EM540

Honeywell

Radar Type Level Gauge for Free Space Operation

The EM540 is a marine-approved smart radar level solution specifically designed for level measurement on tankers sailing the oceans. This instrument is suitable for use with liquid media like hydrocarbons, chemicals, bitumen, etc. In addition to transmitting tank level, pressure, and temperature to the centralized communication interface, this radar gauge is also feature-rich with self-diagnosis, self-monitoring, and remote configuration.



The EM540 Radar employs advanced smart sensor technology packaged with a planar antenna. The radar beam is shaped electronically without the use of additional mechanical parts like lens or horn as seen in traditional radar type level sensors. This version is suitable for mounting on top side trunk for free space operation only inside the cargo tank.

The use of intrinsically safe, two-way digital signal transmission between the radar gauge and the central monitoring system enables easy integration of the EM540 into any type of control system. The unit is compliant with certification rules and regulations issued by international classification societies.

TECHNICAL SPECIFICATIONS

Antenna aperture angle	13° (FMCW 10GHz)
Storage temperature	- 40°C to + 85°C
Operating temperature	- 40°C to + 70°C
Product temperature*	- 40°C to +250°C
Maximum pressure	1 bar
Range	600 mm to 42,000 mm
Resolution	1mm
Accuracy	Instrument: +/- 3mm Operating: +/- 5mm
Communication Protocol	EMS
Protection Class	IP66/67
Material	Housing: Stainless Steel SS316L
Weight	13 Kg.

SPECIAL FEATURES & CONNECTIONS

Special Features	✓ Automatic radar self-test during power up ✓ Automatic antenna fouling detection ✓ Antenna FEP protection
Additional Input Options	✓ 3 PT100 temperature inputs ✓ 3 Analog inputs
Electrical Connection Variations	✓ 2 X BV2: Cable ø 7mm to ø 14.5mm ✓ 1 X BV3: Cable ø 8.5mm to ø 19mm ✓ 3 X ISO M28x1.5
Process connection	PN16 DN200

* with special mounting features

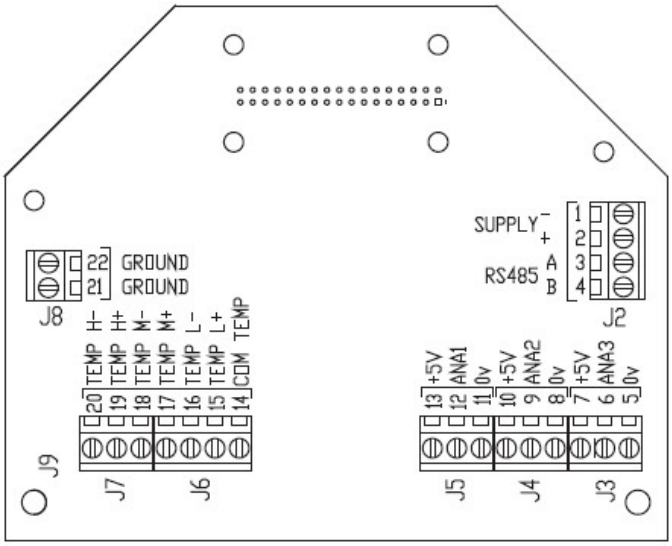
APPROVALS

Intrinsic Safety Approval	IECEx, ATEX. II 1 (1) G Ex ia [ia Ga] IIB or IIC T4 Ga IP66/67

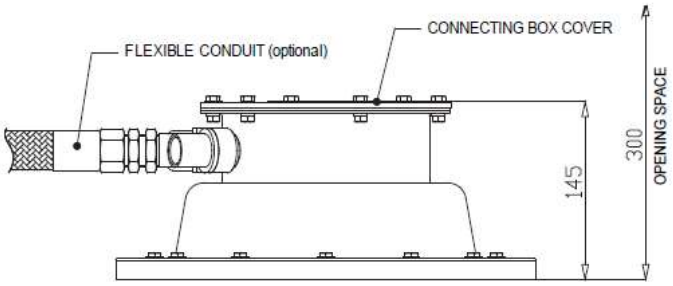
DOCUMENTATION

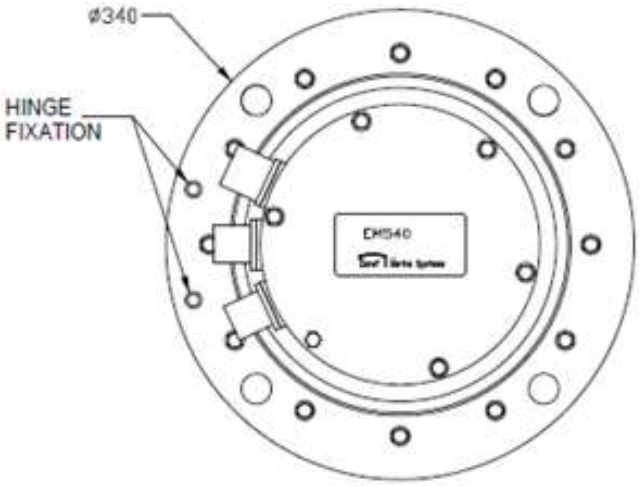
Technical manual	MT5016
Installation manual	MI5016
Maintenance manual	MM5016

ELECTRICAL CONNECTION

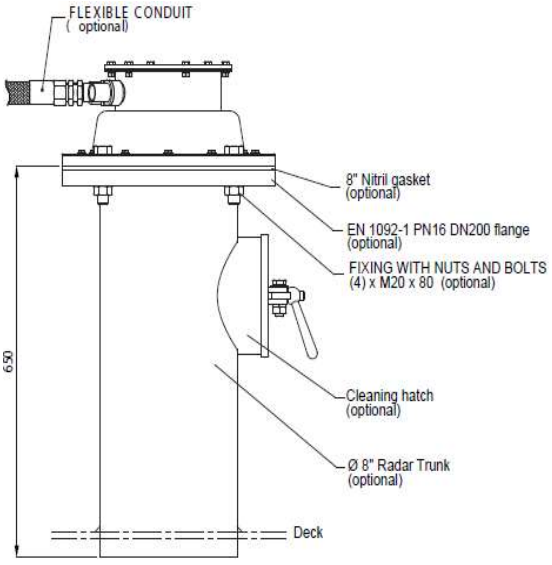


MECHANICAL FITTINGS & DIMENSIONS





MECHANICAL CONNECTIONS



Honeywell
www.process.honeywell.com

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

HM-22-02-03-TS-EN; 10/2023
©2023 Honeywell International Inc.