

FT-112 weighing indicator



product description

The FT-112 weighing indicator is a high precision, multi-functional device allowing for dual scale connections (for analogue load cells) and can be used for weighing, labelling, checkweighing, classifying, filling, piece counting as well as dynamic weighing applications. Available in both analogue and digital versions with SmartAPP functionality, the indicator can be universally used in numerous industrial weighing applications including the food, pharmaceutical and chemical industries. The indicator uses an intuitive text based menu guide, allowing for easy operation. The FT-112 is housed in a modern enclosure with covered cable entries for surface mounting. It is made from stainless-steel and has an IP rating of IP67. The indicator is also available with inputs and outputs and numerous fieldbus options.

The analogue version allows up to 25 load cell connections, whilst the digital version allows up to 16 RC3D load cells. The digital version includes an LPK24 box made of stainless steel with integrated surge protection. It serves as a power supply between the terminal and the connected digital load cells.

optional interface

Profibus, Profinet, CANopen, EtherNET/IP, EtherCAT, CC-Link, Powerlink

Digital Inputs / Outputs Opto-isolated 4 digital input, 12 to 28V DC, 10mA / 5 free relay contact, 250V AC or 30 VDC, 0.2A

Analogue Output 0-10VDC und 4-20mA

Second scale connection



key features

Stainless steel housing, IP67

Analogue or digital load cells connection

Up to 16 RC3D load cells (digital)

Calibration with test weight or eCal

Span adjustment under load

Up to 2 scales with sum function

EU-Type Examination Certificate, 10,000 e (R76)

Input sensitivity: 0.4 $\mu\text{V}/\text{e}$ (legal-for-trade), 0.05 $\mu\text{V}/\text{d}$ (industrial)

Standard interfaces 2 x RS232C, RS485, Ethernet TCP/IP, USB

Power 100...240 VAC or 12...28 VDC

Wide range of optional fieldbuses

Modbus as standard



specifications

Accuracy

| | |
|------------------|------------------|
| Accuracy class | III |
| EU Type approved | 10,000 intervals |

Display and Keyboard

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|----------|--|
| Display | LCD display with multicolour backlight, 6 digits 22mm height |
| Keyboard | Membrane with tactile feedback |
| Key lock | Basic weighing related key can be locked against unauthorized access |

A/D Converter

| | |
|-------------------------------------|--|
| Type | 24 bit Delta-Sigma with integral analogue and digital filters |
| Conversion rate | Up to 800 measurement values per second |
| Minimum input sensitivity | 0.05 μ V/d (not legal for trade) 0.4 μ V/d (legal for trade) |
| Analogue input range | -5 mV to 19mV |
| Resolution | Internal up to 16 million counts, display up to 999,999 counts not legal for trade / 10,000 counts legal for trade |
| Linearity & temperature coefficient | Within 0.0015% FS; \leq 2 ppm/ $^{\circ}$ C |

Scale Calibration & Functions

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|---|---|
| Calibration | Calibration is performed by application weights or via (eCal) |
| Digital filter | 5 step adjustable adaptive Filter |
| Weighing functions | Taring, zeroing, auto zero tracking, motion detection, auto zero at power up, tare status saves at power off, increased resolution, automatic tare and clear, temporary gross indication, unit change |
| Process functions | Labelling, piece counting, check weighing, classifying, filling, free setpoints, functional outputs, totalization, livestock weighing |
| Optional digital inputs / digital outputs | 4x isolated digital inputs 12...28V DC, 10mA / 5x relay contact 250V AC or 30V DC, 1A |
| Memory | ID1, ID2, Limit values for weighing, Limit values for piece counting, average piece weight of Item memory, preset tare memory. Each memory size has capacity for 500 records; optional alibi memory for 999,999 records |
| SD card | SD card slot for alibi memory |

Load cells

| | FT-112 analogue | FT-112 digital |
|----------------------|--|--|
| Excitation | 5 V DC max. 125 mA | 12 V DC; 1.3 A external LPK4 box |
| Number of load cells | Up to 8 load cells (350 Ω) or 25 load cells (1100 Ω) in parallel | Up to 16 x RC3D load cells |
| Connection | 4-wire or 6-wire technology. Cable length 1000 m/mm ² for 6-wire connection | 4-wire technology. Cable length 500m |
| Scale | - | RS485 halfduplex with digital RC3D load cell |

Communication & Interfaces

| | |
|---------------------|---|
| Serial interfaces | 2x RS232C, RS 485 , Ethernet TCP/IP, USB |
| Optional interfaces | Ethernet IP, Profibus, ProfiNet, CANopen, EtherCAT, CC-Link, Powerlink, analogue output |

Power Supply, Environment & Enclosure

| | |
|----------------------------------|---|
| Power Supply | 12...28V DC max. 750mA or 100...240V AC max. 75mA |
| Operation temperature & humidity | -10 $^{\circ}$ C to +40 $^{\circ}$ C legal for trade; 85% RH max, non-condensing / -15 $^{\circ}$ C to +50 $^{\circ}$ C not legal for trade |
| Dimensions (W x H x D) | Desk type 250 x 180 x 85mm, Wall type 260 x 200 x 64mm |
| Enclosure | IP67, Stainless steel |

Dimensions and specifications are subject to change without notice.