

MP 20 Installation and operating guide

Scope: The Meteor Product MP 20/00 analog load cell transmitter is a highly reliable device which makes the link between analog transducers and various analog equipment. The MP 20 produces both voltage and current loop outputs and allow a wide range of filter, off-set and gain settings to suit any industrial application. Due to the AC-load cell excitation and the galvanically isolated power supply the MP 20 rejects unwanted influences and disturbances better than any comparable device. The thorough ratiometric electronic design (which include the optional Add-on modules) adds even more to the reliability.

Analog input. Up to four load cells (each $> 350\Omega$) may be connected. The low load cell supply voltage (5 VAC) minimize warm-up errors. AC load cell supply (425 Hz carrier), ratiometric voltage loop design and sense input permits long load cell cables (> 10 m) in electrically hostile environments without loss of precision and immunity.

LP filter: 64 steps of filter settings ranging from 0,25 to 32 Hz.
Off-set: (\pm 80% FS) to be set in 32 binary steps and fine trimmed.
Gain: (relative 1-64x) to be set in 32 binary steps and fine trimmed.
LED-lamps indicates over- and under-range for tracking and service.

Output, standard. Voltage output (0- \pm 10 VDC) and current loop outputs (0-20 mA or 4-20 mA) are produced by load cell signals over the range 0- \pm 0,17 mV/V up to 0- \pm 3,3 mV/V FS as set.
The voltage and current outputs can be applied simultaneously.

Output, optional. Similar outputs can be produced by load cell signals over the range 0- \pm 0,08 mV/V up to 0- \pm 1,7 mV/V FS by removing an internal zero Ω resistor. The option slightly reduce the resolution.

Module output. A ratiometric analog output is available at pin-receptors on side of the MP 20/00. The Module output provides signal, reference- and supply voltages for optional Add-On modules. Up to four MP20/10 modules in line, can be plugged on side of the MP 20/00.

Set points. An Add-On module, part no. MP20/10 (Option) comprise two individual set-points as isolated C-form contact reed-relay outputs. Up to eight set-points can be arranged with four modules.

Power supply. The power supply can be any regulated source 12-24 VDC or 10-17 VAC max. 3 Watt. Galvanic isolation of the power supply from the input/output terminals are provided. A LED-lamp indicate correct performance of the internal voltage regulation.

Mechanics. The basic MP 20 is composed of a PC-Board measuring 110 x 72 x 16 mm inclusive the row of 16 terminal blocks (5,08 mm spacing) and EMI-protecting chassis.
The basic MP 20 may be wall mounted directly. Hole center spacing 100 mm. Use two spacers: \varnothing in 3,5 mm; Length > 4 mm.
The basic MP 20 further fits into a 112,5 mm long, standard Phoenix™ module UMK allowing any standard DIN-rail mountings.
If Add-On units apply a UMK-BE 45 mm standard element is added for each module.

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