



**Universal Weighing Terminal,  
W&M Approved,  
for Industrial Use**

# IT1 – Universal Industrial Weighing Terminal

## Stainless steel housing IP65 / IP69K

Suitable for harsh environment weighing locations, including outdoor area and altitudes of up to 5,000 m. With mounting brackets for desk-top or wall-mount installation. Integrated power supply unit, sealed cable glands for all cable connections.



## Keyboard

With function keys for zero setting, taring, printing, totalizing and special functions.

## Color display

For indication of weight, multi-lingual operator prompts and calibration dialog. With backlighted, 11 cm (4.3") display.

## Power supply

110–240 V AC or 12–24 V DC (integrated) for stationary use or 12–24 V DC (integrated) for mobile use.

## Universal Use

Suitable for difficult environmental conditions and locations with high hygienic standards, as in the food, pharmaceutical and chemical industry.

## High Operational Security

Fast and error-free operation is ensured by a color display for the indication of weight, IDs and operator prompts.

## Weighing Electronics

IT1 connects to one scale 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), or digital load cells. The weighing terminal provides a W&M approved resolution of up to 10,000 d. Calibration is possible as single or multiple-range (e. g. 3 x 3,000 d) and as single or multi-interval scale. Interface modules for digital load cells are available as options.

## Weighing Program

Display of net, tare and gross weight. Operator prompting for capturing of weight or piece count. Weighing data can be stored in an internal W&M approved data archive. Totalizing is also possible.

Plug-on modules are used to set up the IT1 for applications of varying complexity.

## Data Logging

Via optional printer interface. The print layout for labels or forms is configurable.

Printout of weights, totals, date, time and consecutive-no.

## Data Transmission To PC

Via optional PC interface. Transmission of date, time, consecutive No. and weight after each weighing cycle.

## PC ONLINE Mode

Via optional PC interface. Reading of weight, taring, zero setting and other functions can be remotely controlled from a PC.

Weights can be stored in an internal W&M approved data archive for verification. Data transmission is possible through serial interface or Ethernet LAN.

## Switching And Filling

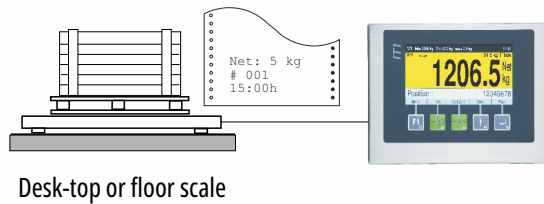
With optional input/output modules 3 weight thresholds can be monitored, e. g. for max. or min. values. Start of weighing cycle and taring is possible from external switches.

Alternatively the inputs and outputs can be used for a filling sequence with start/stop/interrupt and two-speed cut-off.

# IT1 – Standard Programs

## BASIC

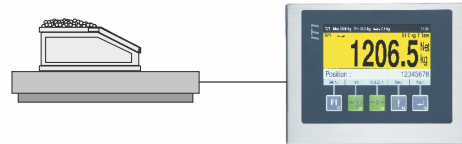
**W&M approved weighing terminal**  
Taring, weighing and totalizing,  
printout of ticket.



**Connection to:**  
printer, PC or  
remote display

## CHECK

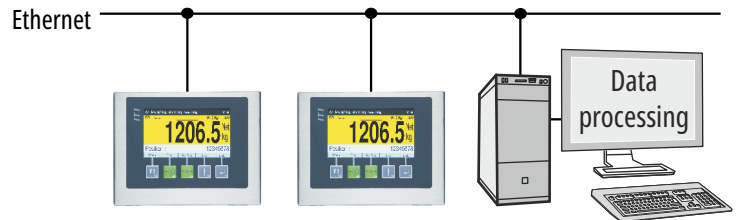
**Checkweighing terminal**  
Weight tolerance check with color change  
and output signals for 'under tolerance',  
'within tolerance' and 'over tolerance'.



**Connection to:**  
relay unit or PLC

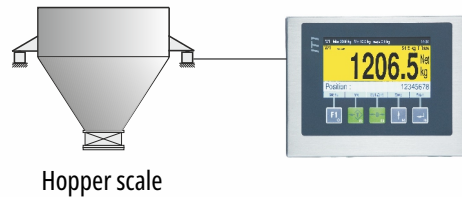
## ONLINE

**W&M approved ONLINE weighing terminal**  
Transmission of weights on request from PC,  
via serial interface or Ethernet, internal storage  
of 1,000,000 weighings possible in approved data  
archive.



## IT1

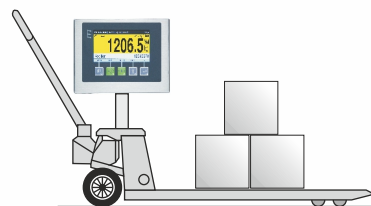
**Weighing terminal with setpoints**  
Min. / max. weight monitoring for hopper scales,  
output signals for: 'weight under min.'  
and 'weight over max.'



**Connection to:**  
relay unit or PLC

## IT1

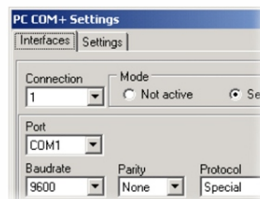
**Mobile weighing**  
With data logging  
(IT1 power supply 12–24 V DC).



**Connection to:**  
printer

## PC COM+

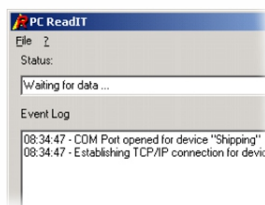
**PC Software Tool PC COM+ (Option)**  
ActiveX component for the communication  
between Windows programs and IT1  
terminals in ONLINE mode. In combination with  
**PC ARCHIVE** option to store weights internally or on PC  
hard disk in an approved data archive.



**Compatibility:**  
Windows 7...10

## PC ReadIT

**PC Software Tool PC ReadIT (Option)**  
Reception of weighing data and storage  
in an ASCII file (\*.txt) or a database.  
Supported databases: MS SQL, MS ACCESS,  
Oracle, Interbase SQL or ODBC.



**Compatibility:**  
Windows 7...10

# IT1 – Technical Data

## Construction

Compact stainless steel housing protected to IP65 / IP69K, for desk-top, wall-mount or as panel-mount version.  
Suitable for harsh environments, including outdoor area and altitudes of up to 5,000 m.  
All cable connections through sealed cable glands.

## Display and keyboard

**Bright 4.3" (11 cm) color screen** for indication of weight and operator prompts and calibration.  
**Sealed membrane keyboard with tactile feedback**, with soft keys for zero setting, taring, printing, totalizing and special functions.

## 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. 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. Clear operator prompts for all steps of calibration sequence.

Options: Connection of scale platforms with digital force transducers, external scale interface with ADCBox via RS485, max. cable length: 500 m.

## 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 or RS485–4-Draht, configurable as 'data transmission after each weighing cycle' or 'in request mode'.

**Printer interface**, selectable USB, Ethernet, RS232 or RS485, 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.

**Splash and dust cover**  
Transparent plastic cover to protect display and keyboard.

## Construction:

### Desk-top or wall-mount installation



- Stainless steel housing, IP65 / IP69K, NEMA 4X
- Desk-top installation
- Dimensions W x H x D: 210 x 177 x 115 mm (8.3" x 7.0" x 4.5")

- Stainless steel housing, IP65 / IP69K, NEMA 4X
- Wall-mount installation
- Dimensions W x H x D: 210 x 151 x 121 mm (8.3" x 5.9" x 4.8")

### Panel-mount version



- Stainless steel housing, fascia plate protected to IP65, NEMA 4X
- Panel-mount installation
- Dimensions W x H x D: 182 x 145 x 47 mm (7.2" x 5.7" x 1.9")
- Cut-out in panel: 165 x 129 mm (6.5" x 5.08")

**Directives:** 2014/30/EU, 2014/31/EU, 2014/35/EU

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

**CE** EU Type-examination Certificate as non-automatic weighing instrument

**UK CA** Type-examination Certificate as non-automatic weighing instrument

**NTEP** NTEP approval as indicating element

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

**FC** EMI compliance with FCC Part 15

**Canada** Measurement Canada: Approval as indicating element

**Other certificates** on demand

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Sales and service

Subject to change without notice

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