sartorius
mechatronics

MP 30
Digital Weighing Indicator

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

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_{DC} @ 65mA max. +/-2%
10V_{DC} @ 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_{DC}
Sink or source (aktiv/passiv) selectable
Sink: high Vin < 0.7V_{DC}, low Vin > 2.5V_{DC}
Source: high Vin > 2.5V_{DC}, low Vin < 0.7V_{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. Continous Overload	Resolution
± 24mV_{DC}	0,02% of reading +3µV	0,07% of reading +4µV	100 MΩ	30V	1µV
± 240mV_{DC}	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_{DC}
Isolation to sensor & user input commons
Accuracy: 0.17% of FS (18 to 28°C)
Resolution: 1/3500
Compliance: 10V_{DC}: 10KΩ load min. 20mA: 500Ω load max.
Update time: max. 200 msec. filter and zero correction disabled
Gross/net selectable

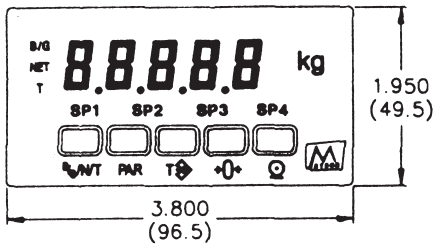
Setpoint output MP 30/10
Type: 2 FORM-C relays
Isolation to sensor & user input commons
Total current: 5A at 120/240V_{AC} or 28V_{DC}
Life expectancy: 100K cycles min. at full load rating.
Gross/net selectable

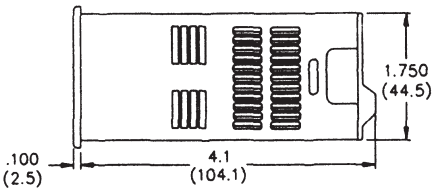
Setpoint output MP 30/11
Type: 4 FORM-A relays
Total current: 3A at 120/240V_{AC} or 28V_{DC}

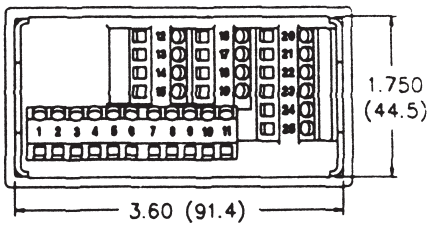
Serial communications RS 232 (MP 30/31) or RS 485 (MP 30/32)
Isolation to sensor & user input commons:
Settings: Databits: 7/8, Baudrate: 300 - 19200, Parity: no/odd/even
Bus address: selectable 0 - 99; max. 32 devices per line (RS 485)
Distance:
RS 232: up to 15m
RS 485: up to 1200m

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_{AC}	9408 800 30001
MP30/01	Digital Indicator 11 to 36$V_{AC/DC}$	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

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