Minebea intec
The true measure

Digital weight indicator MP 30

GERMAN QUALITY

German Quality

Benefits

- 16 bit resolution and up to 20 readings/sec.
- 3 digital control inputs
- 2 setpoint outputs (option)

– Supply voltage:
  85 – 250 V_{AC} 50/60 Hz or
  11 – 36 V_{DC}/24 V_{AC} (option)

– Analog output (option):
  0/4 – 20 mA or 0 – 10 V_{DC}

– Serial interfaces (option):
  RS 232 or RS 485

– IP65 sealed front panel

– Manual tare

Technical specifications

Digital weighing indicator MP 30

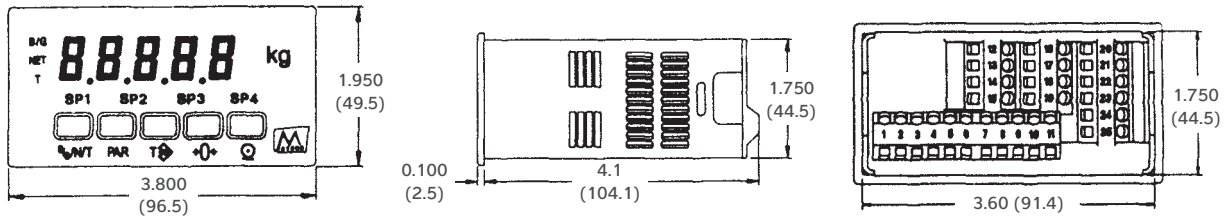
Parameter	Description
Protection class	– Housing: IP20 – Panel mounted: IP65
Power supply	– 85 – 250 V_{AC}, 50/60 Hz – 11 – 36 V_{DC} or 24 V_{AC} (Option) – Max. power consumption: 15 V_A
Display	– Bright 5-digit LED display, 14 mm – Status symbols: brutto/gross, net, tare – Setpoint indication
Keypad	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)
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: 10 V_{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 – Isolation to sensor & user input commons Total current: 5 A 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 RS232 (MP 30/31) or RS485 (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 (RS485) – Distance: – RS232: up to 15 m – RS485: 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

Measuring input Digital weighing indicator MP 30

Input Range	Accuracy (18 to 28°C)	Accuracy (0 to 50°C)	Impedance	max. Continous 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

Technical diagrams

Digital weighing indicator MP 30



Notation:
The mounting brackets for panel mounting require a minimum freedom of 2,1" (53,4) H × 5,5" (140) W
Dimensions in inches (mm)

Order information

Digital weighing indicator MP 30

Type	Description	Order number
MP 30/00	Digital Indicator 85 to 250 V_{AC}	940880030001
MP 30/01	Digital Indicator 11 to 36 $V_{AC/DC}$	940880030011
MP 30/10	Dual Relay Output for MP 30/0x	940880030101
MP 30/11	Quad Relay Output for MP 30/0x	940880030111
MP 30/20	Analog Output for MP 30/0x	940880030201
MP 30/31	RS 232 Interface for MP 30/0x	940880030311
MP 30/32	RS 485 Interface for MP 30/0x	940880030321

The products and solutions presented in this data sheet make major contributions in the following sectors:

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