



## TECHNICAL FEATURES

### Approvals

- » MID certification applied to converter and according to EN12405-1:2005+A2:2010 (European standard)



- » ATEX : Device category 1 approved to be used in hazardous area zone 1, II 1 G Ex ia IIA T3 ZELM 11 ATEX 0469X
- » CE marking compliant with 89/336/EC (EMC), 94/9/EC (ATEX) and 2004/22/EC (MID directive)

### Accuracy

- » According to EN12405, overall accuracy of the conversion factor of any measuring point is better than:
  - +/- 0.5% at reference conditions
  - +/- 1% at rated operation conditions
- » Typical accuracy +/- 0.15%

### Volume input

- » Dry contact, passive LF Reed type switch or dry contact
- » Compliant with Cyble® sensor ATEX module
- » Maximum frequency 2Hz
- » Programmable input pulse weight (0.001, 0.01, 0.1, 1, 10, 100)
- » Associated tampering detection input

### Temperature probe

- » Platinum PT1000 (1000 ohms at 0°C) probe
- » Cable length: 2.5 m

### Pressure transducer

- » Absolute pressure sensor with ranges:
  - 0.7 - 2 bar absolute
  - 1.5 - 6 bar absolute
- » Typical accuracy better than 0.15% of the measurement point over the whole pressure range
- » Cable length: 2.5 m

### Compressibility

- » Available Formulae:
  - S-GERG88
  - AGA8 Gross Method 2
  - AGANX19 modified
  - Fixed Z
  - T conversion

### User interface

- » Graphic display
- » All metrological data and alarm status available
- » Translatable messages to any language

### Digital outputs

- » 2 digital isolated outputs fully programmable as retransmission of:
  - Pulse Unconverted volume
  - Pulse Converted volume
  - Alarm

### Power supply

- » Operating on two AA cells Lithium battery
- » Battery change feasible in hazardous area without interrupting the normal operation of the device
- » Five year battery life expectancy under standard conditions

### Alarms

- Corus Compact manages several alarms including:
- » Legally relevant alarms (out of range temperature and pressure measurement, sensor failure, tampering)
  - » End of battery life
  - » Overflow
  - » Time synchronization error
  - » Memory check error

### Data base and Logs

- Corus Compact provides six different logs:
- » Hourly log: Last 2048 records (85 days)
  - » Daily log: Last 512 records
  - » Monthly log: Last 48 records
  - » Billing log: Last 256 records
  - » Events log : Last 4096 events
  - » Parameters log : Last 4096 events

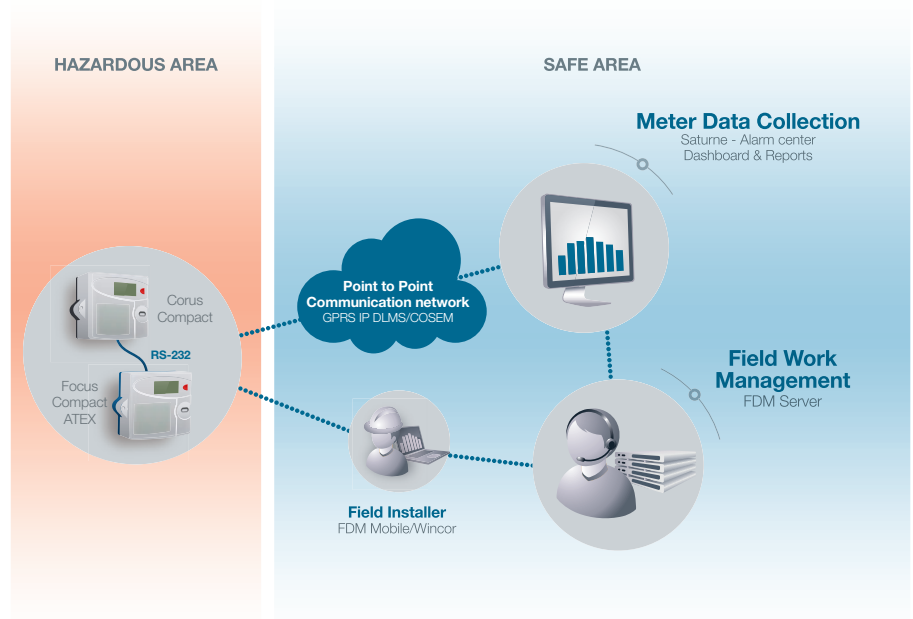
All data are stored in non-volatile memory and integrity of each record is controlled by checksum.

### Tariffs

- Corus Compact implements time of use (TOU) tariff management:
- » 3 tariff registers
  - » Tariff switchable up to 5 times per day
  - » Management of 25 special days over a 6 month period.

## SYSTEM OVERVIEW

Communication with Focus Compact installed in hazardous area



## User Access

Read/write access to parameters and Corus Compact database are controlled by:

- » Access privilege defined according to user profile
- » 6 different user profiles
- » 10 users maximum per user profile with at least 1 administrator

## Configuration software

Wincor software is used for local communications through the optical port of Corus Compact or its modem to:

- » Configure general settings,
- » Displays real-time (or "live") data,
- » Displays the different logs,
- » Extract and export of the database of Corus Compact and product configurations

## Focus Compact ATEX GPRS Modem

- » Installation possible in hazardous area
- » User-friendly interface for simplified commissioning and handling that includes
  - Indicators (such as GSM reception level)
  - Diagnostic counters (such as GPRS data traffic)
  - Alarms (such as SIM card issues)
- » Quad-band GSM/GPRS modem,
- » Five year battery life expectancy with daily communication (GPRS)
- » Field-changeable battery
- » DLMS/COSEM protocol

## OPERATING PRINCIPLE

The volume registered by the meter is converted to reference conditions using the following formula:

$$V_b = V_m \times P_m / P_b \times T_b / T_m \times Z_b / Z_m$$

## Terminology

- »  $V_m$  unconverted volume registered by the meter
- »  $V_b$  converted volume in reference (base) conditions
- »  $T_m$  gas temperature in operating conditions
- »  $T_b$  reference (base) temperature
- »  $P_m$  gas pressure in operating conditions
- »  $P_b$  reference (base) pressure
- »  $Z_m$  compressibility factor in operating conditions
- »  $Z_b$  compressibility factor in reference (base) conditions

## Technical Specifications

### Corus Compact

Overall accuracy of the C factor	Maximum Error < 0.5 % - Typical Error < 0.15%
Power supply	Battery with 5 years autonomy (battery version) in typical conditions
Temperature range	Ambient temperature: -25°C to +55°C Gas temperature: -25°C to +70°C
Enclosure	IP65 polycarbonate box
Volume input	LF input (2 Hz max) with 1 anti-tampering input
Temperature sensor	PT1000; (2.5 meters cable length)
External Pressure sensor	Pressure ranges: 0.7 - 2 bar and 1.5 - 6 bar absolute
Outputs	2 Channels fully configurable as pulse or alarm
User Interface	With graphic display
Communication	RS232 port can be replaced by another port (RS485, radio,...)
ATEX approval	Approval certificate from NMI T10388
ATEX approval	Ⓢ II 1 G Ex ia IIA T3 ZELM 11 ATEX 0469X

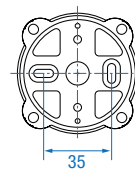
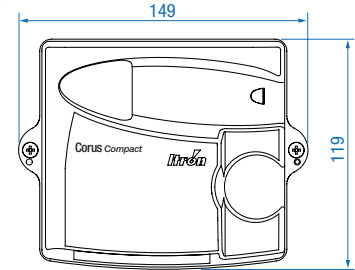
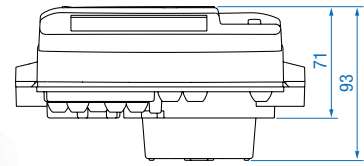
### Focus Compact ATEX

Power supply	Battery with 5 years autonomy with daily communication
Features	Quad-band GSM/GPRS modem, DLMS/COSEM protocol
Enclosure	IP65 polycarbonate box
Antenna	Internal or external
Ambient temperature range	-25° C to +55° C
User Interface	With graphic display
Communication	- Optical port for local configuration - RS232 for communication with Corus Compact (can be replaced by another port like RS485) - GPRS modem for remote communication
ATEX approval	Ⓢ II 2 (1) G Ex ia [ia Ga] IIB T3 Gb ZELM 11 ATEX 0475X



## DIMENSIONS (in mm)

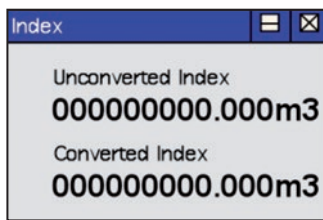
(For both Corus Compact and Focus Compact ATEX)



Wall/pipe mounting kit

## GRAPHIC DISPLAY

Possibility to translate messages

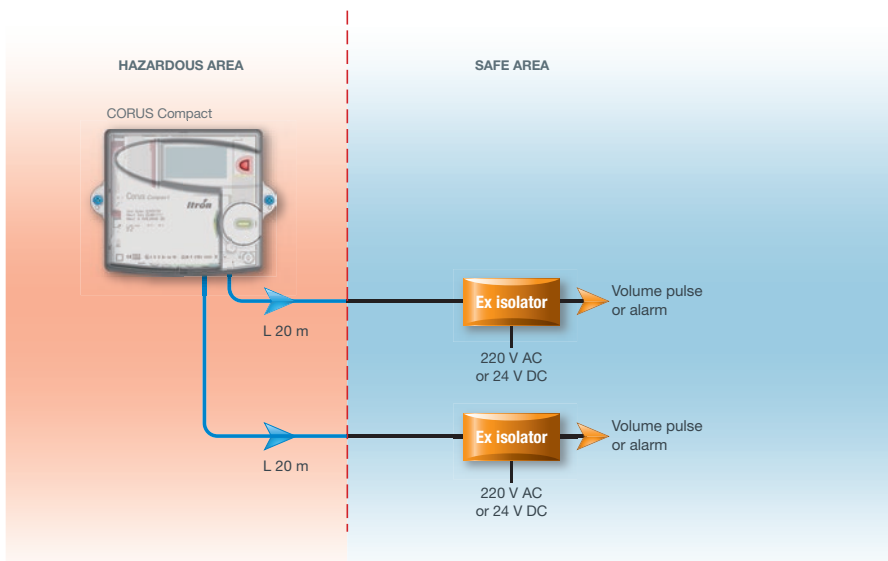


Corus Compact display



Focus Compact display

## CONFIGURATION WITH PULSE OUTPUTS (Corus Compact)



## ACCESSORIES

- » Configuration software (Wincor)
- » Thermowell
- » 3-Way pressure connection kit
- » Optical head
- » Cyble® sensor ATEX module
- » External antenna for Focus Compact ATEX



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