

FT-10 weight indicator series



product description

The FT-10 family offers a comprehensive range of weighing indicators for static applications. In total 9 versions are available from basic functionality, through to versions with additional I/O and a range of communication protocols, such as Modbus, Profibus-DP, ProfiNET, EtherNet TCP/IP and CANopen.

Capable of 1,600 measurements/sec and with an accuracy of 0.0015% the FT-10 is an ideal economic weight indicator. Particularly compact, the housing can be supplied in a plastic form or a stainless steel and aluminium construction for industrial environments. Large 6-digit LED weight display (red 14 mm) allows easy readability even in poor light conditions. Tactile 5-key keyboard for basic scale functions.

Applications include universal weighing, process weighing, process automation & control, test and measurement applications.

The following device versions are available:

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| FT-10 (standard indicator) | FT-10 PN (ProfiNet) |
| FT-10 P (standard indicator, extended) | FT-10 EN (Ethernet TCP/IP) |
| FT-10 IO (digital inputs and outputs) | FT-10 CO (CANopen) |
| FT-10 AN (analog output) | FT-10 EI (EtherNET/IP) |
| FT-10 MB (Modbus-RTU) | FT-10 EN (EtherCAT) |
| FT-10 PB (Profibus-DP) | FT-10 CC (CC-Link) |

key features

OIML certified to 10,000D

Compact panel housing

High internal resolution, display up to 999,999 counts

Max. conversion rate of 1,600 updates per second

Input sensitivity: 0.4 μ V/d per interval for legal-for-trade, 0.1 μ V/d per interval non- approved

Calibration with weight or eCal

Linearity better than 0.0015%

6-wire technology

Serial port RS232C, RS485

Digital inputs & outputs (details see technical data)



RoHS
compliant



 **flintec**
quality + precision

specifications

| | FT-10 | FT-10 P | FT-10 PB / PN / MB / EI / IO / CO / EN / EC / CC | FT-10 AN |
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display and keyboard

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|------------------|--|
| Display | 6 digits, 7 segments, LED red, 14mm high |
| Status Indicator | gross, net, motion, zero, unit (kg, g, t, lb, klb, N, kN) |
| Keyboard | 5-key membrane with tactile feedback (function, gross/net, tare/delete, zero, print) |
| Key lock | Basic weighing related key can be locked against unauthorized access |
| Decimal point | At any point of the display value |

a/d converter

| | |
|---------------------------|---|
| Type | 24-bit Delta-Sigma with integrated analogue and digital filter |
| Conversion rate | Maximal 1,600 measurement values per second |
| Minimum input sensitivity | 0.4 μ V/d per interval legal for trade, 0.1 μ V/d per interval non- approved |
| Analogue input range | 0 mV to 18 mV (unipolar) or -18 mV to +18 mV (bipolar), switchable |
| Resolution | Internal up to 16 million counts; display up to 10,000 counts legal for trade, 999,999 counts non- approved |

scale calibration and functions

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| Calibration | Calibration with weight or eCal (electronic calibration without test weights) |
| Digital filter | 10 step adjustable digital adaptive filter |
| Weighing functions | Tare, zero, auto zero tracking, motion detection, auto-zero at power-up, auto-net at power-up, increased resolution |
| Sensor linearization | Up to three interpolation points |

linearity and stability

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| Linearity & temperature coefficient | Within 0.0015 % F.S.; ≤ 2 ppm/ $^{\circ}$ C |
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load cells

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|----------------------|---|
| Excitation | 5 VDC at 58...1,200 Ω , max. 100mA |
| Number of load cells | Up to 8 load cells (350 Ω) or 18 load cells (1,100 Ω) in parallel |
| Connection | 4-wire or 6-wire technology. Cable length 1,000 m/mm ² for 6-wire connection |



power supply

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| DC power supply | 12...28 VDC, max. 300mA |
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environment and enclosure

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| Operation Temperature & humidity | -10 °C to +40 °C; 85% RH max, non-condensing, legal for trade | |
| | -15 °C to +55 °C non- approved | |
| Housing & Protection | Panel mount, plastic front panel (IP67), aluminium housing, stainless steel rear panel | Panel mount, stainless steel front panel (IP65), aluminium housing, stainless steel rear panel |
| Dimensions & Weight | 52 x 96 x 100mm (L x B x H), ca. 0.5kg | |

serial interface

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|-------------------------|---------------------------------------|--|--|
| Serial Interface RS232C | 1,200 to 115,200 baud (8N1, 7E1, 7O1) | | |
| Serial Interface RS485 | - | 1,200 to 115,200 baud (8N1, 7E1, 7O1), up to 31 devices in a network | |

digital input/output

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| Input | 2x I/O (non-isolated) programmable as digital input (10...26 V DC) as well as digital output (Open Collector: 24 V DC, max. 100 mA) | 4x opto-isolated input (12...26 VDC; max. 10mA) | |
| Output | | 5x relays outputs programmable for user defined setpoints, 250 VAC or 30 VDC, 1A | |

analogue output

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|---------------------|---|---|---|---------------------------------------|
| Programmable output | - | - | - | 4-20mA, 0-20mA, 0-10V or 0-5V, 16 bit |
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Dimensions and specifications are subject to change without notice.