IT3 Blackbox

Systec
Discover smart weighing

IT Blackbox with Scale Connection and Data Interface, for Industrial Use

IT3 Blackbox – Technical Data

Weighing electronics

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 via zener barriers, entry impedance 87.5 Ohm–3.3 kOhm (e. g. suitable for 4 x 350 Ohm load cells), W&M approved resolution up to 10,000 d. Internal resolution 524,000 d, update rate 50–800/s, smallest load cell signal 0.33 µV/e. Options: Connection of two scale bases via DADM, connection of scale platforms with digital force transducers, external scale interface with ADCBox via RS485, max. cable length: 500 m. Internal event log for scale errors.

Calibration

Of scales with analog load cells:
Setup 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.
Clear operator prompts for all steps of calibration sequence. Transmission of all calibration data to/from PC with printout.

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 SIM socket for:

Serial interface to connect a PC, printer, remote display or reference scale via RS232 or RS485 4-wire. Printout configurable with PC tool IT *CONFIGURATOR*.

Ethernet module to connect to TCP/IP networks or a network printer. Remote diagnosis is possible via internet.

USB module to connect a USB printer or keyboard.

DUAL-ISM to connect single- or dual-channel incremental sensors (pulse wheel).

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

One extension socket for:

SIM-ETH3 module providing a second SIM socket.

Fieldbus module for Profinet, Profibus DP or Ethernet/IP.

Shift adjust board for 4 load cells.

One socket for digital inputs/outputs or analog output:

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.

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.

Data interface

Communication using SysTec Online protocol with commands for tare, set zero, read weight etc.

Further options

Internal W&M approved data archive
To record the latest 1,000,000 weighing results.

Interface for two scale bases DADM
To connect two scales with analog strain gauge load cells.

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.

IT *CONFIGURATOR*
PC software for calibration, backup, configuration of user prompts, and editing of print formats.

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

RTC *Web Interface*
For remote diagnostics via Ethernet/Internet.

Ethernet interface cable
With RJ45 connector, 5 m (20") or 10 m (40").

Dimensions

- Stainless steel housing, IP65, 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, 2014/35/EU

Standards: EN 45501, OIML R 76-1, EN 61000-6-2, EN 61000-6-4, NAMUR NE21, EN 62368-1, OIML R 61, WELMEC 8.8

EU Type-examination Certificate as non-automatic weighing instrument, automatic gravimetric filling instrument

Type-examination Certificate as non-automatic weighing instrument, automatic gravimetric filling instrument

NTEP approval as indicating element

ETL certified in accordance with UL 62368-1 and CSA C22.2 No. 62368-1

EMI compliance with FCC Part 15

Measurement Canada: Approval as indicating element

Other certificates on demand

EtherNet/IP

PROFINET® PROFIBUS®

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

Sales and service

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