

## Frequency Transmitters

### Compact Plug-in Design

**M2SP** Frequency input, Single output

**W2SP** Frequency input, Two isolated outputs

- Converts the output from a pulse-type transducer into a DC signal
- Sensor excitation
- Low-end cutout
- Two independent ranges can be specified with the signal splitter.

**M2AP** Single frequency output

**W2AP** Dual frequency output

- Provides a pulse rate output in proportion to DC input signal
- Pulse integration application
- Two independent ranges can be specified with the signal splitter.

**M2PP** Pulse Isolator

- Galvanically isolates pulse rate signals
- Switches pulse transducer types
- Sensor Excitation

### Low-profile, Low Cost Type

**M5PA** Frequency input, Single output

**W5PA** Frequency input, Two isolated outputs

- 41 mm (1.6") deep
- Converts the output from a pulse-type transducer into a DC signal



M5 Series

W5 Series

**M2PRU** Pulse Scaler

- Converts pulse rate into convenient engineering unit for display on a totalizing counter or meter
- Scaling factor adjustable
- Sensor Excitation



M2 Series



W2 Series

### Standard Plug-in Design

(For details, refer to Signal Conditioners Data Library at [www.m-system.com](http://www.m-system.com))

**YPD** Single output pulse isolator

**WYPD** Dual output pulse isolator

**JRP2** Rotary encoder speed transmitter

**JRQ2** Rotary encoder position transmitter



YPD



JRQ2

### SPECIFICATIONS

Series	M2 / W2 Series				M5 Series
Single output model	M2SP	M2AP	M2PP	M2PRU	M5PA
Dual output model	W2SP	W2AP			W5PA
Input	Dry contact Open collector Min. 50 Hz Max. 10 kHz	0-300 V, e.g. 1-5 V Minimum span 1V DC current with resistor, e.g. 4-20 mA	Open collector Mechanical contact Voltage pulse	Open collector Mechanical contact Voltage pulse Two-wire current	Open collector Mechanical contact Voltage pulse 0.01 Hz to 100 kHz
Sensor excitation	12 Vdc @30mA	----	12 Vdc @30mA	12 or 24 Vdc @30mA	12 Vdc @30mA or 24 Vdc @12mA (W5PA)
Output	DC current: 0-20 mA e.g. 4-20 mA / 750Ω Minimum span 1mA DC voltage: 0-12 V (10 V for Output 2) e.g. 1-5 V / ≥5kΩ Minimum span 5mV	Open collector (1 kHz) Voltage pulse (1 kHz) Mercury relay (30 Hz) AC/DC switch (30 Hz)	Open collector Voltage pulse Mercury relay	Open collector Voltage pulse AC/DC switch	DC current: 0-20 mA e.g. 4-20 mA / 550Ω Minimum span 1mA DC voltage: 0-10 V e.g. 1-5 V / ≥500Ω Minimum span 1V
Power input	24 Vdc or 100-240 Vac				
Accuracy	±0.1%	±0.1%	----	----	±0.1%
Response time (0-90%)	≤0.5 sec. at ≥500 Hz	Approx. 3 sec.	----	----	≤0.5 sec. + one cycle
Operating temperature	-5 to +55°C (23 to 131°F)				
Insulation resistance	≥100MΩ with 500 Vdc				
Dielectric strength	2000 Vac @1 minute (input to output to power to ground)				2000 Vac @1 min. (DC) 1500 Vac @1 min. (AC)
CE marking	Yes				Yes (24 Vdc powered)
Safety approval	UL & C-UL nonincendive (UL/24 Vdc powered only for M2PP)				----