

# 3½ Digit LCD Current Loop Meter Module GM-035C

## FEATURES:

- 3½ digit liquid crystal display.
- 0.5 inch (12.7mm) digit height
- Powered by 4-20mA current loop transmitter
- Offset and span adjustable
- Decimal point selectable
- Using screw terminal block for easy connection
- Self-mountable with optional mounting bezel

## APPLICATIONS:

- 4-20mA current loop meter
- Process management
- Energy management

## GENERAL DESCRIPTION:

The GM-035C is a complete digital current loop meter module for displaying engineering units of 4-20mA transmitter. The meter is powered by the transmitter, no external power source is required.

In operation, transmitter loop current is terminated in a 20 Ohm (typically) Impedance with Zener Diode Protection to clamp the signal at 2.5VDC. The voltage developed across the zener and resistor powers the circuitry. The ZERO Potentiometer has 15 turns to allow high resolution offset trim of the zero of 700 counts. The FULL SCALE Potentiometer allows 1800 counts of adjustment.

## OPERATION SPECIFICATION

### ABSOLUTE MAXIMUM RATINGS

Operating Temperature..... 0 to 50 (32 to 122 )  
 Storage Temperature..... -10 to 80 (14 to 176 )  
 Humidity..... below 80%

## ELECTRICAL CHARACTERISTICS TA=25 , RH below 80%

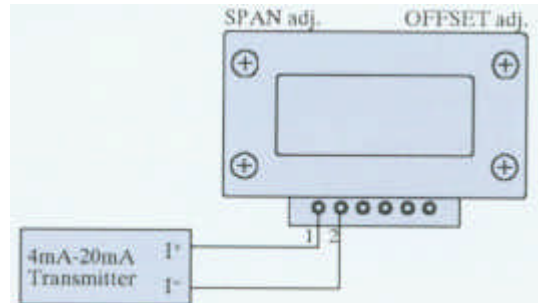
CHARACTERISTICS	MIN	TYP	MAX	UNIT
Accuracy		0.1%±1dgt		%±digits
Sampling Rate		2.5		Reading/sec.
Voltage Drop	2.5		3.0	V
Zero Offset at 4mA	-350		350	Counts
Full Scale Span at 20mA	200		1999	Counts
Temperature Coefficient		100		PPM



## TERMINAL DEFINITION

TERMINAL	INPUT	DESCRIPTION
1	I+	Positive current loop input
2	I-	Negative current loop input
3	DP <sub>3</sub>	Decimal point select. The decimal point will show if connected to DP.com and will be off if kept floating.
4	DP <sub>2</sub>	
5	DP <sub>1</sub>	
6	DP.com	

## APPLICATION CIRCUIT



## CALIBRATION PROCEDURE:

### Example 1:

If you have a 4-20mA Pressure Transmitter, Pressure range from 0 to 50.0 PSI.

- 1.Input 4mA to GM-035C adjust offset potentiometer to zero reading.
- 2.Input 20mA to GM-035C adjust span potentiometer to 500 reading.(regardless Decimal point)
- 3.Repeat step 1, 2 for higher accuracy.
- 4.Set Decimal point at DP<sub>1</sub>.

### Example 2:

If you have a 4-20mA K-type Thermo Ttransmitter. Temperature range from -150 to 1200

- 1.Input 4mA to GM-035C adjust offset potentiometer to zero reading.
- 2.Input 20mA to GM-035C adjust span potentiometer to 1350 reading.(plus offset value)
- 3.Input 4mA to GM-035C adjust offset potentiometer to -150 reading.
- 4.Input 20mA to GM-035C adjust span potentiometer to 1200 reading.
- 5.Repeat step 3, 4 for higher accuracy.