

GAS TURBINE FLOWMETER



- TURBINE · 2.5 ... 6500 M³/H · DN25 ... DN300
- ALUMINIUM OR STAINLESS STEEL · FLANGE
- EX IB IIB T4 · 4 ... 20 MA · PULSE · RS485

KEY DATA

Property	Value	Property	Value
Flow range	2.5 ... 6500 m ³ /h, by size	Nominal size	DN25 ... DN300
Accuracy	Class 1.5	Nominal pressure	1.6 MPa
Medium temperature	-20 ... +80 °C	Ambient temperature	-20 ... +50 °C
Output	4 ... 20 mA · pulse · RS485	Explosion protection	Ex ib IIB T4

A gas turbine meter: the gas drives a bladed rotor and the electronics count its revolutions; temperature and pressure are compensated in the head. The two size tables do not cover the same sizes — DN32, DN40, DN65 and DN125 exist in stainless steel only, DN200, DN250 and DN300 in aluminium only.



MEASUREMENT

Measuring principle	Turbine · the gas drives a bladed rotor, the electronics count its revolutions
Flow range	2.5 ... 6500 m³/h, depending on the nominal size — see the size tables
Lower limit	Below 0.5 m/s flow velocity
Accuracy	Class 1.5
Nominal size	DN25 ... DN300
Compensation	Temperature and pressure — the TP field of the order code
Correction	Non-linear correction in the head · correction formula better than ± 0.02 %
Instrument factor	Set on site by key, shown on the display

MATERIALS AND PROCESS

Medium	Gas
Body	Aluminium alloy or stainless steel — the two size tables
Process connection	Flange
Nominal pressure	1.6 MPa
Medium temperature	-20 ... +80 °C
Ambient temperature	-20 ... +50 °C
Relative humidity	5 ... 95 %
Atmospheric pressure	86 ... 106 kPa
Explosion protection	Ex ib IIB T4

ELECTRICAL PROPERTIES

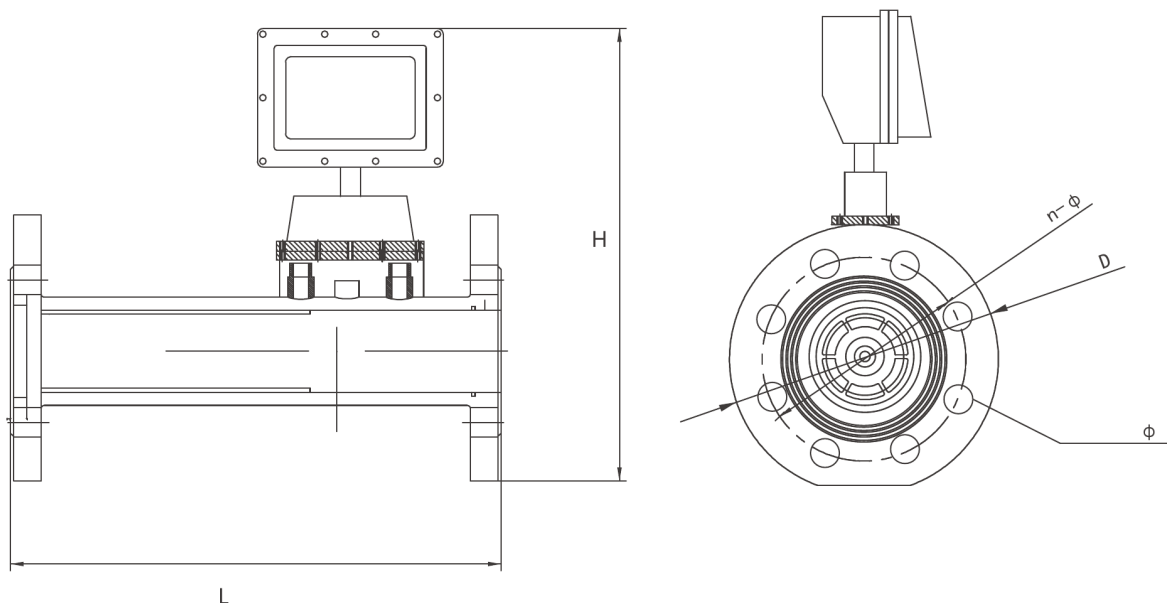
Output	4 ... 20 mA · pulse · RS485
Communication	RS485

DISPLAY

Display	LCD
Shown	Flow, totalized flow, temperature and pressure
Setting	Keys on the head



DIMENSIONS (mm)



Left the side view with the head, right the view along the pipe with the flange. The letters are the columns of the two size tables below.



SIZE TABLES

L is the face-to-face length, D the outside diameter of the flange, H the height from the pipe axis to the top of the head — once with the temperature and pressure compensation fitted and once without.

SIZE TABLE 1 · ALUMINIUM ALLOY

Nominal size	Flow range (m³/h)	Length L	Flange Ø D	Height H with TP	Height H plain	Bolt circle	Holes n x Ø	Bolt
DN25	2.5 ... 25 · 3 ... 30	150	115	315	305	85	4 x Ø 14	M12 x 35
DN50	10 ... 100 · 15 ... 150	150	165	390	380	125	4 x Ø 18	M16 x 260
DN80	13 ... 250 · 20 ... 400	150	200	415	405	160	8 x Ø 18	M16 x 260
DN100	20 ... 400 · 32 ... 650	150	220	435	425	180	8 x Ø 18	M16 x 260
DN150	50 ... 1000 · 80 ... 1600	180	285	500	490	240	8 x Ø 22	M20 x 270
DN200	80 ... 1600 · 130 ... 2500	200	340	550	540	295	12 x Ø 22	M20 x 320
DN250	130 ... 2500 · 200 ... 4000	250	405	630	620	355	12 x Ø 26	M24 x 400
DN300	200 ... 4000 · 320 ... 6500	300	460	680	670	410	12 x Ø 26	M24 x 450

SIZE TABLE 2 · STAINLESS STEEL

Nominal size	Flow range (m³/h)	Length L	Flange Ø D	Height H with TP	Height H plain	Bolt circle	Holes n x Ø	Bolt
DN25	2.5 ... 25 · 3 ... 30	150	115	370	285	85	4 x M12	M12 x 35
DN32	4 ... 40	150	140	380	295	100	4 x M16	M16 x 40
DN40	5 ... 50 · 6 ... 60	150	150	380	295	110	4 x M16	M16 x 40
DN50	10 ... 100 · 15 ... 150	150	165	385	300	125	4 x M16	M16 x 40
DN65	15 ... 200	150	185	415	330	145	4 x M16	M16 x 40
DN80	13 ... 250 · 20 ... 400	150	200	420	335	160	8 x M16	M16 x 40
DN100	20 ... 400 · 32 ... 650	150	220	440	355	180	8 x M16	M16 x 40
DN125	40 ... 800	180	250	470	385	210	8 x M16	M16 x 40
DN150	80 ... 1600	180	285	500	490	240	8 x M20	M16 x 40



COMPLIANCE AND CERTIFICATION

Explosion protection	Ex ib IIB T4
Measuring principle	Turbine
Accuracy	Class 1.5
Wetted materials	Aluminium alloy or stainless steel
Pressure rating	1.6 MPa

Example: QGKA-050-016-TP-A.

ORDER CODE

Field	Code	Meaning
1 Series	QGKA	QGKA gas turbine flowmeter
2 Size	025 ... 300	DN25 ... DN300 — see the size tables
3 Pressure	016	1.6 MPa
	025	2.5 MPa
	040	4.0 MPa
	063	6.3 MPa
	100	10 MPa
	160	16 MPa
	260	26 MPa
	420	42 MPa
4 Compensation	TP	Temperature and pressure compensation
5 Output	A	4 ... 20 mA / pulse / RS485

