



# MP 30

## Digital Weighing Indicator



- 16 bit resolution and up to 20 readings/sec
- Supply voltage: 85-250 V<sub>AC</sub> 50/60 Hz or 11-36 V<sub>DC</sub> / 24 V<sub>AC</sub> (option)
- 3 digital control inputs
- Analog output (option): 0/4-20 mA or 0-10 V<sub>DC</sub>
- 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<sub>AC</sub> 50/60 Hz  
11 - 36 V<sub>DC</sub> or 24 V<sub>AC</sub> (Option)  
Max. power consumption: 15 V<sub>A</sub>

#### 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<sub>DC</sub> @ 65 mA max. +/-2 %  
10 V<sub>DC</sub> @ 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<sub>DC</sub>  
Sink or source (aktiv/passiv) selectable  
Sink: high Vin < 0.7 V<sub>DC</sub>, low Vin > 2.5 V<sub>DC</sub>  
Source: high Vin > 2.5 V<sub>DC</sub>, low Vin < 0.7 V<sub>DC</sub>

#### 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 <sub>DC</sub>	0,02 % of reading +3 μV	0,07 % of reading +4 μV	100 Mohm	30 V	1 μV
± 240 mV <sub>DC</sub>	0,02 % of reading +30 μV	0,07 % of reading +40 μV	100 Mohm	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 analog outputs with:  
 0/4-20 mA or 0-10 V<sub>DC</sub>  
 Isolation to sensor & user input commons  
 Accuracy: 0.17 % of FS (18 to 28° C)  
 Resolution: 1/3500  
 Compliance: 10 V<sub>DC</sub>: 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: 5 amps at 120/240 V<sub>AC</sub>  
 or 28 V<sub>DC</sub>  
 Life expectancy: 100 K cycles min. at full  
 load rating.  
 Gross/net selectable

max. 32 devices per line (RS 485)  
 Distance: RS 232: up to 15 m  
 RS 485: up to 1200 m

### Low frequency noise rejection

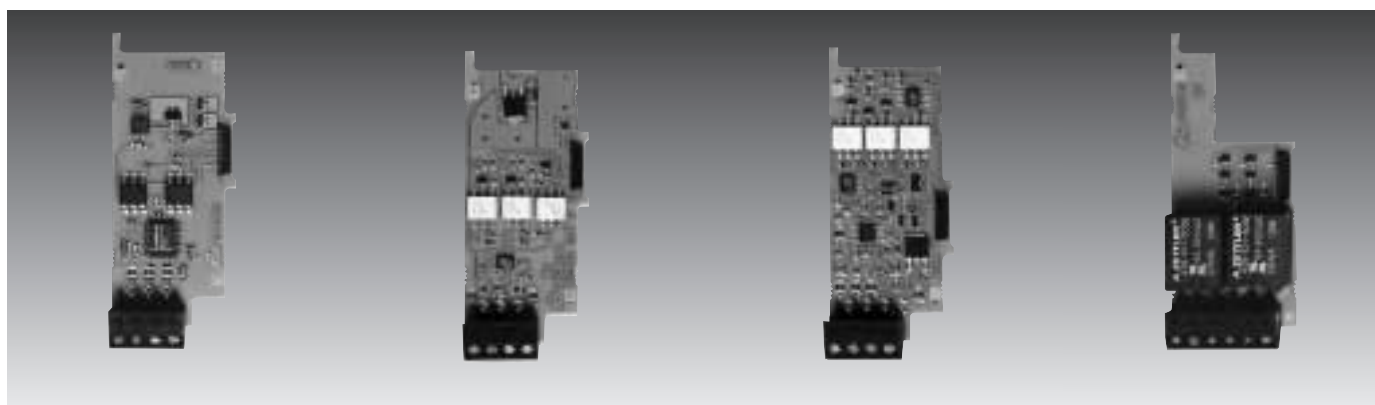
Normal mode: > 60 dB at 50 or  
 60Hz +/- 1 %, digital filter off  
 Common mode: >100 dB, DC to 120 Hz  
 (w.r.t. earth)

### Serial communications RS 232 (MP 30/31) or RS 485 (MP 30/32)

Isolation to sensor & user input commons:  
 Settings: Databits: 7/8, Baudrate:  
 300-19200, Parity: no/odd/even  
 Bus address: selectable 0-99;

### Custom linearization

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

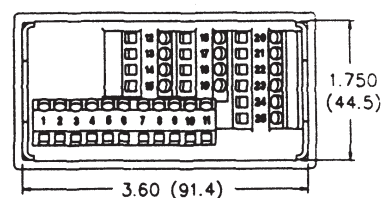
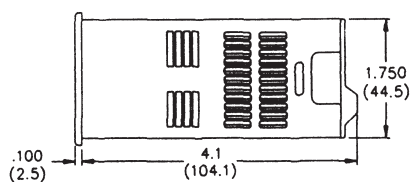
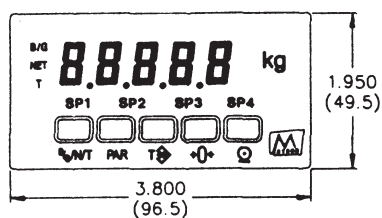


**MP 30/20**  
 Analog output for MP 30/0x

**MP 30/31**  
 RS 232 interface for MP 30/0x

**MP 30/32**  
 RS 485 interface for MP 30/0x

**MP 30/10**  
 Setpoint output for MP 30/0x



Dimensions in inches (mm)

### Order information

Type	Description	Order numbers
MP 30/00	Digital Indicator 85 to 250 V <sub>AC</sub>	9408 800 30001
MP 30/01	Digital Indicator 11 to 36 V <sub>AC/DC</sub>	9408 800 30011
MP 30/10	Relay Output for MP 30/0x	9408 800 30101
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  
 9498 708 30001  
 Version 06.2004

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