



# DIS876 AND DIS976

## POTENTIOMETER POSITION INPUT PROCESS INDICATORS

### FEATURES

- Provides 3½ Digit or 4½ Digit Display
- Display Calibrated in Engineering Units (% , gph, klb, etc.)
- Proportional to a Potentiometer Position Input
- Potentiometer Values from 100 ohms to 100 kilohms
- Fully Isolated Output and/or 0, 1, or 2 Alarms
- Alarm Setpoints Adjustable without Disturbing Transmitter Output
- Fail-Safe Alarm Operation
- LED Alarm Status Indicator
- Adjustable Deadband
- Unlimited\* Choice of Input / Output Ranges
- Fits Standard 1/8 DIN Cutout
- Splashproof Front Panel
- Rated NEMA-4, Splashproof when Properly Installed
- 5 Year Warranty

### DESCRIPTION

The DIS876 and DIS976 provide a display, optional isolated DC output voltage or current proportional to the slide position of a potentiometer, and optional alarm setpoints. All Wilkerson products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning, as well as a stable 1 V power supply to excite the potentiometer. Any value potentiometer from 100 ohms to 100 kilohms can be used. The digital display utilizes an

auto-zero dual-slope integrating A/D converter for accuracy and stability.

All controls are accessible by removing the gasketed front access panel. The display controls are wide-ranging so that they can be calibrated to display engineering units. Decimal point selection is made with a switch, also accessible from the front. A complete set of engineering unit labels is sent with each DIS. Once the display has been adjusted to read the correct engineering units, the alarm setpoints can be adjusted without test equipment and

without disturbing the output voltage or current.

Either setpoint may be displayed by use of the SP CAL switch. Each setpoint has an LED to indicate alarm status. The alarms have adjustable deadbands. Terminations are made to a screw terminal connector on the rear of the case.

### TYPICAL APPLICATIONS

Tank level, valve or actuator position indication, control, monitoring, data acquisition and warning, creating and displaying test signals.

### SPECIFICATIONS

#### INPUT POTENTIOMETER RESISTANCE

any value from 100 ohms to 100 kilohms

#### Current

select any range from 0 to 20 mA max, >24 V compliance (1200 ohms at max 20 mA)

#### Decimal Point

±1.9.9.9

#### Control Range

Zero ±1999

Span min span 10/max span 2000

#### SPAN ADJUSTMENT

70% to 100% of pot rotation

#### OUTPUT RIPPLE (Peak-to-Peak)

<0.1% of span

#### DISPLAY (976)

##### Digit Size

.56" LED, 4½ digits, ±19999

##### Decimal Point

±1.9.9.9.9

##### Control Range

Zero ±19999

Span min span 100/max span 20000

#### OFFSET ADJUSTMENT

0 to 25% of pot rotation

#### ISOLATION

##### Output / Input

>500 megohms

##### Breakdown Voltage

>600 VAC rms

#### INPUT IMPEDANCE

>10 megohms

#### EXCITATION

1 V, 10 mA max load

#### OPTIONS SA, DA SETPOINT

each alarm 0 to 100% of span

#### RESPONSE TIME (Range Dependent)

≤ 100 ms

#### DISPLAY

Update 3/sec

#### DEADBAND

0.25% to 100% of span

#### OPERATING TEMPERATURE

14°F to 140°F/-10°C to 60°C

#### RELAY CONTACTS (spdt)

##### Resistive Load

5 A max, 150 W max,

240 VAC max,

30 VDC max

##### Inductive Load

1/8 HP max at 120/240 VAC

#### ACCURACY

±0.1% of span

#### LINEARITY

##### Display

±0.01% of span

##### Output

±0.025% of span

#### TEMPERATURE STABILITY

±0.02% of span/°C max

#### OPTION TX OUTPUT RANGE

##### Voltage

select any range between

±10 V, 10 mA max load

(min span 0.2 V)

#### COMMON MODE REJECTION

120 dB, DC to 60 Hz

#### POWER

115 VAC ±10%, 50 or 60 Hz

(4 W max)

230 VAC ±10%, 50 or 60 Hz

(4 W max)

#### DISPLAY (876)

##### Digit Size

.56" LED, 3½ digits, ±1999

\* Within specified range limits.

**ORDERING INFORMATION**

**POWER**

- 115 VAC, 50/60 Hz Power
- 230 VAC, 50/60 Hz Power

**INPUT**

**Specify Input**

Potentiometer input products are calibrated assuming 0 to 100% rotation. Final calibration should be done using the actual system potentiometer.

**OUTPUT (Option TX)**

**Analog Output**

- Yes  No

**Select Units**

- VDC  mADC

**Enter Output**

Zero Scale

Full Scale

**Select Output Logic**

- Normal Acting
- Reverse Acting

**ALARMS (Option SA, DA)**

**Alarm Output**

- Yes  No

**Alarm Selection - Quantity**

- Single (SA)  Dual (DA)

**Alarm Logic**

- Normal - De-Energize On Alarm
- Reverse - Energize On Alarm

**Alarm Action**

- Alarm 1
  - High  Low
- Alarm 2
  - High  Low

**Enter Setpoint Input Level**

Setpoint 1

Setpoint 2

**DISPLAY**

**Enter Display**

Zero Scale

Full Scale

**Select Display 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**

**DIS876 AND DIS 976**

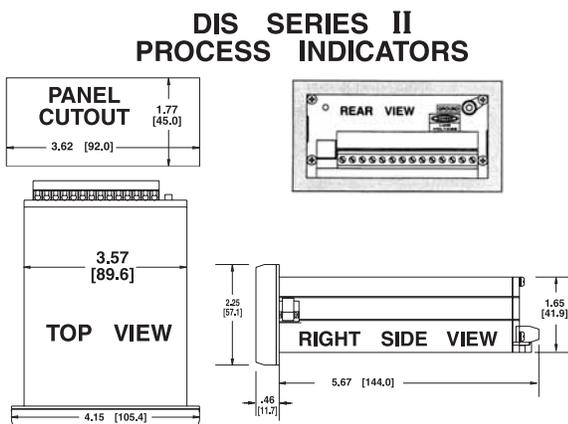
No accessories available at this time.

**MOUNTING**

The DIS is designed to be mounted from the front of a panel through a standard horizontal 3.62 x 1.77 inch (1/8 DIN cutout. Two mounting cam-screws secure the DIS to the panel.

**DIMENSIONS**

Inches [mm]



**CONNECTIONS**

- TERM 1 Output -
- TERM 2 Output +
- TERM 3 FS
- TERM 4 Wiper
- TERM 5 Zero
- TERM 6 Potentiometer Shield
- TERM 7 Alarm 1 NC
- TERM 8 Alarm 1 C
- TERM 9 Alarm 1 NO
- TERM 10 Alarm 2 NC
- TERM 11 Alarm 2 C
- TERM 12 Alarm 2 NO
- TERM 13 Power AC L1
- TERM 14 Power AC L2


  
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