DIS871-24 AND DIS971-24

4/20 mA DC INPUT PROCESS INDICATOR WITH 24 VDC POWER SUPPLY FOR TWO-WIRE TRANSMITTER

FEATURES

- Provides 3½ Digit or 4½ Digit Display
- Display Calibrated in Engineering Units (°F,°C,%,PSI, etc.) Proportional to DC Input
- Mount, Wire and Calibrate from Front
- 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
- 24 VDC Power Supply for Two-Wire Transmitters
- 4/20 mA Input Range
- Unlimited* Choice of Input / Output Ranges
- Fits Standard ⅛ DIN Cutout
- Rated NEMA-4, Splashproof when Properly Installed
- 5 Year Warranty

DESCRIPTION

The DIS871-24 and DIS971-24 provide a display, optional isolated DC output voltage or current proportional to a DC input signal, 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. The digital display utilizes an auto-zero dual-slope integrating A/D converter for accuracy and stability. The instrument contains a 24 VDC transmitter power supply specifically designed for use with two-wire and other 24 VDC powered transmitters.

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

DC process indication, control, monitoring, isolation, DC monitor/current limit, two-wire excitation.

SPECIFICATIONS

INPUT RANGE
4/20 mA

INPUT IMPEDANCE
61.9 ohms

TRANSMITTER POWER SUPPLY
24 VDC regulated, 30 mA max

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
⅛ 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,
>24V compliance
(1200 ohms max at 20 mA)
(min span 1 mA)

OUTPUT RIPPLE (Peak-to-Peak)
<0.1% of span

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

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 (871)
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 (971)
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

OUTPUT (Option TX)
Analog Output
- [ ] Yes [ ] No

Select Units
- [ ] VDC [ ] mADC

Enter Output
- [_____] Zero Scale
- [_____] Full Scale

Select Output Logic
- [ ] Normal Acting
- [ ] Reverse Acting

DISPLAY
Select Digits
- [ ] 3.5 Digits (DIS871-24)
- [ ] 4.5 Digits (DIS971-24)

Enter Display
- [_____] Zero Scale
- [_____] Full Scale

Select Display Logic
- [ ] Normal Acting
- [ ] Reverse Acting

ALARMS (Option SA, DA)
Alarm Output
- [ ] Yes [ ] No

Alarm Selection Quantity
- [ ] Single (SA) [ ] Dual (DA)

Alarm Action
Alarm 1
- [ ] High [ ] Low
Alarm 2
- [ ] High [ ] Low

Alarm Logic
- [ ] Normal - De-energize on Alarm
- [ ] Reverse - Energize on Alarm

Enter Setpoint Input Level
- [_____] Setpoint 1
- [_____] Setpoint 2

OPTIONS
- [ ] Conformal Coating

TAGS
Specify Tag Numbers
Tag number is typed on product label at no charge.

Enter Tag Number(s)
[_____]

ACCESSORIES

DIS871-24 AND DIS971-24
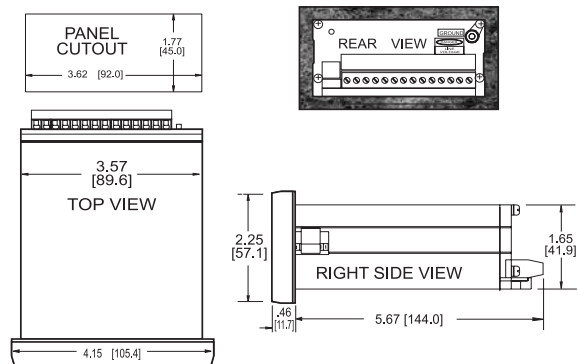No accessories available at this time.

MOUNTING
The DIS is designed to be mounted from the front panel through a standard horizontal 3.62 X 1.77 inches (1/8 DIN) cutout. Two mounting cam-screws allow the securing of the DIS to the panel from the front.

DIMENSIONS

Inches [mm]

DIS SERIES II PROCESS INDICATORS

CONNECTIONS

TERM 1	Output -
TERM 2	Output +
TERM 3	24 VDC +
TERM 4	24 VDC -
TERM 5	Input +
TERM 6	Input -
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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