

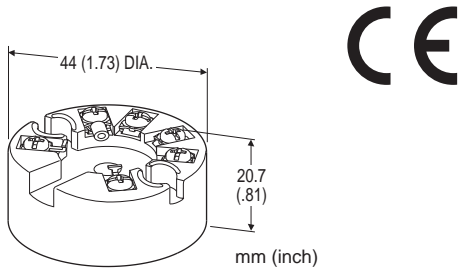
Head-mounted Two-wire Signal Conditioners 27-UNIT

POTENTIOMETER TRANSMITTER

(PC programmable)

Functions & Features

- I/O range programming via PC Configurator
- Self diagnostics
- Low temperature drift



MODEL: 27PM-0[1]

ORDERING INFORMATION

- Code number: 27PM-0[1]
- Specify a code from below for [1].
(e.g. 27PM-0/M)

SAFETY APPROVAL

0: None

[1] OPTIONS

Function Monitor LED

Blank: Without

/M: With

RELATED PRODUCTS

- USB interface Bell202 modem (model: COP-HU)
Usable in 'non-hazardous' area only.
- PC configurator software (model: 27MCFG)
Downloadable at M-System's web site.

GENERAL SPECIFICATIONS

Construction: Sensor head-mounting
Connection: M3 screw terminals (torque 0.5 N·m)
Screw terminal: Nickel-plated brass
Housing material: Flame-resistant resin (black)
Isolation: Input to output
Function monitor LED: Input status and error status are displayed by blinking mode.

User-configurable items: PC and the transmitter are connected with the COP-HU.

- Input range
- Burnout
- Output limits (Upper / Lower)
- Damping time
- Linearization
- Output calibration
- Loop test output

INPUT SPECIFICATIONS

- **Potentiometer:** 100 Ω - 10 kΩ
- Minimum span:** 10 % of total resistance
- Excitation:** 2.5 V DC (43.2 kΩ connected in serial)

OUTPUT SPECIFICATIONS

- Output range:** 4 - 20 mA DC
- Operational range:** 3.75 - 23 mA
- Load resistance vs. supply voltage:**
 $\text{Load Resistance } (\Omega) = (\text{Supply Voltage } (V) - 9 (V)) \div 0.023 (A)$ (including leadwire resistance)
- Burnout:** 3.75 - 3.8 mA or 21.5 - 23 mA
(factory set to 23 mA)
- Upper output limit proportional to the input:**
20 - 21.5 mA (factory set to 21.5 mA)
- Lower output limit proportional to the input:**
3.8 - 4 mA (factory set to 3.8 mA)
- Update time:** 440 msec.

INSTALLATION

- Supply voltage**
 - DC: 9 - 35 V DC
- Operating temperature:** -40 to +85°C (-40 to +185°F)
- Operating humidity:** 0 to 95 %RH (non-condensing)
- Mounting:** Head-mounting (DIN type B head)
- Weight:** 50 g (1.76 oz)

PERFORMANCE in percentage of span

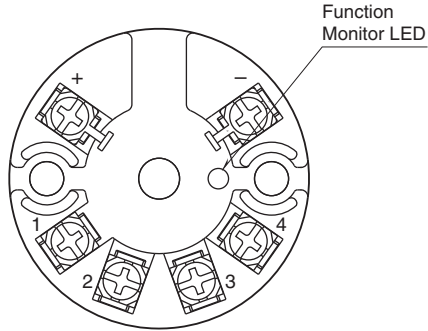
- Accuracy:** 0.05 % × 100 % of full scale / Input range (%)
- Temp. coefficient:** 0.0075 %/°C (0.004 %/°F)
- Response time:** ≤ 2 sec. (0 - 90 %)
with damping time set to 0
- Burnout response time:** ≤ 2 sec.
- Supply voltage effect:** ±0.01 % of span/V
- Insulation resistance:** ≥ 100 MΩ with 500 V DC
- Dielectric strength:** 1500 V AC @1 minute (input to output)

STANDARDS & APPROVALS

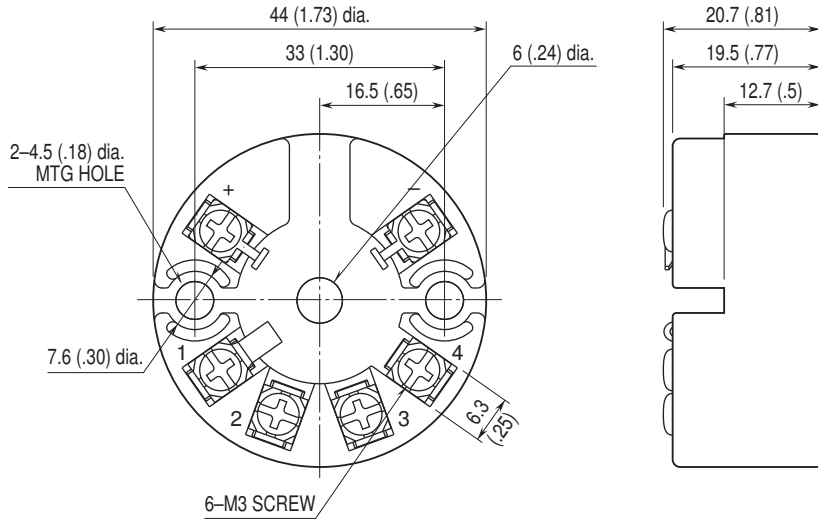
- EU conformity:**
EMC Directive

EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

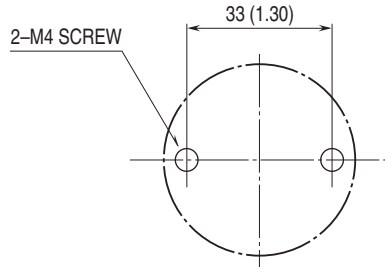
FUNCTION MONITOR LED (option /M)



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

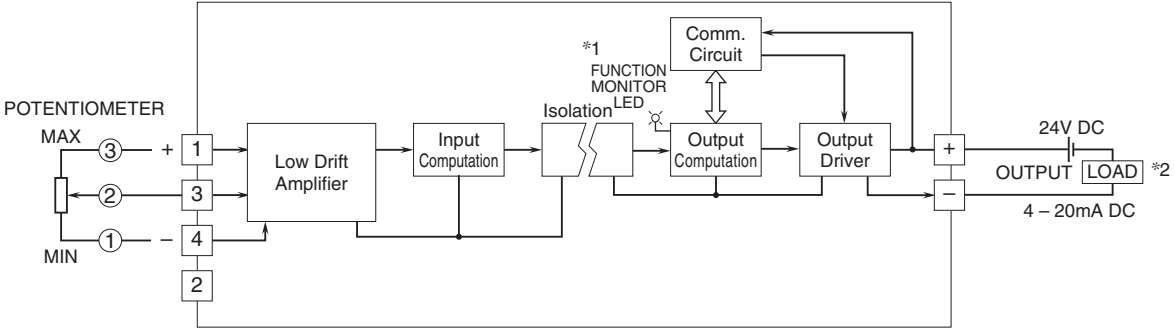


MOUNTING REQUIREMENTS unit: mm (inch)



The screws are to be provided by the customer.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. Option /M
*2. Limited to 250 – 500Ω when using the communication to configure the module.



Specifications are subject to change without notice.