Brochure for Maritime Sector

FLOW MEASUREMENT

Coriolis Mass Flow Meter

BRIEF INSTRUCTION

Tosilon

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Overview

Default models of the CG series have been introduced to maritime sector. During the past 5 years, the number is stably increasing by projects include “new building and retrofit”. The enhanced driver-board is specifically designed for transmitter aiming at maritime application.

Main certificates and patent of sensor we had acquired include:

ATEX, ABS, EU DECLARATION CONFORMITY






Main models serving the vessels: CG-15, CG-20, CG-25, CG-40, CG-50, CG-80, CG-100, CG-150. For details of technical index, please refer to the datasheet.

Main services CG series served on-board include:

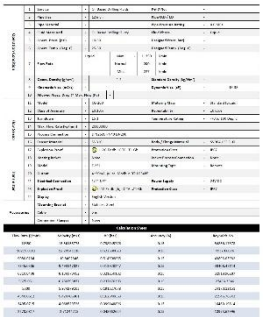
M/E Fuel Consumption Monitoring

D/G Fuel Consumption Monitoring

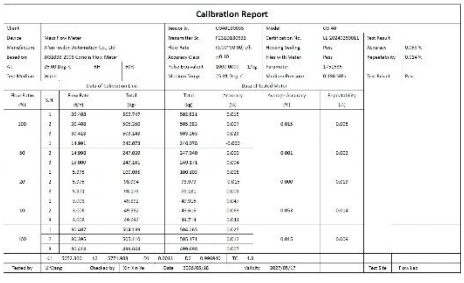
Boiler Fuel Consumption Monitoring

Bunkering

Before order, based on confirmed process data, we are able to provide the meter-sizing that help client’s process engineer on evaluation.

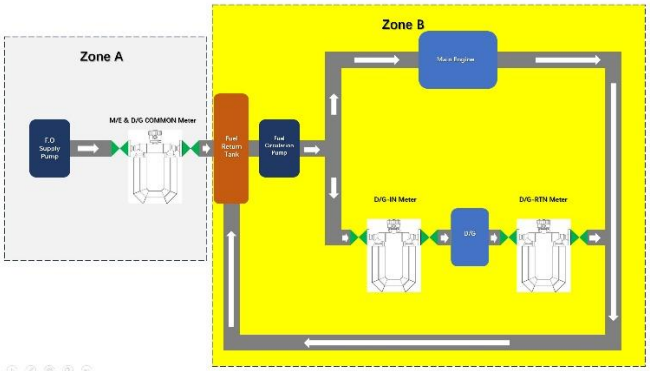


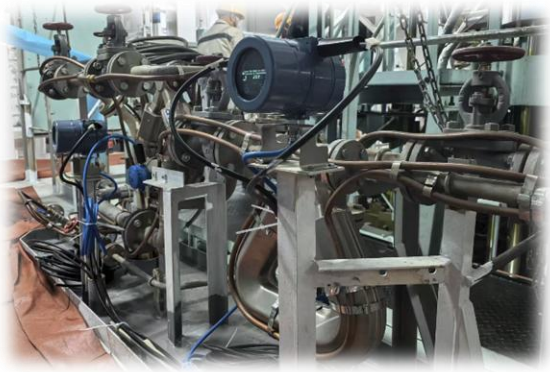
Based on each order, basic documents correspond to each model are provided that include Calibration Report, NDT Report, User Manual



Typical Case

The operation condition varies from different cases. However, the points of concern at meter deployment from all cases have much in common. The following example is to illustrate the key points.





Meter Position

The key point of locating flow sensor is to ensure stable “0” of the flow meter.

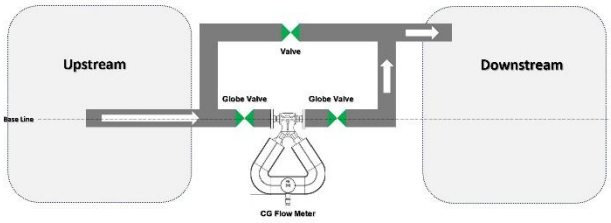
In addition, the following points shall be also followed:

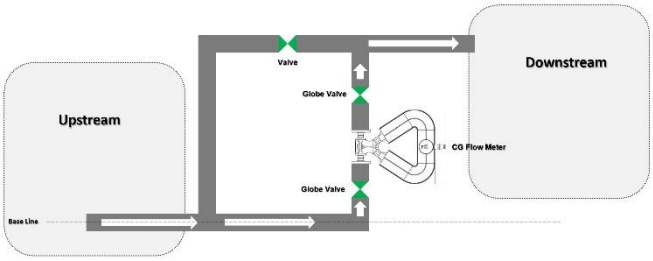
Keep distance from the flow sensor and the vibration sources (e.g. pump)

Flow sensor shall not touch wall, tube, pipeline. It is necessary to have the flow sensor supported by frame.

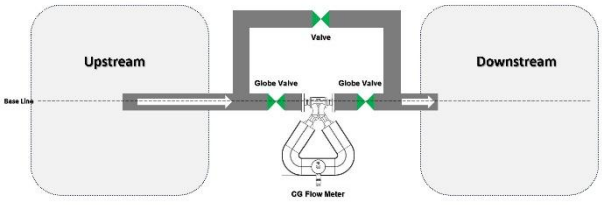
Quantity of the “elbow” shall be better minimized, because the flow would be unstable during some working condition, or it may generate turbulent flow for the flow meter that influence the metering performance.

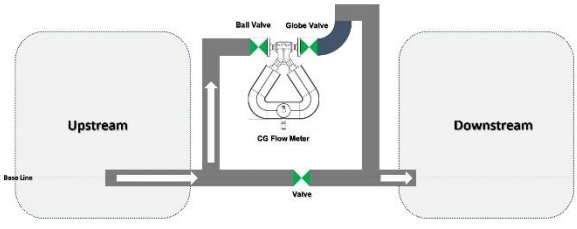
<u>Condition A: Upstream Level lower than Downstream Level</u>





<u>Condition B: Upstream Level and Downstream Level has no difference</u>





Support from Tosilon

Site-Commissioning (Option)

Tosilon's service for site-commissioning is currently available within China mainland.

Tosilon site-service does NOT include meter installation and cable routine.

At the field, Tosilon team will check installation, wiring and RS485 configuration. In addition, Tosilon will teach the vessel engineer how to operate.

Tech Service (Default)

As long as the conductions are correct (sensor installation, wiring, RS485 setting), the CG unit is ready for the service and keep stable performance.

Tosilon also has the prompt response via email portal. The support team is efficient at online guidance.

Brief Technical in General

Model	Size	Max. Flow	Accuracy Class	Pressure Rating	Temp. Range	Process Connection
CG-03	3 mm	6 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN15
CG-06	6 mm	20 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN15
CG-15	15 mm	50 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN15
CG-20	20 mm	120 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN20
CG-25	25 mm	200 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN25
CG-40	40 mm	500 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN40
CG-50	50 mm	1000 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN50
CG-80	80 mm	3000 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN80
CG-100	100 mm	5000 kg/min	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN100
CG-150	150 mm	600,000 kg/h	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN150
CG-200	200 mm	1,200,000 kg/h	±0.10% (Default))	4 MPa (Default)	-70~160 Deg. C (Default)	DIN2635 PN40 DN200