

Radiometric level and density measurement Gammapilot FMG50

Compact transmitter for point level detection, continuous level, interface and density measurement



More information and current pricing:

www.endress.com/FMG50

Benefits:

- First real 2-wire loop-powered compact transmitter minimizes engineering and installation efforts
- Reduced installation and engineering costs thanks to the first 2-wire loop powered compact transmitter
- Increased plant safety, efficiency and availability even under extreme process and ambient conditions
- Designed according to IEC 61508 with SIL2/3 approval for all measuring tasks
- Reduced verification effort and minimized plant shut-downs due to state-of-art Heartbeat Technology
- Usage in up to +80°C (+176°F) ambient temperature without additional cooling thanks to innovative sensor technology
- **Bluetooth®** wireless technology for remote operation out of the radiation beam

Specs at a glance

- **Process temperature** Any
- **Process pressure / max. overpressure limit** Any
- **Max. measurement distance** Unlimited measuring range, Cascade
- **Accuracy** +/- 1%
- **Main wetted parts** Non-contact

Field of application: The Gammapilot FMG50 compact transmitter is designed for non-contact point level detection, continuous level, interface and density measurement in liquids, solids, suspensions or

sludges. As the first true 2-wire loop powered compact transmitter it minimizes engineering and installation efforts.

Features and specifications

Continuous / Liquids

Measuring principle

Radiometric

Characteristic / Application

Compact transmitter for extreme process conditions (temperature, pressure);

Non-contact measuring technique

Interface measurement

Interfaces liquid / liquid also with emulsion layers

Interfaces liquid / solid

Specialities

Heartbeat Technology,

SIL 2/3 according to IEC 61508,

Bluetooth® commissioning, operation and maintenance with the SmartBlue App

Supply / Communication

2-wire loop powered

Accuracy

+/- 1%

Ambient temperature

-40 °C...+80 °C,

(-40 °F...+176 °F)

Process temperature

Any

Process pressure / max. overpressure limit

Any

Continuous / Liquids**Main wetted parts**Non-contact

Process connectionNon-contact

Sensor length

PVT scintillator
400 mm...3000 mm,
>3000 mm cascade mode

Max. measurement distance

Unlimited measuring range,
Cascade

Communication4...20 mA HART

Certificates / ApprovalsATEX, IEC Ex, CSA C/US, NEPSI, INMETRO, EAC Ex, JPN Ex, KC Ex

Safety approvals

Overfill protection WHG
SIL 2/3

Design approvalsEN 10204-3.1

OptionsDisplay

Components

Isotope: FSG60, FSG61,
Source container: FQG60, FQG61, FQG62, FQG63, FQG66,
Mounting accessories: FHG61

Continuous / Solids**Measuring principle**Radiometric

Characteristic / Application

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Supply / Communication2-wire loop powered

Accuracy+/- 1%

Ambient temperature

-40 °C...+80 °C,

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Process temperatureAny

Process pressure / max. overpressure limitAny

Main wetted partsNon-contact

Process connectionNon-contact

Continuous / Solids

Sensor length

PVT scintillator
400 mm...3000 mm,
>3000 mm cascade mode

Max. measurement distance

Unlimited measuring range,
Cascade

Communication

4...20 mA HART

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Mounting accessories: FHG61

Point Level / Liquids

Measuring principle

Radiometric Limit

Characteristic / Application

Compact transmitter for extreme process conditions (temperature, pressure);
Non-contact measuring technique

Point Level / Liquids**Specialities**

Heartbeat Technology,
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Bluetooth® commissioning, operation and maintenance with the
SmartBlue App

Supply / Communication

2-wire loop powered

Ambient temperature

-40 °C...+80 °C,
(-40 °F...+176 °F)

Process temperature

Any

Process pressure / max. overpressure limit

Any

Main wetted parts

Non-contact

Process connection

Non-contact

Sensor length

PVT scintillator:
200 mm...400 mm,
NAI scintillator:
50 x 50 mm,
50 x 100 mm

Communication

4...20 mA HART

Certificates / Approvals

ATEX, IEC Ex, CSA C/US, NEPSI, INMETRO, EAC Ex, JPN Ex, KC Ex

Point Level / Liquids

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Point Level / Solids

Measuring principle

Radiometric Limit

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Supply / Communication

2-wire loop powered

Ambient temperature

-40 °C...+80 °C,
(-40 °F...+176 °F)

Point Level / Solids**Process temperature**Any

Process pressure / max. overpressure limitAny

Main wetted partsNon-contact

Process connectionNon-contact

Sensor length

PVT scintillator:

200 mm...400 mm,

NAI scintillator:

50 x 50 mm,

50 x 100 mm

Communication4...20 mA HART

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Safety approvals

Overfill protection WHG

SIL 2/3

Design approvalsEN 10204-3.1

OptionsDisplay

Components

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Source container: FQG60, FQG61, FQG62, FQG63, FQG66,

Mounting accessories: FHG61

Density

Measuring principle

Radiometric Density

Characteristic / Application

Compact transmitter for extreme process conditions (temperature, pressure);

Non-contact measuring technique

Supply / Communication

2-wire loop powered

Ambient temperature

-40 °C...+80 °C,
(-40 °F...+176 °F)

Process temperature

Any

Process pressure

Any

Wetted parts

Non-contact

Sensor length

PVT scintillator:
200 mm...400 mm,
NAI scintillator:
50 x 50 mm,
50 x 100 mm

Output

4...20 mA HART

Certificates / Approvals

ATEX, IEC Ex, CSA C/US, NEPSI, INMETRO, EAC Ex, JPN Ex, KC Ex

Options

Display

Density

Specialities

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More information www.endress.com/FMG50