



MP 30 Digital Weighing Indicator



- 16 bit resolution and up to 20 readings/sec.
- Supply voltage: 85 - 250 V_{AC} 50/60 Hz or 11-36 V_{DC}/24 V_{AC} (option)
- 3 digital control inputs
- Analog output (option): 0/4-20 mA or 0-10 V_{DC}
- Serial interfaces (option): RS 232 or RS 485
- 2 setpoint outputs (option)
- IP 65 sealed front panel
- Manual tare

Technical Data

Protection class

Housing: IP 20
Panel mounted: IP 65

Power supply

85-250 V_{AC} 50/60 Hz
11-36 V_{DC} or 24 V_{AC} (Option)
Max. power consumption: 15 V_A

Display

Bright 5-digit LED display, 14 mm
Status symbols: brutto|gross, net, tare
Setpoint indication

Keypad

5 keys for operation, calibration and configuration

Load cell excitation

Jumper selectable:
5 V_{DC} at 65 mA max. +/-2%
10 V_{DC} at 125 mA max. +/-2%
Max. four load cells of 350 Ω
Temperatur coefficient: 20 ppm/K max.

Digital control inputs

3 configurable user inputs (TTL)
Input voltage: max. 30 V_{DC}
Sink or source (aktiv|passiv) selectable
Sink: high Vin < 0.7 V_{DC}, low Vin > 2.5 V_{DC}
Source: high Vin > 2.5 V_{DC}, low Vin < 0.7 V_{DC}

Update rates

Step response: 200 msec. max. to within 99% of final readout value (digital filter and internal zero correction disabled)
700 msec. max. (digital filter disabled, internal zero correction enabled)

Measuring input

Input Range	Accuracy (18 to 28°C)	Accuracy (0 to 50°C)	Impedance	max. Continuous Overload	Resolution
±24 mV _{DC}	0,02 % of reading +3 μV	0,07 % of reading +4 μV	100 MΩ	30 V	1 μV
±240 mV _{DC}	0,02 % of reading +30 μV	0,07 % of reading +40 μV	100 MΩ	30 V	10 μV

Environmental conditions

Operating temperature range: 0 to 50°C (0 to 45°C with all three plug-in cards installed)
Storage temperature range: -40 to 60°C
Humidity: 0 to 85% max. non-condensing

A/D converter

Resolution: 16 bit
A/D Conversion rate: 20 readings/sec.

Manual tare

Configurable via front keys

Analog output MP 30/20

2 analogue outputs with:
0/4-20 mA or 0-10 V_{DC}
Isolation to sensor & user input commons
Accuracy: 0.17% of FS (18 to 28°C)
Resolution: 1/3500
Compliance: 10V_{DC}: 10 KΩ load min.
20 mA: 500 Ω load max.
Update time: max. 200 msec. filter and zero correction disabled
Gross | net selectable

Setpoint output MP 30/10

Type: 2 FORM-C relays
Isolation to sensor & user input commons
Total current: 5A at 120/240 V_{AC} or 28 V_{DC}
Life expectancy: 100 K cycles min.
at full load rating.
Gross | net selectable

Setpoint output MP 30/11

Type: 4 FORM-A relays
Total current: 3 A at 120/240 V_{AC} or 28 V_{DC}

Serial communications

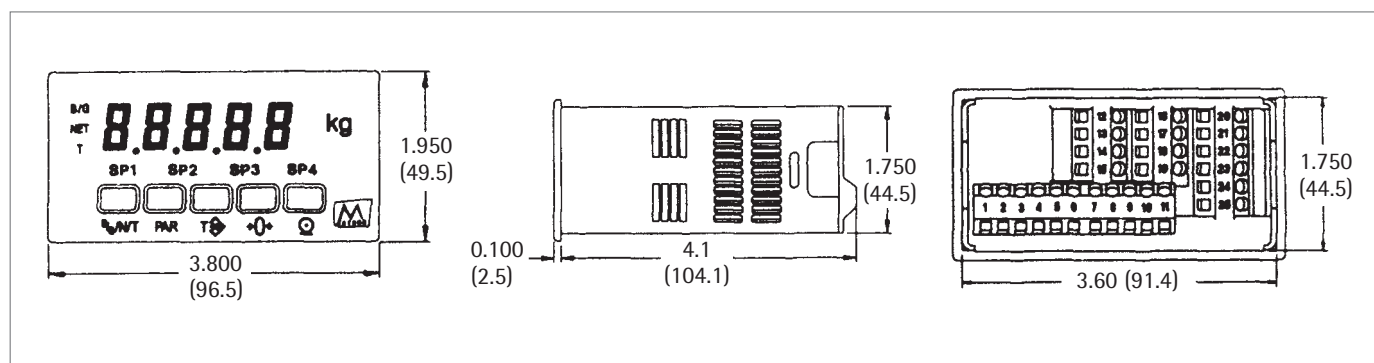
**RS 232 (MP 30/31)
or RS 485 (MP 30/32)**
Isolation to sensor & user input commons:
Settings: Databits: 7/8,
Baudrate: 300-19,200,
Parity: no | odd | even
Bus address: selectable 0-99,
max. 32 devices per line (RS 485)
Distance:
RS 232: up to 15 m
RS 485: up to 1200 m

Low frequency noise rejection

Normal mode: > 60 dB at 50 or
60 Hz +/-1%, digital filter off
Common mode: > 100 dB, DC to 120 Hz
(w.r.t. earth)

Custom linearization

Data point pairs: selectable from 2 to 16
Display range: -19.999 to 99.999
Decimal point: 0 to 0.0000



Dimensions in inches (mm)

Order information

Type	Description	Order number
MP 30/00	Digital Indicator 85 to 250 V _{AC}	9408 800 30001
MP 30/01	Digital Indicator 11 to 36 V _{AC/DC}	9408 800 30011
MP 30/10	Dual Relay Output for MP 30/0x	9408 800 30101
MP 30/11	Quad Relay Output for MP 30/0x	9408 800 30111
MP 30/20	Analog Output for MP 30/0x	9408 800 30201
MP 30/31	RS 232 Interface for MP 30/0x	9408 800 30311
MP 30/32	RS 485 Interface for MP 30/0x	9408 800 30321

Specifications subject to change
without notice.
Printed in Germany.
n/sart - C
Publication No.: HMP2002-e10101
Order No.: 9498 708 30001
Version 09.2010

Sartorius Mechatronics T & H GmbH
Meiendorfer Strasse 205
22145 Hamburg, Germany

Phone +49.40.67960.303
Fax +49.40.67960.383

info.mechatronics@sartorius.com
www.sartorius-mechatronics.com