Servo tank gauging instrument Proservo NMS80

High precision servo measurement for liquid level, interface and density

More information and current pricing:
www.apsc.endress.com/NMS80

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 ±0.4mm (±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
- Measurement of interfaces between up to three liquid layers, tank bottom, spot, and profile densities

Specs at a glance

- **Accuracy** up to 0.4 mm
- **Process temperature** -200°C...200°C (-328°F...392°F)
- **Process pressure / max. overpressure limit** 0,2...6 bar abs
- **Max. measurement distance** 36 m (118 ft)
- **Main wetted parts** 316L, AlloyC276, PTFE

Field of application: The intelligent tank gauge Proservo NMS80 is designed for high accuracy liquid level measurement in custody transfer and inventory control applications with NMi- and PTB-approvals. It meets the relevant requirements according to OIML R85 and API 3.1B. It fulfills the exact demands of tank inventory management and loss control and is optimized in regards of total cost saving and safe operation.

Features and specifications

Continuous / Liquids

Measuring principle
Servo / Float Tank Gauging

Characteristic / Application
Servo Tank Gauging: High precision measurement for liquid level, interface, spot density, profile density

Specialities
Custody transfer level measurement
Interface measurement
Spot density, density profile measurement

Supply / Communication
85-264VAC

Accuracy
up to 0.4 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
-200°C...200°C
(-328°F...392°F)

Process pressure / max. overpressure limit
0,2...6 bar abs

Main wetted parts
316L, AlloyC276, PTFE

Continuous / Liquids

Process connection

Flange:
DN80/3" / DN150/6"

Max. measurement distance

36 m (118 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, NEPSI, EAC

Safety approvals

Overfill protection WHG
SIL

Metrological approvals and certificates

OIML, NMi, PTB

Options

Redundant fieldbus
Weather protection cover
Guide wire assembly
Relief valve
Gas purging nozzle connection
Pressure gauge
Cleaning nozzle connection

Continuous / Liquids

Application limits

Stilling well or guide wires for turbulent application
Recommend PTFE displacer for high viscosity application
Recommend AlloyC276 displacer for corrosive application
Interface measurement requires min. difference of 0.100 g/ml between layers

Density

Measuring principle

Servo / Float Tank Gauging

Characteristic / Application

Servo Tank Gauging: High precision measurement for liquid level, interface, spot density, profile density

Supply / Communication

85-264VAC

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

-200°C...200°C
(-328°F...392°F)

Process pressure

0.2...6 bar abs

Wetted parts

316L, AlloyC276, PTFE

Density

Output

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, NEPSI, EAC

Options

Weather protection cover
Guide wire assembly
Relief valve
Gas purging nozzle connection
Pressure gauge
Cleaning nozzle connection

Specialities

Custody transfer level measurement
Interface measurement
Spot density, density profile measurement

Measuring range

36 m (118 ft)

Other approvals and certificates

OIML, NMi, PTB

More information **www.apsc.endress.com/NMS80**

Endress+Hauser International addresses.endress.com
Asia Pacific info.vn@endress.com
Vietnam

Endress+Hauser