

Radiometric Level and density measurement Gammapilot FMG60

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



More information and current pricing:

www.at.endress.com/FMG60

Benefits:

- Multifunctional compact transmitter: One instrument for all measuring tasks which results in cost savings in spare parts and maintenance
- SIL2/3 approval in accordance with IEC 61508 for point level detection
- Highest availability, reliability and safety, even for extreme process and ambient conditions
- Highest sensitivity and accuracy at lowest dose rates (ALARA principle)
- Aluminium or stainless steel housing 316L for heavy-duty applications
- 4 to 20mA output for simple plant integration

Specs at a glance

- **Process temperature** Any
- **Process pressure absolute / max. overpressure limit** Any
- **Min. density of medium** Any
- **Max. measurement distance** Unlimited measuring range Cascade
- **Min. conductivity of medium** Any

Field of application: The Gammapilot FMG60 compact transmitter is made for non-contact point level detection, continuous level, interface and density measurement in liquids, solids, suspensions or sludges. The variable transmitter concept with NaJ crystal or plastic scintillators in different lengths guarantees optimum adaptation to individual applications. The transmitter contains a scintillator, photomultiplier and evaluation unit.

Features and specifications

Point Level / Liquids**Measuring principle**Radiometric Limit

Characteristic / ApplicationCompact transmitter

SpecialitiesInterface measurement

Supply / Communication

DC: 90-253V

AC: 18-36V

Ambient temperature

-40...60°C,

(-40...140°F),

With cooling jacket:

0...120°C

(32...248°F)

Process temperatureAny

Process pressure absolute / max. overpressure limitAny

Min. density of mediumAny

Min. conductivity of mediumAny

Main wetted partsNon-contact

Process connectionNon-contact

Point Level / Liquids**Process connection hygienic**Non-contact

Sensor length

PVT scintillator 200 mm

PVT scintillator 400 mm

NaI scintillator 50x50mm

Communication

4-20mA HART

FOUNDATION Fieldbus

PROFIBUS PA

Certificates / ApprovalsATEX, FM, CSA, IEC Ex, INMETRO, JPN, NEPSI, EAC

Safety approvalsSIL1/ SIL2

Components

Isotope: FSG60, FSG61

Source container: FQG60, FQG61, FQG62, FQG63,

FQG66

Point Level / Solids**Measuring principle**Radiometric Limit

Characteristic / ApplicationCompact transmitter

SpecialitiesOptional separate housing

Supply / Communication

AC: 90-253V

DC: 18-36V

Point Level / Solids**Ambient temperature**

-40...60°C
(-40...140°F),
With cooling jacket:
0...120°C
(32...248°F)

Process temperature

Any

Process pressure absolute / max. overpressure limit

Any

Min. density of medium

Any

Main wetted parts

Non-contact

Process connection

Non-contact

Process connection hygienic

Non-contact

Sensor length

PVT scintillator 200 mm (8")
PVT scintillator 400 mm (16")
NaJ scintillator 50x50mm (2")

Communication

4...20 mA HART
FOUNDATION Fieldbus
PROFIBUS PA

Certificates / Approvals

ATEX, FM, CSA, IEC Ex, INMETRO, JPN, NEPSI, EAC

Point Level / Solids**Safety approvals**SIL1/ SIL2

Components

Isotope: FSG60, FSG61

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

Continuous / Liquids**Measuring principle**Radiometric

Characteristic / Application

Compact transmitter

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

Interface measurementInterfaces liquid / liquid also with emulsion layers and interfaces liquid /
solid

SpecialitiesInterface, density and mass flow measurement

Supply / Communication

AC: 90-253V

DC: 18-36V

Accuracy+/-1%

Ambient temperature

-40...60°C

(-40...140°F),

With cooling jacket:

0...120°C

(32...248°F)

Continuous / Liquids

Process temperature

Any

Process pressure absolute / max. overpressure limit

Any

Main wetted parts

Non-contact

Process connection

Non-contact

Process connection hygienic

Non-contact

Sensor length

PVT scintillator

400mm...2000mm

>2000mm cascade mode

Max. measurement distance

Unlimited measuring range

Cascade

Communication

4...20 mA HART

FOUNDATION Fieldbus

PROFIBUS PA

Certificates / Approvals

ATEX, FM, CSA, IEC Ex, INMETRO, JPN, NEPSI, EAC

Safety approvals

SIL1

Continuous / Liquids**Components**

Isotope: FSG60, FSG61

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

Display: FHX40

Mounting accessories: FHG60

Density**Measuring principle**Radiometric Density

Characteristic / ApplicationCompact transmitter
with PT100 input for
temperature compensation

Supply / Communication

AC: 90-253V

DC: 18-36V

Ambient temperature

-40°C...50°C / 60°C

With cooling jacket: 0°C...120°C

Process temperatureAny

Process pressure absoluteAny

Wetted partsNon-contact

HygienicNon-contact

Density**Sensor length**

NaJ scintillator 50x50mm

PVT scintillator 200...400mm

Output

4-20mA HART

FOUNDATION Fieldbus

PROFIBUS PA

Certificates / Approvals

ATEX, FM, CSA, IECEX, TIIS, NEPSI, GOST

Components

Isotope: FSG60

Source container: FQG60, FQG61, FQG62, FQG63,
QG2000

Other approvals and certificates

SIL1

Continuous / Solids**Measuring principle**

Radiometric

Characteristic / Application

Compact transmitter

Specialities

Cascading for high silos

Supply / Communication

AC: 90-253V

DC: 18-36V

Accuracy

+/-1%

Continuous / Solids

Ambient temperature

-40...60°C
(-40...140°F),
With cooling jacket:
0...120°C
(32...248°F)

Process temperature

Any

Process pressure absolute / max. overpressure limit

Any

Main wetted parts

Non-contact

Process connection

Non-contact

Process connection hygienic

Non-contact

Sensor length

PVT scintillator
400mm...2000mm
>2000mm cascade mode

Max. measurement distance

Unlimited measuring range
Cascade

Communication

4...20 mA HART
FOUNDATION Fieldbus
PROFIBUS PA

Certificates / Approvals

ATEX, FM, CSA, IEC Ex, INMETRO, JPN, NEPSI, EAC

Continuous / Solids

Safety approvals

SIL1

Components

Isotope: FSG60, FSG61

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

Display: FHX40

Mounting accessories: FHG60

More information www.at.endress.com/FMG60