



Position sensors



KQ10 for continuous range monitoring of point levels



Capacitive sensors



Continuous level monitoring from outside the process

No stress caused by the medium thanks to non-contact detection

Three point level positions in one sensor

↻ **Deposits can be detected and signalled to improve quality of the process**

↻ **Several KQ10 units can be linked via IO-Link**



Continuous monitoring of empty and overflow condition

The KQ10 for range monitoring can “see” through all non-metallic walls, to detect granulates or liquids without contact. Therefore, no maintenance is required. Process values of 0...100 % can continuously be transferred via IO-Link over the entire length of 250 mm without dead band. 20 LEDs display the real level inside the vessel directly at the sensor. If several KQ10 units are combined, the detection zone can be increased accordingly.


Three switch points with just one sensor

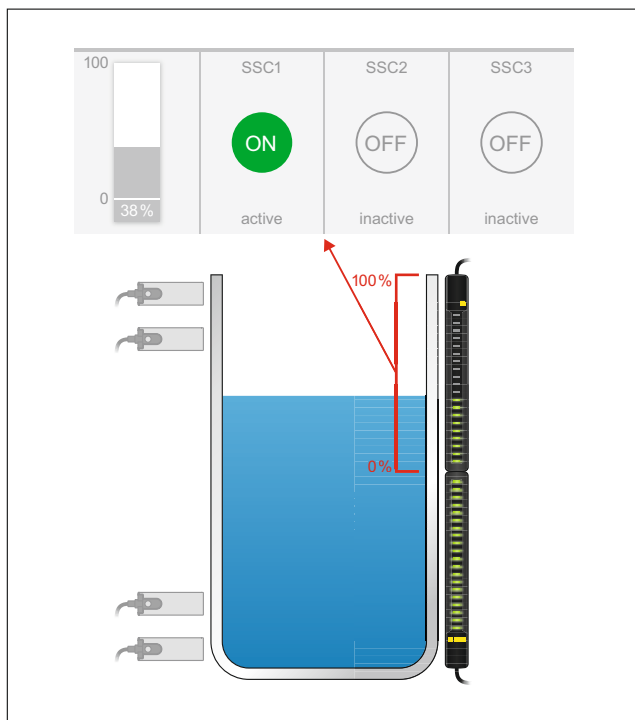
Up to three point levels can be monitored with just one sensor where normally three sensors would be needed – and this at the same time with continuous range monitoring. Switch points and other functions such as NC / NO, hysteresis or orientation and detection zone of the sensor can be set.



Type	U_b [V DC]	I_{load} [mA]	Current consumption [mA]	Ambient temperature [°C]	Protection rating / protection class	Connection	Order no.
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Operating principle capacitive, without contact

	10...30 / 18...30 IO-Link	200	< 50	-20...80	IP 65, IP 67	2 m cable	KQ1000
	10...30 / 18...30 IO-Link	200	< 50	-20...80	IP 65, IP 67	0.1 m cable, M12 connector, 5 pins	KQ1001



Point level and continuous level monitoring

As opposed to the conventional solution with two point level sensors each at the lower (empty) and upper end (overflow) of the tank, one single KQ10 comes with three switch points to indicate empty, full and overflow condition. This reduces the number of sensors and installation complexity. Moreover, it continuously measures levels in ranges of 250 mm and provides these, in addition to the switching states, as a percentage value via IO-Link.

Slight deposits on the inner walls of the tank do not impair the level detection, and they can be signalled via the switching output or IO-Link if the threshold is exceeded. This permanent condition monitoring prevents unplanned production downtime.

We reserve the right to make technical alterations without prior notice. · 09.2019

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Further technical data

Short-circuit protection	•
Protected against reverse polarity	•
Switching frequency [Hz]	1
Switching outputs	3, NO/NC programmable Deposit diagnostics
Switching status indication	LED orange
Operating status indication	LED green
Level indication	LED 20 x green
Type, rectangular [mm]	250 x 28 x 16.7



Accessories

Type	Description	Order no.
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Installation

	Adapter for flat mounting	E12675
	Adapter for pipes	E12676
	Surface mount tape for KQ10	E12677
	Cable tie, PA, 760 mm long, pack quantity 5 pieces	E10880

IO-Link

	USB IO-Link master for parameter setting and analysis of units Supported communication protocols: IO-Link (4.8, 38.4 and 230 Kbits/s)	ZZ1060
	IO-Link master with PROFINET interface	AL1100

Connection technology

	Connection cable, M12, 5-pole, 2 m black, PUR cable	EVC058
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For further technical details, please visit: ifm.com