

DISOMAT® B plus Ex Weighing Terminal



- Intrinsically safe weighing terminal for use in Ex-Zone 1 (ATEX Category 2G)
- Prominent operator prompting on backlit LC display with graphics capability
- Integral legal-for-trade memory (optional)
- Modularly extensible inputs/outputs
- Flexible configuration
- PC-supported configuration and parameterisation
- Compatible with DISOMAT® B plus standard variant

Application

DISOMAT® B plus Ex Weighing Terminal is designed as intrinsically safe variant of the proven DISOMAT® B plus.

Like the safe area variant, the unit can be optimally used in a multitude of weighing applications, no matter whether the emphasis is on scale control, data processing, process control or communication with user systems.

For typical applications, predefined configurations are stored in device and can be easily called up, e.g.:

- Cargo Scale
- Filling Scale
- Discharge Scale
- ...

These "fixed wirings" offers you a proven functionality matched to the specific application whilst retaining your flexibility of individual adaption.

The logical function block configurations can be changed at any time, so that the DISOMAT® B plus functionality can be adapted to almost any weighing task.

Available functions, operator prompting and interface behaviour are widely identical with those of the standard DISOMAT® B plus.

Construction

The backlit display with graphics capability continuously indicates the weight. Six visualisation lines allow additional values to be output, e.g. totals, set points and tare values, e. g.:

- Status information (positions of inputs/outputs)
- Feed statuses (function key assignment)
- help texts on system operation) can easily be output

Bar indications are possible.

Two lines are available for operator inputs.

A special mode ("telephone alphabet") lets you key in α characters.

3 binary inputs and 4 binary outputs are available for control of scale and DISOMAT®.

All inputs/outputs are designed to process TTL levels. If required, the switching capacity can be uprated using additional modules.

The input/output functions can be matched to the application on hand by appropriate function block linkage.

If necessary, the number of binary inputs/outputs can be increased using extension modules **in the safe area**.

Two serial interfaces enable the connection of peripherals, e.g. printer and remote display, or the data communication with an EDP or PLC.

The optional legal-for-trade memory in the device takes away the worries of printing and filing legal-for-trade data on paper.

Operation and Setting

On standard, your DISOMAT® can be operated in German and English.

Other operating languages can be downloaded easily using DISOPLAN®, the PC-supported parameterisation and configuration program running under WINDOWS. Available at present: Italian, Spanish, French, Polish, Czech, Hungarian and Russian. Other languages can be offered upon request.

Furthermore, DISOPLAN® B plus enables:

- Graphical function block configuration
- Setting of all device parameters
- Calibration
- Read-out of complete device configuration (backup)
- Restore of stored data in DISOMAT® B plus lets you prepare a replacement unit in the shortest of times.

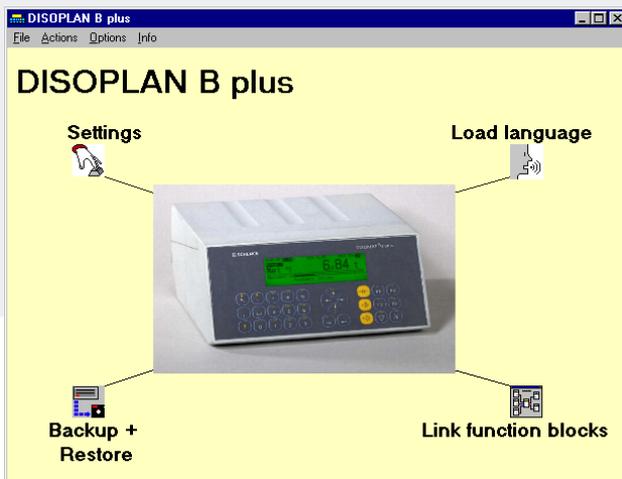
All parameter and calibration data are stored fail-safe in device.

Process parameters and data are saved for at least 3 months. The real-time clock continues running for the same period of time.

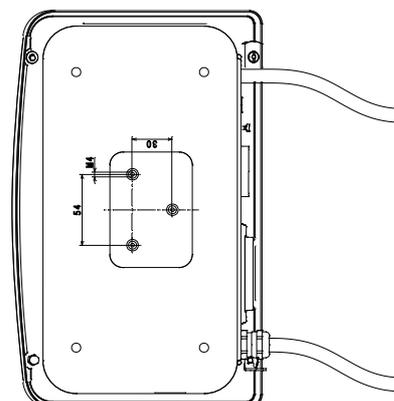
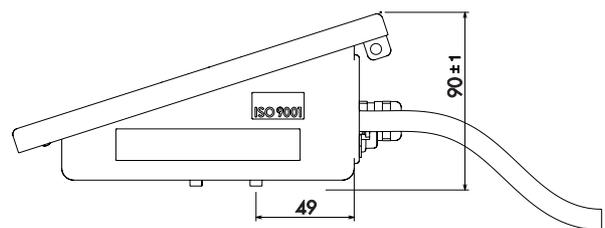
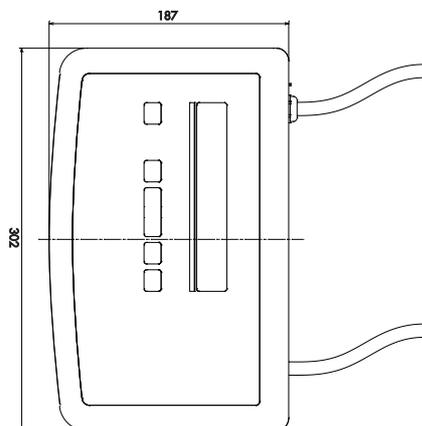
Printing

The variable print pattern formatting gives you the freedom to design your own weighing report. In addition to weight values, the following data can be output:

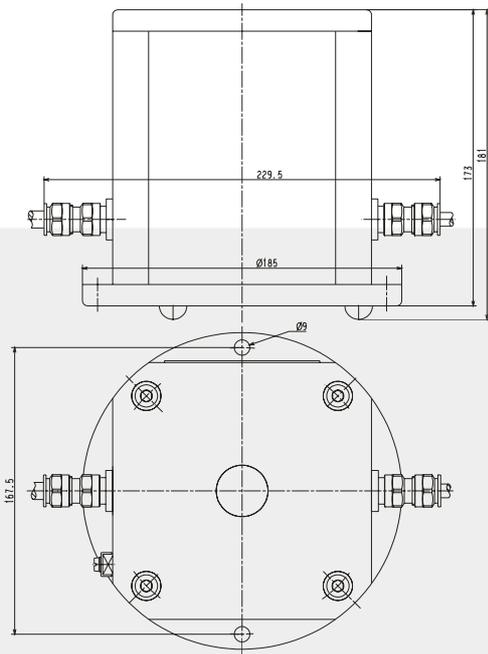
- Date and time
- Consecutive number
- Cumulative totals
- Number of totalised weighing operations
- 5 attributes of up to 25 digits
- 3 stored texts of 26 digits each



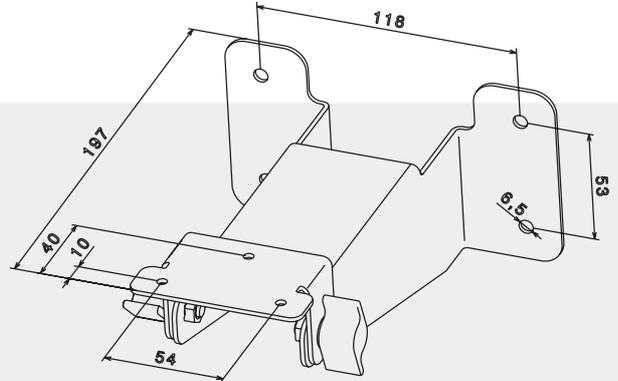
DISOMAT B plus Ex (dimensions)



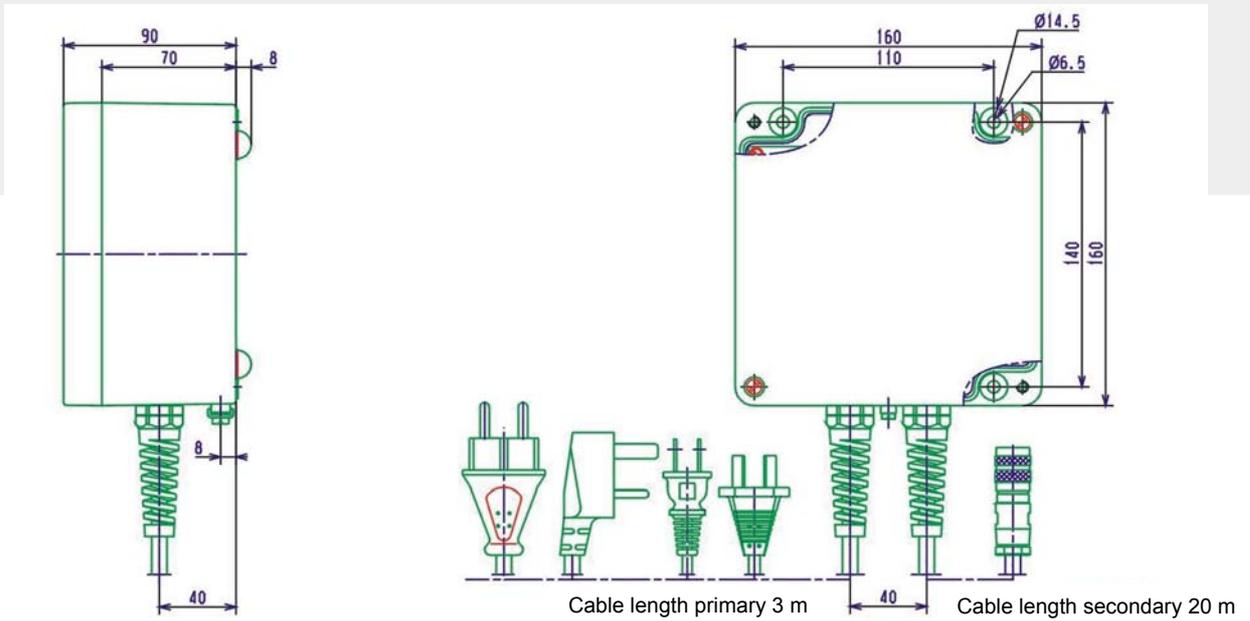
Power units for the hazardous area (dimensions)



Wall holders



Power units for the safe area (dimensions)



24 V supply

Desk-top unit		
W [mm]	H [mm]	D [mm]
130	38	200
5 m cable on primary and secondary sides		
Optional: 19" dummy plate 3 HU x 141.9 mm		

Technical Data

Display	LCD with graphics capability, 248 x 128 pixels, 108 x 58 mm, Weight display, 12mm digit height, 1 status line and 6 dialog lines, 4 mm digit height
Keyboard	Flexible membrane keyboard with 30 multi-function keys, 8 keys reserved for individual assignment
Power supply (external power supply)	100-240 VAC (-15/+10%), 50-60Hz, max. 25 VA; optional 15.5-24 VDC ($\pm 10\%$), max. 10 W, battery mode via external EX battery pack (option)
Temperature range	Service temperature: -10 to +40 °C Storage temperature: -20 to +60 °C
Input signal	0 to 36mV
Sensitivity	0.44 $\mu\text{V/d}$
Load cell supply	5.5V AC
Increment value	1, 2, 5, ...; settable from 0.01 - 5000
Unit	kg, g, t, lb
Number of increments	Certified applications: max. 6250d Multi-range scale: 3 x 3125d Multi-divisional scale: 3 x 3125d In-plant use: resolution unlimited
Taring	0 ... 100% of full scale
Zero setting	Settable to max. 20%, Automatic zero tracking 0.5d/sec, deselectable

Load cell impedance	Min. 83 Ω (corresponding to 4 x 350 Ω L/Cs, or > 20 RT L/Cs of 4000 Ω each)
Date/time	Real-time clock (RTC), min. 3-month backup
Ex-approval	KEMA 03ATEX 1471 X
Housing	Stainless steel 1.4301, protected to IP 65
Binary inputs	3 inputs, TTL level
Binary outputs	4 outputs, TTL level, refresh rate of outputs in "Fast Comparator" function 132 x / second

Serial interfaces	2 interfaces for printer, EDP or secondary display Interface 1 switchable to RS 232; RS 422/485, 4-wire; RS 485, 2-wire Interface 2: RS 232 fixed, Max. baud rate: 19200
EDP protocols	Siemens 3964R, S5 (RK512) Modbus Schenck Standard Protocol DDP8672 Schenck Poll Protocol DDP8785
Secondary display protocols	DTA DDP 8861 DDP 8850

Equipment Supplied

V024295.B01	VKG 20490E, DISOMAT B plus Ex. Intrinsically safe weighing terminal for use in ATEX Zone 1 (Category 2G)
V029352.B01	Legal-for-trade data memory VMM20490 for storage of weigh data, replacing the tally-tape printer. 8 MB storage capacity for type. 200 000 weighing operations.
V031415.B01	VEA 20490, internal I/O module for VKG 20490
V031420.B01	VEA 20491, external I/O module for VKG 20490
V031394.B01	VNT 20490 DR, power supply unit, flame-proof enclosure for the hazardous area, German power connector
V031395.B01	VNT 20490 GB, power supply unit, flame-proof enclosure for the hazardous area, English power connector
V031396.B01	VNT 20491 DR, power supply unit for the safe area, German power connector
V031397.B01	VNT 20491 GB, power supply unit for the safe area, English power connector
V031410.B01	VNT 20492, 24V industrial network modules (inside/outside EX)
V031412.B01	VNT 20495, storage battery for use in the hazardous area
V031423.B01	Charging station for EX storage battery
V031425.B01	Holders for EX storage battery
V031429.B01	Stainless steel wall holders for indicator
V031431.B01	Stainless steel floor stand

Schenck Process GmbH

Pallaswiesenstr. 100
64293 Darmstadt, Germany
Phone: +49 6151 1531-1216
Fax: +49 6151 1531-1172
sales@schenckprocess.com
www.schenckprocess.com