

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

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

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.