

Super-mini Terminal Block Signal Conditioners *M5-UNIT*

CURRENT LOOP SUPPLY

MODEL **M5DY**

MODEL & SUFFIX CODE SELECTION

MODEL _____ M5DY-□-□□

INPUT _____
4 – 20mA DC

OUTPUT _____

Current	Voltage
A : 4 – 20mA DC	4 : 0 – 10V DC
Z : Specify current	5 : 0 – 5V DC
	6 : 1 – 5V DC
	0 : Specify voltage

POWER INPUT _____

M : 85 – 264V AC *1
R : 24V DC
*1: CE not available.

OPTIONS _____

/K : Fast response

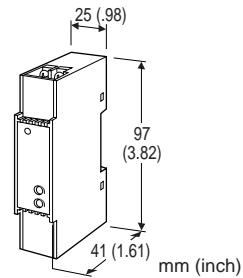
ORDERING INFORMATION

Specify code number and variables.

- **Code number** (e.g. M5DY-A-R/K)
- **Special output range** (For codes Z & 0)

GENERAL SPECIFICATIONS

Construction: Terminal block
Connection: M3.5 screw terminals
 (nickel-plated steel; torque 0.8 N·m)
Housing material: Flame-resistant resin (black)
Isolation: Input to output to power
Front adjustments: ±2% for zero and span
Power LED: Green light turns on when the power is supplied.



Functions & Features

- Powering a 4 – 20mA DC current loop
- Isolation between the input and output
- Fast response type available
- High-density mounting
- Power LED
- CE marking for 24V power

INPUT & OUTPUT

■ **SUPPLY OUTPUT** (across the terminals 3 – 4)

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 (0.125W)

Input resistance: 249.5Ω

■ **OUTPUT**

• **DC Current:** 0 – 20mA DC

Minimum span: 1mA

Zero suppression/elevation: Max. 1.5 times span

Load resistance: Output drive 11V maximum

Output	Load Resistance
4 – 20mA	: 550 (Ω maximum)

• **DC Voltage:** 0 – 10V DC

Minimum span: 1V

Zero suppression/elevation: Max. 1.5 times span

Load resistance: Output drive 10mA maximum; at ≥1V

Output	Load Resistance
0 – 10V	: 1000 (Ω minimum)
0 – 5V	: 500
1 – 5V	: 500

INSTALLATION

Power input

AC: Operational voltage range 85 – 264V;
47 – 66 Hz; approx. 3VA

DC: Operational voltage range 24V ±10%;
ripple 10% p-p max.; approx. 2W

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

Operating humidity: 0 to 90% RH (non-condensing)

Mounting: DIN rail

Dimensions: W25×H97×D41 mm (0.98"×3.82"×1.61")

See General Spec. Sheet Figure C-1.

Weight: 80 g (2.8 oz.)

Terminal assignment: See General Spec. Sheet Figure D-1.

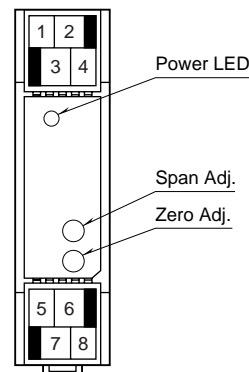
STANDARDS & APPROVALS

CE conformity: EMC Directive (89/336/EEC)

EMI EN61000-6-4

EMS EN61000-6-2

FRONT PANEL CONFIGURATION



PERFORMANCE in percentage of span

Accuracy: ±0.1%

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

Response time: ≤0.5 seconds (0 – 90%)
approx. 25 milliseconds with option /K

Line voltage effect: ±0.1% over voltage range

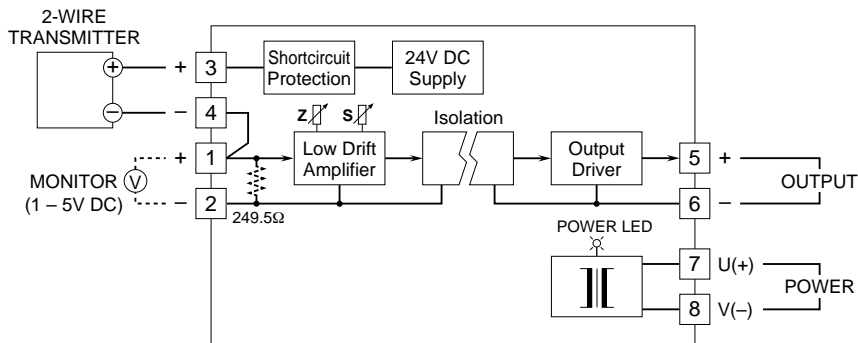
Insulation resistance: ≥100MΩ with 500V DC

Dielectric strength

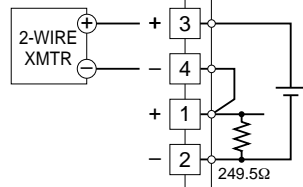
DC powered: 2000V AC @1 minute
(input to output to power to ground)

AC powered: 1500V AC @1 minute
(input to output to power to ground)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■When Used as DC Supply



■When Used as Isolator

