

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.ch.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 absolute / 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

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 absolute

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

Density**Certificates / Approvals**

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

Options

Display

Specialities

Heartbeat Technology,
SIL 2/3 according to IEC 61508,
Bluetooth® commissioning, operation and maintenance with the
SmartBlue App

Components

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

Point Level / Solids**Measuring principle**

Radiometric Limit

Characteristic / Application

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

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

Ambient temperature

-40 °C...+80 °C,
(-40 °F...+176 °F)

Point Level / Solids**Process temperature**

Any

Process pressure absolute / 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

Safety approvals

Overfill protection WHG
SIL 2/3

Design approvals

EN 10204-3.1

Options

Display

Components

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

Point Level / Solids**Continuous / Solids****Measuring principle**

Radiometric

Characteristic / Application

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

Non-contact measuring technique

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 absolute / max. overpressure limit

Any

Main wetted parts

Non-contact

Process connection

Non-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

Certificates / Approvals

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

Safety approvals

Overfill protection WHG
SIL 2/3

Design approvals

EN 10204-3.1

Options

Display

Components

Isotope: FSG60, FSG61,
Source container: FQG60, FQG61, FQG62, FQG63, FQG66,
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,
SIL 2/3 according to IEC 61508,
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 absolute / 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**Safety approvals**

Overfill protection WHG
SIL 2/3

Design approvals

EN 10204-3.1

Options

Display

Components

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

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

Continuous / Liquids

Accuracy

+/-1%

Ambient temperature-40 °C...+80 °C,
(-40 °F...+176 °F)**Process temperature**

Any

Process pressure absolute / max. overpressure limit

Any

Main wetted parts

Non-contact

Process connection

Non-contact

Sensor lengthPVT scintillator
400 mm...3000 mm,
>3000 mm cascade mode**Max. measurement distance**Unlimited measuring range,
Cascade**Communication**

4...20 mA HART

Certificates / Approvals

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

Safety approvalsOverfill protection WHG
SIL 2/3

Continuous / Liquids

Design approvals

EN 10204-3.1

Options

Display

Components

Isotope: FSG60, FSG61,

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

Mounting accessories: FHG61

More information www.ch.endress.com/FMG50