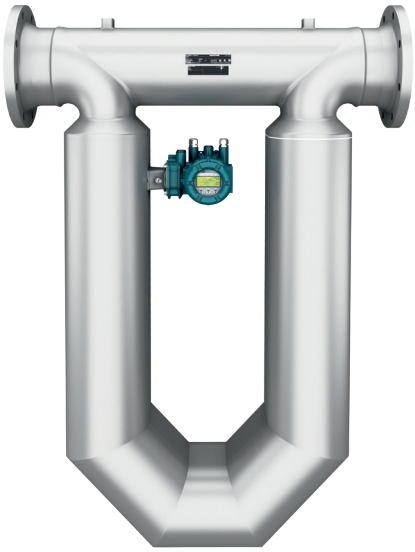
OpreX™ Field Instruments

YOKOGAWA
Co-innovating tomorrow™

ROTA*MASS* Giga

Coriolis Mass Flow and Density Meter



ROTA*MASS* Total Insight

ROTA*MASS* Total Insight

Rotamass Giga is designed for high-capacity applications, delivering accurate and stable measurement at large flow rates. It enables reliable performance in bulk transfer and pipeline operations where traditional Coriolis meters face limitations. Applications include bulk chemical transfer, pipeline flow measurement, marine and terminal loading/unloading, oil & gas midstream operations, and high-flow utility and process lines.

Performance

- High-capacity flow design supporting large line sizes and high mass flow rates up to 40,000 lb/min
- High power management for gas content detection and reliable flow measurements with entrained gas
- Optimal decoupling of the core measuring element against external stresses and vibrations
- Handles process temperatures up to +392 °F (200 °C), or up to +662 °F (350 °C) with customer or factory installed insulation and heat tracing.

Features on Demand

- Predictive maintenance with Total Health Check
- Tube Health for in-line verification that can be individually adapted to your process conditions
- Benefit from Viscosity function and capability to handle high viscous process fluids
- Advanced concentration measurement function for complex applications
- Net Oil Computing function provides real-time measurements of net oil and water cut based on API standards
- Gas content handling and slug detection
- Dynamic Pressure Compensation
- NTEP for custody transfer applications

Technical Data

Measuring Range Full Scale (for liquids)

Size	Full range (lb/min)
Giga 1F	0 – 11,000
Giga 2H	0 – 22,000
Giga 2F	0 – 40,000

Zero Point Stability

Model	Zero Point Stability (lb/min)
Giga 1F	0.48
Giga 2H	0.92
Giga 2F	1.0

Materials of Wetted Parts

Sensor
Stainless steel 1.4404/316L Nickel alloy C-22/2.4602

Accuracy

Liquids:
±0.1% of measured value (Ultimate transmitter)
±0.2% of measured value (Essential transmitter)

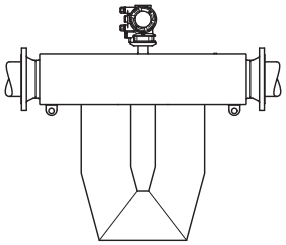
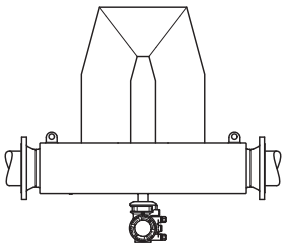
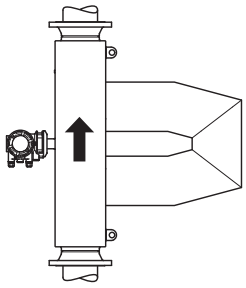
Gases:
±0.35% of measured value (Ultimate transmitter)
±0.75% of measured value (Essential transmitter)

Density:
0.002 g/cm³ (Ultimate transmitter)
0.002 g/cm³ (Essential transmitter)

Process Conditions

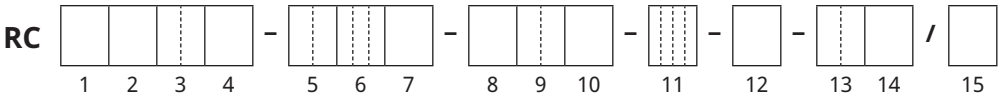
Temperature	-94°F to 662°F (-70°C to 350°C)
Pressure	1,450 psi (100 bar)
Ambient	-58 to 176°F (-50 to 80°C)

Installation

Fluid	Installation Position
Liquid	Horizontal, measuring tubes at bottom 
Gas	Horizontal, measuring tubes at top 
Liquid/Gas	Vertical, direction of flow towards the top (recommended) 

Catalog Code

The model code of the Rotamass Total Insight is explained below. Items 1 through 14 are mandatory entries and must be specified at the time of ordering. Device options (item 15) can be selected and specified individually by separating them with slashes. Additional options available / please consult factory for all certificate and testing options. Access our free online configurator tool at: www.flowconfigurator.com.



Position 1	Transmitter
E	Essential (basic function)
U	Ultimate (high function)

Position 2	Sensor
G	Giga

Position 3	Meter size
1F	Maximum mass flow: 11,000 lb/min
2H	Maximum mass flow: 22,000 lb/min
2F	Maximum mass flow: 40,000 lb/min

Position 4	Material wetted parts
S	Stainless steel 1.4404/316L
H	Nickel alloy C-22/2.4602

Position 5	Process connection size
1H	DN100, 4 inch
1F	DN150, 6 inch
2H	DN200, 8 inch
2F	DN250, 10 inch

Position 6	Process connection type
BA1	CL150 ASME B16.5, raised face (RF)
BA2	CL300 ASME B16.5, raised face (RF)
BA4	CL600 ASME B16.5, raised face (RF)
CA4	CL600 ASME B16.5, ring joint (RJ)

Position 7	Sensor housing material
0	Stainless steel 1.4301/304, 1.4404/316
1	Stainless steel 1.4404/316L

Position 8	Process temperature range
0	Standard temperature range
2	Medium temperature range
3	High temperature range

Position 9	Mass flow & density accuracy
C5	Liquid: 0.1% mass flow + 0.002 g/cm3
E7	Liquid: 0.2% mass flow + 0.004 g/cm3
30	Gas: 0.35% mass flow

Position 10	Design and housing
0	Integral type; Aluminum coated
A	Remote type; Aluminum coated
J	JRemote type; Stainless steel

Position 11	Ex Approvals
NN00	Non Ex proof
FF11	FM XP + IS; Gr. A-G (USA & CAN)
FF12	FM XP + IS; Gr. C-G (USA & CAN)

Position 12	Cable entries
2	ANSI ½ in NPT

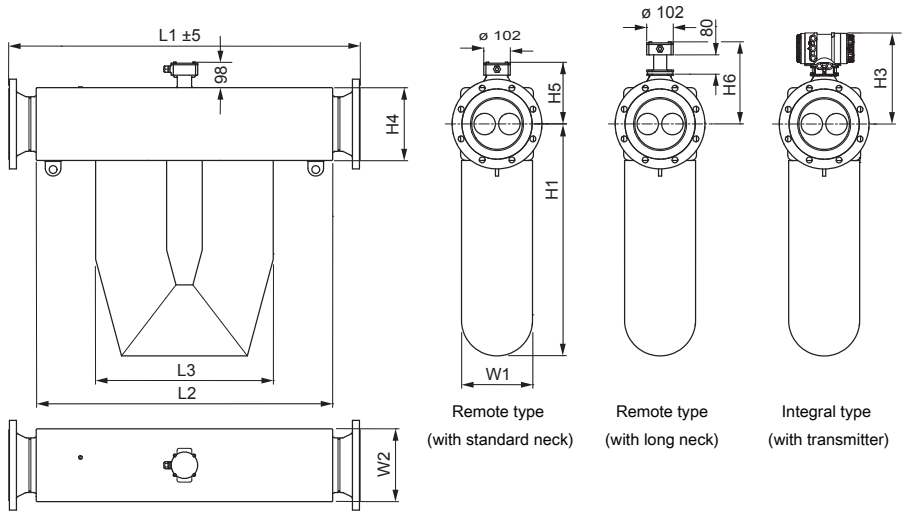
Position 13	Communication type and I/O
JA	1 active current output HART, 1 passive pulse or status output
JB	2 active current outputs one with HART, 2 passive pulse or status outputs
M6	Modbus output, 1 passive pulse or status output, 1 active current output
T3	PROFINET over APL, intrinsically safe, 1 passive pulse output

Position 14	Display
1	with display

Position 15	Additional options
BG	Tag number on nameplate
CL	Customer-specific installation length
CS	CRN Canadian Registration Number
C52	Net Oil Computing per API standard
CST	Concentration
TC	Tube health check
VM	Viscosity function liquids
Q20	NTEP approval
L005	5m/16.4ft standard remote sensor cable
L010	10m/32.8ft standard remote sensor cable

Dimensions Inches (millimeters)

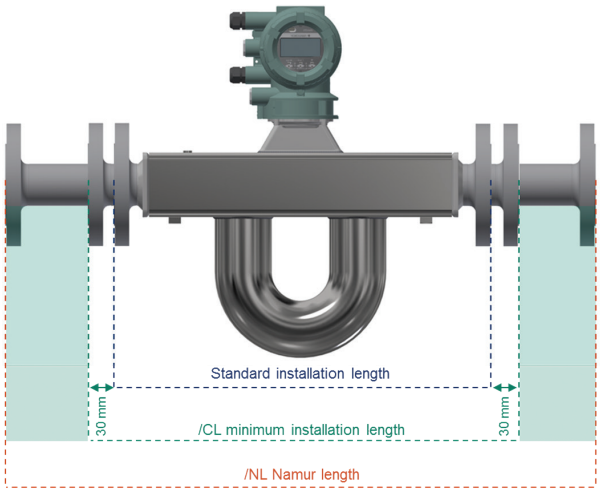
Note: Dimensions—Inches to the nearest tenth (millimeters to the nearest whole mm), each independently dimensioned from respective engineering drawings.



*The overall length (L1) of the sensor depends on the selected process connection (type and size).

Model	L2	L3	W1	W2	H1	H3	H4	H5	H6
Giga 1F	35.1 (892)	27.2 (691)	6.6 (168)	6.9 (176)	21.9 (556)	12.4 (315)	6.9 (176)	7.3 (186)	10.5 (266)
Giga 2H	44.9 (1140)	26.9 (683)	10.7 (273)	11.0 (280)	35.1 (891)	14.5 (367)	11.0 (280)	9.4 (238)	12.6 (320)
Giga 2F	34.3 (870)	29.9 (759)	13.8 (350)	8.6 (219)	52.6 (1335)		8.6 (219)		

Custom Length (/CL)



Allows customers to specify a custom face-to-face or overall installation length for the meter instead of using standard manufacturer (NAMUR or catalog) lengths. This is helpful as a drop-in replacement when retrofitting existing piping without cutting or re-welding lines, thus minimizing downtime and reducing rework cost.

ROTAMASS Total Insight

ROTAMASS supreme



Superior performance under demanding conditions

ROTAMASS intense



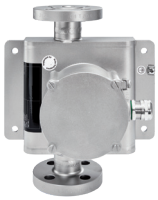
For high pressure applications

ROTAMASS prime



Versatility with superior turndown and low pressure loss

ROTAMASS nano



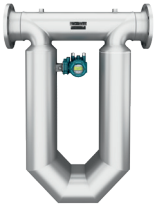
For low flow applications

ROTAMASS hygienic



For food & beverage, biotech-nology and pharmaceutical utility applications

ROTAMASS giga



Flexible installation for high flow applications

Essential



For general purpose application

Ultimate



For demanding & critical application

Scan to learn more about ROTA*MASS* Total Insight Coriolis Mass Flow and Density Meters

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