

Product Features

- *Large 4-digit LCD display*
- *Battery powered, life 5 years minimum*
- *High accuracy Microprocessor Based*
- *Utilizes Pt-1000 Ohm RTD Class A element for temperature sensing*
- *Optional RTD output, 2, 3 or 4-wire*
- *Resolution 1/10 of a degree*
- *IP67 / NEMA 4X (Waterproof)*
- *All stainless steel 316 construction*
- *Display in degree C or F*
- *Programming and calibration option available*
- *Meets CFIA design requirements for Digital Thermometers*
- *Self diagnostic circuitry with error indication*

Description

Intempco DTG Series battery powered LCD Digital Temperature Gauges, is a step above all competition, providing accurate and reliable electronic temperature indication. Because of the robust IP67 housing all stainless design, they offer protection against moisture and dust penetration. The DTG can be used as a direct replacement for Bi-Metal, Liquid Bulb and Glass Thermometers where no power is available.

All models are factory calibrated for maximum accuracy. The DTG's 4-digit 1/2" (12.7 mm) LCD display can be factory set in units of °C or °F. With resolution to a tenth of a degree, the DTG takes the guesswork out of reading dials and mercury columns. Models with the programming option can be re-calibrated by performing a one-point or two-point calibration using known temperature standards with Intempco's DTG programming kit. This is where the DTG leaves the competition behind. Calibration, display resolution and other features are all programmable. Powered by high performance 3.6V batteries, this thermometer will provide a minimum of five years continuous operation before batteries require replacement.

DTGs may be ordered as panel mounting with either three-hole front flange or back flange, or as direct mounting thermometer with rigid stem. The rigid probe is either of 1/4" or 3/8" diameter as standard but other diameters and materials are available. Probes with flexible extensions are also available. The DTG wetted parts are all fabricated from stainless steel 316L. The RTD element used is Pt-1000 standard accuracy to DIN IEC 60751 Class A. DTG can be made available with an additional RTD output. This feature allows a single process connection to be used for indication of temperature and for remote indication, recording, or controlling. The electrical connector, a flexible cable or a Micro-DC male plug, are made available from the stainless housing for the optional RTD output. Each DTG has the part number, range and serial number marked on the thermometer housing.

DTG's can be returned to the factory or an authorized service center for verification and calibration. NIST traceable calibration certificates are an available option.

If you require an accurate, stable and dependable battery powered digital thermometer, look no further. Model DTG is your solution. For additional information please visit us on the web at www.intempco.com or contact your local Authorized Intempco Distributor.



Application / Process Notes

- *Replacement for Bi-Metal, Liquid Bulb and Glass Thermometers*
- *Pharmaceutical*
- *Food Preparation*
- *Utilities and Municipal*
- *Refineries*
- *Chemical and Petrochemical Plants*
- *Paper Mills*
- *Hydraulics*

Model DTG61

LCD Digital Temperature Gauges
Battery Powered, Configurable Options, Fixed Probe



Custom Builder

MODEL 1 2 3 4 5 6 7 8 9 10 11 12

DTG61 - [] - [] - [] - [] - [] - [] - [] - [] - [] - [] - 0 - []

BOX1 CODE	Temperature Range
CL	Low Temp., display °C -50 to 200°C
CH	High Temp., display °C -200 to 600°C
FL	Low Temp., display °F -58/392°F
FH	High Temp., display °F -328/1112°F

BOX2 CODE	Output Type
0	None
A3	Pt 100 Ohm @ 0°C (±0.15°C) α = 0.00385 DIN EN 60751 Class A (±0.06%), 3-wire
T3	Pt 1000 Ohm @ 0°C (±0.15°C) α = 0.00385 DIN EN 60751 Class A (±0.06%), 3-wire

Notes:

- DTGs are factory calibrated to an accuracy of ±0.25% of span or better.
- Order **DTG-PKIT-3** to set-up, re-program and re-calibrate in the field.
- Select Connector/Cable Type from Box9 to re-program and optional RTD output.
- Other RTD types available. Consult factory.

BOX3 CODE	Probe Diameter "D"
D	1/4"
F	3/8"
H	1/2"

CODE	Sheath O.D.	Tip O.D.
DB	1/4"	1/8"
FC	3/8"	3/16"
HC	1/2"	3/16"
HD	1/2"	1/4"
JD	5/8"	1/4"

Other diameters available. Consult factory.

BOX4 CODE	Probe Material
S	Stainless steel 316/316L

Other materials available. Consult factory.

BOX5 CODE	Immersion Length "U"
---	In 0.1" increments Ex.: 065 = 6.5" long

BOX6 CODE	Extension Length "C"
N --	In 0.1" increments (2.0" Std.) Ex.: N20 = 2.0" long

BOX7 CODE	Mounting Options
A	Top Mounting
B	Bottom Mounting
C	Back Mounting
D	Side Mounting, right
E	Side Mounting, left
G	Side Mounting, Display Front
H	Side Mounting, Display Back

BOX8 CODE	Fitting Type
0	None
A**S	Adjustable fitting *
Ferrule material : A = Stainless (SS316) * B = Brass * T = Teflon® * Not readjustable with metal ferrule Fitting material : S = Stainless steel (SS316) B = Brass Ex.: T14B = Teflon® ferrule, 1/4" NPT Brass fitting A12S = Stainless ferrule, 1/2" NPT Stainless fitting	
F*S	Fixed fitting (SS316)
Process NPT size : ** 18 = 1/8" NPT 14 = 1/4" NPT 38 = 3/8" NPT 12 = 1/2" NPT 34 = 3/4" NPT	

BOX9 CODE	Extension Connector/Cable Type
MC	M12 Micro-Male Connector
PV	PVC insulation, 90°C (195°F) max.
SL	Silicone insulation, 180°C (356°F) max.
TF	Teflon® insulation, 200°C (392°F) max.
TA	Teflon® with SS armor, 200°C (392°F) max.
TB	Teflon® with SS overbraid, 200°C (392°F) max.

BOX10 CODE	Extension Cable Length "H" (MC option)
0	None
A2	Straight, 2 meters
A5	Straight, 5 meters
B2	Right angle, 2 meters
B5	Right angle, 5 meters
BOX10 CODE	Extension Cable Length "F" (Cable option)
---	In inches Ex.: 060 = 60" long

BOX11 CODE	Fixed Code
0	Fixed Code

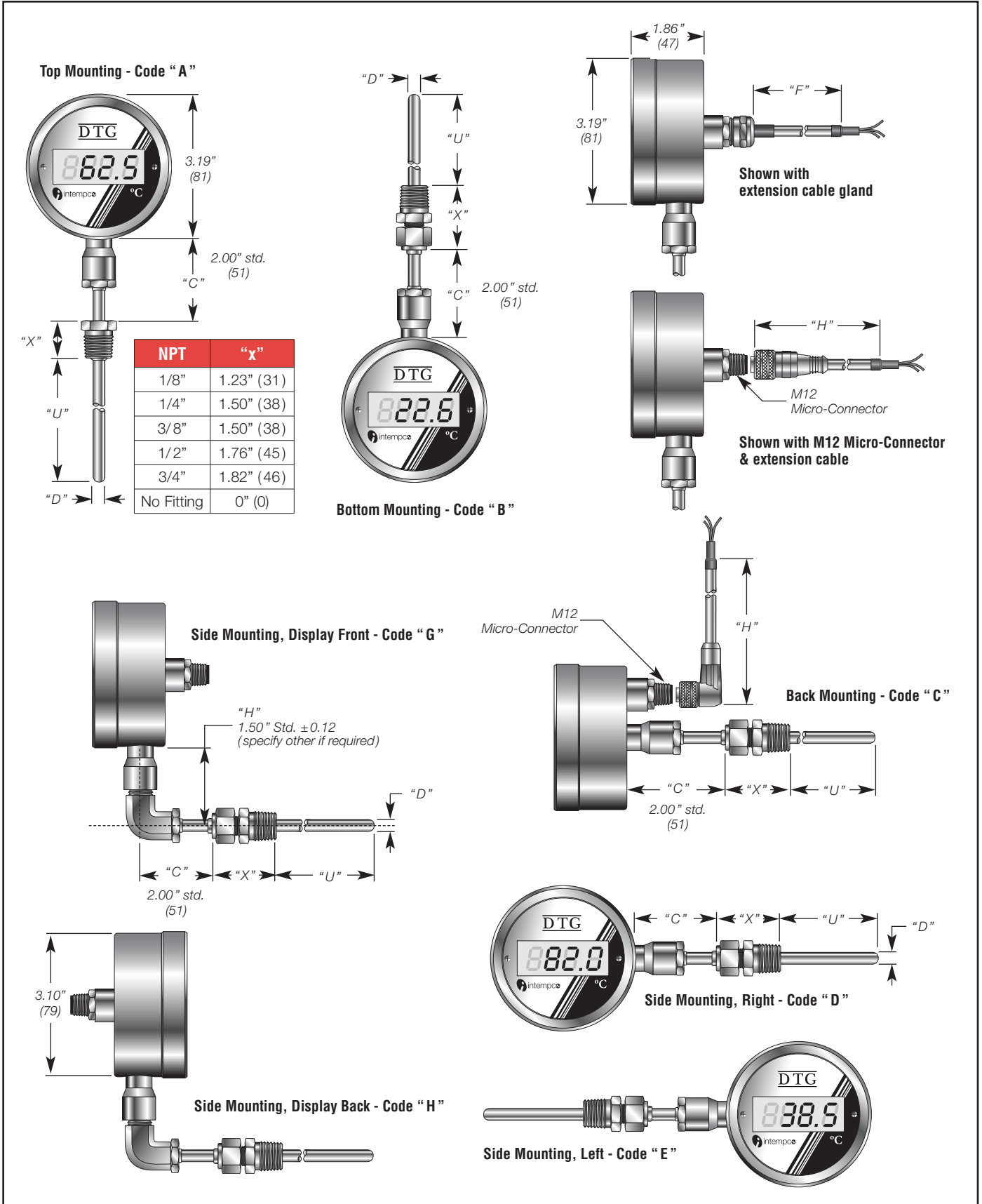
BOX12 CODE	Options
N	None
C1	Calibration certificate, NIST tracable, 1 point, 0°C (32°F)
C2	Calibration certificate, NIST tracable, 2 points, 0.0°C (32.0°F) & 100.0°C (212.0°F)
C3	Calibration certificate, NIST tracable, specify 3-points
PK3	DTG-PKIT-3

Model DTG61

LCD Digital Temperature Gauges
Battery Powered, Configurable Options, Fixed Probe



Dimensions & Mounting Options



Technical Specifications

Sensing Element :	RTD, Type Pt1000 Ohm, Class A
Measuring Temperature Ranges :	-50°C to 200°C (-58°F to 392°F) or -200°C to 600°C (-328°F to 1112°F) depending model.
Accuracy :	± (0.2 + 0.002 x T) °C, factory, ± (0.36 + 0.002 x T-32) °F, factory, ± (0.2 + 0.001 x T) °C, option, ± (0.36 + 0.001 x T-32) °F, option
Refresh Rate :	3 seconds
Display :	4-digit LCD, 1/2" high (12.7 mm), decimal point selectable by software
Display Resolution :	See table 1
RFI effect :	1 % or less typical
Temp. Effect :	<0.01 % FS/°C
Ambient Temp. Range :	0°C to 50°C (32°F to 122°F)
Storage Temp. Range :	-20°C to 70°C (-4°F to 158°F)
Max. Pressure :	500 PSIG (on probe)
Housing Material :	Stainless steel 316
Probe Material :	Stainless steel 316 standard
Cable Materials :	PVC, Teflon®, Silicone, SS armored Teflon® (with RTD output only)
Weight :	350 grams (12 ounces)
Environmental Protection :	NEMA 4X/IP67
Power :	Lithium Battery (3.6 V)
Battery Life :	5 years min. in continuous mode
Electrical Connection :	Micro-DC male plug or cable (with RTD output only)
RTD Output Option:	RTD, Type Pt100 or Pt1000 Ohm, 2, 3, 4-wire, Class A DIN IEC 60715
Communication Option:	Communication option allows qualified users to calibrate, change measuring units and resolution. DTG-PKIT-3 required, order separately.
Shipping Volume :	Imperial Volume = 3.5" W X 3" H X (4.7" + L "of probe) Metric Volume = 9.0 cm W X 8 cm H X (12 cm + Lcm of probe)

Table 1: Display Resolution

Model Range	Factory Settings		Optional Settings			
	Setting	Viewable Range	Setting	Viewable Range	Setting	Viewable Range
-50°C to 200°C (-58°F to 392°F)	0.1	-58.0 to 392.0	0.01	-58.00 to 99.99	1	-58 to 392
-200°C to 600°C (-328°F to 1112°F)	1	-328 to 1112	0.01	-99.99 to 99.99	1	-328 to 1112

Teflon® is a registered trademark of E.I. du Pont de Nemours and Company.

Installation Considerations

Installation requirements of the DTG are similar to those of the temperature sensor assemblies with a head mounted hockey puck transmitter and display. If the temperature of the electronics in the housing exceeds 50°C, permanent damage to the DTG will occur. In all applications, especially when they exceed 200°C, careful attention must be placed on correct installation. For these applications, a remote probe wall mount unit or remote probe panel mount unit, may be a better choice. It is the installer's, customer's and/or end user's responsibility to make sure that this over exposure to temperature does not occur due to improper installation.