Solenvis

experts in energy metering

ELIS PLZEŇ a.s.

# INDUCTION FLOW METERS FLONET FN 20XX

# FLONET FN 20XX

Induction flow meters of the FLONET FN 20XX type series are intended for professional application and measurement of flow rates of electrically-conductive liquids in water and heat-supply systems, food-processing and chemical industries. They meet the most demanding requirements on high measurement accuracy, long-term stability and hygienic standard. Measurements in both directions of flow are possible. The meter sensor has no movable mechanical parts and its inclusion in the piping system will have no effect on the hydraulic or pressure flow conditions. The converter unit provides for sensor energising and processing of the sensor signals, and also offers functions of liquid batching control, detection of empty piping, internal meter status diagnostics, automatic cleaning of electrodes and selection of flow units in data visualisation. The flow meter has frequency, pulse and current outputs, as well as interfaces to the USB and RS 485 communication lines.

## METER SPECIFICATION

| | |
|---|---|
| nominal diameter DN | DN 6 to DN 1200 |
| nominal pressure PN | 6, 10, 16, 25 or 40 (related to DN) |
| min. conductivity of measured liquid | 20$\mu$S/cm, on agreement with the manufacturer down to 5$\mu$S/cm |
| electrode material | stainless steel 1.4571, Hastelloy-C4, platinum, tantalum |
| ambient temperature | -5°C to 55°C |
| sensor lining | soft or hard rubber, Teflon |
| design version | compact or with remote electronic unit |
| piping connection | flanges or wafer |
| max. temperature of measured liquid | up to 150°C, depending on sensor lining |
| measurement accuracy | ±0.2% for 10 to 100% $q_s$<br>±0.5% for 5 to 100% $q_s$ |
| measuring range | 0.1 to 10 m/s |
| indication of empty piping | from DN 50 upwards |
| displayed units | l, $m^3$, US gal, US bbl |
| outputs (insulated) | current (0) 4 to 20mA<br>frequency 0 to 1,000Hz<br>pulse, 0.001 to 1,000 litres per pulse<br>communication line USB, RS 485 |
| power supply | 24/115/230V ±10%, 50 to 60Hz (AC), 24V ±10% (DC) |
| protection class | IP 67 (IP 68) |

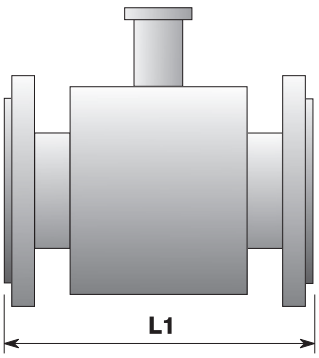
## DESIGN VERSION, CONFIGURATION AND TYPE DESIGNATION

| design version | COMPACT | | REMOTE | |
|---|---|---|---|---|
| configuration | ECONOMIC | COMFORT | ECONOMIC | COMFORT |
| type designation - flanged | FN 2010 | FN 2014 | FN 2011 | FN 2015 |
| - wafer | FN 2020 | FN 2024 | FN 2021 | FN 2025 |

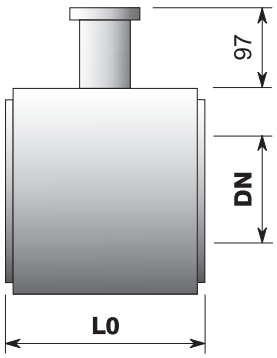
## RATED INTERNAL DIAMETER AND SENSOR LENGTH [mm]

| PN | 40 | | 16 | | | | | 10 | | | | | 6 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DN | 20 | 25-40 | 50-80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400-600 | 700 | 800 | 900 | 1,000 | 1,200 | |
| L1 | 200 | 200 | 200 | 250 | 250 | 300 | 350 | 450 | 500 | 550 | 600 | 700 | 800 | 900 | 1,000 | 1,200 | |
| L0 | 74 | 104 | 104 | 104 | 134 | 134 | 219 | - | - | - | - | - | - | - | - | - | |

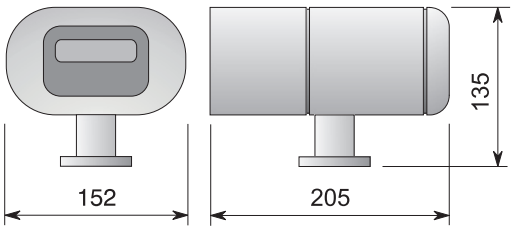
**FLANGED VERSION**




**WAFER VERSION**




**ELECTRONIC UNIT**

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