



## Product Description

The FT-11 Weight Indicator is a very accurate, versatile, general purpose instrument, available in different housings, meeting the industries demand for various environmental conditions.

The instrument is approved by Weights & Measures Authorities for use in Accuracy Class III applications with up to 10 000 intervals according to OIML R76.

Large 6 digit LED weight display (red 20 mm / panel type 14 mm) with weight status information.

Tactile 8-keys keyboard for basic scale functions.

With a variety of interface options the FT-11 is the perfect fit to weighing systems and process control systems.

## Available Accessories

- Wall mounting kit and stand mounting kit for desk type housing
- Stand mounting kit for stainless steel housing
- Setup software running under MS Windows

## Key Features

- EU Type approved for 10 000 intervals
- Single or dual range
- High internal resolution, display up to 60 000 counts
- Approved sensitivity 0.4  $\mu\text{V/e}$
- Calibration with weight or eCal (electronic calibration without test weights)
- Serial Interface RS232C
- Conversion rate max. 100/s
- Integrated power supply

## Options

- Alibi Memory (up to 149 760 records)
- Second serial interface RS232C
- Third serial interface RS485 and Modbus RTU
- Profibus DP-V0 and DP-V1
- Ethernet TCP/IP and Modbus TCP
- Isolated digital inputs & outputs
- Analogue output (0-10 V and 4-20 mA)
- Rechargeable battery

## Specifications

### ACCURACY

|                  |   |
|------------------|---|
| Accuracy Class   | III   |
| EU Type approved | 10 000 intervals (single range) or 2 X 6 000 intervals (dual range) |

### DISPLAY AND KEYBOARD

|                     |  |
|---------------------|--|
| Display             | 6 digits, 7 segments, LED red, 20 mm high (Panel type 14 mm high)    |
| Status annunciators | Gross, net, motion, zero, weighing range, information, power, unit   |
| Keyboard            | 8-key membrane, with tactile feedback                                |
| On / off switch     | Desk type, stainless steel: yes; Panel type: no                      |
| Key lock            | Basic weighing related key can be locked against unauthorized access |

### A/D CONVERTER

|                       |   |
|-----------------------|---|
| Type                  | 24 bit Delta-Sigma ratiometric with integral analog and digital filters         |
| Conversion rate       | Maximum 100 measurement values per second                                       |
| Minimum input per vsi | 0.4 $\mu$ V per interval legal for trade; 0.1 $\mu$ V per interval non approved |
| Analogue input range  | 0 mV to 20 mV   |
| Resolution            | Internal up to 8 million counts; display up to 60 000 counts                    |

### SCALE CALIBRATION AND FUNCTIONS

|                    |   |
|--------------------|---|
| Calibration        | Calibration is performed electronically or by application weights       |
| Digital filter     | 10 step adjustable digital adaptive filter                              |
| Weighing functions | Tare, zero, auto zero tracking, motion detection, auto-zero at power-up |
| Other functions    | Label number, total, gross, tare indication                             |
| Set points         | 3 set points, programmable (needs digital I/O option)                   |
| Tilting            | Inhibits weighing when scale is tilted (needs digital I/O option)       |
| Alibi Memory       | Optionally available; 74 880 records or 149 760 records                 |

### LINEARITY AND STABILITY

|                                     |  |
|-------------------------------------|--|
| Linearity & temperature coefficient | Within 0.0015 % FS; $\leq 2$ ppm/ $^{\circ}$ C |
|-------------------------------------|--|

### LOAD CELLS

|                      |   |
|----------------------|---|
| Excitation           | 5 V DC, max. 100 mA   |
| Number of load cells | Up to 6 load cells (350 $\Omega$ ) or 18 load cells (1 100 $\Omega$ ) in parallel |
| Connection           | 4 or 6 wire technique. Cable length 274 m/mm <sup>2</sup> for 6 wire connection   |

### COMMUNICATION

|                  |  |
|------------------|--|
| Serial interface | RS232C, 1200...57 600 baud, programmable |
|------------------|--|

### ENVIRONMENT AND ENCLOSURE

|                       |  |
|-----------------------|--|
| Operation Temperature | -10 $^{\circ}$ C to +40 $^{\circ}$ C legal for trade; 85% RH max, non-condensing.                  |
| Enclosure             | Aluminium cast desk type (IP30), panel type ( front panel IP65 ) or stainless steel housing (IP65) |

|  | Panel type         | Desk type              | Stainless steel |
|--|--------------------|------------------------|-----------------|
| <b>POWER SUPPLY</b>  |                    |                        |                 |
| 230 V AC, 50/60 Hz, max. 12 VA   | •                  | •                      | •               |
| 12 V DC, max. 12 VA  | 0                  | 0                      | 0               |
| Rechargeable battery   | -                  | 0                      | 0               |
| <b>OPTION FOR ADDITIONAL INPUTS / OUTPUTS (maximum is one option per instrument, for two options please contact FLINTEC)</b> |                    |                        |                 |
| 2 <sup>nd</sup> Serial interface (RS232), max. 57 600 baud   | 0                  | 0 (1)                  | 0 (1)           |
| 2 <sup>nd</sup> Serial interface (RS232) and 3 <sup>rd</sup> Serial interface (RS232 / RS485 / Modbus RTU)                   | 0                  | 0 (1)                  | 0 (1)           |
| Profibus DP-V0 and DP-V1   | 0                  | -                      | 0 (1)           |
| Ethernet TCP/IP and Modbus TCP   | 0                  | 0 (1)                  | 0 (1)           |
| Analogue output: 4-20 mA / 0-10 V  | 0                  | 0 (1)                  | 0 (1)           |
| Binary output of displayed weight (17-bit code)  | 0                  | 0 (1)                  | -               |
| 3x isolated digital inputs (24 V) and 3x isolated digital outputs (open collector)   | 0                  | 0 (1)                  | 0 (1)           |
| <b>ADDITIONAL MECHANICAL HARDWARE</b>  |                    |                        |                 |
| Wall mount kit   | -                  | 0                      | •               |
| Stand mount kit  | -                  | 0                      | 0               |
|  | • standard version | 0 optionally available | - not available |

(1) Not available if instrument is equipped with rechargeable battery.