

Overview

Transmitter MAG 5000/6000 compact version (left) and 19" insert version (right)

The MAG 5000 and 6000 are transmitters engineered for high performance, easy installation, commissioning and maintenance. The transmitters evaluate the signals from the SITRANS F M sensors type MAG 1100, MAG 1100 F, MAG 3100, MAG 3100 P and MAG 5100 W.

Transmitter types:

- MAG 5000: Max. measuring error $\pm 0.4\% \pm 1 \text{ mm/s}$ (incl. sensor)
- MAG 6000: Max. measuring error $\pm 0.2\% \pm 1 \text{ mm/s}$ (incl. sensor, see also sensor specifications) and with additional features such as: "plug & play" add-on bus modules; integrated batch functions.

Benefits

- Superior signal resolution for optimum turn down ratio
- Digital signal processing with many possibilities
- Automatic reading of SENSORPROM data for easy commissioning
- User configurable operation menu with password protection.
- 3 lines, 20 characters display in 11 languages.
- Flow rate in various units
- Totalizer for forward, reverse and net flow as well as additional information available
- Multiple functional outputs for process control, minimum configuration with analogue, pulse/frequency and relay output (status, flow direction, limits)
- Comprehensive self-diagnostic for error indication and error logging (see under SITRANS F M diagnostics)
- Batch control (MAG 6000 only)
- Custody transfer approval: PTB, OIML R 117, OIML R 49, MI-001, PTB K 7.2 and OE12/C 040 for chilled water
- MAG 6000 with add-on bus modules for HART, FOUNDATION Fieldbus H1, DeviceNet, Modbus RTU/RS 485, PROFIBUS PA and DP

Application

The SITRANS F M flowmeters are suitable for measuring the flow of almost all electrically conductive liquids, pastes and slurries. The main applications can be found in:

- Water and waste water
- Chemical and pharmaceutical industries
- Food and beverage industries
- Power generation and utility

Design

The transmitter is designed as either IP67 NEMA 4X/6 enclosure for compact or wall mounting or 19" version as a 19" insert as a base to be used in:

- 19" rack systems
- Front panel mounting IP65/NEMA 2
- Panel mounting IP20/NEMA 1
- Wall mounting IP66/NEMA 4X

Several options on 19" versions are available such as:

- Transmitters mounted in safe area for Ex ATEX approved flow sensors (incl. barriers)
- Transmitters with electrode cleaning unit on request

Function

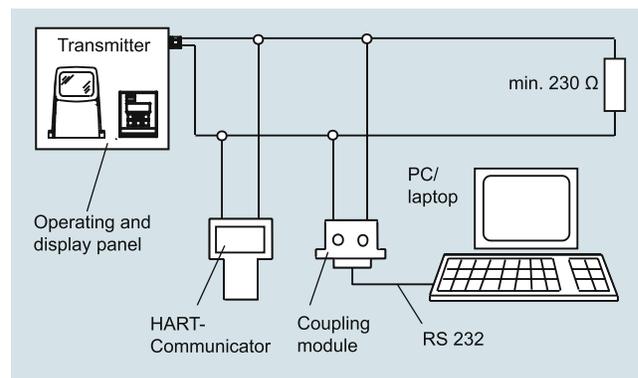
The MAG 5000/6000 are transmitters with a built-in alphanumeric display in several languages. The transmitters evaluate the signals from the associated electromagnetic sensors and also fulfil the task of a power supply unit which provides the magnet coils with a constant current.

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

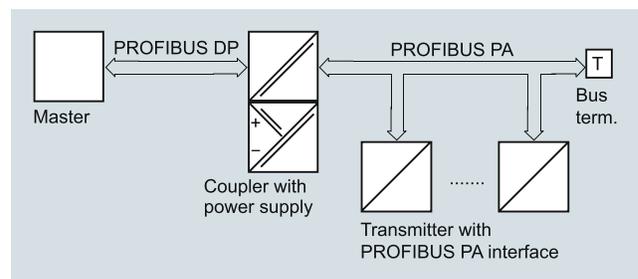
Displays and controls

Operation of the transmitter can be carried out using:

- Control and display unit
- HART communicator
- PC/laptop and SIMATIC PDM software via HART communication
- PC/laptop and SIMATIC PDM software using PROFIBUS or Modbus communication



HART communication



PROFIBUS PA communication

Flow Measurement

SITRANS F M

Transmitter MAG 5000/6000

Technical specifications

| | |
|--|--|
| Mode of operation and design | |
| Measuring principle | Electromagnetic with pulsed constant field |
| Empty pipe | Detection of empty pipe (special cable required in remote mounted installation) |
| Excitation frequency | Depend on sensor size |
| Electrode input impedance | $> 1 \times 10^{14} \Omega$ |
| Input | |
| Digital input | 11 ... 30 V DC, $R_i = 4.4 \text{ K}\Omega$ |
| • Activation time | 50 ms |
| • Current | $I_{11 \text{ V DC}} = 2.5 \text{ mA}$, $I_{30 \text{ V DC}} = 7 \text{ mA}$ |
| Output | |
| Current output | |
| • Signal range | 0 ... 20 mA or 4 ... 20 mA |
| • Load | $< 800 \Omega$ |
| • Time constant | 0.1 ... 30 s, adjustable |
| Digital output | |
| • Frequency | 0 ... 10 kHz, 50 % duty cycle (uni/bidirectional) |
| • Pulse (active) | 24 V DC, 30 mA, $1 \text{ K}\Omega \leq R_i \leq 10 \text{ K}\Omega$, short-circuit-protected (power supplied from flowmeter) |
| • Pulse (passive) | 3 ... 30 V DC, max. 110 mA, $200 \Omega \leq R_i \leq 10 \text{ K}\Omega$ (powered from connected equipment) |
| • Time constant | 0.1 ... 30 s, adjustable |
| Relay output | |
| • Time constant | Changeover relay, same as current output |
| • Load | 42 V AC/2 A, 24 V DC/1 A |
| Low flow cut off | 0 ... 9.9 % of maximum flow |
| Galvanic isolation | All inputs and outputs are galvanically isolated. |
| Max. measuring error (incl. sensor and zero point)¹⁾ | |
| • MAG 5000 | 0.4 % $\pm 1 \text{ mm/s}$ |
| • MAG 6000 | 0.2 % $\pm 1 \text{ mm/s}$ |
| Rated operation conditions | |
| Ambient temperature | |
| • Operation | <ul style="list-style-type: none"> Display version: -20 ... +60 °C (-4 ... +140 °F) Blind version: -20 ... +60 °C (-4 ... +140 °F) MI-001 version: -25 ... +55 °C (-13 ... +131 °F) Custody transfer (CT) version: -20 ... +50 °C (-4 ... +122 °F) |
| • Storage | -40 ... +70 °C (-40 ... +158 °F) |
| Mechanical load (vibration) | |
| Compact version | 18 ... 1000 Hz, 3.17 g RMS, sinusoidal in all directions to IEC 60068-2-36 |
| 19" insert | 1 ... 800 Hz, 1 g, sinusoidal in all directions to IEC 60068-2-36 |
| Degree of protection | |
| Compact version | IP67/NEMA 4X/6 to IEC 529 and DIN 40050 (1 mH ₂ O 30 min.) |
| 19" insert | IP20/NEMA 1 to IEC 529 and DIN 40050 |
| EMC performance | IEC/EN 61326-1 (all environments) IEC/EN 61326-2-5 |

| | |
|---|--|
| Display and keypad | |
| Totalizer | Two eight-digit counters for forward, net or reverse flow |
| Display | Background illumination with alphanumeric text, 3 x 20 characters to indicate flow rate, totalized values, settings and faults; Reverse flow indicated by negative sign |
| Time constant | Time constant as current output time constant |
| Design | |
| Enclosure material | Fiber glass reinforced polyamide; stainless steel AISI 316/1.4436 (IP65) |
| • Compact version | |
| • 19" insert | Standard 19" insert of aluminum/steel (DIN 41494), width: 21 TE, height: 3 HE |
| • Back of panel | IP20/NEMA 1; Aluminum |
| • Panel mounting | IP20/NEMA 1 (prepared for IP65/NEMA 2 display side); ABS plastic |
| • Wall mounting | IP66/NEMA 4X; ABS plastic |
| Dimensions | |
| Compact version | See dimensional drawings |
| 19" insert | See dimensional drawings |
| Weight | |
| Compact version | 0.75 kg (2 lb) |
| 19" insert | See dimensional drawings |
| Power supply | <ul style="list-style-type: none"> 115 ... 230 V AC +10 % -15 %, 50 ... 60 Hz 11 ... 30 V DC or 11 ... 24 V AC |
| Power consumption | <ul style="list-style-type: none"> 230 V AC: 17 VA 24 V AC: 9 VA, $I_N = 380 \text{ mA}$, $I_{ST} = 8 \text{ A}$ (30 ms) 12 V DC: 11 W, $I_N = 920 \text{ mA}$, $I_{ST} = 4 \text{ A}$ (250 ms) 24 V DC: 8.4 VA, $I_N = 350 \text{ mA}$, $I_{ST} = 4 \text{ A}$ (10 ms) <p>$I_{ST} = 4 \text{ A}$ (250 ms): For solar panel please secure stable current supply</p> |
| Certificates and approvals | |
| General purpose | <ul style="list-style-type: none"> CE (LVD, EMC, PED, RoHS) UL (c-UL-us) |
| Hazardous areas | <ul style="list-style-type: none"> FM, CSA - NI Class I Div. 2 Groups A, B, C, D |
| Custody transfer | <ul style="list-style-type: none"> Cold water: MI-001 Chilled water - PTB K 7.2 (Germany) - OE12/C 040 (Austria) - TS 27.02 008 (Denmark) |
| Marine | <ul style="list-style-type: none"> ABS Bureau Veritas DNV GL Lloyd' s Register of Shipping |
| (only for remote version with MAG 5100 W, DN 50 ... DN 300) | |
| Others | <ul style="list-style-type: none"> CMC/CPA (China) C-TICK (Australia and New Zealand EMC) EAC (Russia, Belarus, Kazakhstan) KCC (South Korea) |

Communication

Standard

- MAG 5000

- MAG 6000

Optional (MAG 6000 only)

- MAG 5000/6000 CT

Without serial communication or HART as option
 Prepared for client-mounted add-on modules
 HART, Modbus RTU/RS 485, FOUNDATION Fieldbus H1, DeviceNet, PROFIBUS PA, PROFIBUS DP as add-on modules
 No communication modules approved

¹⁾ For detailed accuracy specifications, see page 3/20

Safety barrier (e/ia)



| Application | For use with MAG 5000/6000 19" and MAG 1100 Ex/MAG 3100 Ex | | |
|----------------------------|--|---------------------------|------------------|
| Ex approval | MAG 1100 Ex [EEx e ia] IIB ATEX, EAC Ex MAG 3100 Ex [EEx e ia] IIC ATEX, EAC Ex | | |
| Cable parameter | Group | Capacity in μF | Inductance in mH |
| Electrode | IIC | ≤ 4.1 | ≤ 80 |
| | IIB | ≤ 45 | ≤ 87 |
| | IIA | ≤ 45 | ≤ 87 |
| Ambient temperature | | | |
| • During operation | -20 ... +50 °C (-4 ... +122 °F) | | |
| • During storage | -20 ... +70 °C (-4 ... +158 °F) | | |
| Enclosure | | | |
| • Material | Standard 19" insert in aluminum/steel (DIN 41494) | | |
| • Width | 21 TE (4.75") | | |
| • Height | 3 HE (5.25") | | |
| • Rating | IP20 / NEMA 1 to EN 60529 | | |
| • Mechanical load | 1 g, 1 ... 800 Hz sinusoidal in all directions to EN 60068-2-36 | | |

Flow Measurement

SITRANS F M

Transmitter MAG 5000/6000

Selection and Ordering data

Transmitter MAG 5000

| Description | Article No. | |
|--|---|---|
| Transmitter MAG 5000 Blind for compact and wall mounting; IP67/NEMA 4X/6, fibre glass reinforced polyamide <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6910-1AA30-0AA0 7ME6910-1AA10-0AA0 |  |
| Transmitter MAG 5000 Display for compact and wall mounting; IP67/NEMA 4X/6, fibre glass reinforced polyamide <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz • 115 ... 230 V AC, 50/60 Hz, with HART | 7ME6910-1AA30-1AA0 7ME6910-1AA10-1AA0 7ME6910-1AA10-1BA0 |  |
| Transmitter MAG 5000 CT for compact and wall mounting, approved for custody transfer, without verification (no approval marks - only a complete flowmeter can be verified, i.e. sensor together with the transmitter); IP67/NEMA 4X/6, fibre glass reinforced polyamide <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6910-1AA30-1AD0 7ME6910-1AA10-1AD0 |  |
| Transmitter MAG 5000 for 19" rack and wall mounting <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6910-2CA30-1AA0 7ME6910-2CA10-1AA0 |  |

Transmitter MAG 6000

| Description | Article No. | |
|--|--|---|
| Transmitter MAG 6000 Blind for compact and wall mounting; IP67/NEMA 4X/6, fibre glass reinforced polyamide <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6920-1AA30-0AA0 7ME6920-1AA10-0AA0 |  |
| Transmitter MAG 6000 for compact and wall mounting; IP67/NEMA 4X/6, fibre glass reinforced polyamide <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6920-1AA30-1AA0 7ME6920-1AA10-1AA0 |  |
| Transmitter MAG 6000 for compact and wall mounting; IP65/NEMA 4, stainless steel AISI 316/1.4436 (only for sensor with stainless steel terminal box) (for remote version order stainless steel terminal box separately) <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6920-1QA30-1AA0 7ME6920-1QA10-1AA0 |  |
| Transmitter MAG 6000 CT for compact and wall mounting, approved for custody transfer, without verification (no approval marks - only a complete flowmeter can be verified, i.e. sensor together with the transmitter); IP67/NEMA 4X/6, fibre glass reinforced polyamide <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6920-1AA30-1AD0 7ME6920-1AA10-1AD0 |  |
| <u>Spare part transmitter for CT systems produced before 12/2016 or with firmware version 3.03</u> <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6920-1AA30-1AB0 7ME6920-1AA10-1AB0 | |
| Transmitter MAG 6000 SV for compact and wall mounting; special excitation frequency 44 Hz for Batch application DN ≤ 25/1" IP67/NEMA 4X/6, fibre glass reinforced polyamide <ul style="list-style-type: none"> • 11 ... 30 V DC/ 11 ... 24 V AC • 115 ... 230 V AC, 50/60 Hz | 7ME6920-1AB30-1AA0 7ME6920-1AB10-1AA0 |  |

| Description | Article No. | |
|--|---------------------------|---|
| Transmitter MAG 6000 for 19" rack and wall mounting | |  |
| • 11 ... 30 V DC/ 11 ... 24 V AC | 7ME6920-2CA30-1AA0 | |
| • 115 ... 230 V AC, 50/60 Hz | 7ME6920-2CA10-1AA0 | |
| Transmitter MAG 6000 SV for 19" rack and wall mounting; special excitation frequency 44 Hz for Batch application DN ≤ 25/1" | |  |
| • 11 ... 30 V DC/ 11 ... 24 V AC | 7ME6920-2CB30-1AA0 | |
| • 115 ... 230 V AC, 50/60 Hz | 7ME6920-2CB10-1AA0 | |
| MAG 6000 19" insert, complete mounted with IP66/ NEMA 4X wall mounting enclosure in ABS plastic; 115 ... 230 V AC, 50/60 Hz; cable gland PG13.5 | 7ME6920-2EA10-1AA0 |  |
| MAG 6000 19" insert with safety barrier for Ex-approved sensors, complete mounted with IP66/NEMA 4X wall mounting enclosure in ABS plastic, 115 ... 230 V AC, 50/60 Hz; cable gland PG13.5 | |  |
| • For ATEX 2G D sensors | 7ME6920-2MA11-1AA0 | |
| MAG 6000 SV 19" insert, complete mounted with IP66/NEMA 4X wall mounting enclosure in ABS plastic, special excitation frequency 44 Hz for Batch application DN ≤ 25/1"; cable gland PG13.5 | |  |
| • 11 ... 30 V DC, 11 ... 24 V AC | 7ME6920-2EB30-1AA0 | |
| • 115 ... 230 V AC, 50/60 Hz | 7ME6920-2EB10-1AA0 | |

Operating instructions for SITRANS F M MAG 5000/6000

| Description | Article No. |
|------------------------------------|--------------------|
| For SITRANS F M MAG 5000/6000 IP67 | |
| • English | A5E02338368 |
| • German | A5E02944982 |
| For SITRANS F M MAG 5000/6000 19" | |
| • English | A5E02082880 |

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

Communication modules for MAG 6000

| Description | Article No. | |
|---------------------------|---------------------|---|
| HART (not for MAG 6000 I) | FDK:085U0226 |  |
| Modbus RTU/RS 485 | FDK:085U0234 | |
| PROFIBUS PA Profile 3 | FDK:085U0236 | |
| PROFIBUS DP Profile 3 | FDK:085U0237 | |
| DeviceNet | FDK:085U0229 | |
| FOUNDATION Fieldbus H1 | A5E02054250 | |

Operating instructions for SITRANS F add-on modules

| Description | Article No. |
|---------------------|--------------------|
| HART | |
| • English | A5E03089708 |
| PROFIBUS PA/DP | |
| • English | A5E00726137 |
| • German | A5E01026429 |
| Modbus | |
| • English | A5E00753974 |
| • German | A5E03089262 |
| FOUNDATION Fieldbus | |
| • English | A5E02318728 |
| • German | A5E02488856 |
| DeviceNet | |
| • English | A5E03089720 |

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Accessories for MAG 5000 and MAG 6000

| Description | Article No. | |
|---|---------------------|---|
| Accessory kit for remote use of sensor with two 5-pin terminal blocks | A5E34827189 |  |
| Wall mounting unit for MAG 5000/6000 IP67/NEMA 4X/6, terminal box in polyamide ¹⁾ | |  |
| • 4 x M20 cable glands | FDK:085U1018 | |
| • 4 x 1/2" NPT cable glands | FDK:085U1053 | |
| Special wall mounting unit for MAG 5000/6000 IP67/ NEMA 4X/6, mounting bracket in stainless steel AISI 316 (1.4401), terminal box in polyamide | |  |
| • 4 x M20 cable glands | A5E36699702 | |
| • 4 x 1/2" NPT cable glands | A5E36699938 | |
| Sun lid for MAG 5000/6000 transmitter (Frame and lid) | A5E02328485 |  |
| Standard coil or electrode cable, 3 x 1.5 mm ² / 18 gage, single shielded with PVC jacket, Temp. range: -30 ... +70 °C (-22 ... +158 °F) | |  |
| • 5 m (16.5 ft) | A5E02296523 | |
| • 10 m (33 ft) | FDK:083F0121 | |
| • 20 m (65 ft) | FDK:083F0210 | |
| • 30 m (98 ft) | A5E02297309 | |
| • 40 m (131 ft) | FDK:083F0211 | |
| • 50 m (164 ft) | A5E02297317 | |
| • 60 m (197 ft) | FDK:083F0212 | |
| • 100 m (328 ft) | FDK:083F0213 | |
| • 150 m (492 ft) | FDK:083F3052 | |
| • 200 m (656 ft) | FDK:083F3053 | |
| • 500 m (1640 ft) | FDK:083F3054 | |

¹⁾ For stainless steel wall mounting kit, order:
- M20: FDK:085U1018 and A5E00836867
- 1/2" NPT: FDK:085U1053 and A5E00836868

Flow Measurement

SITRANS F M

Transmitter MAG 5000/6000

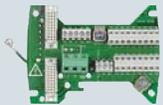
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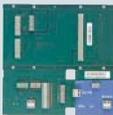
| Description | Article No. | |
|--|--|---|
| Special electrode cable ¹⁾ (empty pipe detection or low conductivity), 3 x 0.25 mm ² , double shielded with PVC jacket; Temperature range : -30 ... +70 °C (-22 ... +158 °F) <ul style="list-style-type: none"> • 10 m (33 ft) • 20 m (65 ft) • 40 m (131 ft) • 60 m (197 ft) • 100 m (328 ft) • 150 m (492 ft) • 200 m (656 ft) • 500 m (1640 ft) | FDK:083F3020 FDK:083F3095 FDK:083F3094 FDK:083F3093 FDK:083F3092 FDK:083F3056 FDK:083F3057 FDK:083F3058 |  |
| Low-noise electrode coax cable for low conductivity and high vibration levels, 3 x 0.13 mm ² ; Temp. range: -25 ... +85 °C (-13 ... +185 °F) <ul style="list-style-type: none"> • 2 m (6.6 ft) • 5 m (16.5 ft) • 10 m (33 ft) | A5E02272692 A5E02272723 A5E02272730 |  |
| Cable kit including standard coil cable (3 x 1.5 mm ² / 18 gage, single shielded with PVC jacket) and special electrode cable ¹⁾ (3 x 0.25 mm ² , double shielded with PVC jacket); Temperature range: -30 ... +70 °C (-22 ... +158 °F) <ul style="list-style-type: none"> • 5 m (16.5 ft) • 10 m (33 ft) • 15 m (49 ft) • 20 m (65 ft) • 25 m (82 ft) • 30 m (98 ft) • 40 m (131 ft) • 50 m (164 ft) • 60 m (197 ft) • 100 m (328 ft) • 150 m (492 ft) • 200 m (656 ft) • 500 m (1640 ft) | A5E02296329 A5E01181647 A5E02296464 A5E01181656 A5E02296490 A5E02296494 A5E01181686 A5E02296498 A5E01181689 A5E01181691 A5E01181699 A5E01181703 A5E01181705 |  |
| Potting kit for IP68/NEMA 6P sealing of sensor junction box | FDK:085U0220 |  |
| 19" safety barrier (21 TE) ¹⁾ [EEx e ia] IIC for MAG 1100 Ex sensors and MAG 3100 Ex sensors 12 ... 24 V, 115 ... 230 V, incl. back plate (A5E02559810) | FDK:083F5034 |  |
| Front panel mounting enclosure IP65/NEMA 2 in ABS plastic for 19" insert (21 TE) | FDK:083F5030 |  |
| Front panel mounting enclosure IP65/NEMA 2 in ABS plastic for 19" insert (42 TE) | FDK:083F5031 |  |

| Description | Article No. | |
|--|--|--|
| Panel mounting enclosure IP20/NEMA 1 in aluminium for 19" insert (21 TE) | FDK:083F5032 |  |
| Panel mounting enclosure IP20/NEMA 1 in aluminium for 19" insert (42 TE) | FDK:083F5033 |  |
| Wall mounting enclosure IP66/NEMA 4X in ABS plastic for 19" insert (cable glands and connection board not included) <ul style="list-style-type: none"> • 21 TE • 42 TE | FDK:083F5037 FDK:083F5038 |   |
| Front cover (7TE) for panel mounting enclosure | FDK:083F4525 |  |
| Sun shield for MAG 5000/6000 transmitters in remote design | A5E01209496 |  |
| Sun Shield for MAG 5000/6000 transmitter in compact design on MAG 3100 (DN 15 ... 2000/1/2" ... 78") or MAG 5100 W (DN 150 ... 1200/6" ... 48") | A5E01209500 |  |

¹⁾ Special cables cannot be used with 19" safety barrier

Spare parts

| Description | Article No. | |
|---|---|---|
| Connection board (for polyamide terminalbox) • 12 ... 24 V • 115 ... 230 V | A5E02559817 A5E02559816 |  |
| Connection board (for stainless steel terminalbox) • 12 ... 24 V • 115 ... 230 V | A5E02604280 A5E02604272 | |
| Connection board MAG 5000/6000 19" insert for panel mounting enclosure, 12 ... 24 V/115 ... 230 V | A5E02559809 |  |
| Connection board MAG 5000/6000 19" insert with safety barrier for panel mount- ing enclosure, 12 ... 24 V/115 ... 230 V | A5E02559810 |  |
| Connection board MAG 5000/6000 19" insert with safety barrier for panel mount- ing enclosure, 12 ... 24 V/115 ... 230 V (only for sensors produced before October 2007) | A5E02559811 | |
| Connection board MAG 5000/6000 19" insert with cleaning unit for panel mount- ing enclosure, 12 ... 24 V/115 ... 230 V | FDK:083F4123 | |
| SENSORPROM memory unit (Sensor code and serial num- bers must be specified on order) • 2 kB (for MAG 5000/6000/ MAG 6000 I) - 1 pc. - 10 pcs. • 250 B (for MAG 2500/3000) | FDK:085U1005 FDK:083F5052 FDK:085U1008 |  |
| Display unit for MAG 5000/6000 • Black neutral front | FDK:085U1038 |  |
| • Siemens front | FDK:085U1039 |  |
| HW key | On request |  |
| Cable glands (polyamide), 4 pcs. • M20 • 1/2" NPT • PG 13.5, 2 pcs. | A5E00822490 A5E00822501 FDK:083G0228 |  1/2" NPT M20 |

| Description | Article No. | |
|--|--|---|
| Sealing screws for sensor/ transmitter, 2 pcs | FDK:085U0221 |  |
| Terminal box, in polyamide, inclusive lid, terminal blocks, gasket and screws • M20 • 1/2" NPT | FDK:085U1050 FDK:085U1052 |  |
| Terminal box lid, in polyamide | FDK:085U1003 |  |
| Terminal box, in stainless steel, inclusive lid, terminal blocks, gasket and screws, for MAG 6000 in stainless steel and for all Ex sensors, • M20 • 1/2" NPT | A5E00836867 A5E00836868 |  |
| Terminal box (3A) for MAG 1100 F in polyamide, inclusive lid, terminal blocks, gasket and screws • M20 • 1/2" NPT | A5E00822478 A5E00822479 |  |
| Gasket for terminal box lid in polyamide or for MAG 5000/ 6000 IP67/ NEMA 4X/6 enclo- sure in polyamide (5 pcs.) | A5E37086797 |  |
| Spare part kit for remote use of sensor with 20 pcs. 5-pin ter- minal blocks | A5E34346873 |  |
| Display frame in polyamide for MAG 5000/6000 IP67/ NEMA 4X/6 (5 pcs.) | A5E43491675 | |
| Connection board MAG 5000/6000 19" insert for wall mounting enclosure, 12 ... 24 V / 115 ... 230 V | A5E02559813 |  |
| Connection board MAG 5000/ 6000 19" insert with safety bar- rier for wall mounting enclosure, 12 ... 24 V/115 ... 230 V | A5E02559814 |  |
| Connection board MAG 5000/ 6000 19" insert with safety bar- rier for wall mounting enclo- sure, 12 ... 24 V/115 ... 230 V (only for sensors produced before October 2007) | A5E02559812 | |
| Connection board MAG 5000/ 6000 19" insert with cleaning unit for wall mounting enclo- sure, 12 ... 24 V/115 ... 230 V | A5E02559815 | |
| SENSORPROM programmer with RS 232 interface | FDK:083H4246 |  |

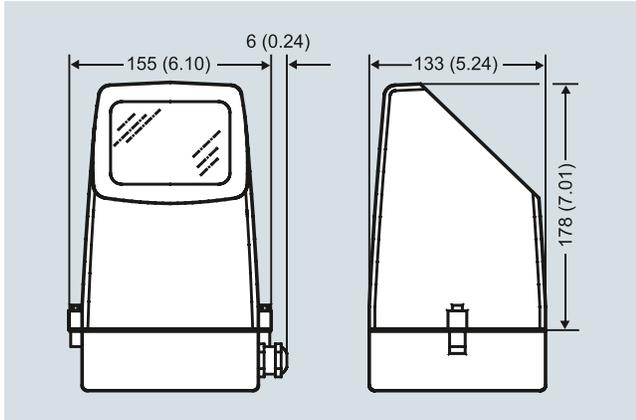
Flow Measurement

SITRANS F M

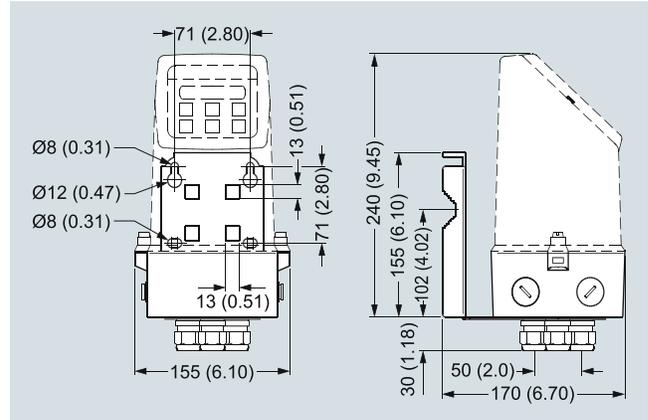
Transmitter MAG 5000/6000

Dimensional drawings

Transmitter IP67/NEMA 4X/6 compact polyamide

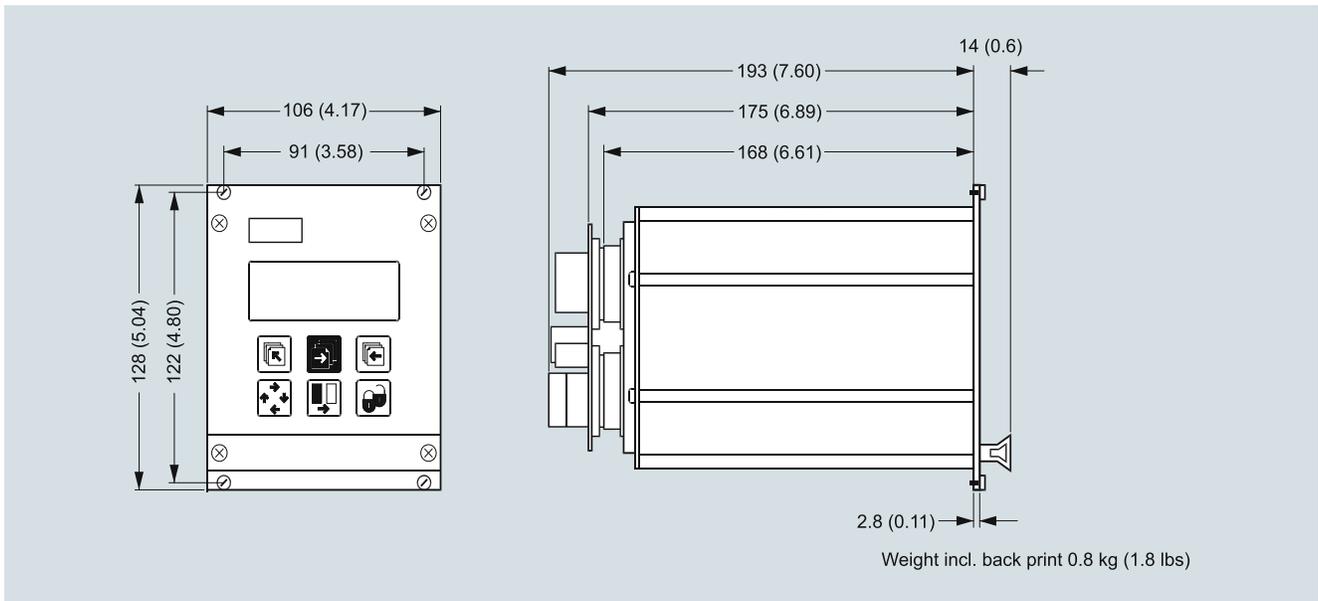


Transmitter compact mounted, dimensions in mm (inch)



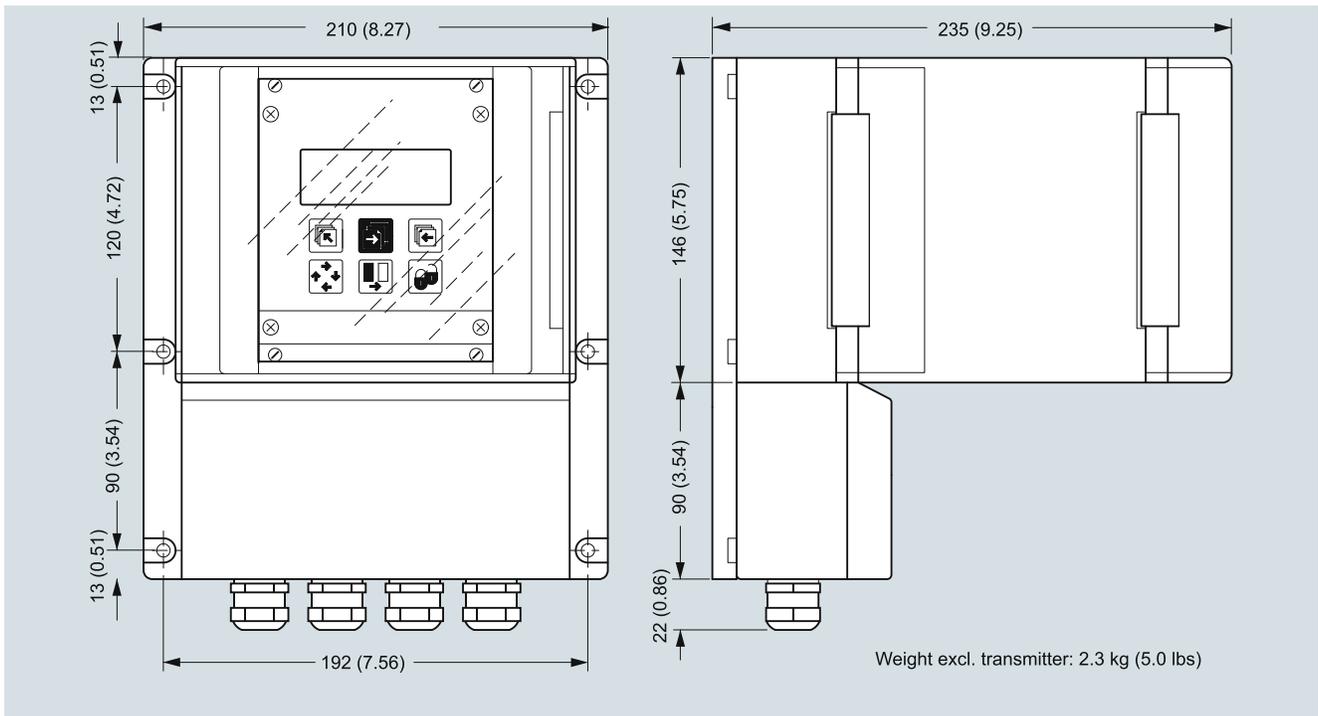
Transmitter wall mounted, dimensions in mm (inch)

Transmitter, 19" IP20/NEMA 1 standard unit



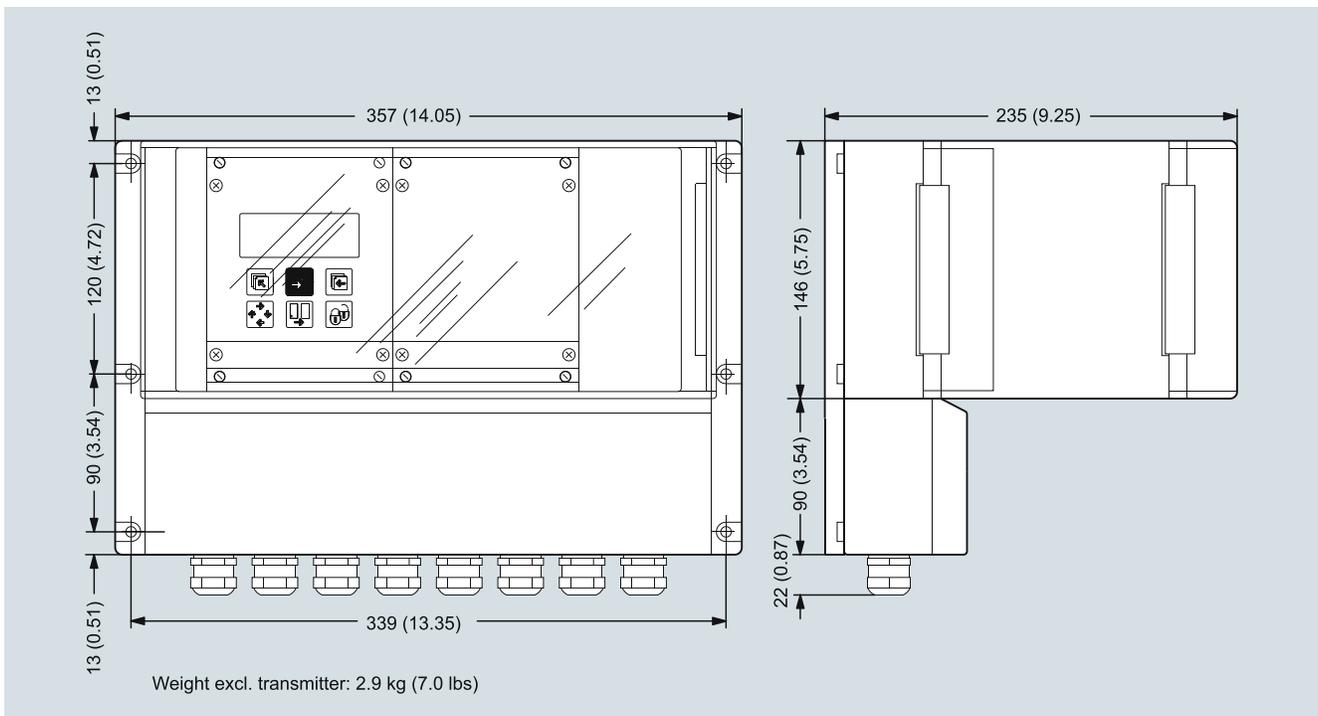
Dimensions in mm (inch)

Transmitter, wall mounting IP66/NEMA 4X, 21 TE



Dimensions in mm (inch)

Transmitter, wall mounting IP66/NEMA 4X, 42 TE



Dimensions in mm (inch)

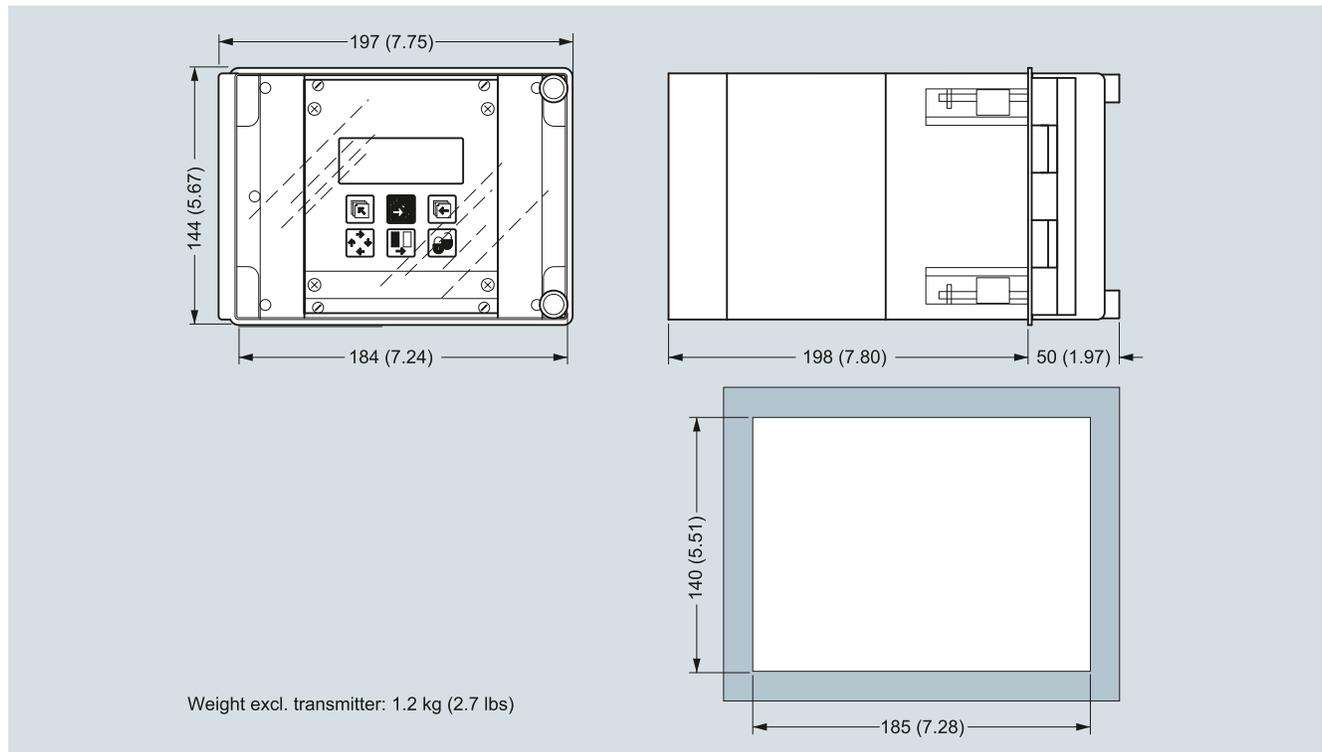
Flow Measurement

SITRANS F M

Transmitter MAG 5000/6000

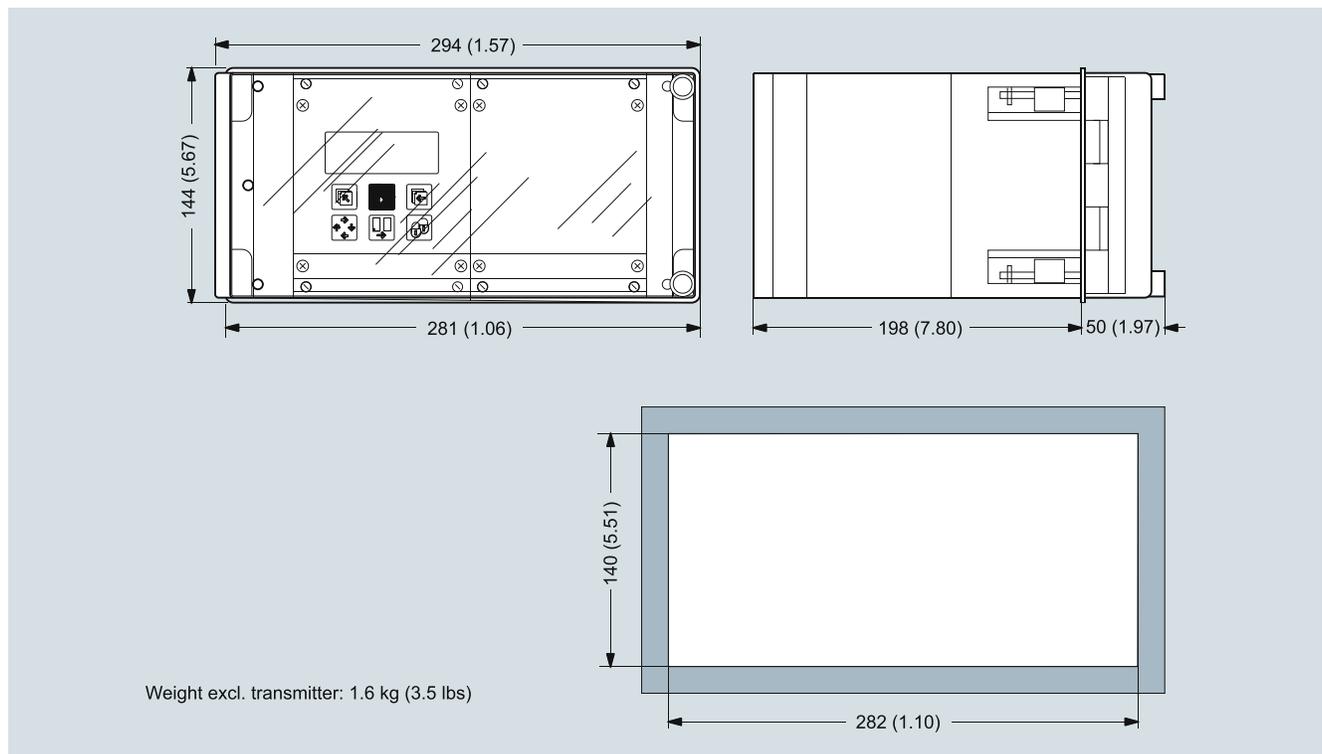
Transmitter, panel front IP20/NEMA 1, 21 TE

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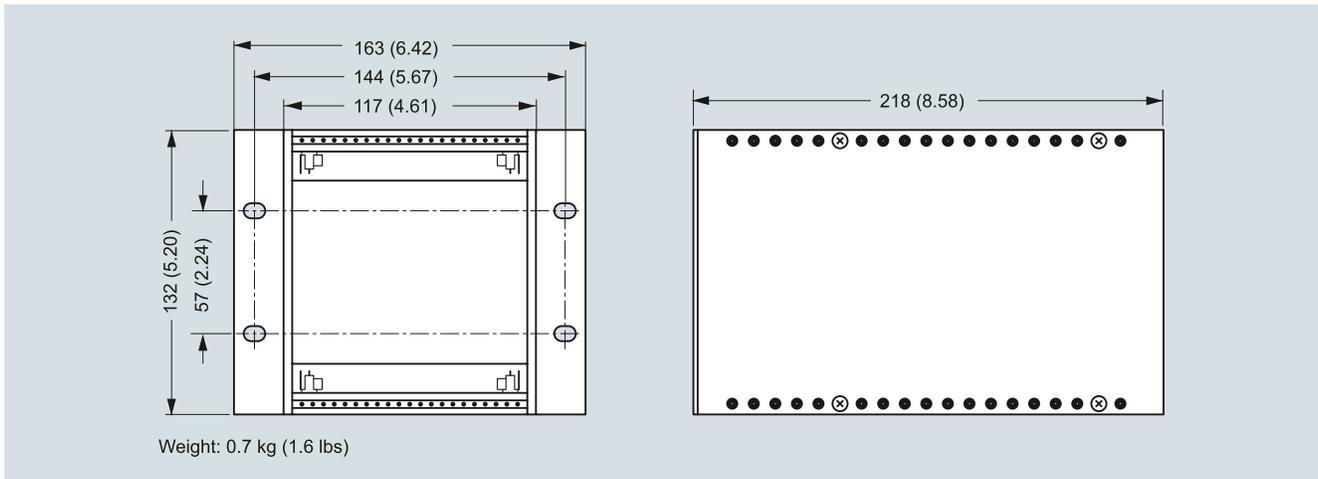
Dimensions in mm (inch)

Transmitter, panel front IP20/NEMA 1, 42 TE



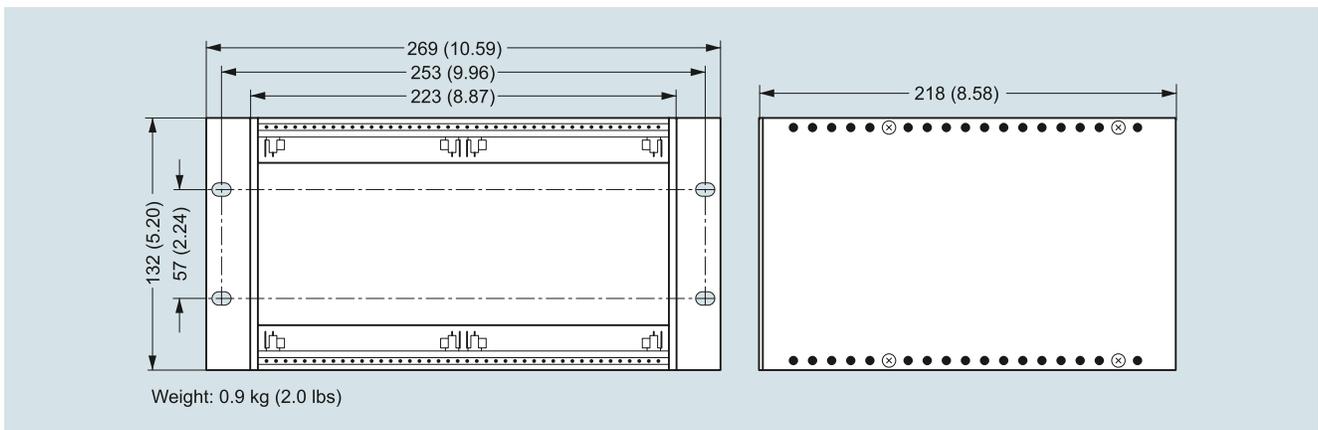
Dimensions in mm (inch)

Transmitter, back of panel IP20/NEMA 1, 21 TE



Dimensions in mm (inch)

Transmitter, back of panel IP20/NEMA 1, 42 TE



Dimensions in mm (inch)

Flow Measurement

SITRANS F M

Transmitter MAG 5000/6000

Schematics

Electrical connection

Grounding

PE must be connected due to safety class 1 power supply.

Mechanical counters

When mounting a mechanical counter to terminals 57 and 58 (active output), a 1000 μF capacitor must be connected to the terminals 56 and 58. Capacitor + is connected to terminal 56 and capacitor - to terminal 58.

Output cables

If the output cable length is long in noisy environment, we recommend to use shielded cable.

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