

## DISOMAT F Weight Indicators



- Legal-for-trade
- PC-, desk-top-, wall-mounting and stainless steel variants
- Easy-to-read LC display
- Flexible membrane keypad
- Bilingual operator prompting
- Serial interfaces
- Binary inputs/outputs

### Applications

DISOMAT F Weight Indicators are optimally suitable for applications which require weight values to be acquired legal-for-trade, displayed, printed and, if need be, transferred to a host system for further processing.

Focus is on platform scales with no need for sophisticated control tasks and on applications where DISOMAT F is used as weight value transducer for PC based weighing and data processing systems (e.g. road weighbridges).

All hardware and software items are designed for smooth interaction with PC.

### Equipment

DISOMAT F is available in four different types of housing:

- PC-mounting unit of standard size (5.25") for installation in a drive or CD ROM shaft (DISOMAT F-P)
- Desk-top unit with large backlit display and keypad for input of tare values (DISOMAT F-D)
- Wall-mounting unit for vertical installation (DISOMAT F-W).

The DISOPLAN-F configuration software permits convenient system parametrization and calibration via PC.

Appropriate software protocols ensure easy and safe data transfer from a DISOMAT F into PC applications.

The PC variant is designed such that no recalibration is necessary after dismounting and reassembly of system (for instance, in the case of repair work on PC).

Direct printer connection on DISOMAT F-P enables system to operate in backup mode whenever complete PC functionality is not available. In this case, operation and display are performed on DISOMAT F-P direct. With legal-for-trade scales, printer is directly connected to DISOMAT F-P.

DISOMAT F Weight Indicator is equipped with 16-digit LCD for indication of weight value and status information. Two LEDs signal that scale is totally relieved, or that weight value displayed is not legal-for-trade.

For printing of weighing results and interfacing with EDP station, two RS 232 interfaces are available.

Connection is made via 9-pole, sub-D plugs (exception: load cell connection via plug-in block terminal). Calibration data and all settable parameters are stored fail-safe in EEPROM. In case of power failure, a storage battery stores date and time (real-time clock) for approx. one week.

### Functions

DISOMAT F functionality comprises:

- Weight value display
- Tare value input
- Weight value and weigh data printout
- Weight transmission to host EDP (PC)

### Operation

DISOMAT F standard operating language is English. A second language can be loaded into the system at all times and put into non-volatile storage using the DISOPLAN F configuration software.

In addition to German and French, several other languages are available. Language selection as well as scale calibration and residual settings are performed in the dialog mode with multilevel password protection. Scale control functions, e.g. Acquire Tare, Clear Tare, Set To Zero, can be called up by function key operation.

### Printing

Variable print pattern formatting gives the user the freedom to design his own weighing report. The following data can be printed:

- Weight values
- Date and time
- Consecutive number
- 3 stored texts of 25 digits each.

Arrangement of print elements is defined by form formats, with one format put into non-volatile storage. Additional formats can be loaded into the system via EDP interface and remain stored until any recurring power failure. Construction of data message sent to EDP partner can be configured via loadable form format.

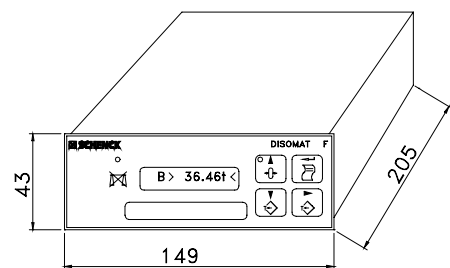
### Binary I/O

For simple control tasks, DISOMAT F is equipped with 3 binary inputs and 4 binary outputs. Outputs can be set via EDP command and used, for instance, for signal or gate control in conjunction with a road weighbridge.

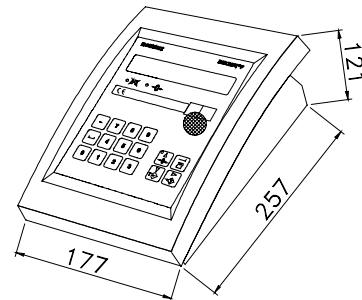
Inputs can be read through EDP (e.g. read-in of inductive loops). System inputs can be firmly assigned to Acquire Tare, Clear Tare and Set To Zero functions.

### Types of Housing

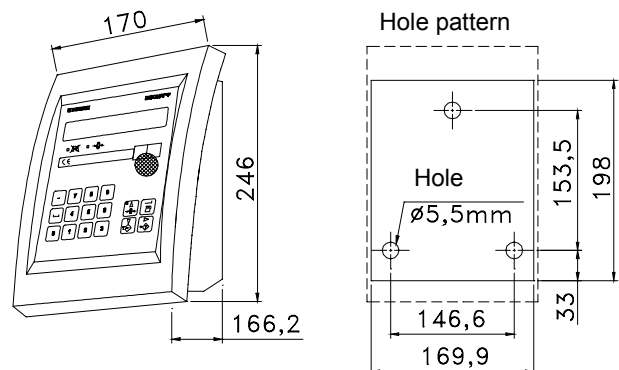
#### PC-Mounting Unit: DISOMAT F-P



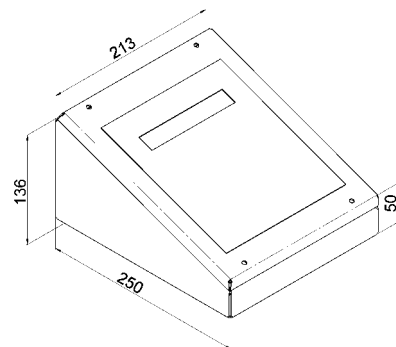
#### Desk-Top Unit: DISOMAT F-D



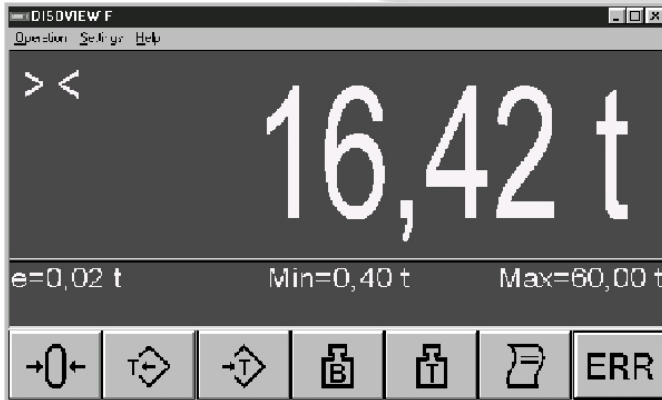
#### Wall-Mounting Unit: DISOMAT F-W



#### Stainless steel Desk-Top Unit: DISOMAT F-V



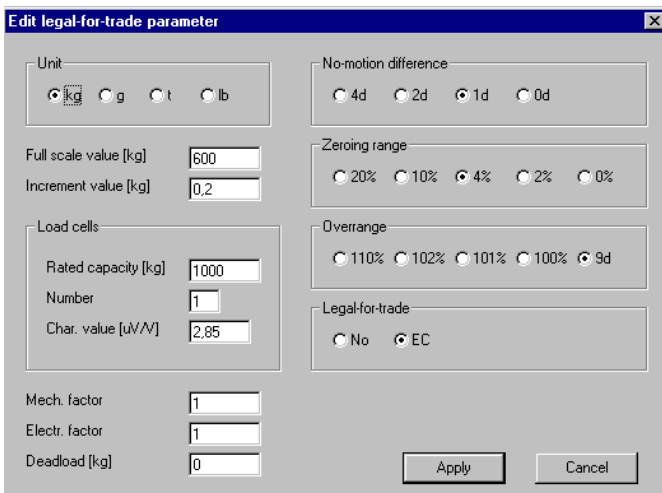
## Sample screens with DISOMAT F connected to PC



Scale control window



DISOPLAN F: Program window



DISOPLAN F: Editing legal-for-trade parameters

## Technical Data:

Display:	LCD, backlit; 16 digits, alphanumeric Character height: PC-mounting unit: 5 mm Desk-top, wall and stainless steel unit: 14 mm
Keypad	
- PC-mounting unit:	4 flexible membrane keys, multiply assigned
- Desk-top unit, wall-mounting unit:	16 flexible membrane keys
CPU:	Siemens 80C166, 32kB RAM, 8kB EEPROM, 128kB Flash-EPROM
Power supply:	9-24 VDC/approx. 10 VA (max. peak voltage 26 V), PC-mounting unit supplied by PC power supply Stainless steel unit: 9-24 VDC and 115/230 VAC +/- 20%
Temperature range:	Service temperature: +5 to +35°C
Input signal:	0.2 to 68 mV
Sensitivity:	≥ 1 µV/d standard ≥ 2 µV/d in legal-for-trade use
Measuring rate:	77 measurements/second
Unit:	g, kg, t, lb
Number of increments	
- in certified applications:	100 to 3 000 increments, or max. 2 x 3000 increments for multi-range and multi-divisional scales
- in other applications:	100 to 50 000 increments
Taring:	0...100% of weighing range
Zero setting function:	Max. 20% settable, with legal-for-trade applications: 0 ... + 4%, automatic zero tracking 0.5 d/s, de-selectable
Filter:	Fixed low-pass for 50Hz suppression; Suppression of mains-synchronous interference signals > 100 dB in 47 to 63Hz range; Common mode suppression > 110 dB; Software filter with 0 .. 10s filter time set in the dialog mode
System accuracy:	Linearity error: < 0.01 % Zero point stability: < 0.2 µV/K Range stability: > 6 ppm/K
Clock:	Date: dd.mm.yy Time: hh:mm:ss Back-up time: min. 1 week
Load cells:	12 x RT load cells (4000 Ω) 6 x 350 Ω Load cells 6 x 1000 Ω Load cells
Load cell supply:	12 V

Binary inputs/outputs	Update in system cycle: every 100 ms 3 inputs, galvanically isolated (optocouplers), 10-24VDC, > 10 mA 4 outputs, galvanically isolated (optocouplers), passive, 5-30VDC, loadable with 50 mA
Serial interfaces	SS1: RS 232 for EDP or secondary display SS2: RS 232 for printer or secondary display Baud rate < 9600 baud EDP Protocols SCHENCK DDP8 672, DDP8 785, DDP8 861 or Siemens 3964R. Message sequence for cyclic sending: 0.5 to 99s
Printers: - Local printer - Remote printer	Schenck Process DISOPRINT, Epson and compatible Schenck Process DISOPRINT
Secondary displays	Schenck Process secondary displays DLZ, VLZ, DLS, DLK
CE conformity	In accordance with EU directives: 89/336 EC 73/23 EC 90/384 EC

PC-mounting unit	Ordering No.
DISOMAT F-P, PC-mounting unit with I/O contacts, including WINDOWS 95/98/NT program for scale control via PC, driver for DISOMAT control via application packages, DISOPLAN-F configuration software, documentation on CD, serial PC connecting cable	D 707 218.01
DISOMAT F-P connecting cable module leads the connectors for printer (9-pole Sub-D, plug) and optional I/O contacts (9-pole Sub-D, sockets) through a slot plate mounted on PC rear wall.	D 707 265.01
Manual available in: - German - English - French	D 707 273.01 D 707 273.02 D 707 273.03

Power supply 230 VAC, VNT 20000 for operation of PC-mounting unit after removal from PC (Emergency Mode)	D 707 269.01
Power supply 115 VAC, VNT 20001 for operation of PC-mounting unit after removal from PC (Emergency Mode)	D 707 271.01

Desk-top unit	Ordering No.
DISOMAT F-D, VTG 20001 type, complete with: - Printed manual in German - Printed manual in English - Printed manual in French	D 707 267.01 D 707 267.02 D 707 267.03

Wall-mounting unit	Ordering No.
DISOMAT F-W, VWG 20001 type, for vertical mounting on wall or column, complete with: - Printed manual in German - Printed manual in English - Printed manual in French	D 707 190.01 D 707 337.01 D 707 337.02

Stainless steel unit	Ordering No.
DISOMAT F-V, VKG 20001 type, for desk-top mounting, protected to IP65 - Printed manual in German - Printed manual in English - Printed manual in French	V 005 426.B01 V 005 426.B02 V 005 426.B03

PC connecting set for DISOMAT F-D / F-W / F-V including 1.5 m serial connecting cable to PC, WINDOWS 95/98/NT/2000/ME program for control of scale via PC, driver for control of DISOMAT via application packages, DISOPLAN-F configuration software, documentation on CD	D 707 268.01
Power supply 230 VAC, VNT 20000	D 707 269.01
Power supply 115 VAC, VNT 20001	D 707 271.01

DISOSAVE option	Ordering No.
PC program for legal-for-trade storage of weigh data on a Windows PC. For details, see Spec Sheet BV-D 2045.	D 707 340.02

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