Radar measurement Micropilot NMR84

For high accurate non-contact level measurement in stilling well applications in custody transfer

More information and current pricing:
www.endress.com/NMR84

Benefits:

- Hardware and software developed according to IEC 61508 up to SIL3 (in homogeneous redundancy) for high level of safety
- Maximum reliability through accuracy up to ±0.5mm (±0.02")
- Developed according to international metrology recommendations such as OIML R85 and API MPMS
- Local and country-specific certifications like NMi or PTB for custody transfer applications
- Simplified installation and trouble-free operations due to easy connection to major DCS systems via open protocols
- Unique drip-off antenna design eliminates measurement error due to condensation build-up

Specs at a glance

- **Accuracy** up to 0.5 mm
- **Process temperature** -40°C...150°C (-40°F...302°F)
- **Process pressure absolute / max. overpressure limit** Vacuum ... 25 bar abs
- **Max. measurement distance** 40 m (131 ft) For calibration to regulatory standards: 30 m (98 ft)
- **Main wetted parts** 316L, PTFE

Field of application: Micropilot NMR84 is used for custody transfer and inventory control applications with NMi- and PTB-approvals. It meets the relevant requirements according to OIML R85 and API 3.1B. The NMR84 free space radar with drip-off planar antenna is specifically suited for

stilling well applications. The superior drip-off antenna design with proven track record eliminates problems caused by condensation.

Features and specifications

Continuous / Liquids

Measuring principle
Level radar

Characteristic / Application
Planar antenna, 6GHz: High precision measurement for for storage tanks up to 30 m (98ft)

Specialities
Custody transfer level measurement

Supply / Communication
85-264VAC

Accuracy
up to 0.5 mm

Ambient temperature
Standard:
-40°C...60°C
(-40°F...140°F)
For calibration to regulatory standards:
-25°C...55°C
(-13°F...131°F)

Process temperature
-40°C...150°C
(-40°F...302°F)

Process pressure absolute / max. overpressure limit
Vacuum ... 25 bar abs

Main wetted parts
316L, PTFE

Continuous / Liquids

Process connection

Flange:
DN100/4"...DN300/12"
UNI-Flange:
DN150/6"...DN300/12"

Max. measurement distance

40 m (131 ft)
For calibration to regulatory standards:
30 m (98 ft)

Communication

Outputs:
Fieldbus: Modbus RS485, V1, HART
Analog 4-20mA output (Exi/ Exd)
Relay output (Exd)
Inputs:
Analog 4-20mA input (Exi/ Exd)
2-, 3-, 4-wire RTD input
Discrete input (Exd, passive/ active)

Certificates / Approvals

ATEX, FM, IEC Ex, EAC, JPN Ex

Safety approvals

Overfill protection WHG
SIL

Design approvals

EN 10204-3.1
NACE MR0175, MR0103
AD2000

Metrological approvals and certificates

OIML, NMi, PTB

Continuous / Liquids

Options

Redundant fieldbus
Alu-coated or 316L housing
Weather protection cover

Application limits

Maximum measuring range is dependent on the tank form and/or application
Strong condensate or build-up formation

More information **www.endress.com/NMR84**

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