DIGITAL TEMPERATURE GAUGES
WITH ALARM/SHUTDOWN Switch
DPYH-1300U SERIES

• 1-, 2- AND 9-POINT MODELS
• SOLID-STATE DESIGN REPLACES ANALOG METERS
• ONE INSTRUMENT REPLACES MULTIPLE GAUGE RANGES AND ELIMINATES CAPILLARIES
• UNIVERSAL FEATURES:
  – SELECTABLE °C OR °F READOUT
  – POWERED FROM C.D. IGNITION OR 12-48 VDC
  – SOLID-STATE LIMIT SWITCHES
• TEMPERATURE LIMIT SET FROM FRONT USING DISPLAY READOUT
• STANDARD 4-1/2" ROUND, WEATHER-RESISTANT CASE

TYPICAL APPLICATIONS:

- Engine water and oil temperatures
- Compressor process gas temperatures
- Cylinder exhaust temperatures
- Turbocharger inlet/outlet temperatures
- Catalytic converter inlet/outlet temperatures
- Critical temperature points on any type of machinery

The Altronic DPYH-1300U series temperature gauges are solid-state instruments which give a continuous temperature readout and have an alarm/shutdown capability at a user-adjusted temperature limit. Using industry-standard thermocouple probes, all models can be selected for either Fahrenheit or Centigrade readout. Power is from industrial C.D. ignition systems or 12-48 Vdc. The solid-state output limit switch can be used with Altronic annunciators or other specified devices (such as solenoids or conventional relays) operated from D.C. current.

Three basic types are available:

- DPYH-1301U monitors 1 point with a high-limit setpoint; the device has output switches for both normally open and normally closed operation.
- DPYH-1392U monitors 2 points, with an individual high-limit setpoint for each channel; output switches for both normally open and normally closed operation are included.
- DPYH-1379U monitors 9 points with point 0 protected by the first high-limit setpoint and points 1-8 protected by the second common high-limit setpoint.

The 1 and 2-point models are used on a variety of applications ranging from engine oil and water temperatures to catalytic converter inlet/outlet protection. The 9-point model is designed to use channels 1 through 8 for engine cylinder exhaust temperature readings with point 0 used for turbocharger or catalytic converter monitoring.

On multi-point models, the number of the channel being displayed is indicated on the readout; a momentary push of the designated button changes the readout to the next channel. The setpoint limit values can be read on the display and adjusted until the display readout matches the desired temperature. The 4-1/2" round, weather-resistant case fits an industry-standard panel cutout allowing easy replacement of analog/mechanical devices.
**SPECIFICATIONS**

**POWER REQUIREMENT**
C.D. IGN. (110V MIN.) OR 12-48 VDC

**HAZARDOUS AREA CLASSIFICATION**
CLASS I, DIV. 2, GROUP D; SEE "TO ORDER" FOR CLASS I, DIV. 1, GROUP D

**INSTRUMENT DISPLAY**
5-DIGIT LCD, 0.4 INCH HEIGHT

**DISPLAY READOUT**
DEGREES C. OR F. (user selectable)

**INSTRUMENT RANGE:**
- DPYH-1301U/1392U: 40°F. TO 1500°F. / 5°C. TO 815°C.
- DPYH-1379U (TYPE J T.C.): -76°F. TO 1382°F. / -60°C. TO 750°C.
- DPYH-1379U (TYPE K T.C.): -76°F. TO 1472°F. / -60°C. TO 800°C.

**INSTRUMENT ACCURACY**
±1% OF READING, ±3 DEGREES

**DISPLAY UPDATE RATE:**
- DPYH-1301 U/1392U: 3 TIMES PER SECOND
- DPYH-1379U: 2 TIMES PER SECOND

**SETPOINT SWITCH RATING:**
- DPYH-1 301 U/1 392U: N.O. 400VDC, 0.1AMP/N.C. 48VDC, 0.5AMP
- DPYH-1379U: N.O. 400VDC, 0.2AMP

**AMBIENT TEMPERATURE RANGE**
-40°F. TO +175°F. / -40°C. TO +80°C.

**THERMOCOUPLE TYPE:**
- DPYH-1301 U/1392U: TYPE J OR K (specify when ordering)
- DPYH-1379U: TYPE J OR K (user selectable)

**COLD JUNCTION COMPENSATION**
AUTOMATIC

**DIGITAL TEMPERATURE GAUGE**
1-POINT WITH ALARM:
- TYPE J THERMOCOUPLE: DPYH-1301U-J
- TYPE K THERMOCOUPLE: DPYH-1301U-K

2-POINTS WITH INDIVIDUAL ALARM SETPOINTS:
- TYPE J THERMOCOUPLE: DPYH-1392U-J
- TYPE K THERMOCOUPLE: DPYH-1392U-K

9-POINTS WITH 2 ALARM SETPOINTS (see text):
- TYPE J OR K THERMOCOUPLE: DPYH-1379U

**CLASS I, DIVISION 1, GROUP D HAZARDOUS AREA APPLICATION**
Intrinsically Safe Operation:
- Ignition-powered versions require Altronic Barrier which accepts ignition input and gives intrinsically safe output.
- Neg. Ground Ignition: 690107
- Pos. Ground Ignition: 690108
- Cable Assembly: 693106-1

Note: For DC-powered applications, use a CSA certified zener barrier rated 30 volts max., 120 ohms min., such as Stahl part no. 9001/01-280-165-10.

Class I, Group D Enclosure: 690013-1