

COMPACT ELECTROMAGNETIC FLOWMETER DN4 ... DN50



- FARADAY · PEEK MEASURING TUBE · 304 STAINLESS STEEL
- 0.1 L/MIN ... 45 M³/H · 16 BAR · -40 ... +140 °C
- CLAMP, THREAD OR FLANGE CLAMP · 4 ... 20 MA · PULSE · RS485

KEY DATA

Property	Value	Property	Value
Nominal size	DN4 ... DN50	Flow range	0.1 L/min ... 45 m ³ /h, by size
Media	Conductive liquids > 20 μS/cm	Accuracy	≤ ± 0.5 % of range
Reproducibility	≤ ± 0.2 % of range	Pressure resistance	16 bar
Medium temperature	-40 ... +120 °C · +140 °C optional	Ambient temperature	-25 ... +85 °C
Output	Pulse (NPN) · 4 ... 20 mA · RS485	Supply voltage	24 Vdc ± 10 % · ≤ 80 mA

The smallest electromagnetic meter of this series and the only one with a PEEK measuring tube: a compact device for small quantities and hygienic lines, with a clamp, a thread or a flange clamp.



MEASUREMENT

Measuring principle	Faraday's law of induction · $U = K \times B \times V \times D$
Media	Conductive liquids, conductivity above 20 $\mu\text{S}/\text{cm}$
Flow range	0.1 ... 10 L/min at DN4 up to 7 ... 45 m^3/h at DN50 — see the tables
Accuracy	$\leq \pm 0.5\%$ of range · reproducibility $\leq \pm 0.2\%$ of range
Response time	< 100 ms
Nominal size	DN4 ... DN50

MATERIALS AND PROCESS

Measuring tube	PEEK
Electrode	Hastelloy C
Connection and shell	Stainless steel 304
Sealing	Five materials, see the order code
Pressure resistance	16 bar
Medium temperature	-40 ... +120 °C without thermal shock · +140 °C optional
Ambient temperature	-25 ... +85 °C
Connection types	Clamp · G internal thread · G external thread · flange clamp

ELECTRICAL PROPERTIES

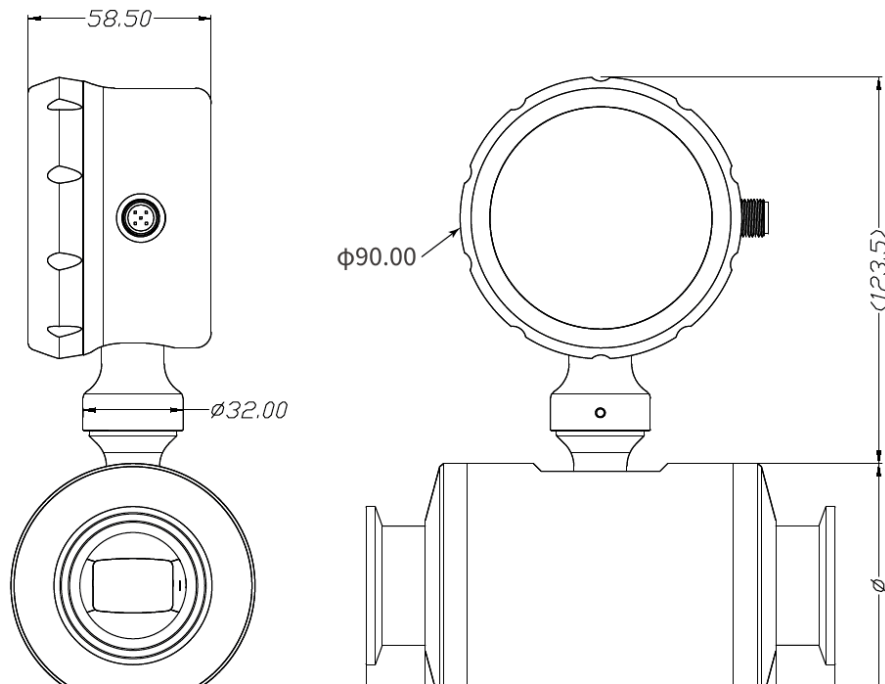
Supply voltage	24 Vdc $\pm 10\%$
Consumption	$\leq 80\text{ mA}$ · reverse-polarity and short-circuit protected
Pulse output	NPN, pull-up resistor 2 k Ω
Analogue output	4 ... 20 mA · current limited to 26 mA · load < 250 Ω
Communication	RS485
Electrical connection	M12 $\times$ 1 connector · eight-pin for pulse/current/RS485, five-pin for RS485 and current

DISPLAY

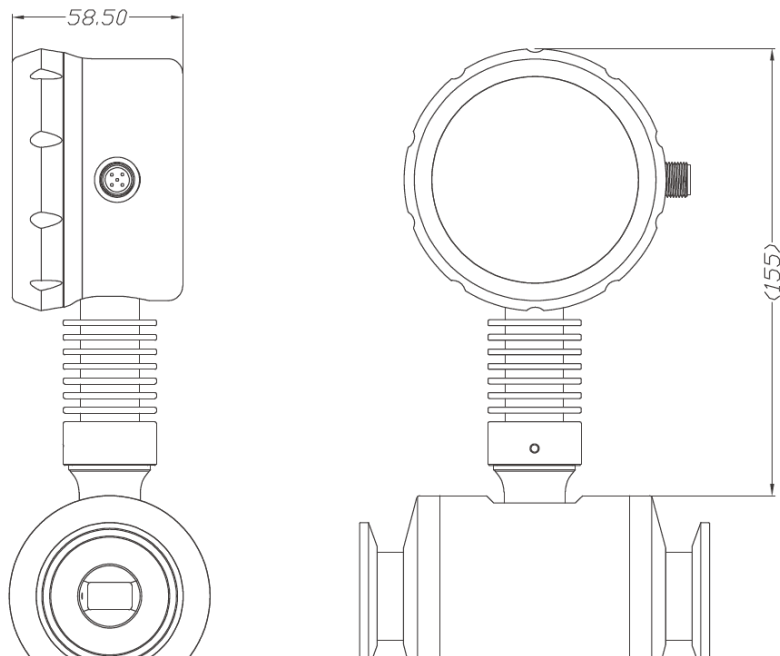
Display	Colour display in the round head
Shown	Instantaneous flow with its unit and the totalized quantity
Keys	Three · M, plus and minus



DRAWINGS (mm)



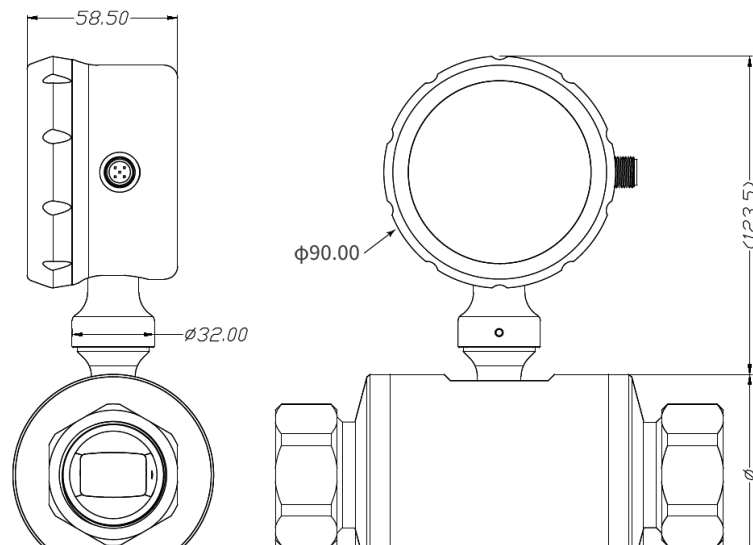
The clamp version. A is the overall length, B the body, Ø the body diameter; the head is Ø 90 mm and the neck Ø 32 mm on every version.



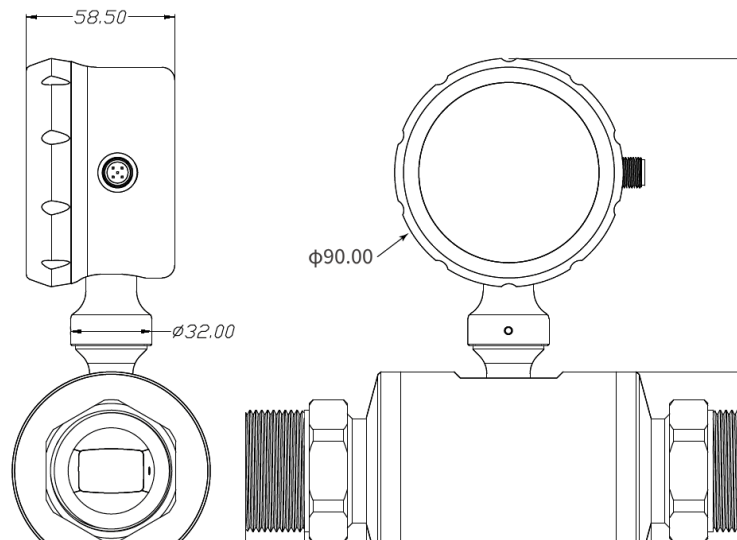
The high-temperature version, recognisable by the finned neck. Overall height 155 mm against 123 mm for the standard version.



DIMENSIONS (mm)



The internal thread version.



The external thread version.

A is the overall length, B the length of the body and Ø the body diameter; on the sizes above DN25 the last column is C, the overall height. The head is Ø 90 mm and the neck Ø 32 mm on every size, and the housing is 58.5 mm deep. The clamp figures 25.4, 50.5, 64 and 77.5 are the outer diameter of the ferrule in millimetres.



CLAMP VERSION (mm)

Model	Clamp	DN	A	B	Ø or C	Range
QMKD-H04	25.4	DN4	90	60	45	0.1 ... 10 L/min
QMKD-H08	25.4	DN8	104	74	60	0.5 ... 25 L/min
QMKD-H12	50.5	DN12	120	90	70	1 ... 60 L/min
QMKD-H15	50.5	DN15	120	90	70	3 ... 100 L/min
QMKD-H25	50.5	DN25	150	112	78	4 ... 200 L/min
QMKD-H32	50.5	DN32	200	150	220	20 ... 300 L/min
QMKD-H40	64	DN40	200	150	250	4 ... 30 m³/h
QMKD-H50	77.5	DN50	200	150	300	7 ... 45 m³/h

INTERNAL THREAD VERSION (mm)

Model	Thread	DN	A	B	Ø or C	Thread L	Range
QMKD-GK04	G1/4"	DN4	90	60	45	13	0.1 ... 10 L/min
QMKD-GK08	G1/2"	DN8	122	74	60	13	0.5 ... 25 L/min
QMKD-GK12	G3/4"	DN12	142	90	70	15	1 ... 60 L/min
QMKD-GK15	G3/4"	DN15	142	90	70	15	3 ... 100 L/min
QMKD-GK25	G1-1/4"	DN25	174	112	78	20	4 ... 200 L/min
QMKD-GK32	1-1/2"	DN32	210	150	220	—	20 ... 300 L/min
QMKD-GK40	G2"	DN40	270	150	250	—	4 ... 30 m³/h
QMKD-GK50	G2"	DN50	270	150	300	—	7 ... 45 m³/h

FLANGE CLAMP VERSION (mm)

Model	Flange clamp	DN	A	Ø	Range
QMKD-F04	DN15	DN4	63	45	0.1 ... 10 L/min
QMKD-F08	DN25	DN8	80	60	0.5 ... 25 L/min
QMKD-F12	DN32	DN12	92	70	1 ... 60 L/min
QMKD-F15	DN32	DN15	92	70	3 ... 100 L/min
QMKD-F25	DN32	DN25	116	78	4 ... 200 L/min



EXTERNAL THREAD VERSION (mm)

Model	Thread	DN	A	B	Ø or C	Thread L	Range
QMKD-GM04	G1/4"	DN4	110	60	45	12	0.1 ... 10 L/min
QMKD-GM08	G1/2"	DN8	141	74	60	18	0.5 ... 25 L/min
QMKD-GM12	G1"	DN12	170	90	70	20	1 ... 60 L/min
QMKD-GM15	G1"	DN15	170	90	70	20	3 ... 100 L/min
QMKD-GM25	G1-1/2"	DN25	207	112	78	25	4 ... 200 L/min
QMKD-GM32	G1-1/2"	DN32	210	150	220	—	20 ... 300 L/min
QMKD-GM40	G2"	DN40	270	150	250	—	4 ... 30 m³/h
QMKD-GM50	G2-1/2"	DN50	270	150	300	—	7 ... 45 m³/h

COMPLIANCE AND CERTIFICATION

Measuring principle	Electromagnetic induction
Accuracy	≤ ± 0.5 % of range
Reproducibility	≤ ± 0.2 % of range
Wetted materials	PEEK tube, Hastelloy C electrode, 304 process connection and one of five sealings
Pressure rating	16 bar



ORDER CODE

Accessories

- Cables, in two families. For the eight-pin PR version: M12 × 1 eight-pin sockets in PVC as ZL08-PC02G, ZL08-PC05G and ZL08-PC010G, and in PUR as ZL08-PU02G, ZL08-PU05G and ZL08-PU010G, in 2, 5 and 10 metres; ZL08-PC02G is the factory configuration. For the five-pin RA version: the same six numbers with 05 instead of 08, plus angled versions with a W at the end and two self-wiring connectors, GL05 straight and WL05 angled, with a Pg7 or Pg9 gland.

name	Outline drawing (dimension drawing) (unit: mm)	material	Model no.
M12*1-8Pin (2m cable)		PVC	ZL08-PC
M12*1-8Pin (5m cable)			ZL08-PC
M12*1-8Pin (10m cable)			ZL08-PC
M12*1-8Pin (2m cable)		PUR	ZL08-PU
M12*1-8Pin (5m cable)			ZL08-PU

Connector
M12 × 1 · 5 or 8 pin

Cable
2 · 5 · 10 m

Example: QMKD-H-04-PR-----.

ORDER CODE

Field	Code	Meaning
1 Series	QMKD	QMKD compact electromagnetic flowmeter
2 Connection	H · GK	Clamp · G internal thread
	GM · F	G external thread · flange clamp
3 Size	04 · 08 · 12	DN4 · DN8 · DN12
	15 · 25	DN15 · DN25
	32 · 40 · 50	DN32 · DN40 · DN50
4 Output	PR	Pulse / current / RS485 · eight-wire
	RA	RS485 / analogue mA · five-wire
5 Temperature	— · H1	-20 ... +80 °C · -20 ... +140 °C
	H2 · H3	-40 ... +120 °C · -40 ... +140 °C
6 Sealing	— · K	Silicone, for coolant -40 ... +120 °C · perfluoroether
	E · F	EPDM · fluoroceramic, 0 ... +120 °C
	N	Nitrile

