DIS871 AND DIS971
DC INPUT
PROCESS INDICATORS

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 1, or 2 Alarms (Optional)
- Alarm Setpoints Adjustable without Disturbing Transmitter Output
- Fail-Safe Alarm Operation

DESCRIPTION
The DIS871 and DIS971 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. All controls are accessible by removing the gasketed front access panel. The display controls are wide-ranging so that it 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 transmitter output. 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, voltage/current scaling, isolation, buffering, noise reduction, driving, DC monitor/current limit, level/position control, HI/LO pressure alarm, power demand warning.

SPECIFICATIONS

INPUT RANGE
Voltage
- select any range between ±250 V max (min span 50 mV)
  typical inputs: 0-1 V, 0-5 V, 0-10 V
Current
- select any range between ±5 A max (min span 1 mA, internal shunt)
Low Input (Option S)
- select any range between ±20 V max (min span 10 mV)

INPUT IMPEDANCE
Voltage
200 kilohms
Current
- Current Input  Current Shunt Value
  1 mA  100 Ohm
  10 mA  10 Ohm
  20 mA  5 Ohm
  4/20 mA  61.9 Ohm
  100 mA  1 Ohm
  1 A  0.1 Ohm
  5 A  0.01 Ohm

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 max at 20 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
  WR ≤ 200 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
  ±1999
- Zero
  ±1999
- Span
  min span 10/max span 2000

DISPLAY (971)
- Digit Size
  .56” LED, 4½ digits, ±19999
- Decimal Point
  ±1.9.9.9
- Control Range
  ±19999
- 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 +30 µV)/°C max
- Low Input (Option S)
  ±(0.02% of span +1.3 µV)/°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.
DIS871 AND DIS971

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.