OCTOGON

MANUAL

QSKG

PISTON FLOW SWITCH WITH A POINTER SCALE

Installation and user manual



Document	Version	Date	Applies to
Installation and user manual	V00x	11/2026	QSKG, all sizes and setting ranges

This manual describes the QSKG mechanical piston flow switch for liquids: safety, working principle, technical data, sizes and ranges, dimensions, electrical connection, installation and adjustment of the switching point.

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1 About this manual

Read this manual before installing the switch and keep it available for later use. Values and order codes refer to the QSKG order code (section 3.5).

1.1 Versions covered

Feature	Versions
Process connection	G1/4 · G3/8 · G1/2 · G3/4 · G1 female thread
Supply	24 V DC ± 20 % or 230 V AC ± 15 %
Body	stainless steel
Setting range	0.8 ... 5 · 2 ... 12 · 5 ... 40 · 6 ... 60 L/min (order field 5)
Electrical connection	Hirschmann plug

2 Safety

2.1 Before installation

Check the flow switch carefully before installation: the package must be complete, and the switch must be free from damage and deformation. If you have any questions, contact your supplier.

2.2 Wiring

Warning To avoid electric shock and damage to the equipment, cut off the power supply when wiring or adjusting. When connecting the cables, do not adjust any screws other than the wiring terminals and the earth screws of the microswitch.

Warning Do not connect the two switch leads directly to the positive and negative terminals of the power supply. Otherwise the switch is short-circuited.

3 Product description

3.1 Working principle

The QSKG contains a magnetic piston supported by a precision spring. The flow pushes the piston against the spring, and the magnet operates an external microswitch or reed tube. The optional pointer head shows the instantaneous flow. The

mechanical and the electrical part are completely isolated - the switch never touches the medium. The all-metal internal structure gives high reliability, repeatability and pressure resistance; the switch has temperature and pressure compensation and a large contact capacity.

Applications: hydraulics, lubrication and circulating systems.

3.2 Technical data

Item	Value
Measuring principle	mechanical - a magnetic piston on a precision spring; the magnet operates a microswitch or a reed outside the wetted part
Medium	liquid
Setting range	0.8 ... 5, 2 ... 12, 3 ... 30, 5 ... 40 and 6 ... 60 L/min, by size (section 3.3)
Repeatability	≤ ± 3 % of range
Indication	optional pointer head reading the instantaneous flow in L/min on a scale between the marks min and max
Compensation	temperature and pressure
Materials	switch housing stainless steel · spring stainless steel · electronic enclosure PC
Process connection	G1/4, G3/8, G1/2, G3/4 or G1 female thread
Pressure range	200 bar with the stainless body, 100 bar with brass
Ambient temperature	–20 ... +70 °C
Protection grade	IP65
Weight	1.2 ... 1.4 kg, by size
Output	one changeover: normally open and normally closed
Switching element	microswitch or reed tube
Switching capacity	240 V AC / 110 V DC, 1.5 A

3.3 Sizes, ranges and weights

Thread	PN bar	Max. flow L/min	Setting range 1 L/min	Setting range 2 L/min	Weight kg
G1/4	200	10	0.8 ... 5	—	1.4
G3/8	200	20	0.8 ... 5	2 ... 12	1.4
G1/2	200	40	2 ... 12	3 ... 30	1.3
G3/4	200	60	3 ... 30	5 ... 40	1.3
G1	200	80	5 ... 40	6 ... 60	1.2

The values were obtained with the switch installed upright in a horizontal pipe and with water at 20 °C as the medium.

3.4 Ordering notes

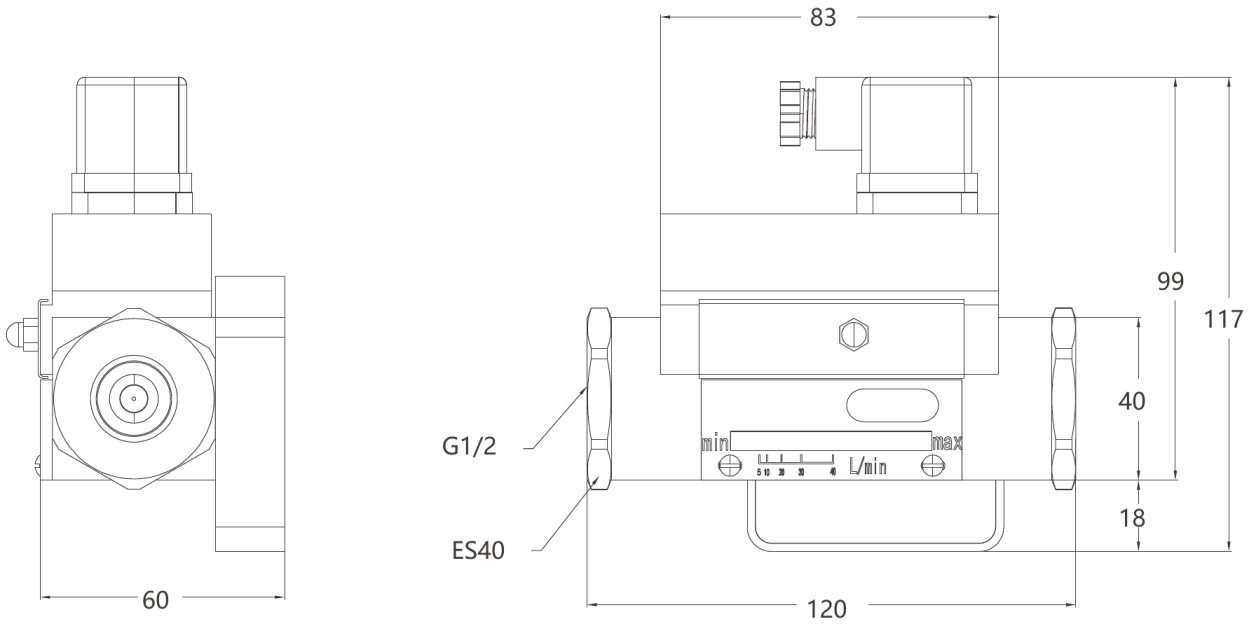
With the order, state the flow direction, the medium, the pipe bore and the wanted setting; the switch can be set before delivery.

3.5 Order code

Field	Code	Meaning
1 Series	QSKG	pointer piston flow switch
2 Connection	G14K · G38K	G1/4 female thread · G3/8 female thread
	G12K · G34K	G1/2 female thread · G3/4 female thread
	G1K	G1 female thread
3 Supply	DC · AC	24 V DC ± 20 % · 230 V AC ± 15 %
4 Body	S	stainless steel
5 Setting range	005 · 012	0.8 ... 5 L/min · 2 ... 12 L/min
	040 · 060	5 ... 40 L/min · 6 ... 60 L/min
6 Connection	M	Hirschmann plug

Example: QSKG-G14K-DC-S-005-M.

4 Dimensions

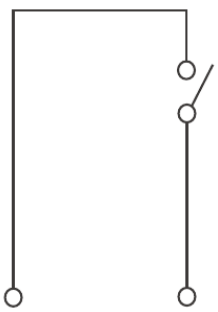


View from the end and from the side, with the optional pointer head fitted. The dimensions are those of the G1/2 size. Dimensions in mm.

Feature	mm	Note
Overall length	120	across both process connections
Height with the plug	117	to the top of the plug
Height of the body	99	without the plug
Width of the plug housing	83	the electrical enclosure
Height of the scale window	40	the pointer head, when fitted
Height of the base	18	below the scale window
Width across the connection	60	seen from the end
Across flats	40	marked ES40 on the drawing
Process thread	G1/2	the size shown in the drawing

5 Electrical connection

Warning Cut off the power supply before wiring (section 2.2).



Switching contact.

– Connect the switching contact in series with the load: supply - switching contact - load - 0 V.

– Never connect the two switch leads directly to the positive and negative terminals of the supply; otherwise the switch is short-circuited.

– Switching capacity: 240 V AC / 110 V DC, 1.5 A.

6 Installation

– The flow switch can be installed in a horizontal pipe or in a vertical pipe with the liquid flowing upwards. It must not be installed in a pipe with the liquid flowing downwards.
– When installed in a vertical pipe, take the effect of gravity into account: the switching point is offset.
– Install the flow switch in a straight pipe with a straight run of at least 5 × the pipe diameter on both sides.
– The flow direction in the pipe must match the direction of the arrow on the switch housing.
– Position the terminal so that it is easy to connect.

7 Adjusting the switching point

1. Connect the mechanical parts of the switch.
2. Connect the circuit according to the wiring diagram (chapter 5).
3. Set the adjustment slider to its maximum value.
4. Adjust the system flow to the alarm point and observe the flow switch.
5. When the flow switch just operates, fix the slider.
6. For small switching points, move the adjustment slider slowly until the flow switch just operates, then fix the slider.
7. Repeat these steps to make the adjustment of the switching point more accurate.