



Analogue Output Modules

DIN Rail Mounted
4-20 mA and 0-10 V Output

TM420-DIN / TM420M-DIN
TM010-DIN / TM010M-DIN

- Convert input pulses into analogue signals
- Voltage output proportional to input pulse rate
- Current output proportional to input pulse rate
- Three user selectable ranges
- Fully scaleable
- DIN Rail mounting enclosure
- DC or AC powered versions
- Selectable PNP or NPN type input
- 12 VDC output to power sensors etc.



DESCRIPTION

These modules accept pulse inputs from sensors, encoders or similar sources and provide an analogue output that is proportional to the input pulse rate. The output can be a voltage or current and is fully scaleable by the user. The unit fits a standard 35 mm DIN rail.

The input may be configured by switches to accept PNP or NPN type signals and to select from three ranges of pulse rate. These ranges cover rates from 100 ppm to 100,000 ppm and the calibration within the selected range is continuously adjustable with a multi-turn potentiometer adjustable through the top of the instrument case. Please note that units can be factory set to a specific calibration and non-standard ranges are available to order.

These instruments are available in versions for either low voltage DC or AC mains input and will provide a regulated 12 VDC output that can be used to power proximity switches, encoders etc.

SPECIFICATION

Power Input:	14 to 35 VDC @ 50 mA, 115 and 230 VAC 50-60 Hz
DC Output:	12 VDC @ 20 mA max for powering sensors etc
Input Signal:	Selectable PNP or NPN type—maximum input voltage 35V
Input Pulse Rate:	0 to 100,000 pulses per minute.
Min Pulse Width:	1 millisecond
Ranges:	1) 100 - 1000 ppm 2) 1000 - 10,000 ppm 3) 10,000 - 100,000 ppm
Outputs:	TM420 4—20 milliamp TM010 0—10 volts
Output Linearity:	< 0.5%
Output Stability:	< 0.1% (for maximum change in supply voltage)
Output Load:	>500 ohms
Step Response:	0.8—8 Seconds (Cal pot ACW—CW, 0 to full scale step input)
Ripple:	Range 1 <10%, Range 2 <1%, Range 3 <0.2%
Dimensions:	92 x 75 x 22.5 mm (h, d, w)
Indication:	Red LED for power supply indication

ORDER CODES Please consult sales for special ranges etc.

TM 420-DIN	DC powered 4— 20 milliamp output
TM 420M-DIN	AC powered 4— 20 milliamp output
TM 010-DIN	DC powered 0 – 10 volts output
TM 010 M-DIN	AC powered 0 – 10 volts output

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