



X-RADAR

Radar Type Level Gauge



MUSASINO CO., LTD.

1-2-15 Minami-yukigaya, Ota-ku, Tokyo, 145-0066 Japan Tel : +81-3-3726-4413, Fax : +81-3-3726-1557
E-mail : sales@musasino.co.jp / service1@musasino.co.jp

www.musasino.biz

Distributor:



MUSASINO CO., LTD.

X-RADAR

Radar Type Level Gauge

Musasino’s new X-Radar level gauge has been designed to provide reliable, accurate cargo tank monitoring and easy maintenance.

Reliable

- Self-calibrating for long-term accuracy
- Robust processing logic
- No warm-up required

Easy Maintenance

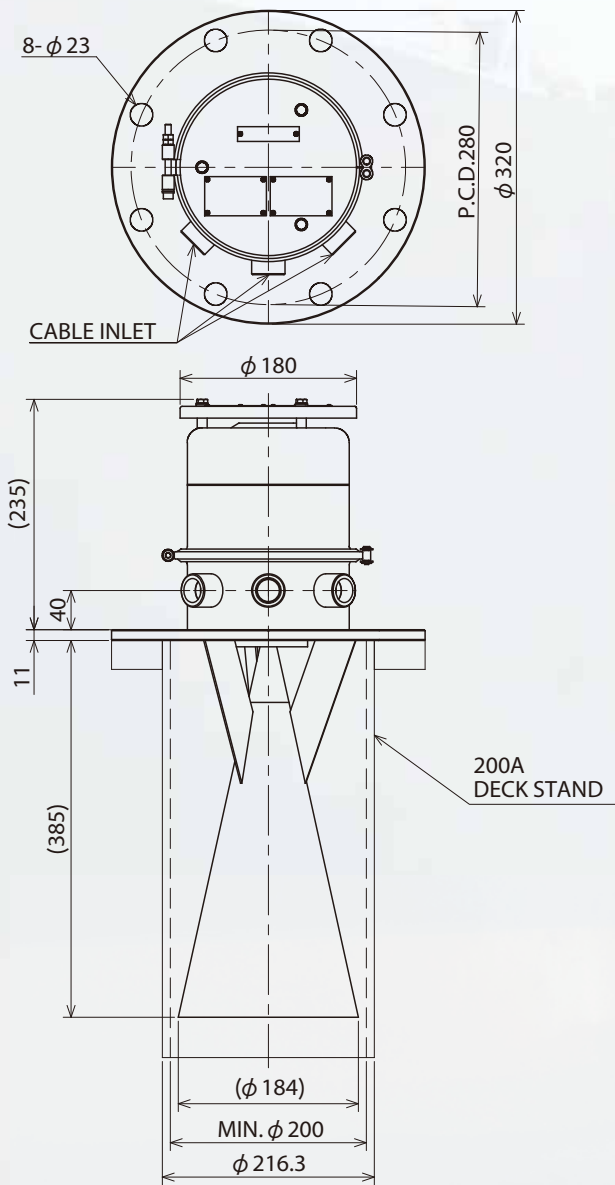
- Interchangeable electronics
- Inspection & maintenance in closed tank conditions
- Self-diagnostics
- Remote monitoring

Simple Installation

- Small on-deck space requirements
- Built-in tank I.G. pressure sensor
- Minimal cabling requirements – 1x 4-core cable for level, pressure and temperature.
- Strong but lightweight housing and flange

Musasino X-Radar has been designed specifically for marine applications. The 10GHz frequency modulated continuous wave (FMCW) radar provides accurate and reliable tank level gauging on oil, product and chemical tankers. Additionally, the gauge is self-calibrating to compensate for the effects of temperature fluctuations and aging, and maintain high accuracy over its lifetime. Robust processing logic identifies extra echoes from tank structures and ensures accurate cargo level readings.

Even the most reliable system will eventually require maintenance, so we designed X-Radar with interchangeable electronics boxes that can be replaced and set up in a few simple steps. This eliminates the need for service attendance and reduces system downtime and costs. To further save time and costs surrounding maintenance, the electronics and I.G. pressure sensor can be serviced, calibrated or replaced without having to gas-free or open the tank. In the event that our service engineer needs to visit, we have established a network of service bases at strategic ports around the world.



Level Gauge

Application(s)	Crude Oil, Refined Petroleum Products, Chemical
Measuring Method	FMCW
Beam Angle	11°
Resolution	1mm
Accuracy	±2mm
Ambient Temperature	-25 to +70°C
Explosion Protection	Intrinsically Safe Exia IIC T5
Protection Class	IP66
Flange Material	SUS316L
Cable	MPYCYSLA-4 (4 core sealed marine cable)

Pressure Sensor

Type	Absolute Pressure
Measurement Range	-0.1 to +0.3 bar
Accuracy	± 0.004 bar
Maximum Pressure	4 bar

- Take adequate precautions to preserve water-tightness so that water does not enter the terminal box during installation.
- As much as possible, avoid installing tank structural features within an 11° area below the detector to the tank top.
- Contact us with the total gauge height, or the distance between the bottom of the detector flange and the tank bottom, prior to instruction for newbuilding adjustment.
- Install LEX near the UTI hole.
(Recommended: Within 1 or 2m eters along frame)
- It is possible that pump flow, tank cleaning, eductor pump operation and heavy weather while at sea may affect measurements.
- The valve must be closed completely prior to the pressure sensor alarm test to preserve air-tightness