



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

SPAN ADJUSTMENT

70% to 100% of pot rotation

OFFSET ADJUSTMENT

0 to 25% of pot rotation

INPUT IMPEDANCE

>10 megohms

OPTIONS SA, DA SETPOINT

each alarm 0 to 100% of span

DEADBAND

0.25% to 100% of span

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

OPTION TX OUTPUT RANGE

Voltage
select any range between
±10 V, 10 mA max load
(min span 0.2 V)

Current

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

OUTPUT RIPPLE (Peak-to-Peak)

<0.1% of span

ISOLATION

Output / Input
>500 megohms
Breakdown Voltage
>600 VAC rms

EXCITATION

1 V, 10 mA max load

RESPONSE TIME (Range Dependent)

≤100 ms

ACCURACY

±0.1% of span

LINEARITY

Display
±0.01% of span
Output
±0.025% of span

COMMON MODE REJECTION

120 dB, DC to 60 Hz

DISPLAY (876)

Digit Size
.56" LED, 3½ digits, ±1999

Decimal Point

±1.9.9.9

Control Range

Zero ±1999

Span min span 10/max span
2000

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

DISPLAY

Update 3/sec

OPERATING TEMPERATURE

14°F to 140°F/-10°C to 60°C

TEMPERATURE STABILITY

±0.02% of span/°C max

POWER

115 VAC ±10%, 50 or 60 Hz
(4 W max)
230 VAC ±10%, 50 or 60 Hz
(4 W max)

* 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

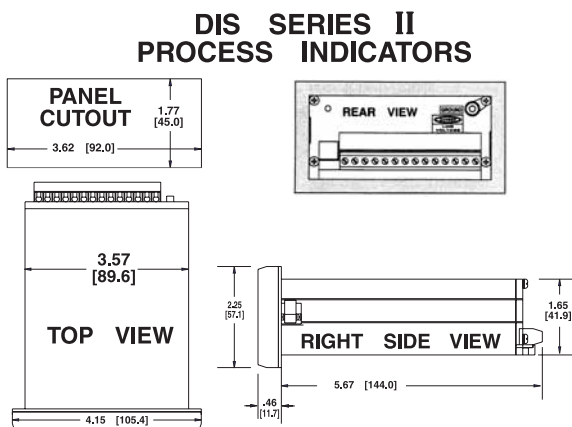
No accessories available at this time.

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