# Procon Engineering
(A Division of National Oilwell Varco UK Limited)



## Type IT1 Weighing Terminal

| | |
|---|---|
| **IP69K stainless steel housing** | **W & M approved – 10000 division** |
| **Panel, wall or desk mountable** | **2 digital inputs & 2 digital outputs (option)** |
| **110/240v VAC integrated power option** | **Analogue & serial output options** |
| **12V-30VDC version for mobile use** | **Optional PC interface** |

- Ideal for locations requiring high hygienic standards, (Food, Pharmaceutical and Chemical industries).
- Taring, weighing, totalising and print out of ticket.
- Bag and drum filling.
- Mobile weighing with data logging.
- On-line serial interface via Ethernet.
- PC software tool for communication between Microsoft Windows programmes.

# IT1 Weighing Terminal
## Technical Specification Sheet

### Stainless steel housing IP69K

Suitable for harsh environment weighing locations. With mounting brackets for desktop or wall-mount installation. Integrated power supply unit, sealed cable glands for all cable connections.

### Keyboard

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

### Colour display

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

### Power supply

110 – 240 VAC or 12-30 VDC (integrated) for stationary use or 12 – 30 VDC (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 colour display for the indication of weight, IDs and operator prompts.

### Weighing Electronics

IT1 connects to one scale with analogue strain gauge load cells, entry impedance 43 0hm-3.3 k0hm (e.g. suitable for 8 x 350 0hm load cells), or via Zener barriers, entry impedance 87.5 0hm - 3.3 k0hm (e.g. suitable for 4 x 350 0hm load cells). The weighing terminal provides a W & M approved resolution of up to 10000 d.
Calibration is possible as single or multiple-range (e.g. 3 x 3000 d) and as single or multi-interval scale.

### Weighing Programme

Display of net, tare and gross weight. Operator prompting for capturing of weight or piece count. Totalising is also possible Plug-on modules are used to set IT1 up 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 a W&M approved data archive for verification. Data transmission is possible through serial interface or Ethernet LAN.

### Switching and Filling

With an optional input/output modules 3 weight thresholds can be monitored, e.g. for max. or min. values.
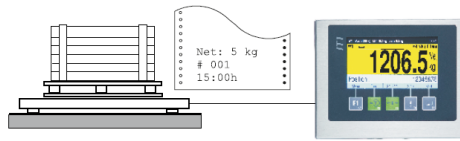
Start of weighing cycle and taring is possible from external switches. Alternatively the inputs and outputs can be used for a filling sequence with start/stop/interrupt and two-speed cut-off.

# IT1 Weighing Terminal
## Technical Specification Sheet

## BASIC

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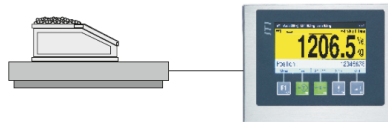printout of ticket.

Net: 5 kg
# 001
15:00h

Desk-top or floor scale

**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'.
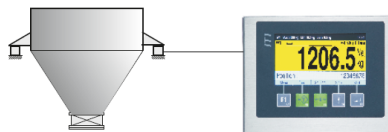
**Connection to:**
relay unit or PLC

## 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.

Ethernet

Data
processing

## IT1

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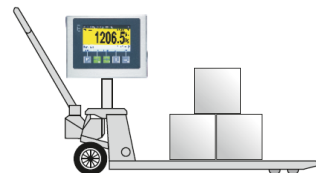output signals for: 'weight under min.'
and 'weight over max.'
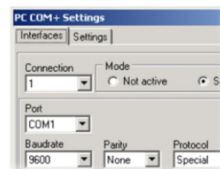
Hopper scale

**Connection to:**
relay unit or PLC

## IT1

**Mobile weighing**
With data logging
(IT1 power supply 12–30 VDC).

**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 Weighing Terminal
## Technical Specification Sheet

### Construction

Compact stainless steel housing protected to IP69K, for desktop, wall-mount and column-mount installation or as panel-mount version, suitable for harsh environments, all cable connections through sealed cable glands

### Display and keyboard

**Bright 4.3" (11cm) colour screen** for indication of weight and operator prompts and calibration.

**Sealed membrane keyboard with tactile feedback**, with soft keys for zero setting, taring, printing, totalising and special functions.

### Weighing electronics

Connection to scales with analogue strain gauge load cells, entry impedance 43 0hm-3.3 k0hm (e.g. suitable for 8 x 350 0hm load cells), or via zener barriers, entry impedance 87.5 0hm-3.3 k0hm (e.g. suitable for 4 x 350 0hm load cells). W & M approved resolution up to 10000d.
Internal resolution 524000d. update rate 50-800/s. smallest load cell signal 0.33µV/e.

### Calibration

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 linearisation of the load curve. Clear operator prompts for all steps of calibration sequence

### Electrical connection

110 – 240 VAC, 50/60 Hz or 12 – 30 VDC via integrated power supply unit, or 12 – 30 VDC 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 for analogue 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, 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 digit inputs and 2 digital outputs.** Optoisolated, 24VDC, outputs for setpoint monitoring and simple filling applications, inputs for start of weighing and taring or start/stop of filling.

**Additional digital output** Optoisolated, 24 VDC for ± check or setpoint monitoring

**Analogue output** 0-20mA, 4-20mA, 0-10V or 2-10V, 15 bit, 32000 divisions, for analogue 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.

| Desk-top or wall-mount installation | | Panel-mount version |
|---|---|---|
|  |  |  |
| • Stainless steel housing, IP69K, NEMA 4X<br>• Desk top installation<br>• Dimensions W x H X D: 168 x 177 x 115mm (6.6" x 7.0" x 4.5") | • Stainless steel housing, IP69K, NEMA 4X<br>• Wall mount installation<br>• Dimensions W x H X D: 168 x 151 x 121mm (6.6" x 5.9" x 4.8") | • Stainless steel housing, facia plate protected to IP69K, NEMA 4X<br>• Panel mount installation<br>• Dimensions W x H X D: 182 x 145 x 47mm (7.2" x 5.7" x 1.9")<br>• Cut out in panel: 165 x 129mm (6.5" x 5.08") |

Procon Engineering's policy is one of continuous product enhancement.
We therefore reserve the right to incorporate technical modifications without prior notification. E&OE.     *Issue No: 2024-01*