

Standard MLFB for quick delivery on SITRANS FUG1010 (Gas)

| Selection and Ordering data | Article No. | Order code |
|---|-------------------------------------|------------------------|
| SITRANS FUG1010 (Gas) | 7ME361 - - - - - 0 - - - - - | K12 + K12 + R12 |
| Design IP65 (NEMA 4X) wall mount | 0 | |
| Number of ultrasonic paths Dual path | 2 | |
| Flowmeter functions and I/O configurations includes graphic or digital display • Extended I/O option - additional 2 x 4 ... 20 mA - form C relays - 4 x digital pulse outputs (2 x open collector and 2 x 0 ... 5 V TTL) | B B | |
| Meter power options 9 ... 36 V, DC (except compact NEMA 7) | | |
| Communication options RS 232 (standard) MODBUS (dedicated only, excludes NEMA 7 compact) | 0 1 | |
| RTD temperature sensor (includes mounting hardware for pipes above 1.5"/38 mm OD) No RTDs 1 x standard clamp-on RTD 2 x standard clamp-on RTD 1 x submersible clamp-on RTD 2 x submersible clamp-on RTD Notes: 1. Temperature input is required for FUH systems 2. Only the Interface detector set up as a dual channel can use 2 RTD's | | 0 1 2 3 4 |
| Sensor for channel 1 (includes pipe mounting kit and spacer bar for indicated max. OD listed) See "Sensor selection charts" for specifications. no sensor C2H (high precision) Mounting frame and straps provided up to 1200 mm (48") D1H (high precision) Mounting frame and straps provided up to 1200 mm (48") D2H (high precision) Mounting frame and straps provided up to 1200 mm (48") | | A N P Q |
| Sensor for channel 2 (includes pipe mounting kit and spacer bar for indicated max. OD listed) See "Sensor selection charts" for specifications. no sensor C2H (high precision) Mounting frame and straps provided up to 1200 mm (48") D1H (high precision) Mounting frame and straps provided up to 1200 mm (48") D2H (high precision) Mounting frame and straps provided up to 1200 mm (48") | | A N P Q |
| Approvals FM/CSA/CE (default) ATEX, CE, C-TICK | | 1 2 |

Standard MLFB product offering represents 4 to 6 weeks delivery time
For sensor and RTD cables for quick delivery see tables at end of section.



Flow Measurement

SITRANS F US Clamp-on

SITRANS FUG1010 (Gas)

Selection and Ordering data

SITRANS FUG1010 (Gas)

- IP65 (NEMA 4X) wall mount
- IP65 (NEMA 7) compact explosionproof
- IP66 (NEMA 7) wall mount explosionproof

7ME3610-

7ME3611-

7ME3613-

0 -

Number of channels/ultrasonic paths

Single path

1

Dual path

2

Special: Four path (NEMA 4X and NEMA 7 wall mount only)

9

H 1 A

Flowmeter functions and I/O configurations (includes graphic or digital display)

IP65 (NEMA 4X) wall mount and IP66 (NEMA 7) wall mount explosionproof units

- Standard (all but NEMA 7 compact explosionproof)
 - Graphic display
 - 4 x 4 ... 20 mA analog input
 - 2 x 0 ... 10 V
 - 2 x 4 ... 20 mA analog output
 - 2 x pulse output
 - 4 x Form C relays
 - 2 x RTD input

A

- Extended I/O option
 - additional 2 x 4 ... 20 mA
 - Form C relays
 - 4 x digital pulse outputs (2 x open collector and 2 x 0 ... 5 V TTL)

B

IP65 (NEMA 7) compact explosionproof units

- Standard
 - Digital display
 - 2 x 4 ... 20 mA (loop)
 - 2 x 4 ... 20 mA analog input
 - 2 x status (open collector)
 - 1 x RTD input
- Digital pulse option
 - 1 x digital pulse open collector output

D

E

Meter power options

90 ... 240 V AC

A

9 ... 36 V DC (except NEMA 7 compact explosionproof)

B

9 ... 36 V DC negative GND (Compact only)

J

9 ... 36 V DC positive GND (Compact only)

K

Communication options

RS 232 (standard)

0

Standard MODBUS configurations include Baudrate: 9600, Parity: None, Stop Bits: 1, Data bits: 8, MODBUS data: 16 bit, Data format: word normal, Mode: RTU, and MODBUS format: Gould. For other configurations please select option 9 and L1Y and state requirements in plain text

MODBUS (excludes NEMA 7 compact)

1

Other Version, MODBUS, N2, Other Baud Rate, Other Parity, State in Plain Text

9

RTD temperature sensor

(includes mounting hardware for pipes above 1.5" outer diameter)

No RTDs

0

1 x standard clamp-on RTD

1

2 x standard clamp-on RTD

2

1 x submersible clamp-on RTD

3

2 x submersible clamp-on RTD

4

Selection and Ordering data

SITRANS FUG1010 (Gas)

- IP65 (NEMA 4X) wall mount
- IP65 (NEMA 7) compact explosionproof
- IP66 (NEMA 7) wall mount explosionproof

7ME3610-

7ME3611-

7ME3613-

0 -

Sensor for channel 1

(includes pipe mounting kit and spacer bar for indicated max. outer diameter listed) See "Sensor selection chart" for specifications.

no sensor

A

For the following B1H to D4H sensors, temperature range is -40 °C ... 65 °C (-41 °F ... 150 °F), nominal 21 °C (70 °F):

B1H (high precision) Trackmount and straps provided up to 125 mm (5")

K

B2H (high precision) Trackmount and straps provided up to 125 mm (5")

L

B3H (high precision) Trackmount and straps provided up to 125 mm (5")

T

C1H (high precision) Mounting frame and straps provided up to 1200 mm (48")¹⁾

M

C2H (high precision) Mounting frame and straps provided up to 1200 mm (48")¹⁾

N

D1H (high precision) Mounting frame and straps provided up to 1200 mm (48")¹⁾

P

D2H (high precision) Mounting frame and straps provided up to 1200 mm (48")¹⁾

Q

D3H (high precision) Mounting frame and straps provided up to 1200 mm (48")¹⁾

U

D4H (high precision) Mounting frame and straps provided up to 1200 mm (48")¹⁾

R

For the following B1H to D4H sensors, temperature range is -1 °C up to 104 °C (30 °F up to 220 °F), nominal 65 °C (150 °F):

B1H (high temperature range HP)

Z

P 1 K

B2H (high temperature range HP)

Z

P 1 L

B3H (high temperature range HP)

Z

P 1 T

C1H (high temperature range HP)

Z

P 1 M

C2H (high temperature range HP)

Z

P 1 N

D1H (high temperature range HP)¹⁾

Z

P 1 P

D2H (high temperature range HP)¹⁾

Z

P 1 Q

D3H (high temperature range HP)¹⁾

Z

P 1 U

D4H (high temperature range HP)¹⁾

Z

P 1 R

¹⁾ Supplied spacer bar supports pipes up to 750 mm (30 inch). For pipes larger than 750 mm (30 inch) purchase also, spare part 7ME3960-0MS40 (1012BN-4).

Flow Measurement SITRANS F US Clamp-on

SITRANS FUG1010 (Gas)

3

| Selection and Ordering data | Article No. | Ord. code |
|---|-----------------|-------------|
| SITRANS FUG1010 (Gas) | | |
| • IP65 (NEMA 4X) wall mount | 7ME3610- | |
| • IP65 (NEMA 7) compact explosionproof | 7ME3611- | |
| • IP66 (NEMA 7) wall mount explosionproof | 7ME3613- | |
| | 0 - | |
| Sensor for channel 2 (includes pipe mounting kit and spacer bar for indicated max. outer diameter listed) See "Sensor selection chart" for specifications. | | |
| no sensor | | A |
| For the following B1H to D4H sensors, temperature range is -40 °C ... 65 °C (-41 °F ... 150 °F), nominal 21 °C (70 °F): | | |
| B1H (high precision) Trackmount and straps provided up to 125 mm (5") | | K |
| B2H (high precision) Trackmount and straps provided up to 125 mm (5") | | L |
| B3H (high precision) Trackmount and straps provided up to 125 mm (5") | | T |
| C1H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾ | | M |
| C2H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾ | | N |
| D1H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾ | | P |
| D2H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾ | | Q |
| D3H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾ | | U |
| D4H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾ | | R |
| Other versions (different size, mount, type or pipe larger than DN 1200 (48") or corrosion resistant), add Order code and plain text. | Z | Q1 Y |
| For the following B1H to D4H sensors, temperature range is -1 °C up to 104 °C (30 °F up to 220 °F), nominal 65 °C (150 °F): | | |
| B1H (high temperature range HP) | Z | Q1 K |
| B2H (high temperature range HP) | Z | Q1 L |
| B3H (high temperature range HP) | Z | Q1 T |
| C1H (high temperature range HP) | Z | Q1 M |
| C2H (high temperature range HP) | Z | Q1 N |
| D1H (high temperature range HP) | Z | Q1 P |
| D2H (high temperature range HP) | Z | Q1 Q |
| D3H (high temperature range HP) | Z | Q1 U |
| D4H (high temperature range HP) | Z | Q1 R |
| Approvals | | |
| FM/CSA/CE/C-TICK (default) | | 1 |
| ATEX, CE, C-TICK | | 2 |
| INMETRO (Brazil) | | 3 |

| Selection and Ordering data | Order code |
|---|------------|
| Further designs | |
| Please add "-Z" to Article No. and specify Order code(s). | |
| Cable assembly for sensors (add for # of paths) See "Sensor cable selection chart" | K.. |
| Cable assembly for RTDs (add for # of RTDs) See "RTD cable selection chart" | R.. |
| Cable termination kit (for one cable pair) | |
| • Termination for standard, plenum and armored sensor cable | T01 |
| • Termination for submersible sensor cable | T11 |
| • RTD cable termination kit for standard RTD | T21 |
| • RTD cable termination kit for submersible RTD | T31 |
| • Insert RTD cable termination kit | T41 |
| Languages (Meter and Documentation) for compact NEMA 7 | |
| • German | B10 |
| • French | B12 |
| • Spanish | B13 |
| • Italian | B14 |
| Tag name plate | |
| • Stainless steel tags with 3.2 mm (0.13 inch) characters (68 characters max.) | Y19 |

MLFB example

Application example

A clamp-on meter is required for a 300 mm (12") carbon steel gas line with a wall thickness of 12.7 mm (0.5"). Meter electronics are to be located in a Class I Div 2 area only 18 m (60 ft) from the pipeline. 12 V DC power is available at the site.

Dual path operation is desired for improved accuracy and redundant measurement. Pulse output will be primary flow data source.

MLFB Article No.: **7ME3610-2BB00-0QQ1-Z
K03 + K03**

| Selection and Ordering data | Article No. | Ord. code |
|--|------------------|------------|
| SITRANS FUG1010 meter family | 7ME3610 - | 0 - |
| IP65 (NEMA 4X) wall mount | 0 | |
| Dual path | 2 | |
| Custody Transfer option with digital pulse | B | |
| 9 ... 36 V DC power option | B | |
| RS 232 Standard | 0 | |
| No RTD required | 0 | |
| Sensor code for path 1 | Q | |
| Sensor code for path 2 | Q | |
| FM approval required | 1 | |
| 30 m (100 ft) sensor cab. for path 1 | | K03 |
| 30 m (100 ft) sensor cab. for path 2 | | K03 |

Flow Measurement

SITRANS F US Clamp-on

SITRANS FUG1010 (Gas)

| Selection and Ordering data | Article No. |
|---|------------------------|
| Operating Instructions for SITRANS FUG1010 | |
| English NEMA 4X wall mount & NEMA 7 wall mount explosionproof | A5E02951519 |
| German NEMA 4X wall mount & NEMA 7 wall mount explosionproof | A5E02951531 |
| English NEMA 7 compact explosionproof | CQO:1010GCXFM-3 |

This device is shipped with a Quick Start Guide and a CD containing further SITRANS F literature.

All literature is also available for free at:
<http://www.siemens.com/flowdocumentation>

High precision sensor selection chart IP68

| Based on pipe wall thickness (steel pipes only) | | | | | |
|---|---------------|----------------|------|------------------|-------|
| Sensor Pipe wall | Order Code | Pipe wall (mm) | | Pipe wall (inch) | |
| | | min. | max. | min. | max. |
| B1H | K | 2.0 | 3.0 | 0.08 | 0.12 |
| B2H | L | 3.0 | 4.1 | 0.12 | 0.16 |
| B3H | T | 2.7 | 3.3 | 0.106 | 0.128 |
| C1H | M | 4.1 | 5.8 | 0.16 | 0.23 |
| C2H | N | 5.8 | 8.1 | 0.23 | 0.32 |
| D1H | P | 8.1 | 11.2 | 0.32 | 0.44 |
| D2H | Q | 11.2 | 15.7 | 0.44 | 0.62 |
| D3H | U | 7.4 | 9.0 | 0.293 | 0.354 |
| D4H | R | 15.7 | 31.8 | 0.62 | 1.25 |

Sensor Cable (pair) Selection Chart

| Sensor cable codes for length and type options | | | | |
|--|--|--|--|--|
| Cable length m (ft) | Standard (PVC jacket) -40...+80 °C (-40...+176 °F) | Submersible (polyethylene jacket) -40...+80 °C (-40...+176 °F) | Plenum Rated (teflon jacket) -40...+200 °C (-40...+392 °F) | Armored -40...+80 °C (-40...+176 °F) |
| Order code | | | | |
| 6 (20) | K01¹⁾ | K11 | K21 | K31 |
| 15 (50) | K02 | K12¹⁾ | K22 | K32¹⁾ |
| 30 (100) | K03¹⁾ | K13¹⁾ | K23 | K33 |
| 46 (150) | K04¹⁾ | K14 | K24 | K34 |
| 61 (200) | K05 | K15 | K25 | K35 |
| 91 (300) | K06¹⁾ | K16 | K26 | K36 |

RTD Cable (single) Selection Chart

| RTD cable codes for length and type | | |
|-------------------------------------|---|---|
| Cable length m (ft) | Standard (teflon wrapped) -40 ... +200 °C (-40 ... +392 °F) | Submersible (extruded jacket) -40 ... +200 °C (-40 ... +392 °F) |
| Order code | | |
| 6 (20) | R01¹⁾ | R11 |
| 15 (50) | R02¹⁾ | R12 |
| 30 (100) | R03¹⁾ | R13 |
| 46 (150) | R04 | R14 |
| 61 (200) | R05 | R15 |
| 91 (300) | R06 | R16 |

¹⁾ Standard MLFB for quick deliver