FLOUCOMPUTER
WITH TEMPERATURE AND PRESSURE
COMPENSATION FOR CORRECTED GAS VOLUME

Features
• Calculates compensated flow rate, total and accumulated total.
• Displays actual line pressure and temperature.
• Selectable on-screen engineering units; volumetric or mass.
• 7 digit resettable total.
• 11 digit accumulated total.
• Analog signal output.
• Very compact design for panel mount, wall mount or field mount applications.
• Operational temperature -30°C up to +80°C (-22°F up to 178°F).
• Rugged aluminum field mount enclosure IP67/NEMA4X.
• Intrinsically Safe Ex ia IIB T100°C.
• Explosion/flame proof Ex d IIB T5.
• Full Modbus communication RS232/485/TTL.
• Loop or battery powered, 8 - 24V AC/DC or 115 - 230V AC power supply.

Signal input
Flow
• Reed-switch.
• NAMUR.
• NPN/PNP pulse.
• Sine wave (coil).
• Active pulse signals.
• (0)4 - 20mA.
• 0 - 10V DC.

Temperature
• PT100 - 2 or 3 wire.
• (0)4 - 20mA.
• 0 - 10V DC.

Pressure
• (0)4 - 20mA.
• 0 - 10V DC.

Applications
• Applications where nett gas flow calculation at base conditions is desired.

Signal output
• (0)4 - 20mA / 0 - 10V DC according to compensated flow rate.
**General information**

**Introduction**

The flowcomputer Model F126-EG has been developed to calculate the gas volume at normal conditions for generic products, in most cases at 0°C (32 °F) and 1.013 Bar. If desired, any other temperature or pressure can be set. The corrected volumetric flow is calculated using the equations stored in the flowcomputer while a compressibility factor can be set to approach a real gas behaviour. A wide selection of options further enhance this model's capabilities, including Intrinsic Safety and full Modbus communication.

**Display**

The display has large 17mm (0.67”) and 8mm (0.31”) digits which can be set to show flow rate, total, temperature and pressure. On-screen engineering units are easily configured from a comprehensive selection. The accumulated total can register up to 11 digits and is backed-up in EEPROM memory every minute.

**Configuration**

All configuration settings are accessed via a simple operator menu which can be pass-code protected. Each setting is clearly indicated with an alphanumerical description, therefore avoiding confusing abbreviations and baffling codes. Once familiar with one F-series product, you will be able to program all models in the series without a manual. All settings are safely stored in EEPROM memory in the event of sudden power failure.

**Analog output signal**

The calculated flow rate is re-transmitted with the (0)4 - 20mA or 0 - 10V DC output signal. The output signal is updated ten times per second with a filter function being available to smoothen out the signal if desired. The output value is user defined in relation to the flow rate, e.g. 4mA equals to 15Nm³/Hr and 20mA equals to 2000Nm³/Hr. The output signal can be passive, active or isolated where the passive output type will loop power the F126-EG as well.

**Signal input**

The flowcomputer measures the uncorrected volumetric flow, line temperature and pressure. The F126-EG will accept most pulse and analog input signals for flow. For the temperature measurement, 2 or 3 wire PT100 elements or sensors with a (0)4 - 20mA / 0 - 10V DC output signal can be used, just as for the pressure measurement.

**Communication**

All process data and settings can be read and modified manually or through the Modbus communication link (RS232 / RS485). Full Modbus functionality remains available for the Intrinsically Safe version (TTL).

**Hazardous areas**

For hazardous area applications, this model has been ATEX certified Intrinsically Safe II 1 GD EEx ia IIB / IIC T4 T100°C with an allowed operational temperature of -30°C to +70°C (-22°F to +158°F). A flame proof enclosure is also available with the rating II 2 GD EEx d IIB T5.

**Enclosures**

Various types of enclosures can be selected, all ATEX approved. As standard the F126-EG is supplied in an GRP panel mount enclosure, which can be converted to an IP67 / NEMA 4X GRP field mount enclosure by the addition of a back case. Most popular is our rugged aluminum field mount enclosure with IP67 / NEMA 4X rating. Both European or U.S. cable gland entry threads are available.

**Overview application F126-EG**
Dimensions enclosures

Aluminum & GRP panel mount enclosure

Aluminum & GRP field / wall mount enclosures

Terminal connections

Display example - 90 x 40mm (3.5" x 1.6")
**Typical wiring diagram F126-P-AP-CH-EG-IA-PX-TA**

**TERMINAL CONNECTORS**

- **F100 - series**

**OUTPUT LOOP POWERED**

- Modbus communication type CH: RS485 - 2 wire

**COMMON GROUND**

- Signal
- Supply *
- Analog output type AP: passive 4 - 20mA (loop powered)
- Pressure input type IA: (0)4 - 20mA
- Temperature input type TA: (0)4 - 20mA
- Flowmeter input type P pulse

**Power supply type PD:** 8 - 24V AC / DC

- Earth

**24V AC / DC POWER SUPPLY**

- Modbus communication type CI: RS485 - 4 wire

**COMMON GROUND**

- Signal
- Indicator

**F126-EG4**

*Supply voltage: 1.2 / 3.2V DC to sensor

**Typical wiring diagram F126-P-AI-CL-EG-IA-PD-TA**

**TERMINAL CONNECTORS**

- **F100 - series**

**24V AC / DC POWER SUPPLY**

- Modbus communication type CI: RS485 - 4 wire

**COMMON GROUND**

- Signal
- Indicator

**Analog output type AP: passive isolated 4 - 20mA**

**Pressure input type IA:** (0)4 - 20mA

**Temperature input type TA:** (0)4 - 20mA

**Flowmeter input type P pulse**

**Power supply type PD:** 8 - 24V AC / DC

- Earth

*Supply voltage: 1.2 / 3.2 / 8.2 / 12 / 24V DC to sensor
**TERMINAL CONNECTORS**

**F100 - series**

**80 - 230V AC POWER SUPPLY**

- **Common ground**
- **Main supply**
- **L1**
- **N**
- **Earth**

**Temperature input type TP:** PT100 3 - wire

- **Signal**
- **Circuit depends on type of signal**

**Modbus communication type CB:** RS232

- **TXD**
- **RXD**
- **DTR**
- **+12V**

**Analog output type AA:** active 4 - 20mA

- **Supply**
- **Circuit depends on type of signal**

**Pressure input type IA:** (0)4 - 20mA

- **Supply**
- **Circuit depends on type of signal**

**Flowmeter input type A:**

- **Supply**
- **Circuit depends on type of signal**

**Power supply type PM:** 115 - 230V AC

- **Common ground**

*Supply voltage: 3.2 / 8.2 / 12 / 24V DC to sensor*

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**TERMINAL CONNECTORS**

**F100 - series**

**115 - 230V AC POWER SUPPLY**

- **Common ground**
- **Main supply**
- **L1**
- **N**
- **Earth**

**Pressure input type IA:** (0)4 - 20mA

- **Supply**
- **Circuit depends on type of signal**

**Temperature input type TA:** (0)4 - 20mA

- **Supply**
- **Circuit depends on type of signal**

**Flowmeter input type P:** pulse

- **Supply**
- **Circuit depends on type of signal**

**Analog output type AI:** passive isolated 4 - 20mA

- **8 - 30V DC**

*Supply voltage: 3.2 / 8.2 / 12 / 24V DC to sensor*
Hazardous area applications
The F126-EG-XI has been ATEX approved by KEMA for use in Intrinsically Safe applications. It is approved according to II 1 GD EEx ia IIB/IIC T4 T100°C for gas and dust applications with an operational temperature range of -30°C to +70°C (-22°F to +158°F). It is allowed to connect up to five barriers in IIB applications or one barrier in IIC applications. Full functionality of the F126-EG remains available, including 4 - 20mA output according to the flow rate and Modbus communication (type CT).

Power supply type PD-XI offers a 8.2V sensor supply e.g. for one Namur sensor and two analog sensors.

A flame proof enclosure with rating II 2 GD EEx d IIB T5 is available as well. Please contact your supplier for further details.

Configuration example IIB
F126-P-(AP)-(CT)-EG-IA-PC-TP-XI - Battery powered unit

* Note sensor supply voltage: 1.2V DC for coil sensors or 3.2V DC for other pulse sensors.
Configuration example IIB - F126-P-AP-CT-EG-IA-TP-XI - Output loop powered

**TERMINAL CONNECTORS**

- **F100-series**
  - Supply
  - Signal
  - Signal

**HAZARDOUS AREA**

- Modbus communication type CT: TTL
  - Common ground
  - C is negligibly small

**SAFE AREA**

- **ISOLATOR**
  - I.S. Certified Isolator
  - TTL to
  - RS232 / RS422 / TTL
  - For example: MTL5051

**POWER SUPPLY**

- For example: MTL5025
  - Uo max 30V
  - Io max 100mA
  - Po max 750mW

- For example: MTL5025 and/or
  - REPEATER
  - e.g. MTL5042
  - Uo max 30V
  - Io max 250mA
  - Po max 850mW

- e.g. indicator

**CIRCUIT DEPENDS ON TYPE OF SIGNAL**

- **Temperature input type TP:**
  - PT100 3-wire

- **Flowmeter input type P:**
  - Pulse

- **Pressure input type IA:**
  - (0)-4 to 20mA

**NOTE SENSOR SUPPLY VOLTAGE**

- 1.2V DC for coil sensors or 3.2V DC for other pulse sensors.

**ISOLATOR**

- Power supply: e.g. MTL5025
  - Uo max 30V
  - Io max 100mA
  - Po max 750mW

**MODBUS**

- Communication type CT: TTL

**FLOWMETER**

- Type: P

**POWER SUPPLY**

- For example: MTL5025
  - Uo max 30V
  - Io max 100mA
  - Po max 750mW

**NOTE**

- Above values are safety values.
- Consult the technical specification for operational values.
Configuration example IIB and IIC - F126-A-AF-(CT)-EG-IA-TA-XI - Power supply 16 - 30V DC

**TERMINAL CONNECTORS**

**F100-series**

- **HAZARDOUS AREA**
  - Modbus communication type CT: TTL
  - Please note: communication type CT is not allowed in IIC applications.

- **SAFE AREA**
  - ISOLATOR:
    - I.S. Certified Isolator
    - TTL to RS232 / RS422 / TTL
    - For example: MTL5051

**TOTAL Ci of ALL CONNECTED ANALOG APPARATUS IN IIC APPLICATIONS MAY NOT EXCEED 66nF MINUS 17nF (17nF is used by the ANALOG OUTPUT SIGNAL TERMINAL 7 + 8).**

- **Power supply**
  - Type PD: 16 - 30V DC
  - (please note: PD and battery supply (type PC) is NOT allowed in IIC applications).

- **Pressure input type IA**
  - (0) 4 - 20mA

- **Temperature input type TA**
  - (0) 4 - 20mA

- **Flowmeter input type A**
  - (0) 4 - 20mA

- **Analog output type AF**
  - Passive floating 4 - 20mA

- **Common ground**
  - Shared ground

- **Main supply**
  - Power supply type PD: 16 - 30V DC
    - (please note: PD and battery supply type PC is NOT allowed in IIC applications).

- **Common ground**
  - Shared ground

- **Signal**

- **Ci** is negligibly small

**Note**

- Power supply type PD: the supply voltage to pulse sensors is maximum 8.7V (Uo_max 8.7V, Io_max 25mA, Po_max 150mW) and to analog sensors as connected to terminal 1 (internally linked).

- Above values are safety values. Consult the technical specification for operational values.

- For example: MTL5025

- +12V

- Note: Uo_max 30V
  - Io_max 100mA
  - Po_max 750mW

- **Modbus communication type CT: TTL**
  - Please note: communication type CT is not allowed in IIC applications.

- **Flange**

- **+12V**

- **-12V**

- **Power supply**

- **+12V**

- **Note:** above values are safety values.

- Consult the technical specification for operational values.
Configuration example IIB - F126-A-AF-CT-EG-IA-(PC)-(PD)-(PL)-TA-XI - Power supply 16 - 30V DC, battery or loop powered

Due to analog output type AF, the unit has to be powered with battery type PC, with external power supply type PD or input loop powered type PL.

Main supply

Power supply type PD: 16 - 30V DC

Note: above values are safety values. Consult the technical specification for operational values.

* Note power supply type PD: the supply voltage to pulse sensors is maximum 5.7V (Uo=max = 5.7V Io(max) = 25mA Po(max) = 150mW) and to analog sensors as connected to terminal 1 (internally linked).

Ci is negligibly small

Ci is negligibly small

Ci is negligibly small

Ci is negligibly small

+ Uo(max) = 30V Io(max) = 100mA Po(max) = 750mW

For example MTL5025

For example MTL5025 and/or

REPEATER

e.g. MTL 5042

TXD

Rx D

DTR

Common ground

Signal

Supply *

Note: above values are safety values. Consult the technical specification for operational values.

Uo(max) = 30V Io(max) = 250mA Po(max) = 850mW

For example MTL5025

For example MTL5025

For example MTL5025

For example MTL5025

For example MTL5025

For example MTL5025

For example MTL5025

For example MTL5025

For example MTL5025
**Technical specification**

### General
- **Display**
  - Type: High intensity reflective numeric and alphanumeric LCD, UV-resistant.
  - Dimensions: 90 x 40mm (3.5” x 1.6”).
  - **Digits**: Seven 17mm (0.67”) and eleven 8mm (0.31”) digits. Various symbols and measuring units.
- **Refresh rate**: User definable: 8 times/sec. - 30 secs.
- **Option ZB**: Transreflective LCD with green LED backlight. Good readings in full sunlight and darkness.
- **Note ZB**: Only available for safe area applications.

### Environment
- **Electromagnetic compatibility**
- **Compatibility**

### Operating temperature
- **Operational**: -30°C to +80°C (-22°F to +176°F).
- **Intrinsically Safe**: -30°C to +70°C (-22°F to +158°F).

### Power requirements
- **Type PB**: Long life Lithium battery - life-time depends upon settings and configuration - up to 5 years.
- **Type PC**: Intrinsically Safe long life lithium battery - life-time depends upon settings and configuration - up to 5 years.
- **Type PD**: 8 - 24V AC / DC ± 10%. Power consumption max. 10 Watt. Intrinsically Safe: 16 - 30V DC; power consumption max. 0.75 Watt.
- **Type PF**: 24V AC / DC ± 10%. Power consumption max. 15 Watt.
- **Type PL**: Input loop powered from sensor signal 4 - 20mA (type “A”) - requires types AI or AF.
- **Type PM**: 115 - 230V AC ± 10%. Power consumption max. 15 Watt.
- **Type PX**: 8 - 30V DC. Power consumption max. 0.5 Watt.
- **Type ZB**: 12 - 24V DC ± 10% or type PD / PF / PM. Power consumption max. 1 Watt.
- **Note PB/PM**: Not available Intrinsically Safe.

### Sensor excitation
- **Type PB/PC/PX**: 3.2V DC for pulse signals and 1.2V DC for coil pick-up. This is not a real sensor supply. Only suitable for sensors with a very low power consumption like coils (sine wave) and reed-switches.
- **Type PD**: 1.2 / 3.2 / 8.2 / 12 / 24V DC - max. 50mA @ 24V DC.
- **Type PD-XI**: 1.2 / 3.2 / 8.2V DC - max. 7mA @ 8.2V DC and mains power supply voltage (as connected to terminal 1).
- **Note**: In case PD-XI and signal A or U: the sensor supply voltage is according to the power supply voltage connected to terminal 1. The sensor supply of the second analog input is fixed 8.2V DC.
- **Type PM**: 1.2 / 3.2 / 8.2 / 12 / 24V DC - max. 400mA @ 24V DC.

### Terminal connections
- **Type**: Removable plug-in terminal strip. Wire max. 1.5mm² and 2.5mm².

### Hazardously area
- **Intrinsically Safe**
  - ATEX approval ref.: II 1 GD EEx ia IIB/IIIC T4 T100°C.
  - Explosion proof type: ATEX approval ref.: II 2 GD EEx d IIB T5.
  - **Dimensions of enclosure**: 300 x 250 x 200mm (11.8” x 9.8” x 7.9”) L x H x D.
  - **Weight**: appr. 15 Kg.

### Aluminum wall / field mount enclosures
- **General**
  - Die-cast aluminum wall/fiend mount enclosure IP67 / NEMA 4X - suits 2-component UV-resistant coating.

### GRP wall / field mount enclosures
- **General**
  - GRP wall/fiend mount enclosure IP67 / NEMA 4X - UV-resistant and flame retardant.

### ABS wall / field mount enclosures
- **General**
  - Silicone free ABS wall/field mount enclosure IP65 with EPDM and PE sealings. UV-resistant polyester keypad (old HD enclosure).

### Signal inputs
- **General**
  - Resolution: 14 bit. Error < 0.025mA / ± 0.125% FS.
  - Update time: Four times per second.
- **Type IA**
  - (0) - 20mA. Analog input signal can be scaled to any desired range within 0 - 20mA.
  - **Span**: 0.000010 - 9,999,999 with variable decimal position.
  - **Offset**: 0.000 - 9,999,999.
  - **Voltage drop**: 2.5V @ 20mA.
- **Type IU**
  - 0 - 10V DC. Analog input signal can be scaled to any desired range within 0 - 10V DC.
  - **Span**: 0.000010 - 9,999,999 with variable decimal position.
  - **Load impedance**: 3kΩ.
- **Note**: For signal type IA and IU: external power to sensor required; e.g. PD.

### Display
- **Type**: EEPROM backup of all settings. Backup of running totals every minute. Data retention at least 10 years.
- **Pass-code**: Configuration settings can be pass-code protected.

### Casing
- **Window**: Polycarbonate window.
- **Sealing**: Silicone.
- **Control keys**: Three industrial micro-switch keys. UV-resistant.

### Panel mount enclosures
- **Dimensions**: 130 x 120 x 75mm (5.12” x 4.72” x 2.95”) - W x H x D.
- **Weight**: 1100 gr.
- **Type HA**: Cable entry: 2 x PG69 and 1 x M20.
- **Type HM**: Cable entry: 2 x M16 and 1 x M20.
- **Type HD**: Cable entry: 1 x M20.
- **Type HO**: Cable entry: 2 x M20.
- **Type HP**: Cable entry: 6 x M12.
- **Type HT**: Cable entry: 1 x 1/2” NPT.
- **Type HU**: Cable entry: 3 x 1/2” NPT.
- **Type HZ**: Cable entry: no holes.

### Power requirements (continuation)
- **Note PB/PM**: The total consumption of the sensors and outputs may not exceed 400mA @ 24V.
- **Note**: For Intrinsically Safe applications, consult the safety values in the certificate.

### Sensor excitation
- **Type PB/PC/PX**: 3.2V DC for pulse signals and 1.2V DC for coil pick-up.

### Signal inputs
- **Pressure**
  - **Type**: EEProm backup of all settings. Backup of running totals every minute. Data retention at least 10 years.
  - **Pass-code**: Configuration settings can be pass-code protected.

### Casing
- **Window**: Polycarbonate window.
- **Sealing**: Silicone.
- **Control keys**: Three industrial micro-switch keys. UV-resistant.

### Aluminum wall / field mount enclosures
- **General**
  - Die-cast aluminum wall/fiend mount enclosure IP67 / NEMA 4X - 2-component UV-resistant coating.

### GRP wall / field mount enclosures
- **General**
  - GRP wall/fiend mount enclosure IP67 / NEMA 4X - UV-resistant and flame retardant.

### ABS wall / field mount enclosures
- **General**
  - Silicone free ABS wall/field mount enclosure IP65 with EPDM and PE sealings. UV-resistant polyester keypad (old HD enclosure).

### Signal inputs
- **Pressure**
  - **Type**: EEProm backup of all settings. Backup of running totals every minute. Data retention at least 10 years.
  - **Pass-code**: Configuration settings can be pass-code protected.

### Casing
- **Window**: Polycarbonate window.
- **Sealing**: Silicone.
- **Control keys**: Three industrial micro-switch keys. UV-resistant.

### Aluminum wall / field mount enclosures
- **General**
  - Die-cast aluminum wall/fiend mount enclosure IP67 / NEMA 4X - 2-component UV-resistant coating.

### GRP wall / field mount enclosures
- **General**
  - GRP wall/fiend mount enclosure IP67 / NEMA 4X - UV-resistant and flame retardant.

### ABS wall / field mount enclosures
- **General**
  - Silicone free ABS wall/field mount enclosure IP65 with EPDM and PE sealings. UV-resistant polyester keypad (old HD enclosure).
**Flowmeter**

**Type P**
- Coil / sine wave (minimum 20mVpp or 80mVpp - sensitivity selectable), NPN/PNP, open collector, reed-switch, Namur, active pulse signals 8 - 12 and 24V DC.

**Frequency**
- Minimum 0Hz - maximum 7kHz for total and flow rate.
- Maximum frequency depends on signal type and internal low-pass filter. E.g. reed switch with low-pass filter: max. frequency 120Hz.

**K-Factor**
- 0.000001 - 9,999,999 with variable decimal position.

**Low-pass filter**
- Available for all pulse signals.

**Option ZF**
- coil sensitivity 10mVpp.

**Type A**
- (0)4 - 20mA. Analog input signal can be scaled to any desired range within 0 - 20mA.

**Type U**
- 0 - 10V DC. Analog input signal can be scaled to any desired range within 0 - 10V DC.

**Accuracy**
- Resolution: 14 bit. Error < 0.025mA / ± 0.125% FS.
- Low level cut-off programmable.

**Span**
- 0.000001 - 9,999,999 with variable decimal position.

**Update time**
- Four times per second.

**Voltage drop**
- Type A: 2.5V @ 20mA.

**Load impedance**
- Type U: 3kΩ.

**Relationship**
- Linear and square root calculation.

**Note**
- For signal type A and U: external power to sensor is required; e.g. type PD.

**Temperature**

**Accuracy**
- Resolution: 14 bit. Error < 0.025mA / ± 0.125% FS.
- Low level cut-off programmable.

**Update time**
- Four times per second.

**Type TA**
- (0)4 - 20mA. Analog input signal can be scaled to any desired range within 0 - 20mA.

**Span**
- 0.000001 - 9,999,999 with variable decimal position.

**Offset**
- 0.00 - 99,999.99 K.

**Voltage drop**
- Type A: 2.5V @ 20mA.

**Type TP**
- 2 or 3 wire PT100.

**Range**
- -100°C to +200°C (-148°F to 392°F).

**Accuracy**
- Option ZV: Range: -200°C to +800°C (-328°F to 1832°F).

**Span**
- 0.000001 - 9,999,999 with variable decimal position.

**Offset**
- 0.00 - 99,999.99 K.

**Load impedance**
- Type U: 3kΩ.

**Note**
- 1 For signal TA and TU: power supply to temperature sensor is required; e.g. type PD.

**Signal outputs**

**Analog output**

**Function**
- Transmitting compensated flow rate.

**Accuracy**
- 10 bit. Error < 0.05%. Analog output signal can be scaled to any desired range.

**Update time**
- Ten times per second.

**Type AA**
- Active 4 - 20mA output (requires PD or PM).

**Type AB**
- Active 0 - 20mA output (requires PD or PM).

**Type AF**
- Passive floating 4 - 20mA output for Intrinsically Safe applications (requires PC, PL or PD).

**Type AI**
- Passive galvanically isolated 4 - 20mA output - also available for battery powered models (requires PB, PD, PL or PM).

**Type AP**
- Passive 4 - 20mA output - not isolated. Unit will be loop powered.

**Type AU**
- Active 0 - 10V DC output (requires PD or PM).

**Communication option**

**Function**
- Reading display information, reading / writing all configuration settings.

**Protocol**
- Modbus RTU.

**Speed**
- 1200 - 2400 - 4800 - 9600 baud.

**Addressing**
- Maximum 255 addresses.

**Type CB**
- RS232

**Type CH**
- RS485 2-wire

**Type CI**
- RS485 4-wire

**Type CT**
- TTL Intrinsically Safe.

**Operational**

**Operator functions**

- Displayed functions
  - Compensated flow rate.
  - Compensated total and accumulated total.
  - Actual line temperature.
  - Actual line pressure.
  - Total can be reset to zero by pressing the CLEAR-key twice.

**Total**

- Digits: 7 digits.
- Units / decimals: According to selection for total.
- Note: Can not be reset to zero.

**Accumulated total**

- Digits: 11 digits.
- Units / decimals: According to selection for total.
- Note: Can not be reset to zero.

**Flow rate**

- Digits: 7 digits.
- Units: mL, L, m³, Gallons, KG, lb, bbl, no unit.
- Decimals: 0 - 1 or 2.

**Time units**
- /sec - /min - /hr - /day.

**Line temperature**

- Digits: 6 digits.
- Units: °C, °F or K.
- Decimals: 1.

**Line pressure**

- Digits: 6 digits.
- Units: mbar, bar, PSI, no-unit.
- Decimals: 1.

**Flow equations**

**Type EG**
- Corrected gas volume.

**Formula**
- $Q_{normal} = Q \times \left( \frac{P}{P_{normal}} \right) \times \left( \frac{T_{normal}}{T} \right) \times \left( \frac{C}{C_{normal}} \right)$.

**Pressure**

- Normal Pressure: Default: 1.013 bar.

**Temperature**

- Normal Temperature: Default: 273.15K (0°C / 32°F).

**Accessories**

**Mounting accessories**

**ACF02**
- Stainless steel wall mounting kit.

**ACF05**
- Stainless steel pipe mounting kit (worm gear clamps not included).

**ACF06**
- Two stainless steel worm gear clamps Ø 44 - 56mm.

**ACF07**
- Two stainless steel worm gear clamps Ø 58 - 75mm.

**ACF08**
- Two stainless steel worm gear clamps Ø 77 - 95mm.

**ACF09**
- Two stainless steel worm gear clamps Ø 106 - 138mm.

**ACF10**
- Customized Greypal tagplates for ACF02 and ACF05, including stainless steel screws.

- Dimension: 95mm x 12.5mm (3.75” x 0.50”).
## Ordering information

**Standard configuration:** F126-P-AP-CX-IA-OX PX-TA-XX-ZX.

### Flowmeter input signal

<table>
<thead>
<tr>
<th>Flowmeter input signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>I/O 4 - 20mA input</td>
</tr>
<tr>
<td>P</td>
<td>Pulse input: coil, npn, pnp, namur, reed-switch.</td>
</tr>
<tr>
<td>U</td>
<td>0 - 10V DC input</td>
</tr>
</tbody>
</table>

### Analog output signal

<table>
<thead>
<tr>
<th>Analog output signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Active 4 - 20mA output - requires PD or PM.</td>
</tr>
<tr>
<td>AB</td>
<td>Active 0 - 20mA output - requires PD or PM.</td>
</tr>
<tr>
<td>AF</td>
<td>I.S. floating 4 - 20mA output - requires PC, PL or PD.</td>
</tr>
<tr>
<td>AI</td>
<td>Isolated 4 - 20mA output - requires PB, PD, PL or PM.</td>
</tr>
<tr>
<td>AP</td>
<td>Passive 4 - 20mA output, loop powered unit.</td>
</tr>
<tr>
<td>AU</td>
<td>Active 0 - 10V DC output - requires PD or PM.</td>
</tr>
</tbody>
</table>

### Communication

<table>
<thead>
<tr>
<th>Communication</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB</td>
<td>Communication RS232 - Modbus RTU.</td>
</tr>
<tr>
<td>CH</td>
<td>Communication RS485 - 2wire - Modbus RTU.</td>
</tr>
<tr>
<td>CI</td>
<td>Communication RS485 - 4wire - Modbus RTU.</td>
</tr>
<tr>
<td>CT</td>
<td>Intrinsically Safe TTL - Modbus RTU.</td>
</tr>
<tr>
<td>CX</td>
<td>No communication.</td>
</tr>
</tbody>
</table>

### Flow equations

- **EG** - Corrected gas volume.

### Panel mount enclosures - IP65 / NEMA4

- **HB** - Aluminum enclosure.
- **HC** - GRP enclosure.

### GRP field / wall mount enclosures - IP67 / NEMA4X

- **HHD** - Cable entry: no holes.
- **HE** - Cable entry: 2 x Ø 16mm & 1 x Ø 20mm.
- **HF** - Cable entry: 1 x Ø 22mm (¾”).
- **HG** - Cable entry: 2 x Ø 20mm.
- **HH** - Cable entry: 6 x Ø 12mm.
- **HJ** - Cable entry: 3 x Ø 22mm (¾”).
- **HK** - Flat bottom, cable entry: no holes.

### Aluminum field / wall mount enclosures - IP67 / NEMA4X

- **HA** - Cable entry: 2 x PG9 + 1 x M20.
- **HM** - Cable entry: 2 x M16 + 1 x M20.
- **HN** - Cable entry: 1 x M20.
- **HO** - Cable entry: 2 x M20.
- **HP** - Cable entry: 6 x M12.
- **HT** - Cable entry: 1 x ½”NPT.
- **HU** - Cable entry: 3 x ½”NPT.
- **HZ** - Cable entry: no holes.

### ABS field / wall mount enclosures

- **HS** - Silicone free ABS field enclosure IP65 – Cable entry: no holes (old HD enclosure).

### Pressure input

- **IA** - (0)4 - 20mA input.
- **IU** - 0 - 10V DC input.

### Outputs

- **OX** - No output.

### Power supply

- **PB** - Lithium battery powered.
- **PC** - Lithium battery powered - Intrinsically Safe.
- **PD** - 8 - 24V AC/DC + sensor supply - with XI: 16 - 30V DC.
- **PL** - Input loop powered from sensor signal type “A” - requires AI or AF and OT.
- **PM** - 115 - 230V AC + sensor supply.
- **PX** - Basic power supply 8 - 30V DC (no real sensor supply). Unit requires external loop AP.

### Temperature input

- **TA** - (0)4 - 20mA input.
- **TP** - PT100 input.
- **TU** - 0 - 10V DC input.

### Hazardous area

- **XI** - Intrinsically Safe.
- **XF** - EExd enclosure - 3 keys.
- **XX** - Safe area only.

### Other options

- **ZB** - Backlight.
- **ZF** - Coil input 10mVpp.
- **ZV** - PRTD-range -200°C / +800°C.
- **ZX** - No options.

Specifications are subject to change without notice.