ-HC60 is calibrated for IPA. This makes the sensors also exchangeable for use with other media, meaning that once the sensors are characterized for a particular medium the same values can be used for further sensors. Depending on the media, variations between sensors of 6– 20% are typical.

4 Cleaning

Due to the measurement principle the sensor is sensitive to deposits on the inside of the sensor’s capillary. Especially when changing from one liquid to another sufficient cleaning steps have to be performed to avoid non-soluble remainders on the capillary wall. Inadequate cleaning can lead to an offset and low repeatability. The cleaning procedure has to efficiently remove contaminations from the borosilicate glass surfaces. This is the material which is used for the straight flow channel inside the flow meter.

Any form of mechanical cleaning has to be avoided. This will easily damage the internal capillary.

5 Electrical and Mechanical Specifications

5.1 Electrical Specifications

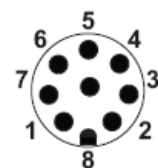
Table 2: DC Characteristics.

Parameter	Conditions	Min.	Typ.	Max.	Units
Power Supply DC, VDD		16	24	26	V
Operating Current	V _{DD} = 24 V ----, no load		3	4	mA
Analog Out Voltage Range		0		10	V
Load at Analog Out		10		∞	kΩ
Capacitive Load at Analog out				Tbd	pF

5.2 Electrical Connector and Pinout

Connector Type: Lumberg Pico (M8) male, 8-pole, threaded lock.

Pin	Function	Connect to	Color (pigtail cable)
1	Power Supply 24V	(+) of Power Supply	white
2		Do not use. ^a	brown
3			green
4			yellow
5			grey
6	Analog Out 0-10 V	(+) of Signal Acquisition	pink
7	GND	Connect to ground/(-) of Power Supply and Signal Acquisition	blue
8	GND		red



Note: Pins 7 and 8 have to be connected to ground of the Power Supply and the Signal Acquisition. Pins 2-5 are used in the calibration procedure, they have no functionality in normal use. Pins 2-5 cannot be used “as” the ground; they are not connected with Pins 7 and 8 inside the sensor.

5.3 Fluidic Connections

The repeatability of the measurement depends on a laminar flow of the liquid. Especially with low viscosity media improper connections to the sensor can unnecessarily reduce the maximum flow rate. Tubing with an inner diameter of less than 1.8 mm should be avoided. Make sure that the tubing has been cut properly.

^a Or connect to common ground with Pin 7 and 8. Never connect to (+) of Power Supply!

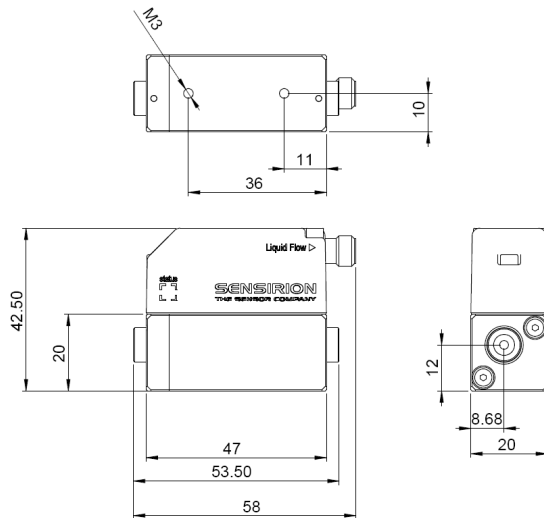
5.4 Mechanical Specifications and Pressure Rating

Table 3: Mechanical Specifications and Pressure Rating

Parameter	SLQ-HC60
Fluid Connector Standard (Fittings)	¼-28 flat bottom port for 1/8", 3mm OD tubing
Wetted Materials:	
• Internal Sensor Capillary Material	Duran® (borosilicate glass 3.3)
• Fitting Material	100% PEEK™ (polyetheretherketone)
• Additional Sealing Material	Tefzel® (ETFE)
Overpressure Resistance	3 bar 45 psi
Maximum Pressure Drop (at 80 ml/min flow rate for IPA)	40 mbar
Internal Sensor Capillary, Inner Diameter	1.8 mm
Protection Class	IP 65
Total Mass	53 g

Attention	
<p>Mechanical shocks and connecting to the fittings with excessive force can lead to stress on the internal thin walled glass capillary and can cause it to break. Test for leakage after every time new connections are made. Refer to Handling Instructions for precise information.</p>	<p>!</p>

6 Physical Dimensions



7 Ordering Info

The SLQ-HC60 can be ordered in the Flow Meter Kit at quantities up to 3 units. The Flow Meter Kit contains the sensor, the suitable connecting cable, a set of compression fittings for 1/8" OD tubing and a set of various barb connectors for easy setup for testing.

When ordering the SLQ-HC60 alone without the Flow Meter Kit it comes only with the cables but without fitting material.

Product	Article Number
Flow Meter Kit SLQ-HC60	1-100870-01
SLQ-HC60	1-100605-01