
CERTIFICATO MID MI001 CERTIFIED

Water meter for clean fluids

ISOFLUX™
*The ultrasonic meter*

## The Isoflux line

***ISOFLUX ultrasonic flow meters**, is a complete range of meters, single-beam or dual-beam, intended for flowrate measurements of conductive, non-conductive and aggressive liquids.*

*The range includes following versions:*

**IFX-A – AC powered meters**

**IFX-B – Battery powered meters**

**IFX-C – MID certified water meters**

***Ultrasonic flow meters** operate on the principle of measuring the difference in transit times of ultrasonic waves travelling in and against the fluid flow direction.*

*The meter consists of a flow sensor and associated electronic unit. **Ultrasonic flow meters** offer excellent user value in their high measurement accuracy over a wide range of measured values, long-term stability, negligible hydraulic losses and the capability of measuring the flowrate of virtually any clean liquid.*

*The electronic unit supplies power to both ultrasonic probes and, via its outputs, communicates the flow rate information to other data processing systems.*

*The meter can be supplied either as a compact system **(battery)** or with remote electronic unit **(AC power)**.*

# IFX-A

## Ultrasonic flow meter

## AC powered

### IFX-A1X – SINGLE BEAM
### IFX-A2X – DUAL BEAMS


## Meter specifications

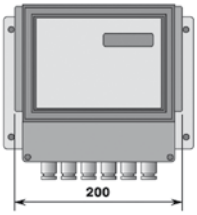
| | |
|---|---|
| Material of sensor | measuring part made in stainless steel 1.4301, flanges and cover in carbon steel |
| Painting | Green RAL 6000 |
| Nominal diameter | DN32 to DN300 (up to DN 800 on request) |
| Nominal pressure | PN16, PN40 |
| Measurement accuracy | **IFX-A1X:** ±1% for velocity of liquid v>0,5 m/s<br>**IFX-A2X:** ±0,5% for velocity of liquid v>0,5 m/s |
| Flow profile sensitivity class | **up stream:** 5xD (IFX-A2X) or 10xD (IFX-A1X) – **down stream:** 3xD (IFX-A2X) or 5xD (IFX-A1X) |
| Temperature of liquid | 0-150 °C |
| Ambient temperature | 5 to +55 °C for electronic |
| Display unit | alpha-numerical LCD unit, 2 lines, 16 characters each |
| Power supply | 90 to 230V AC, 50 to 60Hz |
| Protection class | electronic IP65, sensor IP68 |
| Outputs (insulated) | pulse type, one pulse per 0.1 to 1,000 litres frequency type, 0 to 1,000Hz or 10kHz<br>relay type 24VAC/0.1 A |
| Optional accessories | communication line RS 485. Current output 0 (4) to 20mA. Flow rate measurement in two directions |

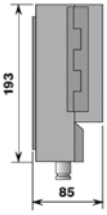
Only available in separate version, standard cable length 5 meters (others on request)

## Technical data

| | Nominal diameter | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
| | **IFX-A1X** | | | | | | | | | | |
| | | **IFX-A2X** | | | | | | | | | |
| Overload flow ($m^3/h$) **Q4** | 20 | 32 | 50 | 80 | 150 | 240 | 350 | 500 | 900 | 1400 | 2000 |
| Permanent flow ($m^3/h$) **Q3** | 10 | 16 | 25 | 40 | 75 | 120 | 175 | 250 | 450 | 700 | 1000 |
| Transition flow ($m^3/h$) **Q2** | 1,5 | 2,3 | 3,5 | 6 | 9 | 14 | 22 | 32 | 57 | 89 | 127 |
| Min. flow ($m^3/h$) **Q1** | 0,2 | 0,32 | 0,5 | 0,8 | 1,5 | 2,4 | 3,5 | 5,0 | 9,0 | 14 | 20 |

## Dimensions



# IFX-B

## Ultrasonic flow meter

## Battery powered

### IFX-B1 – SINGLE BEAM

### IFX-B2 – DUAL BEAMS

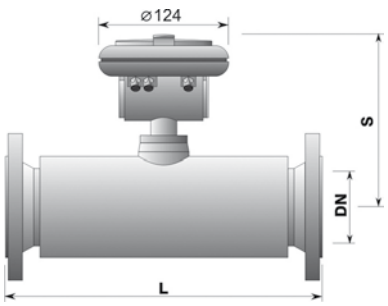

## Meter specifications

| | |
|---|---|
| Material of sensor | measuring part made in stainless steel 1.4301, flanges and cover in carbon steel |
| Painting | Green RAL 6000 |
| Nominal diameter | DN32 to DN300 |
| Nominal pressure | PN16, PN40 |
| Measurement accuracy | class 2 according to EN 14154 |
| Flow profile sensitivity class | **up stream:** 5xD (IFX-B2) or 10xD (IFX-B1) – **down stream:** 3xD (IFX-B2) or 5xD (IFX-B1) |
| Temperature of liquid | 0-50 °C |
| Ambient temperature | 0-50 °C |
| Display unit | alpha-numerical LCD unit, 2 lines, 16 characters each |
| Power supply | Li battery 3,6 V/19Ah - life time 8 years |
| Protection class | sensor and electronic IP68 |
| Outputs | passive pulse output (U = 3 to 30V, I = 1 to 10mA, timp = 30ms)<br>passive current output 4 to 20mA (U = 10 to 24V) |
| Optional equipment | bi-directional measurement, RS232 or RS232 + USB converter |

## Technical data

| | Nominal diameter | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
| | **IFX-B1** | | | | | | | | | | |
| | | **IFX-B2** | | | | | | | | | |
| Overload flow (m³/h) **Q4** | 20 | 31,25 | 50 | 78,75 | 125 | 200 | 250 | 312,5 | 500 | 787,5 | 1250 |
| Permanent flow (m³/h) **Q3** | 16 | 25 | 40 | 63 | 100 | 160 | 200 | 250 | 400 | 630 | 1000 |
| Transition flow (m³/h) **Q2** | 0,4 | 0,63 | 1,02 | 1,6 | 2,52 | 4,0 | 5,0 | 6,3 | 12,8 | 20,1 | 32,0 |
| | | 0,32 | 0,51 | 0,8 | 1,28 | 2,05 | 2,56 | 3,2 | 6,4 | 10,0 | 16,0 |
| Min. flow (m³/h) **Q1** | 0,05 | 0,079 | 0,127 | 0,2 | 0,25 | 0,4 | 0,5 | 0,625 | 1,0 | 1,575 | 2,50 |
| | | 0,0625 | 0,1 | 0,157 | 0,2 | 0,32 | 0,4 | 0,5 | 0,8 | 1,26 | 2,0 |
| Pulse number (liters/ pulse) | 10 | 10 | 25 | 50 | 50 | 100 | 100 | 100 | 250 | 250 | 500 |

## Dimensions



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# IFX-C

## Ultrasonic flow meter
## MID certified
## Battery powered

### IFX-C1 – SINGLE BEAM
### IFX-C2 – DUAL BEAM

**MI001 Certified**


## Specifications

- Certified according to MID (European metrology certificate) and OIML R49
- Designed in observance of standard EN14154
- Intended for measurement of clean water and/or substitution of mechanical water meters WOLTMAN type
- Can measure instantaneous flow rate in both directions, water consumption and pressure
- No moving parts
- Very low pressure losses

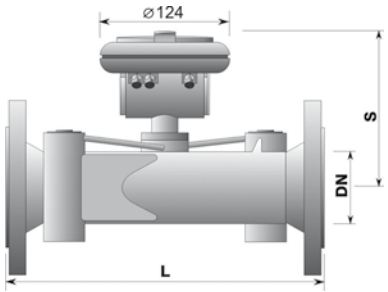
| | |
|---|---|
| Material of sensor | casting from cast iron |
| Painting | Green RAL 6000 ■<br>or Blue Rylsan WRAS certified ■ |
| Nominal diameter | DN32 to DN200 |
| Measurement accuracy | class 2 according to EN 14154 |
| Connection | Flanges (EN, ANSI, JIS) |
| Nominal pressure | PN16 |
| Temperature class: | class T30 |
| Flow profile sensitivity class | **up stream:** 5xD (IFX-C2) or 10xD (IFX-C1) – **down stream:** 3xD (IFX-C2) or 5xD (IFX-C1) |
| Temperature of liquid | 0-50 °C |
| Electromagnetic environment | E1, E2 |
| Display unit | single-line 8 character LC display |
| Flow rate sampling period | 1 sec |
| Protection class | sensor and electronic IP68 |
| Output | passive current output 4 to 20mA - (U = 10 to 24 V) passive pulse output (U= 3 to 30V, I = 1 to 10mA, timp = 30ms) |
| Optional equipment | bi-directional measurement, RS232 or RS232 + USB converter |

## Technical data

| | Nominal diameter | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 |
| | IFX-C1 | | | IFX-C2 | | | | | |
| Overload flow (m³/h) **Q4** | 12,5 | 20 | 31,2 | 50 | 78,7 | 125 | 200 | 312 | 500 |
| Permanent flow (m³/h) **Q3** | 10 | 16 | 25 | 40 | 63 | 100 | 160 | 250 | 400 |
| Transition flow (m³/h) **Q2** | 0,3 | 0,5 | 0,8 | 1,2 | 2,01 | 3,2 | 5,12 | 8,0 | 12,8 |
| | | | | 0,6 | 1,0 | 1,6 | 2,5 | 4,0 | 6,4 |
| Min. flow (m³/h) **Q1** | 0,04 | 0,064 | 0,1 | 0,16 | 0,200 | 0,317 | 0,508 | 0,794 | 1,270 |
| | | | | 0,127 | 0,157 | 0,25 | 0,4 | 0,625 | 1,0 |
| Pulse number (liters/pulse) | 10 | 10 | 25 | 50 | 50 | 100 | 100 | 100 | 250 |

***Note:*** *for MID certified meters, Q1 is stated in the certificate.*

## Dimensions






**ISOIL INDUSTRIA**
Cinisello B. - Mi (Italy)
Ph. +39 0266027.1
www.isoil.com
sales@isoil.it

ISOFLUX™
*The ultrasonic meter*