Flow Measurement
SITRANS F M

Transmitter TRANSMAG 2 with sensor 911/E

Overview

SITRANS F M TRANSMAG 2 with the SITRANS F M 911/E sensor is a pulsed alternating field magnetic flowmeter where the magnetic field strength is much higher than conventional DC pulsed magnetic flowmeters.

Benefits

- Wide range of sizes DN 15 to DN 1000 (½" to 40")
- Broad range of liner and electrode materials for extreme process medias
- Fully welded construction provides a ruggedness that suits the toughest applications and environments.
- Automatic reading of SmartPLUG for easy commissioning
- Simple menu operation with two-line display
- Comprehensive self-diagnostic with selfmonitoring and internal simulation

Application

The main applications of the SITRANS F M transmitter TRANSMAG 2 can be found in the following sectors:

- Pulp and Paper industry
- Mining industry

The pulse alternating field technology is ideal for difficult applications like:

- High concentrated paper stock > 3 %
- Heavy mining slurries up to 70 % solid concentration
- Mining slurries with magnetic particles.
- Low conductive medias ≥1 μS/cm (0.1 μS/cm depending on medium)

Design

- Available for remote mounting
- PROFIBUS PA (profile 2.0) / HART communication
- Analog output and digital outputs for pulses, device status, limits, flow direction, frequency output

Mode of operation

The flow measuring principle is based on Faraday’s law of electromagnetic induction according to which the sensor converts the flow into an electrical voltage proportional to the velocity of the flow.

Function

The TRANSMAG 2 is a microprocessor-based transmitter with a built-in alphanumeric display in several languages. The transmitters evaluate the signals from the associated electromagnetic sensors and also fulfill the task of a power supply unit which provides the magnet coils with a constant current.

The magnetic flux density in the sensor is additionally monitored by reference coils.

Further information on connection, mode of operation and installation can be found in the data sheets for the sensors.

Displays and keypad

Operation of the transmitter can be carried out using:

- Keypad and display unit
- HART communicator
- PC/laptop and SIMATIC PDM software via HART communication
- PC/laptop and SIMATIC PDM software using PROFIBUS PA communication

HART communication

PROFIBUS PA communication
## Technical specifications

### Transmitter TRANSMAG 2

#### Mode of operation and design
- **Measuring principle**: Electromagnetic with pulsed alternating field (PAC)
- **Magnetic field excitation**
  - 50 Hz AC power supply: Bipolar (16.7 Hz)
  - 60 Hz AC power supply: Bipolar (20 Hz)
- **Automatic power supply synchronization**
  - 50 Hz AC power supply: Bipolar (16.7 Hz), Bipolar with prepulse (10 Hz), Unipolar (8.33 Hz)
  - 60 Hz AC power supply: Bipolar (20 Hz), Bipolar with prepulse (12 Hz), Unipolar (10 Hz)

#### Accuracy under reference conditions
- **Measuring tolerance of pulse output**
  - With \( v > 0.25 \) m/s (0.82 ft/s): \( \pm 0.5 \% \) of measured value \( \pm 1.2 \) mm/s (0.05 inch/s)
  - With \( v < 0.25 \) m/s (0.82 ft/s): \( \pm 2.5 \) mm/s (0.1 inch/s)
- **As pulse output plus \( \pm 0.1 \% \) conversion error \( \pm 20 \) µA
- **Repeatability**: \( 0.2 \% \) of measured value

#### Reference conditions
- **Process temperature**: \( 25 \) °C ± 5 °C (77 °F ± 9 °F)
- **Ambient temperature**: \( 25 \) °C ± 5 °C (77 °F ± 9 °F)
- **Warm-up time**: Min. 30 min
- **Installation conditions**
  - Inlet pipe section \( \geq 10 \times DN \)
  - Outlet pipe section \( \geq 5 \times DN \)
  - Installed centered in pipe
- **Medium**: Water without gaseous or solid components

#### Calibration
- Standard production calibration, calibration report shipped with sensor
  - 2 x 20 %, 2 x 50 % and 2 x 100 %

#### Output
- **Electrical isolation**: Outputs electrically isolated from one another and from the power supply, max. 60 V permissible against PE/equipotential bonding
  - 0/4 ... 20 mA (7ME5034-0.... or 7ME5034-2....)
- **Current output**
  - **Signal**
    - Upper limit: 0/4 ... 20 mA, selectable
    - Failure: 20 ... 22.5 mA, optional 3.6; 20 or 24 mA
  - **Load**
    - Output: max. 600 Ω, max. load voltage 15 V DC
    - For HART communication: \( \geq 250 \) Ω
- **Communication**
  - Via analog output with PC coupling module or HART communicator
  - HART, version 5.1
- **Protocol**
- **Digital output**
- **Signal**
  - Output
    - Active signal: 24 V DC, \( \leq 24 \) mA, \( R_I = 170 \) Ω
    - Passive signal: Open collector, max. 30 V DC, 200 mA

#### Output configuration
- **Pulse**
  - Pulse significance: \( \leq 5000 \) pulses/s
  - Pulse width: \( \geq 0.1 \) ms
  - Limit frequency: \( \leq 10000 \) Hz
  - Limits
    - For flow and quantity, flow direction, alarm

#### Digital output 2 (relay)
- (only 7ME5034-0....)
  - **Relay**
    - **Rating**: Max. 5 W, max. 50 V AC/DC, max. 200 mA
    - Limits for flow and quantity, flow direction, alarm

#### Digital input (optional to digital output 2)
- (only 7ME5034-2....)
  - **Input function configurable as high-active or low-active**
  - **Signal voltage**: Max. 30 V DC, \( R_I = 3 \) kΩ
  - **Load output**
    - Min. 4 simultaneous C2 connections
    - 9 ... 32 V DC permissible
    - 10 mA, limited to \( \leq 15 \) mA in event of fault by electrical current limitation

#### For PROFIBUS devices
- PROFIBUS PA (for PROFIBUS-devices 7ME5034-1....)
  - **Communication**
    - Layer 1 and 2 according to PROFIBUS PA
    - Transmission according to IEC 1158-2
    - Layer 7 (protocol layer) according to PROFIBUS PA and DP V1 (EN 50170)
    - Device class B, device profile 2.0
    - Max. 4 simultaneous C2 connections
  - **Bus voltage**: 9 ... 32 V DC permissible

#### Rated operating conditions
- See also sensor
  - **Ambient temperature**
    - Operation: -20 ... +60 °C (-4 ... +140 °F)
    - Display module: 0 ... 50 °C (32 ... 122 °F)
    - Storage: -25 ... +80 °C (-13 ... +176 °F)
  - **Electromagnetic compatibility (EMC)**
    - Degree of protection
    - To IEC/EN 61326 for use in industrial areas
    - To IEC/EN 61326 for use in industrial areas
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Medium conditions
- Process temperature: -20...+150 °C (-4...302 °F) depending on the liner
- Minimum conductivity of medium ≥ 1 µS/cm (0.1 µS/cm depending on medium)
- With SITRANS F M 911/E sensors

Design
- Weight of transmitter: 4.4 kg (9.7 lb)
- Remote version: Transmitter must be connected to sensor using shielded cable
- Maximum cable length: 100 m (328 ft)
- Housing: Die-cast aluminum, painted

Displays and keypad
- General display: LCD, backlight, two lines with 16 characters each
- Multi-display for Flow, totalizer, flow velocity
- Keypad: 4 keys for entering parameters

Power supply
- corresponding to rating plate
- AC supply: 100...250 V AC ± 15 %, 47...63 Hz
- Power consumption: Approx. 120...630 VA, depending on sensor
- Line fuse: 100...230 V AC: T1.6A
- Magnet current fuse: F5A/250 V

Sensor cables between sensor and transmitter
Sufficient shielding must be provided, as well as fixed routing of the signal cables (electrode and coil cable). Signal cables must be routed free of vibration, and protected against strong magnetic and stray fields. In case of doubt, the sensor cables must be routed in grounded steel conduit. The cable length between the sensor and transmitter must not exceed 100 m (328 ft).

Selection and Ordering data
- Article No.: A5E00102775
- Special mounting bracket for wall and pipeline installation: A02
- Transmitter setting for parameter "TAG number" (specify in plain text, max. 8 characters): Y15
- Transmitter setting for parameter "TAG descriptor" (specify in plain text, max. 16 characters): Y16
- Tag name plate, stainless steel (specify in plain text): Y17
- Special version (specify in plain text): Y99

Operating instructions for SITRANS F M TRANSMAG 2
- English: A5E00102775
- German: A5E00102774

All literature is available to download for free, in a range of languages, at www.siemens.com/processinstrumentation/documentation
# Flow Measurement
## SITRANS FM

### Transmitter TRANSMAG 2 with sensor 911/E

**Accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Article No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard wall-mounting bracket, stainless steel AISi 316L/1.4404</td>
<td>7ME5933-0AC04</td>
</tr>
<tr>
<td>Special wall-mounting bracket, BI 2.5 DIN 59382 X6Cr17</td>
<td>7ME5933-0AC05</td>
</tr>
<tr>
<td>Potting kit for IP68/ NEMA 6P sealing of sensor junction box</td>
<td>FDK:085U0220</td>
</tr>
</tbody>
</table>

**Spare parts**

<table>
<thead>
<tr>
<th>Description</th>
<th>Article No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display unit</td>
<td>7ME5933-0AC00</td>
</tr>
<tr>
<td>Display lid (Ex) in die-cast aluminum, with corrosion resistant coating (min. 60 µm)</td>
<td>7ME5933-0AC01</td>
</tr>
<tr>
<td>Blind lid for sensor cables connection compartment (only remote version) in die-cast aluminum, with corrosion resistant coating (min. 60 µm) incl. O-ring seal</td>
<td>7ME5933-0AC02</td>
</tr>
<tr>
<td>Blind lid (mains supply, input/outputs) in die-cast aluminum, with corrosion resistant coating (min. 60 µm)</td>
<td>7ME5933-0AC03</td>
</tr>
<tr>
<td>Safety clamp for electronic cover with glass plate (7ME5933-0AC01)</td>
<td>7ME5933-0AC06</td>
</tr>
<tr>
<td>M20 cable gland set for power and output connection, gray PA plastic, 2 pcs. cables Ø 6 ... 12 mm (0.24&quot; ... 0.47&quot;) • -40 ... +100 °C (-40 ... +212 °F)</td>
<td>A5E0224350</td>
</tr>
<tr>
<td>1/2&quot; NPT cable gland set for power and output connection, gray PA plastic, 2 pcs. cables Ø 6 ... 12 mm (0.24&quot; ... 0.47&quot;) • -40 ... +100 °C (-40 ... +212 °F)</td>
<td>A5E02246396</td>
</tr>
<tr>
<td>M16 x 1.5 cable gland set for sensor connection, brass chrome, 2 pcs. and 2 pcs. blind cables Ø 5 ... 9 mm (0.20&quot; ... 0.35&quot;) • -20 ... +105°C (-4 ... +221 °F)</td>
<td>A5E02246369</td>
</tr>
</tbody>
</table>
Dimensional drawings

SITRANS F M transmitter TRANSMAG 2 with wall-mounting bracket, dimensions in mm (inch)

SITRANS F M transmitter TRANSMAG 2 with special wall-mounting bracket, dimensions in mm (inch)

Schematics

**Power supply**

1. Power supply L/N
2. PE conductor
3. 0/4 ... 20mA Load 600 Ω max. 15 V
4. Digital output 1
5. Passive open collector max. 30 DC 200 mA
6. Digital output 2 (Relay)

**Sensor connection**

7. PE
8. SmartPlug connect.
9. Supply (-6V)
10. Ground (0V)
11. Supply (+6V)
12. Electrode connect.
13. Electr. 1 (EL1)
14. Electr. 2 (EL2)
15. Reference coil connect.
16. Ref. 1
17. Ref. 2
18. Magnetic field current 1
19. Magnetic field current 2
20. Coil cable

**Sensor**

21. brown
22. green/yellow
23. green/red/orange
24. blue
25. black/gray
26. yellow
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911/E sensor

<table>
<thead>
<tr>
<th>Process connection</th>
<th>Nominal diameters</th>
<th>Metering tube connections</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DN 15 ... 1000 (½” ... 40”)</td>
<td>EN 1092-1, ANSI B16.5, AWWA C-207 and JIS 10 K</td>
</tr>
</tbody>
</table>

Rated operating conditions

<table>
<thead>
<tr>
<th>Installation conditions</th>
<th>Nominal diameters</th>
<th>Metering tube connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Soft rubber liner</td>
<td>0 ... 70 °C (32 ... 158 °F)</td>
<td>EN 1092-1, ANSI B16.5, AWWA C-207 and JIS 10 K</td>
</tr>
<tr>
<td>* Hard rubber liner</td>
<td>0 ... 90 °C (32 ... 194 °F)</td>
<td>Option: 100 °C (212 °F)</td>
</tr>
<tr>
<td>* PTFE liner</td>
<td>-20 ... +150 °C (-4 ... +302 °F) at 25 bar (363 psi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-20 ... +100 °C (-4 ... +212 °F) at 40 bar (580 psi)</td>
<td></td>
</tr>
<tr>
<td>* Linatex (rubber) liner</td>
<td>-40 ... +70 °C (-40 ... +158 °F) (for temperatures below -20 °C (-4 °F)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AISI 316L/1.4404 flanges must be used)</td>
<td></td>
</tr>
<tr>
<td>* Novolak liner</td>
<td>130 °C (266 °F) at 40 bar (580 psi)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree of protection</th>
<th>Medium conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP67/NEMA 4X</td>
<td>Maximum flow velocity: 12 m/s (39.4 ft/s)</td>
</tr>
<tr>
<td>Optional IP68/NEMA 6</td>
<td>Full scale value of flow velocity: 0.15 ... 12 m/s (0.49 ... 39.4 ft/s)</td>
</tr>
</tbody>
</table>

Design

<table>
<thead>
<tr>
<th>Weight</th>
<th>Flange and housing material</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Carbon steel ASTM A 105, with corrosion resistant coating</td>
</tr>
<tr>
<td></td>
<td>Corrosivity category C3 according to ISO 12944-2 or AISI 316L/1.4404 flanges and carbon steel housing ASTM A 105, with corrosion resistant coating</td>
</tr>
<tr>
<td></td>
<td>Corrosivity category C3, according to ISO 12944-2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measuring pipe material</th>
<th>Electrode material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel AISI 304 or higher</td>
<td>* AISI 316/1.4571</td>
</tr>
<tr>
<td></td>
<td>* Hastelloy C276/2.4819</td>
</tr>
<tr>
<td></td>
<td>* Platinum</td>
</tr>
<tr>
<td></td>
<td>* Titanium</td>
</tr>
<tr>
<td></td>
<td>* Tantalum</td>
</tr>
</tbody>
</table>

Grounding electrode material Defined via the Order code

Protection ring

<table>
<thead>
<tr>
<th>Function</th>
<th>To protect the edges of liners from abrasion (e.g. gravel, sand etc.). Used mainly with soft rubber liners and for PTFE liners at high temperatures from 100 to 150 °C (212 to 302 °F).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with medium</td>
<td>Yes, please always check resistance to measured medium.</td>
</tr>
<tr>
<td>Material</td>
<td>Stainless steel AISI 316/1.4571, optionally Hastelloy C276/2.4819</td>
</tr>
<tr>
<td>Material thickness</td>
<td>The overall length of the sensor is increased by:</td>
</tr>
<tr>
<td>Standard</td>
<td>Optional for all liners. Must be ordered separately.</td>
</tr>
<tr>
<td>Article No.</td>
<td>7ME5942-...</td>
</tr>
</tbody>
</table>

Grounding ring

<table>
<thead>
<tr>
<th>Function</th>
<th>Electrical reference and grounding of the medium. Required if the pipelines are not electrically conducting or are lined (plastic pipelines, concrete pipelines etc.). All grounding rings must be connected to the grounding screw present on the sensor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with medium</td>
<td>Yes, please always check resistance to measured medium.</td>
</tr>
<tr>
<td>Material</td>
<td>Stainless steel AISI 316/1.4571 or Hastelloy C4/2.4610</td>
</tr>
<tr>
<td>Material thickness</td>
<td>The overall length of the sensor is increased by 2 mm (0.08&quot;) per grounding ring.</td>
</tr>
<tr>
<td>Standard</td>
<td>Optional for all liners. Required between the medium and sensor for equipotential bonding between non-conducting pipelines or lined pipelines.</td>
</tr>
<tr>
<td>Article No.</td>
<td>7ME5943-...</td>
</tr>
</tbody>
</table>

Important:
The rings must be ordered together with the sensor. Gaskets are not included. In case of replacement please include the sensor MLFB code on the order.
Notes on pressure equipment directive

The devices are designed for liquids of danger group "Gases of fluid group 1". The categories differ according to the version, and are listed in the table below.

For further information on the PED standard and requirements, see page 10/15.

<table>
<thead>
<tr>
<th>Nominal diameter DN (inch)</th>
<th>Nominal pressure PN (MWP psi)</th>
<th>Permissible media</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ... 25 (½&quot; ... 1&quot;)</td>
<td>40 (580)</td>
<td>Gases fluid group 1 and liquids fluid group 1</td>
<td>Article 4.3</td>
</tr>
<tr>
<td>200 ... 300 (8&quot; ... 12&quot;)</td>
<td>10 (145)</td>
<td>Gases fluid group 1 and liquids fluid group 1</td>
<td>II</td>
</tr>
<tr>
<td>65 ... 250 (2½&quot; ... 10&quot;)</td>
<td>16 (232)</td>
<td>Gases fluid group 1 and liquids fluid group 1</td>
<td>II</td>
</tr>
<tr>
<td>40 ... 100 (1½&quot; ... 4&quot;)</td>
<td>40 (580)</td>
<td>Gases fluid group 1 and liquids fluid group 1</td>
<td>II</td>
</tr>
<tr>
<td>350 ... 1000 (14&quot; ... 40&quot;)</td>
<td>10 (145)</td>
<td>Gases fluid group 1 and liquids fluid group 1</td>
<td>III</td>
</tr>
<tr>
<td>300 ... 1000 (12&quot; ... 40&quot;)</td>
<td>16 (232)</td>
<td>Gases fluid group 1 and liquids fluid group 1</td>
<td>III</td>
</tr>
<tr>
<td>200 ... 600 (8&quot; ... 24&quot;)</td>
<td>25 (363)</td>
<td>Gases fluid group 1 and liquids fluid group 1</td>
<td>III</td>
</tr>
<tr>
<td>125 ... 600 (5&quot; ... 24&quot;)</td>
<td>40 (580)</td>
<td>Gases fluid group 1 and liquids fluid group 1</td>
<td>III</td>
</tr>
</tbody>
</table>
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Flowsensor SITRANS F M 911/E

<table>
<thead>
<tr>
<th>Article No.</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>7ME5610</td>
<td>-Z</td>
</tr>
</tbody>
</table>

Nominal diameter

| DN 15 (½")  | 1V |
| DN 25 (1")  | 2D |
| DN 40 (1½") | 2R |
| DN 50 (2")  | 2Y |
| DN 65 (2½") | 3F |
| DN 80 (3")  | 3M |
| DN 100 (4") | 3T |
| DN 125 (5") | 4B |
| DN 150 (6") | 4H |
| DN 200 (8") | 4P |
| DN 250 (10")| 4V |
| DN 300 (12")| 5D |
| DN 350 (14")| 5K |
| DN 400 (16")| 5R |
| DN 450 (18")| 5Y |
| DN 500 (20")| 6F |
| DN 600 (24")| 6P |
| DN 700 (28")| 6Y |
| DN 800 (32")| 7H |
| DN 900 (36")| 7M |
| DN 1000 (40")| 7R |

Flange norm and pressure rating

| EN 1092-1, PN 10     | B  |
| EN 1092-1, PN 16     | C  |
| ANSI B16.5, Class 150 (½” ... 24") | D  |
| ANSI B16.5, Class 300 (½” ... 24") | E  |
| AWWA C-207 Class D (28” ... 40") | F  |
| JIS 10 K (½” ... 24") | G  |

Flange material

| Mid steel flanges 1.0460/1.0570 | 1 |
| Stainless steel flanges, AISI 316L/1.4404 | 3 |

Liner material

| Soft rubber (DN 25 to DN 1000) | 1 |
| PTFE (DN 15 to DN 600) | 2 |
| Hardrubber (DN 15 to DN 1000) | 3 |
| Linatex (DN 25 to DN 1000) | 4 |
| Novolak (sealing material FFKM) (DN 50 to DN 1000) | 5 |

Electrode material

| AISI 316Ti/1.4571 | 1 |
| Hastelloy C276/2.4819 | 2 |
| Platinum | 3 |
| Titanium | 4 |
| Tantalum | 5 |

Cable glands/terminal box

| Metric: Polyamide terminal box | 1 |
| ½" NPT: Polyamide terminal box | 2 |
| Metric: Stainless steel terminal box | 3 |
| ½" NPT: Stainless steel terminal box | 4 |

Additional information

Please add “-Z” to Article No. and specify Order code(s) and plain text.

- Two grounding electrodes made of stainless steel AISI 316Ti/1.4571: A02
- Two grounding electrodes made of Hastelloy C276/2.4819: A04
- Two grounding electrodes made of Platinum: A05
- Two grounding electrodes made of Tantalum: A06
- Two grounding electrodes made of Tantalum: A07
- Factory certificate to EN 10204-2.2: C14
- Material certificate according to EN 10204-3.1: C16
- Power supply 110 V/60 Hz: P01
- Flow range setting: Specify upper flow range value: Y01
- Pulse output setting: Specify pulse value (1 pulse/unit): Y02
- Silicon-free version: Y04
- Tag name plate, stainless steel (specify in plain text): Y17
- Special version (specify in plain text): Y99

Selection and Ordering data

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<table>
<thead>
<tr>
<th>Article No.</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>7ME5930</td>
<td>-Z</td>
</tr>
</tbody>
</table>

Cable

Cable kit for sensor 911/E with alternating field. Magnet current cable 3 x 1.0 mm² (3 x 0.0016 inch²), electrode/reference cable 7 x 0.5 mm² (7 x 0.0008 inch²) with shield PVC

| Length: 5 m (16.4 ft) | B |
| Length: 10 m (32.8 ft) | C |
| Length: 20 m (65.6 ft) | D |
| Length: 30 m (98.4 ft) | E |
| Length: 40 m (131 ft)  | F |
| Length: 50 m (164 ft)  | G |
| Length: 60 m (197 ft)  | H |
| Length: 80 m (260 ft)  | J |
| Length: 100 m (328 ft) | K |
| Other length (specify in plain text) | Z |
## Selection and Ordering data

### Article No.

<table>
<thead>
<tr>
<th>Protection ring for 911/E sensor (2 pcs.)</th>
<th>7M 59 42 -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounding ring for 911/E sensor (1 pc.)</td>
<td>7M 59 43 -</td>
</tr>
</tbody>
</table>

- Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

### Nominal diameter

- DN 15 (½")
- DN 25 (1")
- DN 40 (1½")
- DN 50 (2")
- DN 65 (2½")
- DN 80 (3")
- DN 100 (4")
- DN 125 (5")
- DN 150 (6")
- DN 200 (8")
- DN 250 (10")
- DN 300 (12")
- DN 350 (14")
- DN 400 (16")
- DN 450 (18")
- DN 500 (20")
- DN 600 (24")
- DN 700 (28")
- DN 800 (32")
- DN 900 (36")
- DN 1000 (40")

### Flange design

- EN 1092-1, PN10 (B)
- EN 1092-1, PN16 (C)
- EN 1092-1, PN25 (E)
- EN 1092-1, PN40 (F)
- AISI B16.5, class 150 (J)
- AISI B16.5, class 300 (K)
- AWWA C-207, class D (L)
- JIS B2220, 10K (R)

### Material

- Stainless steel AISI 316/1.4571 (1)
- Hastelloy C4/2.4610 (2)

### Liner

- Soft rubber (1)
- PTFE (3)
- Hard rubber (4)
- Linatex (5)
- Novolak (6)
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Transmitter TRANSMAG 2 with sensor 911/E

Dimensional drawings

SITRANS F M flow sensor 911/E, remote version, dimensions in mm (inch)

Built-in length 911/E [in mm and inch]

Nominal diameter DN 15 DN 25 DN 40 DN 50 DN 65 DN 80 DN 100 DN 125 DN 150 DN 200 DN 250

1/2” 1” 1 1/2” 2” 2 1/2” 3” 4” 5” 6” 8” 10”

Hard rubber version

Linatex/soft rubber version

PTFE-liner without protection rings

Novolak-version

Built-in length L1)

Hard rubber version

Linatex/soft rubber version

PTFE-liner without protection rings

Novolak-version

Dimensions of sensor housing

Housing width B

Height A

Housing diameter D1

Weight of PN16 version in kg (MWP 232 psi version in lb) approx.

Nominal diameter DN 300 DN 350 DN 400 DN 450 DN 500 DN 600 DN 700 DN 750 DN 800 DN 900 DN 1000

12” 14” 16” 18” 20” 24” 28” 30” 32” 36” 40”

Built-in length L1)

Hard rubber version

Linatex/soft rubber version

PTFE-liner without protection rings

Novolak-version

Dimensions of sensor housing

Housing width B

Height A

Housing diameter D1

Weight of PN10 Version in kg (MWP 145 psi version in lb) approx.

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1) Tolerance for built-in length: L + 0.0/-0.4 mm (+0.00/-0.157 inch)
With protection rings for > DN25 + 6.0 mm, > DN200 + 10.0 mm (> 1” + 0.236 inch, > 8” + 0.394 inch)

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