Vibro Meter Service Manual

111-412-000-013-A2-B1-E010-F0-G000-H05

1. Description

Manufacturer : Meggitt (Vibro-Meter)

3. Product Information

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Manufacturer : Meggitt (Vibro-Meter)

Product No. : 111-412-000-013-A2-B1-E010-F0-G000-H05

Product Type : Proximity Measuring System

111-412-000-013

Environment (A) : 2 = Explosive Ex i

Body thread (B) : 1 = M10 × 1

Integral cable length (E) : 010 = 1.0 m ±100 mm

Optional protection (F) : 0 = None

Flexible hose length (G) : 000 = None

Total system length (H) : 05 = 5 m

Weight : 0.22 Kg

KEY FEATURES AND BENEFITS

From the vibro-meter® product line

Non-contact measurement system based on

eddy-current principle

Ex certified versions for use in hazardous areas

(potentially explosive atmospheres)

Conforms to API 670 recommendations

1, 5 and 10 m systems

Temperature-compensated design

Voltage or current output with protection

against short circuits

Frequency response:

DC to 20 kHz (−3 dB)

Measurement range:

2 or 4 mm

Temperature range:

−40 to +180 °C

APPLICATIONS

Shaft relative vibration and gap/position

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measurement chains for machinery

protection and/or condition monitoring

Ideal for use with VM600Mk2/VM600 and

VibroSmart® machinery monitoring systems

API 670 applications

General

Transducer input requirements : High-frequency power source from an IQS900 signal conditioner

Environmental

Temperature ranges

Transducer : −40 to +180°C with drift <5% (operating).

+180 to +220°C with drift >5% (short-term survival).

Transducer and cable : −40 to +195°C if used in an Ex Zone

Cable, connector and optional

protection

: −40 to +200°C

Protection rating

(according to IEC 60529)

: The head of the proximity transducer (transducer tip and integral

cable) is rated IP68

Vibration

(according to IEC 60068-2-26)

: 5 g peak between 10 and 500 Hz

Shock acceleration

(according to IEC 60068-2-27)

: 15 g peak (half sine-wave, 11 ms duration)

Physical characteristics

Transducer construction : Wire coil Ø8 mm, Torlon (polyamide-imide) tip, encapsulated in

stainless steel body (AISI 316L) with high-temperature epoxy glue

Integral and extension cables : FEP covered 70 Ω coaxial cable, Ø3.6 mm

Connectors : Self-locking miniature coaxial connectors.

Note: When connecting, these should be hand-tightened until locked.

Optional protection

Flexible stainless steel hose (protection tube)

: The stainless steel hose provides additional mechanical protection but is not leak-tight

FEP sheath (extruded fluorinated ethylene propylene)

: The FEP sheath provides resistance to almost all chemicals and low permeability to liquids, gases and moisture. It is also flexible, low friction and mechanically tough.

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