



# MP 30

## Digital Weighing Indicator



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

#### Display

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

#### Keypad

5 keys for operation, calibration and configuration

#### Load cell excitation

Jumper selectable:  
5V<sub>DC</sub> @ 65mA max. +/-2%  
10V<sub>DC</sub> @ 125mA max. +/-2%  
Max. four load cells of 350Ω  
Temperatur coefficient: 20ppm/K max.

#### Digital control inputs

3 configurable user inputs (TTL)  
Input voltage: max. 30V<sub>DC</sub>  
Sink or source (aktiv/passiv) selectable  
Sink: high Vin < 0.7V<sub>DC</sub>, low Vin > 2.5V<sub>DC</sub>  
Source: high Vin > 2.5V<sub>DC</sub>, low Vin < 0.7V<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
± 24mV <sub>DC</sub>	0,02% of reading +3μV	0,07% of reading +4μV	100 MΩ	30V	1μV
± 240mV <sub>DC</sub>	0,02% of reading +30μV	0,07% of reading +40μV	100 MΩ	30V	10μV

#### 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 - 20mA or 0 - 10V<sub>DC</sub>  
Isolation to sensor & user input commons  
Accuracy: 0.17% of FS (18 to 28°C)  
Resolution: 1/3500  
Compliance: 10V<sub>DC</sub>: 10KΩ load min. 20mA:  
500Ω 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 120/240V<sub>AC</sub> or 28V<sub>DC</sub>  
Life expectancy: 100K cycles min.  
at full load rating.  
Gross/net selectable

### Setpoint output MP 30/11

Type: 4 FORM-A relays  
Total current: 3A at 120/240V<sub>AC</sub> or 28V<sub>DC</sub>

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

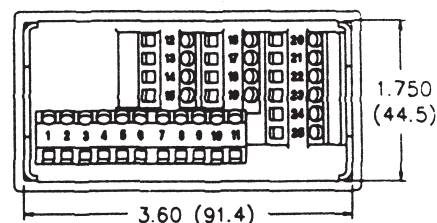
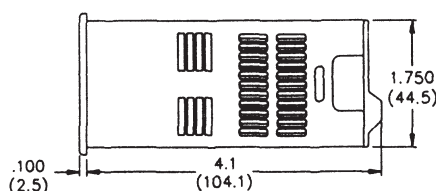
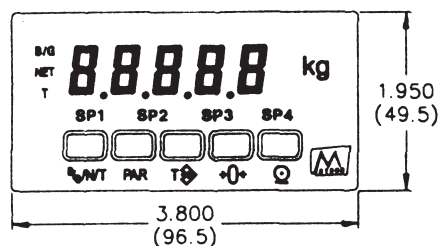
Isolation to sensor & user input commons:  
Settings: Databits: 7/8, Baudrate:  
300 - 19200, Parity: no/odd/even  
Bus address: selectable 0 - 99;  
max. 32 devices per line (RS 485)  
Distance:  
RS 232: up to 15m  
RS 485: up to 1200m

### Low frequency noise rejection

Normal mode: > 60dB at 50 or  
60Hz +/-1%, digital filter off  
Common mode: >100dB, DC to 120Hz  
(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
MP30/00	Digital Indicator 85 to 250V <sub>AC</sub>	9408 800 30001
MP30/01	Digital Indicator 11 to 36V <sub>AC/DC</sub>	9408 800 30011
MP30/10	Dual Relay Output for MP 30/0x	9408 800 30101
MP30/11	Quad Relay Output for MP 30/0x	9408 800 30111
MP30/20	Analog Output for MP 30/0x	9408 800 30201
MP30/31	RS 232 Interface for MP 30/0x	9408 800 30311
MP30/32	RS 485 Interface for MP 30/0x	9408 800 30321