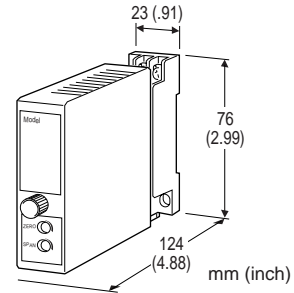
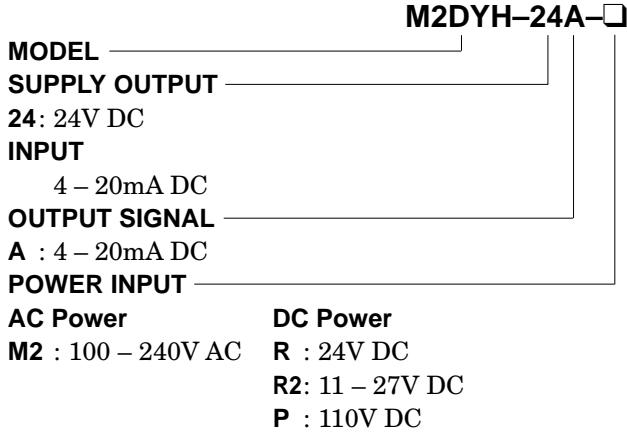


Super-mini Signal Conditioners *Mini-M Series*

**CURRENT LOOP SUPPLY**  
(applicable to HART signal; isolated)

MODEL **M2DYH**

**MODEL & SUFFIX CODE SELECTION**



**Functions & Features**

- Powers a 4 – 20mA DC current loop
- Isolating and relaying HART signals
- Shortcircuit protection
- Universal power input
- High-density mounting

**Typical Applications**

- 2-wire HART transmitters

**ORDERING INFORMATION**

Specify code number. (e.g. M2DYH-24-M2)

**GENERAL SPECIFICATIONS**

**Construction:** Plug-in  
**Connection:** M3 screw terminals (torque ≤0.8 N·m)  
**Housing material:** Flame-resistant resin (black)  
**Isolation:** Input to output to power  
**Overrange output:** Approx. -10 – +110%  
**Front adjustments:** Zero and span; ±5%

**INPUT & OUTPUT**

■ **SUPPLY OUTPUT** (across the terminals 1 – 5)  
**Output voltage:** 24 – 28V DC with no load  
 18V DC maximum at 20mA  
**Current rating:** 22mA DC maximum

• **Shortcircuit Protection**  
**Current limited:** 30mA maximum  
**Protected time duration:** No limit

■ **INPUT:** 4 – 20mA DC; input resistor incorporated (0.5W)  
**Input resistance:** Approx. 250Ω

■ **OUTPUT SIGNAL:** 4 – 20mA DC  
**Load resistance:** 600Ω maximum  
 250Ω ±10% for HART communication

**HART COMMUNICATION**

**Frequency band:** 500 Hz – 10 kHz (within -6 dB)  
**Transmission gain:** Approx. -3 dB (within 1 k – 3 kHz)  
 measured with 250Ω at output  
**Communication directions:** Bidirectional

**INSTALLATION**

**Power input**

**AC:** Operational voltage range 85 – 264V  
47 – 66 Hz; approx. 3.5VA at 100V  
approx. 5.5VA at 200V  
approx. 6.5VA at 264V

**DC:** operational voltage range for R: 24V  
±10%, R2: 11 – 27V, or P: 85 – 150V;  
ripple 10% p-p max.; approx. 3W

**Operating temperature:** -5 to +55°C (23 to 131°F)

**Operating humidity:** 30 to 90% RH (non-condensing)

**Mounting:** Surface or DIN rail

**Dimensions:** W23×H76×D124 mm (0.91"×2.99"×4.88")

See General Spec. Sheet Figure A-1.

**Weight:** 150 g (0.33 lbs)

**Terminal assignment:** See General Spec. Sheet Figure B-1.

**PERFORMANCE in percentage of span**

**Accuracy:** ±0.1%

**Temp. coefficient:** ±0.015%/°C (±0.008%/°F)

**Response time:** ≤0.5 seconds (0 – 90%)

**Line voltage effect**

**Supply output:** ±3% over voltage range

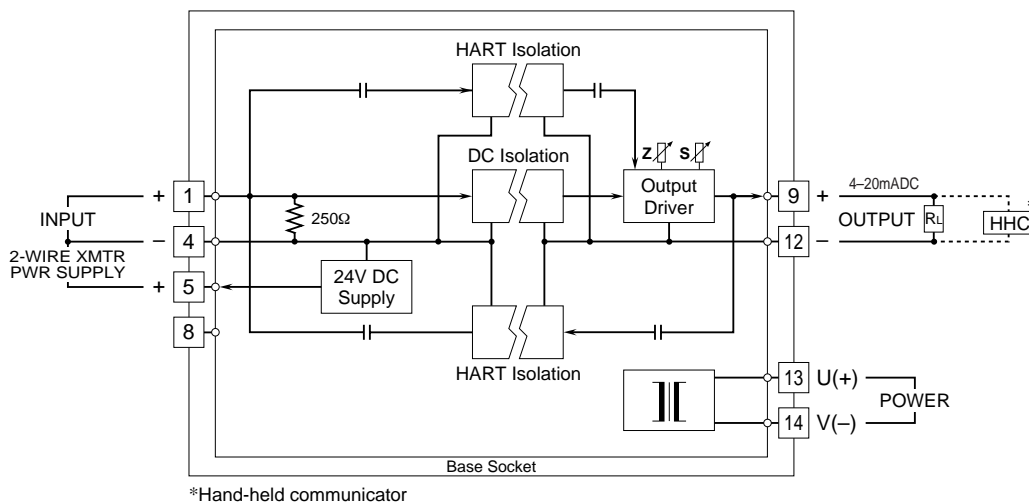
**Output signal:** ±0.1% over voltage range

**Insulation resistance:** ≥100MΩ with 500V DC

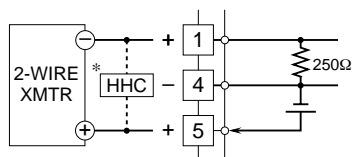
**Dielectric strength:** 2000V AC @1 minute

(input to output to power to ground)

**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



**■When Used as DC Supply**



**■When Used as Isolator**

