



DM4380A

DC INPUT FIELD RANGEABLE ISOLATED TRANSMITTER

FEATURES

- Allows Inputs to ± 256 V or ± 100 mA
- 15 mV or 0.8 mA Minimum Full Scale Input
- Provides a Fully Isolated DC Output Proportional to DC Input
- Plug-In Terminal Blocks
- Standard DIN-Rail Mount with Easy Snap-On Snap-Off
- User-Settable Input and Output Ranges
- Fully Labeled Jumper Positions for Easy Range Settings
- Connections and Ranging Readily Accessible from the Front
- Choice of Power Options
- User Write-On Label
- Permanent Warranty

DESCRIPTION

The DM4380A provides a DC output proportional to a DC input. The output is fully isolated from input, line power and ground. The unit is useful in eliminating ground loops and common mode signals.

Input and output ranges are user-settable. Each may be voltage or current, with or without offset. The output response may be normal or reverse-acting. A fully-labeled set of jumpers selects the input and output

ranges.

All Wilkerson products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning. It utilizes a feedback VCO to develop a pulse train with a duty cycle proportional to the input signal amplitude. This pulse train is coupled through a pulse transformer to the output circuitry, where the duty cycle data is converted to a proportional DC output level.

Connections are made via two 4-pin plug-in terminal blocks. These terminal blocks allow the product to be removed without unwiring the connections.

TYPICAL APPLICATIONS

Eliminates ground loops and common mode signals. Use for voltage/current scaling and conversion with isolation for buffering and noise reduction. Single-unit replacement module provides field rangeability for all normal input and output ranges.

SPECIFICATIONS

INPUT RANGE

Limits (User-Settable)
 select any voltage between
 -256 and +256 VDC
 select any current between
 -100 and +100 mADC

Span
 Voltage
 any voltage span from
 15 mV to 256 V

Current
 any current span from
 0.8 mA to 100 mA

INPUT OFFSET

$\pm 0, 25, 75, 100\%$ F.S.

INPUT IMPEDANCE

Voltage
 1 megohm
 Current
 20 ohms

OUTPUT

Voltage
 0/.25 V
 0/1 V
 1/5 V
 0/5 V
 0/10 V
 -5/+5 V
 -10/+10 V

Current
 0/1 mA
 0/4 mA
 4/20 mA
 0/20 mA

OUTPUT LOAD

Voltage
 10 mA max.
 (1 kilohm at 10 V)
 Current
 >24 V compliance
 (1200 ohms max. at 20 mA)

OUTPUT RESPONSE (User Settable)

normal or reverse-acting
 (example 10 to 0 VDC)

OUTPUT RIPPLE (Peak-to-Peak)

<0.1% of span

ISOLATION

Output / Input
 >500 megohms
 Breakdown, Output / Input
 >1000 VAC rms Sinewave
 Breakdown, Power / Circuitry
 >1500 VAC rms Sinewave

RESPONSE TIME

(Range Dependent)
 <100 ms

ACCURACY

$\pm 0.1\%$ of span
 (exclusive of user-supplied
 calibration instruments)

LINEARITY

$\pm 0.05\%$ of span

COMMON MODE REJECTION

120 dB, DC to 60 Hz

OPERATING TEMPERATURE

14°F to 140°F / -10°C to 60°C

TEMPERATURE STABILITY

$\pm (0.02\% \text{ of span} + 2 \mu\text{V}) / ^\circ\text{C max}$

POWER

Wattage
 2.5W maximum
 (Standard)
 115 VAC $\pm 10\%$, 50/60 Hz
 230 VAC $\pm 10\%$, 50/60 Hz
 (Optional)
 24 VAC $\pm 10\%$, 50/60 Hz
 115/230 VAC $\pm 10\%$, 50/60 Hz
 24 VDC (21 to 32 VDC)

ORDERING INFORMATION

POWER



- 115 VAC, 50/60 Hz Power
- 230 VAC, 50/60 Hz Power
- 24 VAC, 50/60 Hz Power
- 24 VDC, Power, Transformer Isolated

INPUT

Select Units

- VDC mADC

Enter Input

Zero Scale

Full Scale

OUTPUT

Select Units

- VDC mADC

Enter Output

Zero Scale

Full Scale

Select Output Logic

- Normal Acting
- Reverse Acting

OPTIONS

- Conformal Coating

TAGS

Specify Tag Numbers

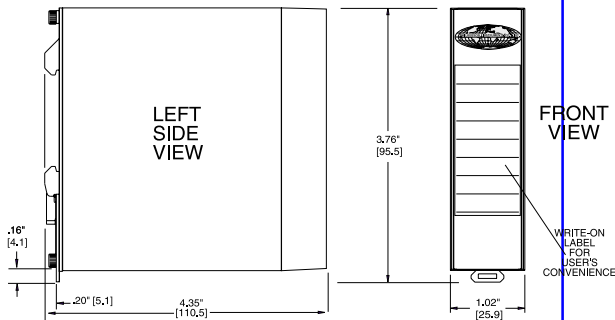
Tag number is typed on product label at no charge.

Enter Tag Number(s)

ACCESSORIES

DIMENSIONS

Inches [mm]



CONNECTIONS

- TERM 1 Input +
- TERM 2 Input -
- TERM 3 Shield
- TERM 4 No Connection
- TERM 5 Output +
- TERM 6 Output -
- TERM 7 Power AC L1 or DC +
- TERM 8 Power AC L2 or DC -