

# MICROPROCESS DUAL INPUT (MATH FUNCTION) RPM & LINE-SPEED CONTROLLER METER

**MODEL  
MMRD-M**



## ■ FEATURES

- Accuracy 0.03% F.S.
- Dual input measuring and display Pulse(TTL,CMOS),Magnetic pick-up signal
- Dual input math function B-A,(B+A)/2,B/A,(B/A-1),1-(B/A),B/(A+B)
- Accepts input rates up to 25KHz
- Display type of RPM or line-speed can be modified
- Input pulse of revolution can be modified(1~99999 pulse/revolution)
- Four independent alarm function (optional)
- 16 bit DAC analog output function (optional)
- Digit RS-485 interface function (optional)

1. MODEL: MMRD-M - [ ] - [ ] - [ ]

NO	Input Type	NO	Alarm Output	NO	Alarm Output	NO	Analog output	NO	RS-485	NO	Aux.POWER
A	Pulse(TTL)(5V)	0	None	5	One(Transistor)	N	None	N	None	A	AC/DC18~60V
B	Pulse(NPN)(12V)	1	One(Relay)	6	Two(Transistor)	I	DC4~20mA	Y	RS-485	B	AC/DC90~260V
C	Pulse(PNP)(12V)	2	Two(Relay)	7	Three(Transistor)	V	DC0~10V		• Modbus mode • 256 nodes on bus		• Less 4VA for AC/DC input
D	Magnetic pick-up(30mV~30V)	3	Three(Relay)	8	Four(Transistor)	T	• DC4~20mA				
F	AC50~600V	4	Four(Relay)			R	SPECIFIED				
O	SPECIFIED		• Relay contact(AC250V-5A,DC30V-7A)		• Transistor output (Photo couple of open-collector,Max.DC30V/40mA)		• Two-wire transmitter output (Exciting voltage DC10~36V)				

## 2.SPECIFICATION

- Measuring accuracy : 0.03% F.S.(23±5°C)
- Count input type : Jump-pin selectable current sourcing(NPN) or current sinking(PNP)
- Count input trigger levels : High level: V<sub>IH</sub>=DC4~30V(Pulse)  
High level: V<sub>IH</sub>=AC30mV~30V(Magnetic pick-up)  
Low level: V<sub>IL</sub>=DC0~2V(Pulse)  
Low level: V<sub>IL</sub>=AC0~20mV(Magnetic pick-up)
- Max.count rates : <25KHz  
<1KHz (AC50~600V)
- Sampling time : 10 cycles/sec.(>10Hz)  
f cycles/sec.(<10Hz)
- Readout(compare) range : 0~99999 digit adjustable(D1/D2)  
-19999~99999 digit adjustable(D3)
- Diameter setting : 0.0001 to 9.9999M
- Alarm action : HI or Lo adjustable
- Transistor output : Photo couple of open-collector(Max.DC30V/40mA)
- Relay contact output : AC250V-5A,DC30V-7A
- Analog output resolution : 16 bit DAC(Isolation)
- Response time : <250ms(0~90%)
- Output drive capability : <10mA for voltage mode  
<10V for current mode  
<[(V+)-7.5V]/20mA for two-wire mode
- Output ripple(p-p) : <0.1%F.S.
- RS-485 address : "00"~"FF"(0~255)
- RS-485 baud rate : 38400/19200/9600/4800/2400 selective
- Display : Red high efficiency LEDs high 10.18mm(0.4")
- Sensor power supply : 12VDC ±3%(<60mA)
- Memory mode : Non-volatile E<sup>2</sup>PROM memory
- Dielectric strength : 2KVac/1 min.(input/output/power)  
1600Vdc(input/output)
- Operating condition : 0~50°C (20 to 90% RH non-condensed)
- Storage condition : 0~70°C (20 to 90% RH non-condensed)
- CE EMC Certification : EN 55022:1998/A1:2000 Class A  
EN 61000-3-2:2000  
EN 61000-3-3:1995/A1:2001  
EN55024:1998/A1:2001

## 3.OUTSIDE DIMENSION AND CONNECTION DIAGRAM

