

Process Meter

For a range of industrial applications

Bear

Programmable dynamic
backlight color



Warning
flash

0 to +/- 10V / 4-20mA / 10-50mA
User selectable Voltage & Current

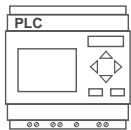
0.1%
Accuracy



Programmable 4 digit
starburst display. Custom
messages & annunciators



user-configurable
alarms



digital and analog
outputs

Less than
53mm deep

40

segment curved
bar graph display

Combined digital and
bar graph display

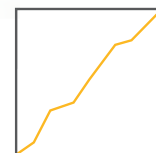


programmable
scale



USB 2.0

USB port for custom user settings
via the free easy-to-use software



user-configurable
lineaization

INPUT



Full 4 digit readout for accuracy

Featuring an acclaimed easy-to-read display and a versatile set of inputs, the Process Meter takes the MAK into a wide range of new industrial applications.

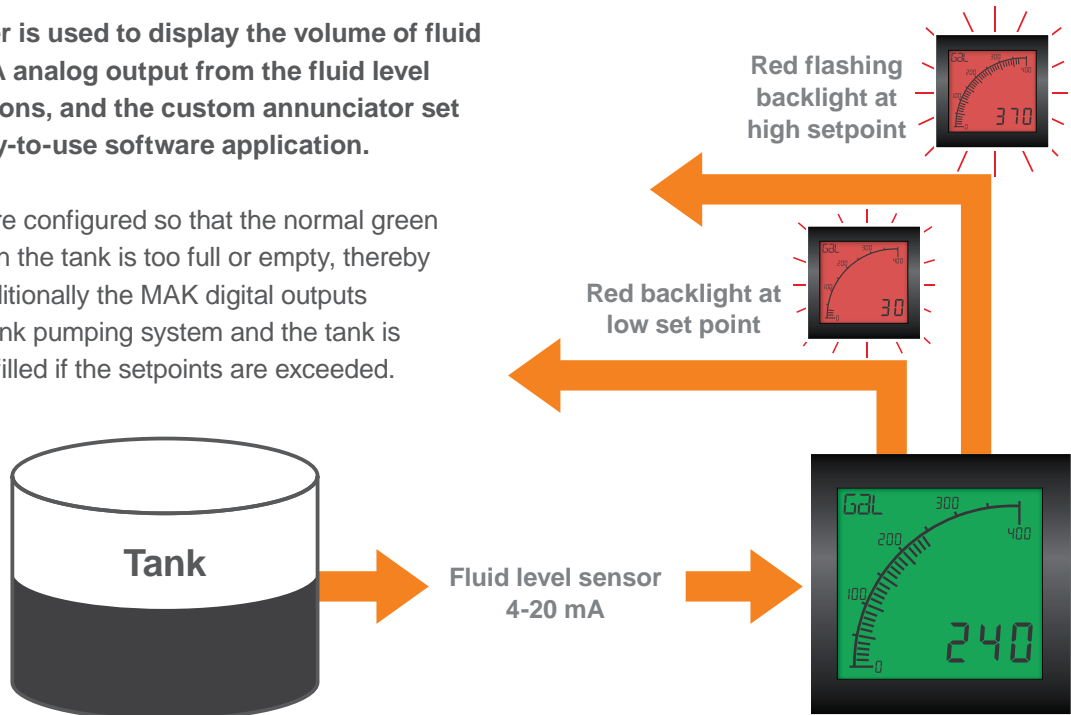
The programmable scale and custom annunciators mean users can tailor the meter to display their critical parameters exactly how they want, while the dynamic backlighting, in conjunction with setpoints, means operators are visually alerted when a parameter is out of range. The two outputs can be used to control other systems in the process, meaning the MAK Process Meter is much more than just a display.

Simpson's innovative technology brings a greater level of accuracy to the MAK range through input signal optimization. By using this technology, accuracy of 0.1% or better is now achieved, allowing for more precise measurement, display and control. Non-linear sensors, such as thermocouples and pressure transducers, can also be used thanks to the configuration software that allows the user to configure up to 20 points in a non-linear conversion table.

Fluid Level Application

The MAK Process Meter is used to display the volume of fluid in the tank. The 4-20mA analog output from the fluid level sensor is scaled to gallons, and the custom annunciator set to "Gal", all via the easy-to-use software application.

High and low setpoints are configured so that the normal green display will flash red when the tank is too full or empty, thereby alerting the operator. Additionally the MAK digital outputs are integrated in to the tank pumping system and the tank is automatically drained or filled if the setpoints are exceeded.

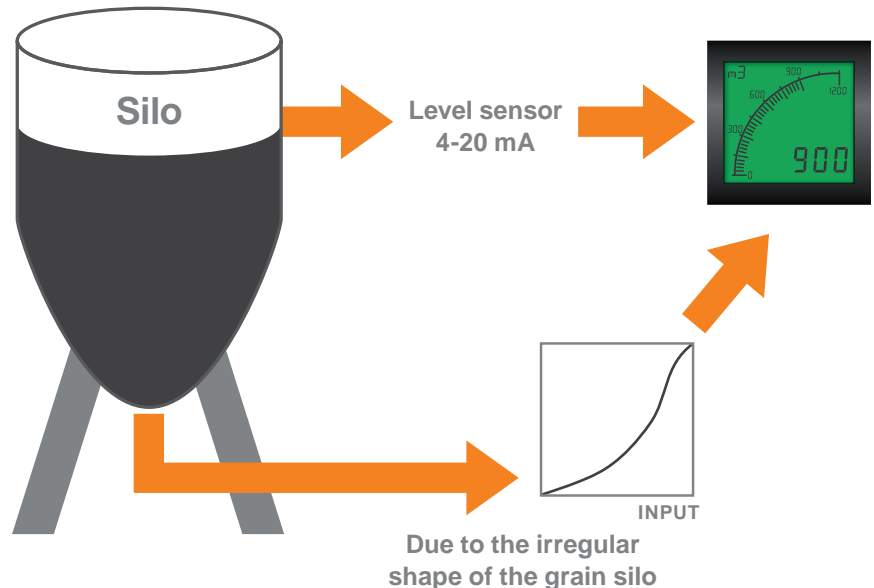


Silo Volume Application

The MAK Process Meter is used to display the volume of material in the silo, using the analog output from a level sensor.

The signal from the sensor is scaled to measure cubic meters, and the annunciator customised to m^3 , all via the easy-to-use software. Due to the irregular shape of the silo, the 20-point linearization table is used to correct the non-linear signal from the sensor.

The displayed value accurately shows the volume in the silo. High or low setpoints can be set, and the MAK can be integrated into other systems for process control.



Specifications

INPUT	VOLTAGE	CURRENT
Range (DC)	0 to +/-10VDC	0 - 50mA
Impedance	100KΩ	15Ω
Accuracy	0.1% of input or 5mV	0.01% of input or 5uA

ENVIRONMENTAL

Temperature - operating	-10 to +60°C
Temperature - storage	-40 to +70°C
IP rating (from the front)	Nema 4X & 12 with IP65

POWER SUPPLY

Nominal Input (AC or DC)	12-24 VAC/VDC
Max Power	1.6W

DISPLAY

Number of digits	4
Digit height	12mm [0.47"]
Number of message characters	4
Message character height	6mm [0.236"]
Backlight colors	Red, Green, White

OUTPUTS

Max voltage	34V
Max current	500mA
Analog output	4-20mA

CERTIFICATION

UL and cUL, CE

MECHANICAL

Dimensions	72mm x 72mm x 53mm [2.83" x 2.83" x 2.09"]
Cutout	68mm x 68mm [2.68" x 2.63"]
Connection Type	Screw Terminals
Wire Gauge	0.8mm ² - 3.3mm ² (18AWG to 12AWG)
Weight	180 grams



Part Numbers

APM-PROC-MAK	Process Meter, Positive LCD with outputs
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