

Figure 638 4G KHS 'Control-plus' Flow and temperature sensor with fitting connection

Technical properties

Made entirely of gunmetal in areas that contact the medium
Stagnant-zone-free
Vortex flow sensor with Pt1000 , 2-conductor without moving parts
Temperature range: 0 to + 100 °C
Pressure stage (PN) 10 bar
Precision: Values up to 50% of measuring range:
Divergence < 1 % of full-scale reading from 50 % of measuring range:
Divergence < 2 % of measurement value
Power supply 5 VDC
Protection class IP 65
Registration of the flushing volumes in the KHS-Logic System Control
Registration of the flushing volumes in the KHS-Mini System Control suitable for BMS, evaluation with frequency input card 5 VDC and Pt 1000 2-wire input card
Electric sensor connection 5-pin M12x1 plug
Plastic housing with CDW and W270 certification
Suitable for drinking water and water with glycol



638 4G KHS Flow sensor

Product description / Tender text

KEMPER KHS 'Control-plus' flow and temperature and sensor with vortex flow sensor and integrated Pt 1000 sensor, 2-wire for precise determination of volume flows and temperatures, for connection to the KHS Logic System Control or KHS Mini System Control, digital display through optionally available hand-held measuring instrument, made completely of gunmetal, stagnant-zone-free, low-pressure loss sensor housing without moving parts, suitable for BMS connection , sensor is maintenance-free, nominal pressure PN 10,

both sides with outer (male) thread according to DIN 3546, Part 1, for universal connection to fittings for copper, steel, stainless steel and multilayer duplex tubes, from DN 15 (3/4") to DN 25 (1 1/4")

Figure 638 4G 015, DN 15: Vortex measurement range 3.5 - 50 l/min, supply voltage 5 V / DC, Output signals proportional to flow: ca. 19 ... 296 Hz (Square-wave frequency 0/5VDC) proportional to 3.5...50l/min.

Figure 638 4G 020, DN 20: Vortex measurement range 5.0 - 85 l/min, supply voltage 5 V / DC, output signal proportional to flow: ca. 14 ... 229 Hz (Square-wave frequency 0/5VDC) proportional to 5.0...85l/min.

Figure 638 4G 025, DN 25: Vortex measurement range 9.0 - 150 l/min, supply voltage 5 V / DC, output signal proportional to flow: ca. 12 ... 202 Hz (Square-wave frequency 0/5VDC) proportional to 9.0...150 l/min.

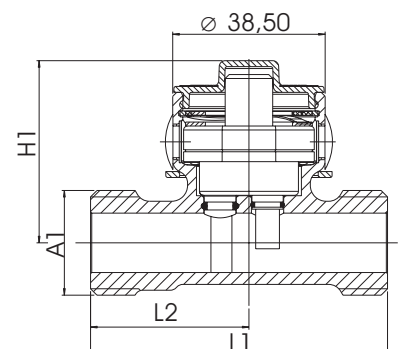
Optionally available accessories

Hand-held measuring instrument for sensors	138 00 002
Sensor measurement module	138 00 011
Cable M12x1 with loose strands for BMS connections	138 00 012
Connection fittings	476
Double threaded union	101 06

- Please see reverse for additional technical information
- Field of application: Determination of the flushing volume in the area of KHS!

Dimensions

Nominal width	DN	15	20	25
Length (L1)	mm	75	86	109
Length (L2)	mm	40	49	70
Overall height (H1)	mm	46	48	50,5
Connection dimension (A1)		G 3/4	G 1	G 1 1/4
Measurement range	l/min	3,5-50	5,0-85	9,0-150
Max. flow rate (kvs)	cbm/h	8	14	19
Pressure loss at 1 m/sec..	mbar	6	7	9
Pressure loss at 2 m/sec..	mbar	25	26	35



Materials

Housing	Gunmetal
Sensor body	PA 40 % GF
Sensor paddle	ETFE
Seals	EPDM
Spring unit and retaining ring	SS
Cover cap	LDPE

Figure 638 4G KHS 'Control-plus'
Flow and temperature sensor with fitting connection

Technical information

- Vertical or horizontal installation feasible
- When installing in horizontal pipelines, it is recommended to mount the sensor head facing up (12 O'clock position).
- The flow sensor should not be used for flow rates lower than those stated in the „measurement range“, „Table“, „Dimensions“. (Measurements below the measurement range are not registered!)
- To guarantee optimal measurement precision, we recommend complying with the following:
Installation inlet side: after valves or moulded parts at least 5 x DN, after pumps at least 30 x DN
Installation outlet side: The connection diameter on the outlet side must not be less than the diameter of the valve
- Application areas: e.g., redevelopment buildings with unknown hydraulic circumstances or new plants where setting the flow according to the basis of calculation is specified
- Media: Drinking water
- The measurements are evaluated with the KHS monitoring systems KHS-Logic or KHS-Mini System Control.
The sensor is permanently wired to the units.
- To evaluate the measurements, KEMPER offers a hand-held measuring instrument for sensors (Figure 138 00 002).
Use this device to record the frequency signals and to digitally display them as flow and temperature measurements.
Up to 4000 measurements can be saved and read out.
- The flow sensor according to Figure 638 4G has been developed to register consumption-flushing volumes with KHS system technology. In this case, place the sensor in the direction of flow before the KHS-VAV-plus cut-off unit (Figure 686 01/05) and the following free drain (Figure 688)
- For KHS drinking water systems with KHS-Venturi dynamic flow distributors, smaller exchange water volumes / flush volumes with DN 15 flush lines are required. For that reason, register a smaller volume rate in connection with KHS-VAV-plus (Figure 696). Use the flow and temperature sensor for this case Figure 138 4G recommended (1.8 - 32 l/min, DN 15).