

# Programmable digital meter 24x48mm or 48x96mm



## Inputs

- Pulse** : TTL, CMOS, Magnetic pick-up  
 Accepts input rates up to 50KHz  
 Display RPM or line-speed can be modified  
 Display M/min, Y/min, ft/min can be modified  
 Pulse revolution can be defined 1-99999  
 Decimal point can be modified  
 : Pulse TTL = 5V  
 : Pulse NPN = 12V  
 : Pulse PNP = 12V  
 : Magnetic pick-up 50mV-1.5V  
 : Magnetic pick-up 500mV-15V
- AC** : 0-60V, 0-230V or specify

## Technical Data.

- Typical accuracy** : ±0.1%FS ±1Digits.
- Input**  
 Type : Jump-pin selectable current sourcing(NPN)  
 or current sinking (PNP)
- Trigger levels** : Hi bias (CMOS) (VIH=7.5V, VIL=5.5V)  
 Lo bias (TTL) (VIH=3.7V, VIL=2.0V)  
 Max.count rates : 50KHz (50% duty cycle)  
 Sensor power supply : 12VDC ±3%(<60mA)
- Display**  
 Type : LED 5 digits, Height 10.16mm. (0.4")  
 Display Range : 0 ... 99999 digit adjustable  
 Back-up memory : By E<sup>2</sup>PROM, no data loss even power failure.  
 Data 10years retention
- Sampling time** : 10 cycles/sec. (>10Hz)
- Security function** : 5 digits password
- Temp. coefficient** : 50ppm/°C (0-50°C)
- Parameter setting** : Membrane Touch switches

## Error display

- Over-Under range : "0FL" or "-0FL"  
 Over-Under scale : "d0FL" or "-d0FL"  
 A/D converter failure : "AdEr"  
 E<sup>2</sup>PROM failure : "E- 00"

- Power supply** : AC/DC 90-260V  
 : AC/DC 18 - 60V
- Consumption:** : 3VA

## Environmental conditions

- Operating temperature : -10 °C to +60°C  
 Storage temperature : -30 °C to +75°C  
 Relative humidity : 95% max. non-condensation  
 Enclosure : IEC 529 (IP52)

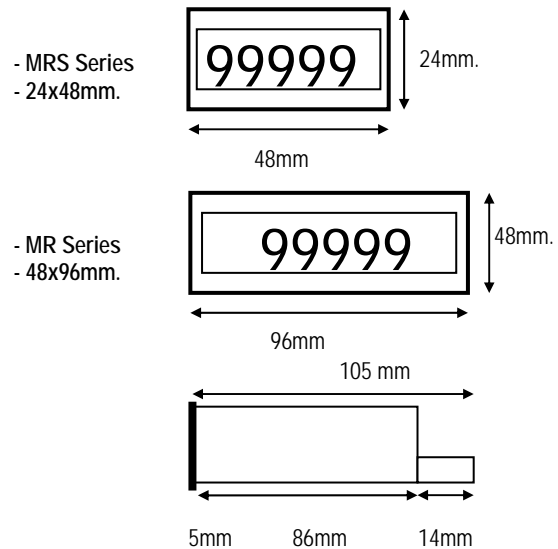
## Insulation Test Voltage

- Input \_Output / Housing : AC 4 kV ANSI c37.90a, DIN-IEC255-4

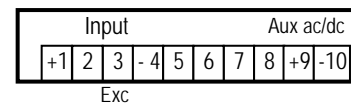
## Mechanical characteristics

- Material plastic : NORYL UL94 V-0 self extinguishing  
 Protection degree EN60529 : IP54 (front panel); IP20 (terminals)  
 Terminals : Screw type 2.5mm.  
 Front dimension : 48x96x105 mm. for MR series  
 : 24x48x105 mm. for MRS series  
 Panel cutout : 45X93 mm. for MR series  
 : 22x45 mm. for MRS series  
 Mounting : Flush Mounting  
 Weight : 450 g.

## DIMENSION



## WIRING CONNECTION



X1	Input	X2	Display	X3	Aux
A	Pulse TTL = 5V	1	RPM	A	AC/DC18-60V
B	Pulse NPN = 12V	2	M/min	B	AC/DC90-260V
C	Pulse PNP = 12V	3	Y/min	Less than 3VA	
D	Magnetic pick-up 50mV-1.5V	4	Ft/min		
E	Magnetic pick-up 500mV-15V	9	others		
F	AC 0-60V	*Three wire connection *Exciting voltage dc 12V 60mA			
O	Specify				

## ORDERING INFORMATION MRS + X1 + X2 + X3

Example Ordering  
 Frequency digital meters input 230V ac,  
 display 0-99.999 Hz, Aux supply 230V ac.  
 Model MRS + O + 9 + B Size 24x48mm.  
 Model MR + O + 9 + B Size 48x96mm.