



■FEATURES

- Readout range from -19999 to 99999
- Accepts input rates up to 50KHz
- Accept input rates 50 or 500 or 50000 CPS can be modified
- Five counting modes front/after edge-Up, Up/Down, Direct-Up/Down Quadrature-Up/Down can be modified
- Quadrature sensing up to 4 times resolution
- Input scaling multiplied 0.0001 to 9.9999 can be modified
- Four alarm function (optional)
- 16 bit DAC analog output function (optional)
- Digit RS-485 interface function (optional)

1: MODEL: MMCH-□ □ □ □ □

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				
O	SPECIFIED	4	Four(Relay)	•Transistor output(Photo couple of open-collector, Max.DC30V/40mA)		R	SPECIFIED	•Two-wire transmitter (Exciting voltage DC10~36V)			

2: SPECIFICATION

- Count input type : Jump-pin selectable current sourcing(NPN) or current sinking (PNP)
- Count input trigger levels : High level:  $V_{IH}=DC4\sim30V$ (Pulse)  
High level:  $V_{IH}=AC30mV\sim30V$ (Magnetic pick-up)  
Low level:  $V_{IL}=DC0\sim2V$ (Pulse)  
Low level:  $V_{IL}=AC0\sim20mV$ (Magnetic pick-up)
- Maximum count rates : <50KHz (Up, Up/Down, Direct-Up/Down)  
<25KHz (Quadrature-Up/Down)  
<1KHz (Magnetic pick-up)
- Readout (compare) range : -19999 to 99999 digit adjustable
- Alarm action : HI or Lo adjustable
- Alarm output response time : <10ms(Relay output)  
<0.5ms(Transistor output)
- Relay contact output : AC 250V-5A, DC 30V-7A
- Transistor output type : Photo couple of open-collector(Max.DC30V/40mA)
- Analog output resolution : 16 bit DAC (Isolating)
- Response time :  $< 1/f + 10 \text{ ms}(0\sim90\%)$
- 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 : "01"~"FF"(0~255)
- RS-485 baud rate : 38400/19200/9600/4800/2400 selective
- Display : Red high efficiency LEDs high 20.32mm (0.8")
- Sensor power supply : 12VDC $\pm 3\%$ (<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  
EN 55024:1998/A1:2001

3: OUTSIDE DIMENSION AND CONNECTION DIAGRAM

