

IT1 Blackbox / IT1 JunctionBox



**Weighing Terminal Blackbox
with Scale Connection
and Data Interface,
for Industrial Use
for Installation in Hazardous Area
Zones 2 and 22**

IT1 Ex2/22 Blackbox / JunctionBox – Technical Data

ATEX approval

- II 3G Ex e IIC T4 Gc (gas)
II 3D Ex ic tc IIIC T135°C Dc (dust)

Construction

Compact stainless steel housing protected to IP65 / IP67, for wall-mount installation, suitable for harsh environments, all cable connections through sealed cable glands.

Weighing electronics

IT1 Ex2/22 Blackbox:

Connection to scales with analog strain gauge load cells, entry impedance 43 Ohm–3.3 kOhm (e.g. suitable for 8 x 350 Ohm load cells), or zener barriers, entry impedance 87.5 Ohm–3.3 kOhm (e.g. suitable for 4 x 350 Ohm load cells), W&M approved resolution of up to 10,000 d. Internal resolution 524,000 d, update rate 50–800/s, smallest load cell signal 0.33 µV/e. Optional interface modules for digital load cells Flintec RC3D, HBM C16i, or MT SICS.

IT1 Ex2/22 JunctionBox:

Connection to scales with max. 4 analog strain gauge load cells, incl. shift adjust board AJC for the adjustment via rotary potentiometers, W&M approved resolution of up to 10,000 d. Internal resolution 524,000 d, update rate 50–800/s, smallest load cell signal 0.33 µV/e. Calibration as single or multiple range scale with 1, 2 or 3 ranges or as multi-interval scale. Calibration with test weights or through entry of rated output of load cell(s), option for the linearization of the load curve. Calibration with PC software IT CONFIGURATOR (SIM-NET module required).

Weight display

Via Ethernet interface, W&M approval as NAWI only permissible if used in combination with a separate SysTec weighing terminal or with the PC software PC ScaleView.

Electrical connection

110–240 V AC, 50–60 Hz or 12–24 V DC
via integrated power supply unit, or
12–24 V DC for power supply via external battery.

Operating temperature

–10 °C (+14 °F) to +40 °C (+104 °F), 95 % relative humidity, non-condensing.

Interface options

One socket for serial or Ethernet interface and one socket for digital I/Os or analog output:

PC interface, selectable Ethernet, RS232, RS422 or RS485, configurable as 'data transmission after each weighing cycle' or 'in request mode'.

Printer interface, selectable USB, Ethernet, RS232 or RS485 4-wire, for the connection of a form or ticket printer, printout configurable via display and keyboard.

Interface for remote display, selectable RS232, RS485 or Ethernet, several protocols configurable.

2 digital inputs and 2 digital outputs

Optoisolated, 24 V DC, outputs for setpoint monitoring or simple filling applications, inputs for start of weighing and taring or start/stop of filling.

Additional digital output

Optoisolated, 24 V DC, for +/– check or setpoint monitoring.

Analog output

0–20 mA, 4–20 mA, 0–10 V or 2–10 V, 15 bit, 32,000 divisions, for analog output of weight.

Further options

Internal W&M approved data archive

To record the latest 1,000,000 weighing results.

PC ScaleView

PC software for the display of weighing data and scale status information.

PC COM+ / PC ARCHIVE

PC software for W&M approved recording of weighing data on a PC hard disk, recording of several years on a hard disk possible.

PC ReadIT

PC software for the reception of weighing data and storage in an ASCII file or a database.

IT CONFIGURATOR

PC software for calibration, backup, configuration of user prompts, and editing of print formats (SIM-NET module required).

Remote display

W&M approved IT1 remote display, selectable RS232, RS485 or Ethernet interface.

Remote diagnostics

Via Ethernet/Internet connection with integrated web server.

Ethernet connector

M12 connector (Ex) for the assembly of customized connection cables for hazardous area.

Construction:

IT1 Ex2/22 Blackbox



- Stainless steel housing, IP65 / IP67, NEMA 4X
- Wall-mount installation
- Dimensions W x H x D: 162 x 171 x 64 mm (6.4" x 6.7" x 2.5")

IT1 Ex2/22 JunctionBox



- Stainless steel housing, IP65 / IP67, NEMA 4X
- Wall-mount installation
- Dimensions W x H x D: 221 x 171 x 64 mm (8.7" x 6.7" x 2.5")

Directives: 2014/30/EU, 2014/31/EU, 2014/32/EU, 2014/34/EU, 2014/35/EU



EU Type-examination Certificate as non-automatic weighing instrument

Standards: EN 45501, OIML R76-1, EN 61000-6-2, EN 61000-6-4, NAMUR NE21, EN 62368-1, WELMEC 8.8, 60079-0/-7/-11/-31



Type-examination Certificate as non-automatic weighing instrument



Other certificates on demand

SysTec Systemtechnik und Industrieautomation GmbH
Tel. +49 (0) 2238 - 9663-0 – www.systecnet.com

Sales and service

Subject to change without notice

ST.2309.2033 IT1_BB_EX222_DBE.PDF 06.2024