

5 DIGIT MICROPROCESS PANEL METER, 48x96mm

**MODEL
MM1**



■ FEATURES

- Accuracy 0.05% F.S. ±1 digit
- Measuring DCA/DCV/ACA/ACV/Potentiometer/Transmitter/Pt-100/Thermocouple/Load Cell/Resistor/etc.....
- Programmable rate-19999 to 99999 digit
- Auto zero or hold or root or dual display function (optional)
- Decimal point can be modified
- Dimension small and High stability

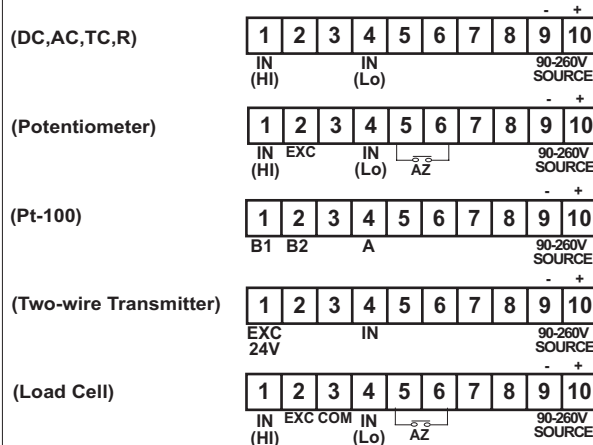
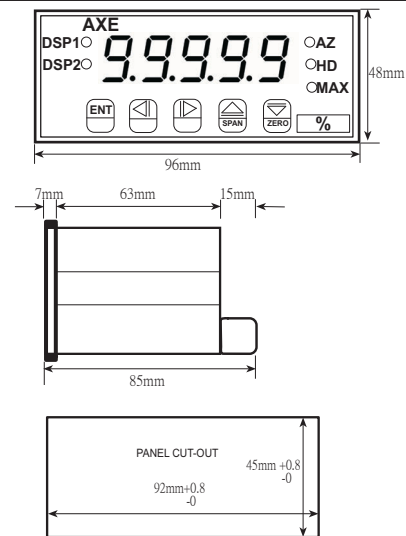
1. MODEL: MM1- □ □ □

NO	Input Type	NO	DCV(ACV)	NO	DCA(ACA)	NO	Potentiometer	NO	Transmitter	NO	Pt-100	NO	Load Cell	NO	Thermocouple	NO	Aux.Power
A	DC	11	0~50mV	21	0~19.999uA	31	0~10%	41	DC4~20mA	51	-50.00~+50.00°C	61	2mV/V	71	J(-200~760°C)	A	AC/DC18~60V
B	AC(RMS)	12	0~5V	22	0~199.99uA	32	0~50%	42	DC1~5V	52	-100.00~+100.00°C	62	3mV/V	72	K(-200~1360°C)	B	AC/DC90~260V
C	AC(TRMS)	13	0~10V	23	0~1.9999mA	33	0~100%	43	DC4~20mA	53	-200.0~+400.0°C	63	2mV/V	73	T(-200~395°C)		•LESS 3VA for AC/DC input
D	Potentiometer	14	0~36V	24	0~19.999mA	34	5~95%	44	DC1~5V	54	-200.0~+850.0°C	64	3mV/V	74	E(-185~990°C)		
E	Transmitter	15	0~54V	25	0~199.99mA	35	10~90%	49	SPECIFIED	59	SPECIFIED	69	SPECIFIED	75	R(0~1760°C)		
F	Pt-100(RTD)	16	0~110V	26	0~2.000A	39	SPECIFIED							76	S(0~1750°C)		
G	Thermocouple	17	0~600V	27	0~5.000A		•Three wire connection •Exciting voltg DC2.5V(<10mA)							77	B(200~1800°C)		
H	Load Cell	18	0~1000V	28	0~10.000A				•41/42 nonexciting DC24V •43/44 exciting DC24V (<25mA)		•Three wire connection non-programmable		•61/62 Exciting DC5V(<50mA) •63/64 Exciting DC10V(<50mA)		•CJC traceability <±0.5°C (0~70°C)		
R	Resistor	19	SPECIFIED	29	SPECIFIED												

2. SPECIFICATION

- Measuring accuracy : 0.05% F.S. ±1 digit (23±5°C) 0.2% F.S. ±1 digit(AC(RMS)) 0.2% F.S. ±0.5°C (CJC)
- Sampling time : 16 cycles/sec.
- Readout range : -19999~99999 digit adjustable
- Zero (offset) range : -19999~99999 digit adjustable
- Over input indication : " doFL " or "-doFL"
- Display : Red high efficiency LEDs high 14.22mm(0.56")
- Polarity display : When input is negative " - " display
- Temp. coefficient : 50ppm/°C (0~50°C)
- Parameter setting : Touch switches
- Memory mode : Non-volatile E² PROM memory
- Dielectric strength : 2KVac/1 min. (input/power)
- 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



5 DIGIT MICROPROCESS PANEL METER (DISPLAY 0.8")

**MODEL
MMX-1**



■ FEATURES

- Accuracy 0.05% F.S. ±1digit
- Measuring DCA/DCV/ACA/ACV/Potentiometer/Transmitter/Pt-100/Thermocouple/Load Cell/Resistor/etc.....
- Programmable rate-19999 to 99999 digit
- Auto zero or hold or root or dual display function (optional)
- Decimal point can be modified
- Dimension small and High stability

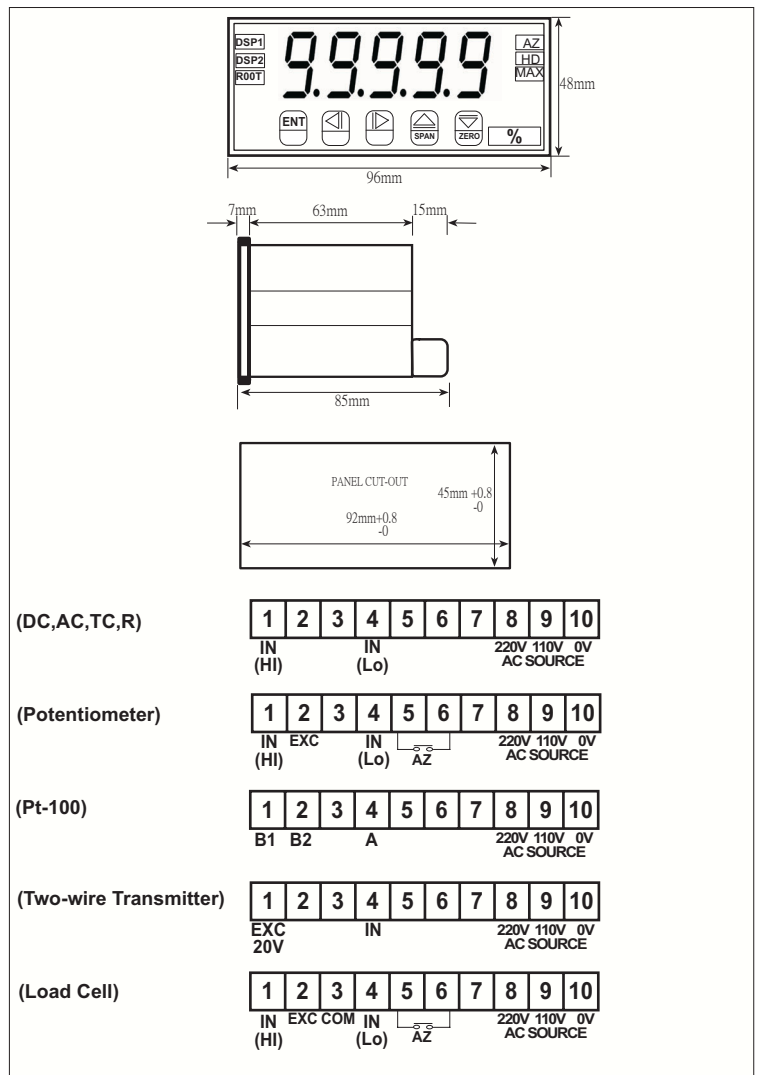
1. MODEL: MMX-1-

NO	Input Type	NO	DCV(ACV)	NO	DCA(ACA)	NO	Potentiometer	NO	Transmitter	NO	Pt-100	NO	Load Cell	NO	Thermocouple	NO	Aux. Power
A	DC	11	0~50mV	21	0~19.999uA	31	0~10%	41	DC4~20mA	51	-50.00~+50.00°C	61	2mV/V	71	J(-200~760°C)	A	AC110/220V
B	AC(RMS)	12	0~5V	22	0~199.99uA	32	0~50%	42	DC1~5V	52	-100.00~+100.00°C	62	3mV/V	72	K(-200~1360°C)	O	SPECIFIED
C	AC(TRMS)	13	0~10V	23	0~1.9999mA	33	0~100%	43	DC4~20mA	53	-200.0~+400.0°C	63	2mV/V	73	T(-200~395°C)		*±20% of rate less 3VA for AC input (50/60Hz)
D	Potentiometer	14	0~36V	24	0~19.999mA	34	5~95%	44	DC1~5V	54	-200.0~+850.0°C	64	3mV/V	74	E(-185~990°C)		
E	Transmitter	15	0~54V	25	0~199.99mA	35	10~90%	49	SPECIFIED	59	SPECIFIED	69	SPECIFIED	75	R(0~1760°C)		
F	Pt-100(RTD)	16	0~110V	26	0~2.000A	39	SPECIFIED							76	S(0~1750°C)		
G	Thermocouple	17	0~600V	27	0~5.000A				*41/42 nonexciting DC20V		*Three wire connection non-programmable		*61/62 Exciting DC5V(<100mA)	77	B(200~1800°C)		
H	Load Cell	18	0~1000V	28	0~10.000A				*43/44 exciting DC20V (<25mA)				*63/64 Exciting DC10V(<50mA)				
R	Resistor	19	SPECIFIED	29	SPECIFIED												

2. SPECIFICATION

- Measuring accuracy : 0.05% F.S. ±1 digit (23±5°C)
0.2% F.S. ±1 digit(AC(RMS))
0.2% F.S. ±0.5°C (CJC)
- Sampling time : 16 cycles/sec.
- Readout range : -19999~99999 digit adjustable
- Zero (offset) range : -19999~99999 digit adjustable
- Over input indication : " doFL " or "-doFL"
- Display : Red high efficiency LEDs high 20.32mm(0.8")
- Polarity display : When input is negative " - " display
- Temp. coefficient : 50ppm/°C (0~50°C)
- Parameter setting : Touch switches
- Memory mode : Non-volatile E² PROM memory
- Dielectric strength : 2KVac/1 min. (input/power)
- 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



DIGITAL PRESSURE TRANSMITTER 2.5"

MODEL
SPD2



■ FEATURES

- Accuracy 0.25% F.S.
- Thick film strain gage on ceramic and stainless steel(SUS316)
- Pressure range from -1 to 250 bar
- Display pressure units bar, Kg/cm²,KPa,MPa,PSI,mmHg,inHg can be modified
- Memory hold maximum value and minimum value function
- Field-rangable supply voltage from 10 to 28 Vdc
- 16 bit DAC analog output function
- $RL(max.) < [(Vs-8V)/0.02A] \Omega$, up to 800 ohms at 24Vdc
- Protection class NEMA4/IP65, need enclosure don't directly used outdoors

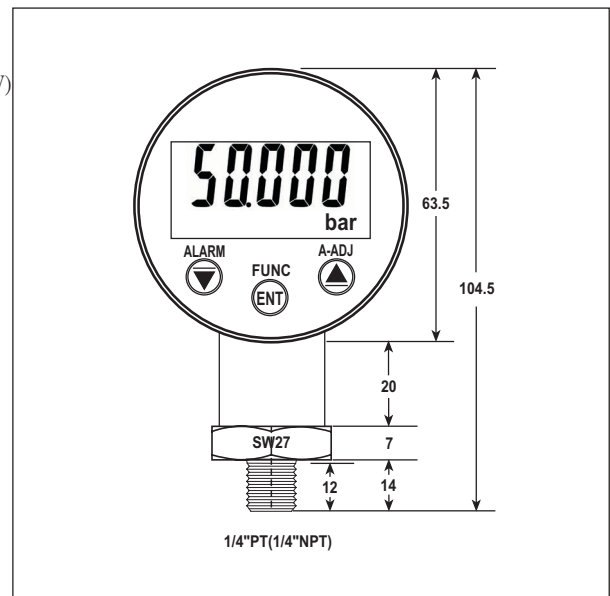
1.MODEL:SPD2-

NO	Pressure Range	NO	Pressure Range	NO	Output Range	NO	Output Range	NO	Pressure Connection	NO	Cable Length
1	-1~2 bar	4	0~250 bar	1	DC4~20mA(2-wire-system)	4	DC0~10V(3-wire-system)	1	1/4"PT	2	2M(standard)
2	-1~10 bar			2	DC4~20mA(3-wire-system)	5	Customer(3-wire-system)	2	1/4"NPT	9	Customer
3	-1~50 bar			3	DC1~5V(3-wire-system)			3	1/2"NPT		*3 cond.+shield,28AWG,PVC

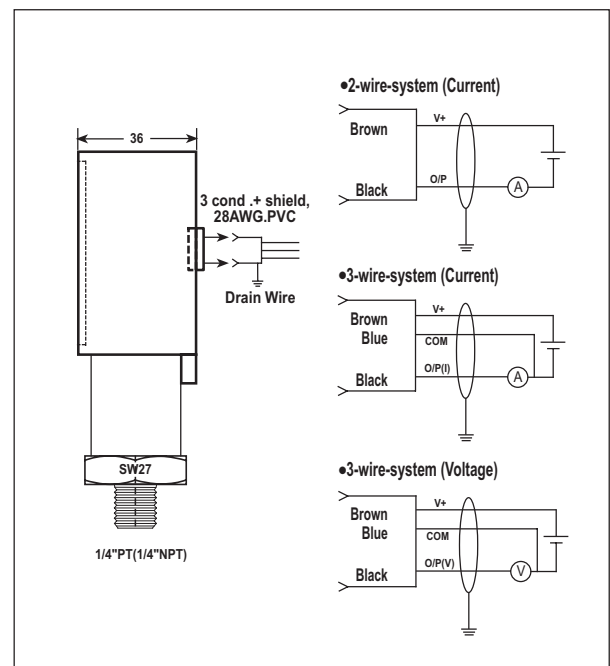
2.SPCIFICATION

- Measuring accuracy : 0.25% F.S.
- Supply voltage : DC10 to 28V(Output=DC4~20mA(3-wire)/1~5V)
DC14 to 28V(Output=DC4~20mA(2-wire)/DC0~10V)
- Indication cycle : 0.1s~9.9s can be modified
- Readout (measuring) range : -19999~99999 digit
- Zero (offset) range : 0~±999 digit adjustable
- Span range : 0~±999 digit adjustable
- Maximum permissible over pressure : Maximum 2 x rated (<60Bar)
Maximum 1.5 x rated (>60Bar)
- Burst pressure : 3 x rated (<60Bar)
1.8 x rated (>60Bar)
- Analog output resolution : 16 bit DAC
- Response time : 50ms (0~90%)
- Output drive capability : $< [(Vs-12V)/0.02A] \Omega$ (Current 2-wire)
 $< [(Vs-8V)/0.02A] \Omega$ (Current 3-wire)
>1K Ω (Voltage 3-wire)
- Output ripple(p-p) : <0.1% F.S.
- Thermal span shift : ±0.05% F.S./10°C
- Thermal zero shift : ±0.05% F.S./10°C
- Zero point long term stability : ±0.1% F.S./year(<60 Bar)
±0.15% F.S./year(>60 Bar)
- Display : Bright red LEDs high 10.16mm (0.4")
- Parameter setting : Touch switches
- Memory mode : Non-volatile E² PROM memory
- Diaphragm materials : Ceramic Al₂O₃-96%
- Pressure port materials : Stainless steel 1.4401(SUS316)
- Seale(media wetted)materials : NBR <16Bar
PVDF >16Bar
- Display housing materials : FR-PET(UL94-VO)
- Operating temperature range : -10 to 60°C
- Storage & medium temperature range : -30 to 80°C
- 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.DIMENSION(unit:mm)



4.CONNECTION DIAGRAM





■ FEATURES

- Accuracy 0.03%F.S.
- Input range from 0.01 Hz to 80KHz
- 16 bit DAC isolating analog output
- Dielectric strength 2KVac/1min. (input/output/power)
- Wide input range for auxiliary power
- Dimension small and High stability

1.MODEL:TMF-□ □ □

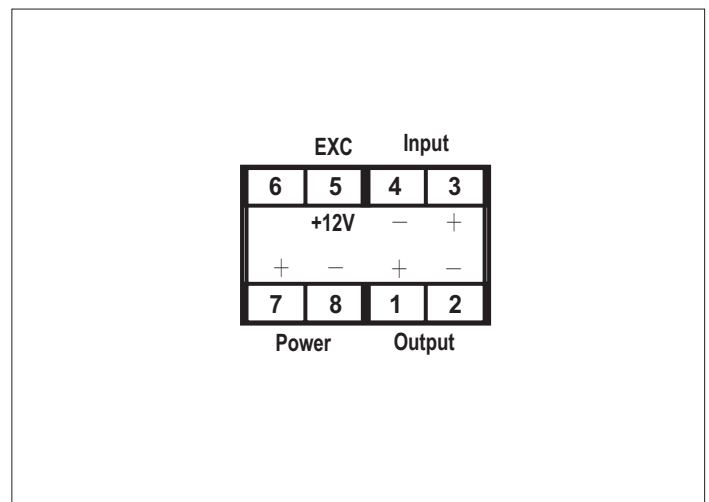
NO	Input Type	NO	Input Type	NO	Input Type	NO	Output Range	NO	Output Range	NO	Output Range	NO	Aux. Power
1	Dry contact	5	Magnetic pick-up (AC50mV~1.5V)	7	AC2~60V	A	0~1V	E	2~10V	I	4~20mA	A	AC/DC 18~60V
2	Pulse(TTL)(5V)	6	Magnetic pick-up (AC500mV~15V)	9	SPECIFIED	B	0~5V	F	0~1mA	R	SPECIFIED	B	AC/DC 90~260V
3	Pulse(NPN)(12V)			C	1~5V	G	0~10mA	C	AC110V(50/60Hz)±20%				
4	Pulse(PNP)(12V)	D	0~10V	H	0~20mA	D	AC220V(50/60Hz)±20%						

•Less 3VA for AC/DC input

2.SPICIFICATION

- Measuring accuracy (精 確 度) : 0.03% F.S. (23±5°C)
- Count input type : Switch selectable current sourcing(NPN) or current sinking (PNP)
- Count input trigger levels : HI bias (CMOS) (V_{IH}=7.5V, V_{IL}=5.5V) LO bias (TTL) (V_{IH}=3.7V, V_{IL}=2.0V)
- Sampling time : 20 cycles/sec. (>10Hz) f/2 cycles/sec(<10Hz)
- Analog output resolution : 16 bit DAC
- Response time : <250ms (0~90%)
- Output drive capability : <10mA for voltage mode <10V for current mode
- Output ripple(p-p) : <0.1% F.S.
- Zero (offset) range : 0~±9999 Digit adjustable
- Span (scale) range : 0~±9999 Digit adjustable
- Sensor power supply : 12VDC±3% (<50mA)
- Temp. coefficient : 50ppm/°C (0~50°C)
- Display : Red high efficiency LEDs high 10.16mm (0.4")
- Isolation : Input/Output/Power/Case
- Parameter setting : Touch switches
- Memory mode : Non-volatile E² PROM memory
- Insulation Resistance : >100Mohm with 500V DC
- Dielectric strength : 2KVac/1 min. (input/output/power) 1600Vdc (input/output)
- Operating condition : 0~60°C (20 to 90% RH non-condensed)
- Storage condition : 0~70°C (20 to 90% RH non-condensed)
- Construction : Socket/plugin type with barrier terminals
- 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.TERMINAL CONNECTION



4.DIMENSION(unit:mm)

