



TEMPERATURE PRODUCTS

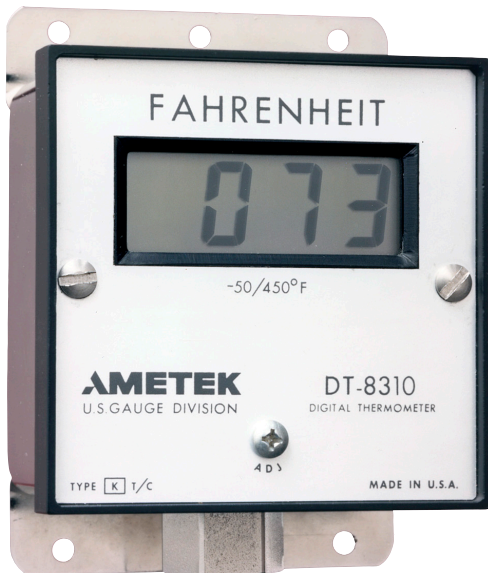
Series DT-8300 Digital Thermometers

DESCRIPTION

The AMETEK DT-8300 Digital Thermometer is a rugged field instrument designed for dependable, worry-free temperature measurement anywhere in the plant. This unique device can be used with any Type K and J thermocouple to provide quick, convenient, continuous monitoring of liquid and gas processes.

The DT-8300 is ideal for use in hard to reach places such as overhead pipes since it can be mounted remotely from the sensor by use of thermocouple extension wire. Four configurations provide for wall, pipe, panel, or stem mounting. The stainless steel housing and one piece VALOX bezel/face provide a corrosion resistant package for harsh environments. This device performs reliably over a wide ambient temperature range.

The large, easy reading LCD display features low power and open sensor indication. A battery-powered version is available incorporating commercially available size AA batteries for approximately 1.5 years of continuous operation. An external power model is also available for operation with an unregulated 6 to 28 VDC power supply. The DT-8300 is also inexpensive, priced far less than comparable electronic field temperature instruments.



Model DT-8300

SPECIFICATIONS

RANGES: Low: -50°F to 450°F (-50°C to 250°C); High: 400°F to 1500°F (200°C to 800°C)

INPUT: Type K thermocouple; supplied by U.S. Gauge distributor or customer, Type J input also available

ACCURACY: Basic Accuracy: ±1% of full scale (excluding T/C error)

Low Range: ±2.2°F (1.2°C) from -40°F to 450°F

High Range: ±2.7°F (1.5°C) from 400°F to 1500°F

Cold Junction Compensation And Zero Drift: .08 degrees (F or C)

Span Drift: .008% of reading/°F (0.015% of reading/°C)

Resolution: 1°F (1°C)

CALIBRATION ADJUSTMENT: Screw adjust permits calibration to within 1°F (1°C) at any desired point

OPERATING TEMPERATURES: -13°F to 160°F (-25°C to 72°C), depending on power supply

SELF-POWERED VERSION: Battery, 8 Size AA: 1-1/2 years continuous operation, typical. Note: Ambient temperatures above 100°F may shorten battery life

EXTERNALLY-POWERED VERSION:

Supply Voltage: 6 to 28 VDC (unregulated)

Supply Current: 0 to 2.5 mA

DISPLAY: 3-1/2 digit liquid crystal (LCD) 0.7" high numerals; update rate once per second; display blanks out for low power condition and displays large, negative number when thermocouple or extension wires are open

HOUSING: NEMA 4X design; 1/4 DIN; 302 stainless steel with one piece, VALOX front face/bezel and neoprene gasket; environmentally sealed with one-way valve for battery venting

CONNECTIONS: 1/2-14 NPT stainless steel half couple seal welded to case

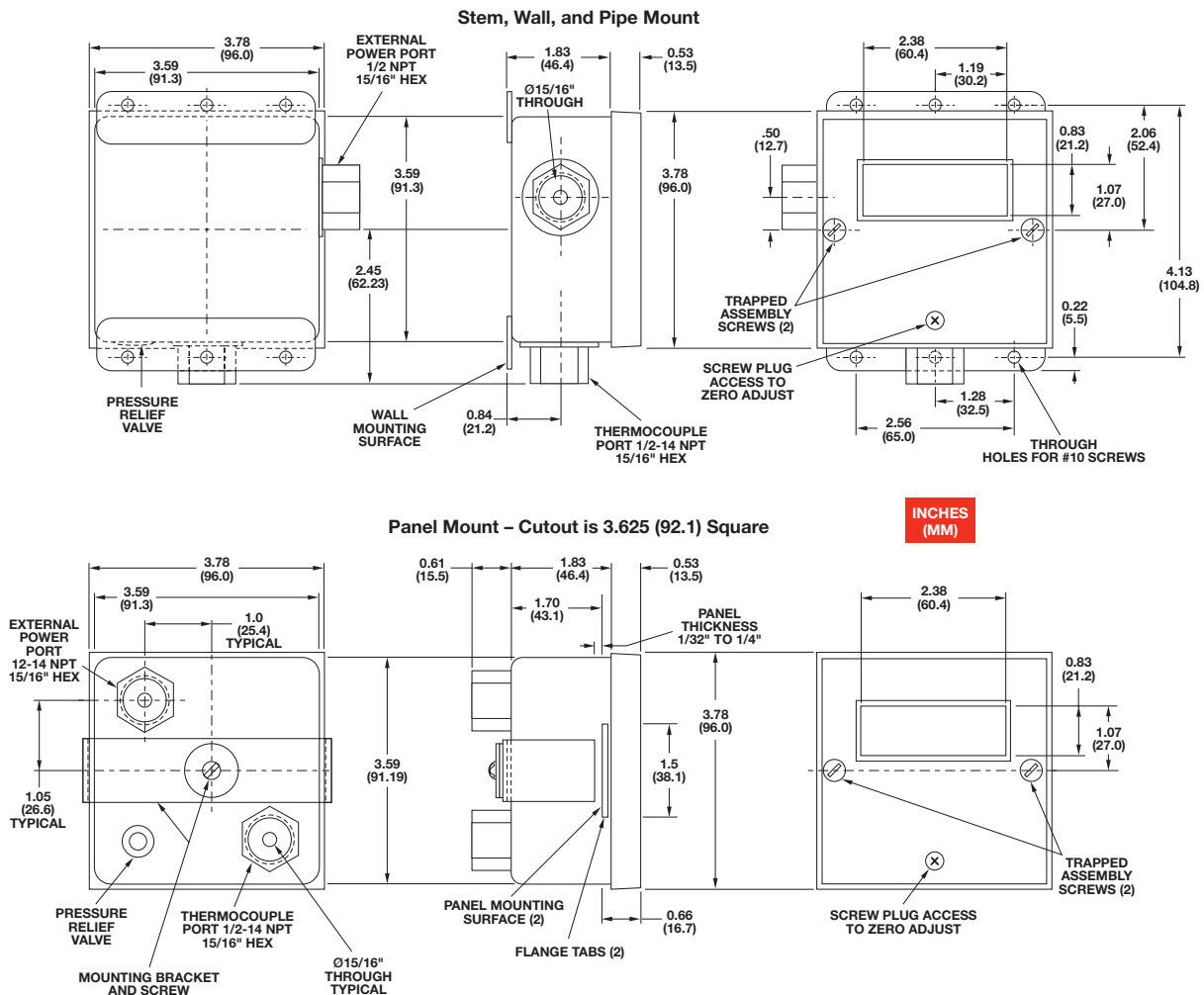


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Model Selection Chart		Temperature Ranges/Type			
Power Pack	Mounting	-50°F to 450°F/K	-50°C to 250°C/K	-50°F to 1500°F/K	-50°F to 450°F/J
(8-AA) Battery	Field*	DT-8311	DT-8321	DT-8331	DT-8351
	Panel	DT-8312	DT-8322	DT-8332	DT-8352
External Supply	Field*	DT-8315	DT-8325	DT-8335	DT-8355
	Panel	DT-8316	DT-8326	DT-8336	DT-8356
Model number which appears on front of case		DT-8316	DT-8326	DT-8336	DT-8356

* Field mount versions may be stem, wall, and pipe mounted; pipe mounting kit is optional at extra cost



AMETEK® On-line order fax: +1 215-323-9450 or e-mail: usg.sales@ametek.com
 Sales/Technical Support: +1 215-674-1234 | 205 Keith Valley Road | Horsham PA 19044 U.S.A.

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Spec Number Selection Chart				
Series DT-8310 (-50°F to 450°F Range) Type K				
Model Number	Size	Power	Mount	Spec. No
DT-8311	3-1/2" Square	Battery**	Field*	149011
DT-8312	3-1/2" Square	Battery**	Panel	149012
DT-8315	3-1/2" Square	External DC	Field*	149015
DT-8316	3-1/2" Square	External DC	Panel	149016
Series DT-8320 (-50°C to 250°C Range) Type K				
Model Number	Size	Power	Mount	Spec. No
DT-8321	3-1/2" Square	Battery**	Field*	149021
DT-8322	3-1/2" Square	Battery**	Panel	149022
DT-8325	3-1/2" Square	External DC	Field*	149025
DT-8326	3-1/2" Square	External DC	Panel	149026
Series DT-8330 (-400°F to 1500°F Range) Type K				
Model Number	Size	Power	Mount	Spec. No
DT-8331	3-1/2" Square	Battery**	Field*	149031
DT-8332	3-1/2" Square	Battery**	Panel	149032
DT-8335	3-1/2" Square	External DC	Field*	149035
DT-8336	3-1/2" Square	External DC	Panel	149036
Series DT-8350 (-50°F to 450°F Range) Type J				
Model Number	Size	Power	Mount	Spec. No
DT-8351	3-1/2" Square	Battery**	Field*	149051
DT-8352	3-1/2" Square	Battery**	Panel	149052
DT-8355	3-1/2" Square	External DC	Field*	149055
DT-8356	3-1/2" Square	External DC	Panel	149056

* Field mount model used for wall, stem, or pipe mounting

** Eight size AA batteries not included



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SUB-ASSEMBLIES AND REPLACEMENT PARTS FOR DT-8300

Spec Number Selection Chart	
Main Frame Assemblies (Bezel, Display, and Electronics)	Spec No.
-50 to 450°F	149300
-50 to 250°F	149301
400 to 1500°F	149302
J -50 to 450°F	149304

Spec Number Selection Chart	
Power Packs	Spec No.
External DC	149342
Battery Board	156834

* Accepts unregulated 6-28 VDC supply
** Accepts eight size AA batteries (not included)

Spec Number Selection Chart	
Case Assemblies	Spec No.
Field Mount for Battery	149387
Field Mount for External DC	149383
Field Mount for Battery	149386
Field Mount for External DC	149381

Spec Number Selection Chart	
Miscellaneous Accessories	Spec No.
Pipe Mounting Package Clamps and Hardware	149460