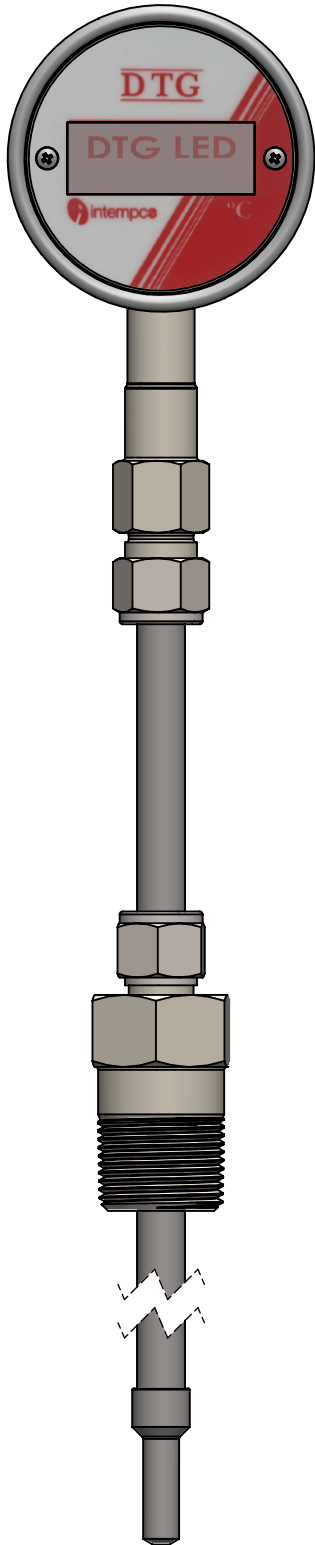


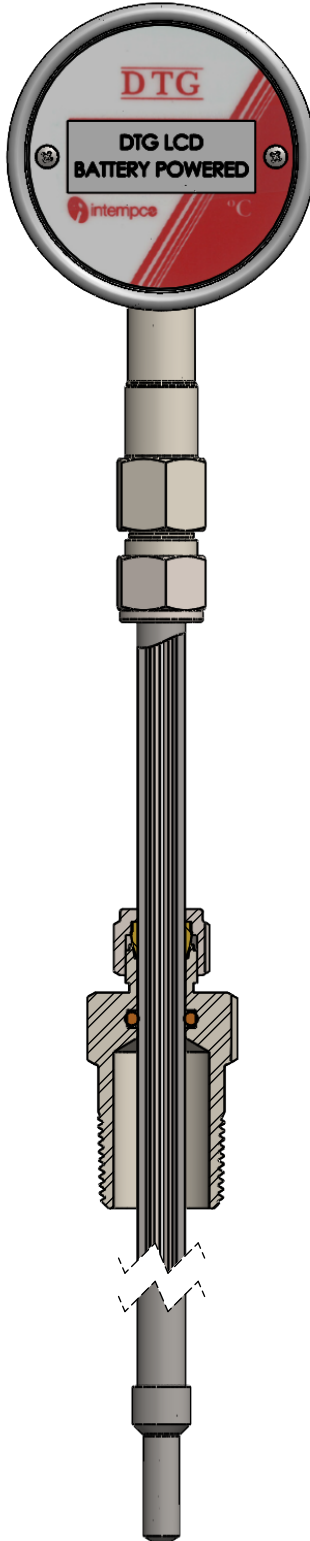
DTG6 Series with Hot Tap Thermowell
Spring Loaded Digital Temperature Gauge and Switch

DTG6A
LED Display, 24 VDC
Source 3-wire
Switch Output

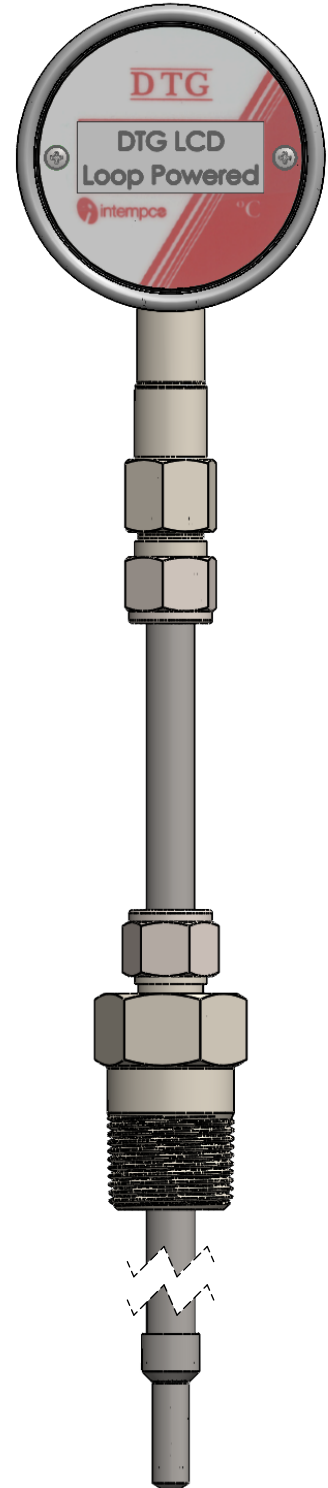


**3 Display Types Available
with Optional Outputs**

DTG6B
LCD Display,
Battery Powered

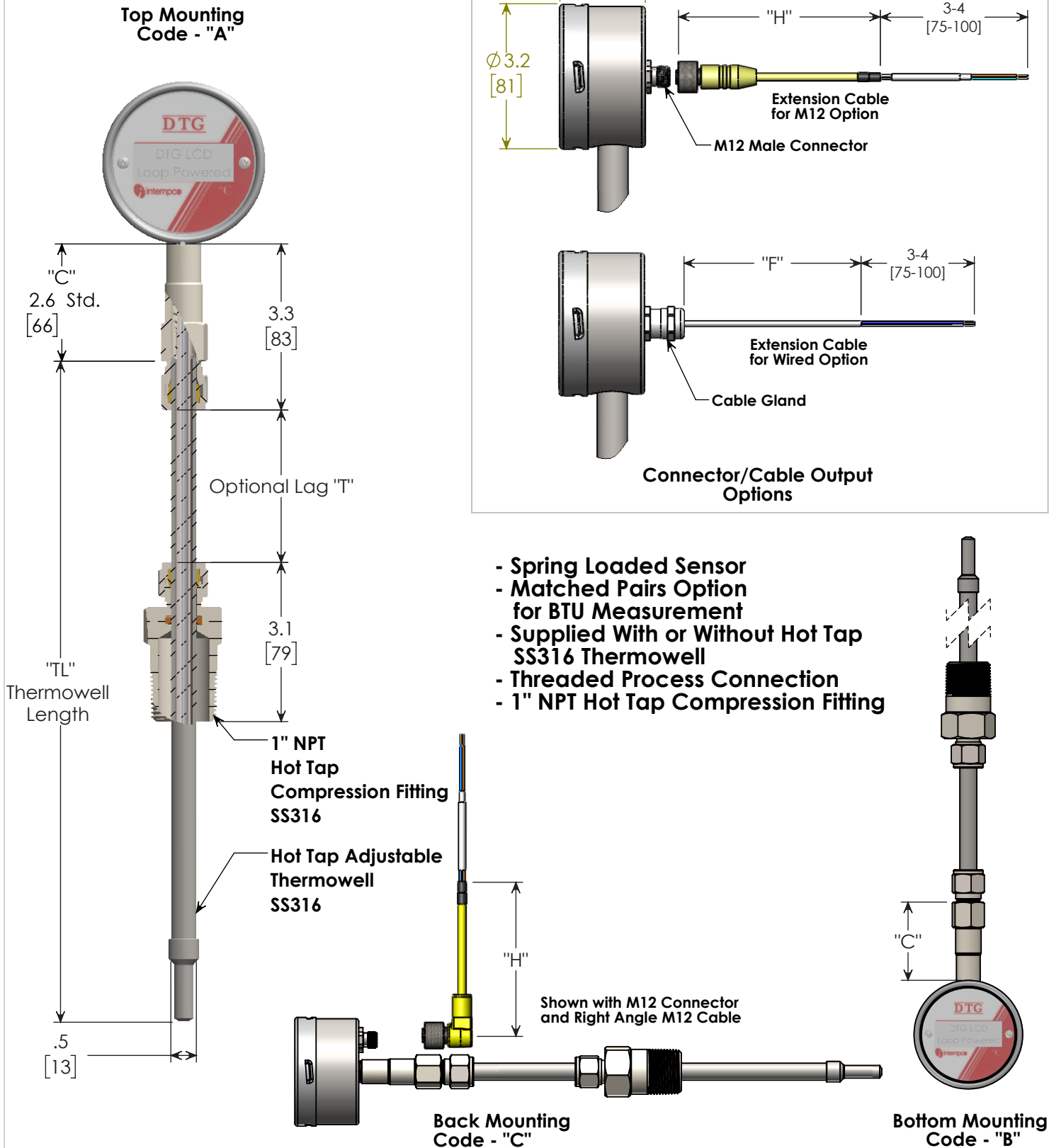


DTG6C
LCD Display, 24 VDC
Loop Powered 2-wire



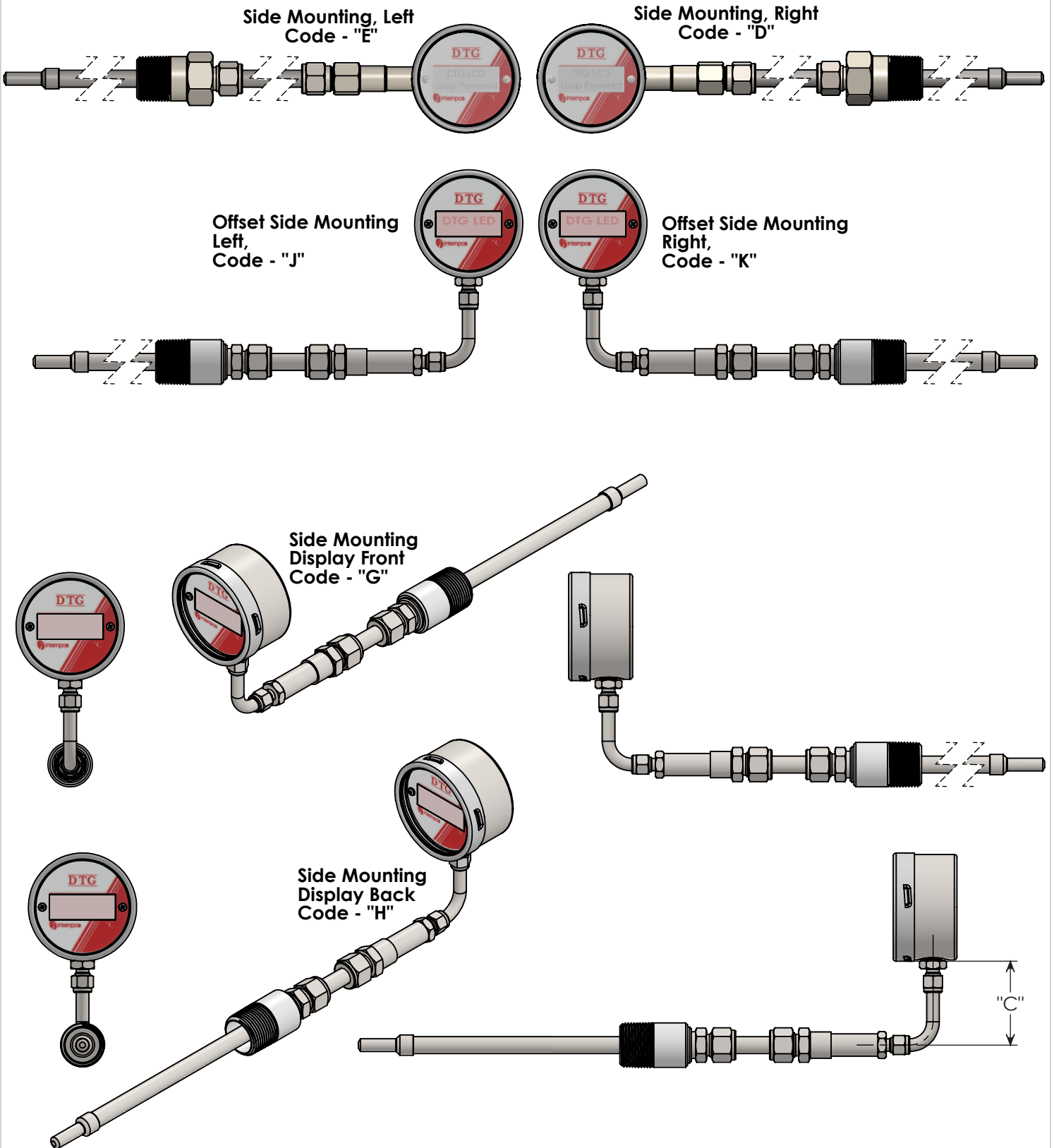
DTG6 Series with Hot Tap Thermowell Spring Loaded Digital Temperature Gauge and Switch

Dimensions and Mounting Options



DTG6 Series with Hot Tap Thermowell Spring Loaded Digital Temperature Gauge and Switch

Dimensions and Mounting Options



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DTG6 Series
Spring Loaded with Hot Tap Thermowell

DIGITAL TEMPERATURE GAUGE

Dimensions are in inches [mm]

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DTG6 Series with Hot Tap Thermowell

Spring Loaded Digital Temperature Gauge and Switch

Custom Builder

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

___ - ___ - ___ - ___ - HT - ___ - ___ - ___ - M - ___ - ___ - SF - ___

MODEL CODE	Model Description
DTG6A	LED Display, 24 VDC Source 3-wire
DTG6B	LCD Display, Battery Powered
DTG6C	LCD Display, 24 VDC Loop Powered 2-wire

BOX1 CODE	Calibrated Temperature Range	DTG6A	DTG6B	DTG6C
05	0°C to 50°C (32/122°F)	☺		☺
10	0°C to 100°C (32/212°F)	☺		☺
15	0°C to 150°C (32/302°F)	☺		☺
20	0°C to 200°C (32/392°F)	☺		☺
55	-50°C to 50°C (-58/122°F)	☺		☺
51	-50°C to 150°C (-58/302°F)	☺		☺
52	-50°C to 200°C (-58/392°F)	☺		☺
L	-50°C to 200°C (-58/392°F)	☺	☺	☺
H	-200°C to 600°C (-328/1112°F)	☺	☺	☺
YC	Specify custom range in °C	☺		☺
YF	Specify custom range in °F	☺		☺

Default Units are °C, add code F to display in °F. Ex: 05F = 32/212°F

BOX2 CODE	Output	DTG6A	DTG6B	DTG6C
00	None, indicator only	☺	☺	☺
LP	4-20 mA, Loop Powered 2-wire, Upscale Burnout			☺
LD	4-20 mA, Loop Powered 2-wire, Downscale Burnout			☺
CU	4-20 mA, Source 3-wire, Upscale Burnout	☺		
CD	4-20 mA, Source 3-wire, Downscale Burnout	☺		
C2	4-20mA + Relay SPDT	☺		
C3	4-20mA + NPN Transistor	☺		
C4	4-20mA + PNP Transistor	☺		
C5	4-20mA + RTD 3-wire	☺		
D1	Relay SPDT	☺		
D2	NPN Transistor	☺		
D3	PNP Transistor	☺		
A3	100 Ohm DIN EN 60751 Cass A (±0.06%), 3-wire	☺	☺	☺

BOX3 CODE	Probe Diameter "D"	Thermowell Bore Diameter
D	.250 inch (Standard)	.260 inch
6	6mm	6.5mm

BOX4 CODE	Thermowell SS316/316L
HT	Hot Tap Thermowell 0.5" OD, with 1" NPT Adjustable fitting

BOX5 CODE	Thermowell Length
---	Assembly Supplied with Thermowell Specify Immersion Length "TL" In 0.1" increments Ex.: 090=9"

BOX6 CODE	Extension Length "C"
N21	C = 2.1 Std.

BOX7 CODE	Matched Pair Options
A	Supplied as 1 Single DTG Unit
B	Supplied as 2 Matched DTG Units *

* 2 DTG's supplied, factory calibrated as a set, at two points. Highest accuracy required for BTU measurement.

BOX8 CODE	Fitting Type SS316/316L
M	1" NPT Compression Fitting

BOX9 CODE	Connector / Extension Cable Type (Only for Output Options)
00	No Connector or Cable (DTG6B battery powered model with no output options)
MC	M12 Micro-Male Connector
PV	PVC insulated cable, 90°C (195°F) max.
SL	Silicon insulated cable, 180°C (356°F) max.
TF	Teflon® insulated cable, 200°C (392°F) max.
TA	SS armor over teflon® insulated cable, 200°C (392°F) max.
TP	SS armor with PVC jacket over teflon insulated cable, 90°C (195°F) max.
TT	SS armor with teflon® jacket over teflon® insulated cable, 200°C (392°F) max.

BOX10 CODE	Extension Cable Length "H" (For M12 Micro-Male Connector Option)
00	No M12 Cable Supplied
A2	Straight, 2 meters
A5	Straight, 5 meters
B2	Right angle, 2 meters
B5	Right angle, 5 meters

BOX10 CODE	Extension Cable Length "F" (For Cable option)
---	Inches Ex.: 060=60" long

BOX11 CODE	Surface Finish
SF	Standard 32 Ra max.

BOX12 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
J	Offset Side Mounting, Left
K	Offset Side Mounting, Right



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DTG6 Series Spring Loaded with Hot Tap Thermowell

DIGITAL TEMPERATURE GAUGE

Dimensions are in inches [mm]

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DTG6A Series Spring Loaded Digital Temperature Gauge

LED Display, 24 VDC Source 3 Wire, Switch Output

Technical Specifications

Sensing Element	RTD, Type Pt100 DIN EN 60751, Class A
Temperature Ranges	Customer re-scalable between -50°C to 200°C or -200°C to 600°C (depending on model) No re-calibration required.
Switching Ranges	Customer programmable between -200°C to 600°C or -50°C to 200°C depending on model.
Hysteresis (Switch Option)	Customer programmable, 1% of range by factory setting.
Accuracy ¹	With standard 1 Point Factory Calibration at 0.0°C (32.0°F), accuracy is proportional to reading. ±(0.18°F + 0.002 x °T-32 reading) ±(0.10°C + 0.002 x °T reading) With optional 2 Point Factory Calibration, accuracy is proportional to Calibrated Span ±(0.18°F + 0.0005 x Calibrated Span) ±(0.10°C + 0.0005 x Calibrated Span)
Open Circuit Detection	Upscale (22mA) or Downscale (2.5mA) current output. Error message on LED display.
Warm-up	30 seconds.
Response Time	0.5 sec to 30 sec (software selectable)
Display	4-DIGITS LED, 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	-40°C to 80°C (-40°F to 176°F)
Storage Temp. Range	-50°C to 85°C (-58°F to 185°F)
Max. Pressure	Determined by thermowell
Housing Material	Stainless steel 316
Probe Material	Stainless steel 316 standard
Cable Materials	PVC, Silicone, Teflon ^{®2} , or SS armor with PVC or teflon [®] jacket over Teflon [®] insulated cable
Environmental Protection	NEMA 4/ IP 65
Shipping Volume	Imperial Volume = 3.5"W x 3"H x (6" + "A" + "C") L Metric Volume = 9.0cm W X 8 cm H X (15 cm + "A" + "C") L
Weight	400 grams (.9 lbs) with 6" probe, no thermowell
ELECTRICAL	
Power Supply	9-30 VDC, polarity protected
Supply effect	0.005%/V
Power consumption	15mA @ 24 VDC + output current – 950mW max. 20mA @ 24 VDC for PNP output – 500mW max. 20mA @ 24 VDC + sourcing current for NPN output 50mA @ 24 VDC for Relay Output – 1200mW max.
Current Output	4-20mA (3 wires configuration) linear to temperature.
Max load on current output	(Vsupply-9V) /20mA, Ohms
Switching Output	Transistor NPN (max 100mA source) or Transistor PNP (max 100mA sink) or Relay SPDT 0.5A @ 240 VAC
Switching Logic	N.C. or N.O. Software selectable.
Isolation	500VDC Input /Output (between probe and output signal)
Electrical Connection	Micro-DC male plug or cable only

1. Maximum error at calibration point is less than .001 x Span

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

DTG6B Series Spring Loaded Digital Temperature Gauge

LCD Display Battery Powered

Technical Specifications

Sensing Element	RTD, Type Pt1000 DIN EN 60751, Class A
Measuring Temperature Range	-50 °C to 200 °C (-58 °C to 392°F) or -200°C to 600 °C (-328 °F to 1112°F)
Accuracy ¹	With standard 1 Point Factory Calibration at 0.0°C (32.0°F), accuracy is proportional to reading. $\pm(0.27^{\circ}\text{F} + 0.002 \times ^{\circ}\text{T} - 32 \text{ reading })$ $\pm(0.15^{\circ}\text{C} + 0.002 \times ^{\circ}\text{T} \text{ reading })$ With optional 2 Point Factory Calibration, accuracy is proportional to Calibrated Span $\pm(0.27^{\circ}\text{F} + 0.0005 \times ^{\circ}\text{T} \text{ reading })$ $\pm(0.15^{\circ}\text{C} + 0.0005 \times ^{\circ}\text{T} \text{ reading })$
Refresh Rate	3 seconds
Display	4-digit LCD, 1/2" high (12.7mm), decimal point selectable by software
Display Resolution	See table 1
RFI effect	1% or less typical
Temp. Effect	< +/- 0.005 °C/°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	Determined by thermowell
Housing Material	Stainless steel 316
Probe Material	Stainless steel 316 standard
Standard Surface Finish	Code "SF" Maximum Ra of 32 μ-in (0.8μm) or better on sensor Stem
Cable Materials	
(For Optional Output only)	PVC, Silicone, Teflon [®] 2, or SS armor with PVC or teflon [®] jacket over Teflon [®] insulated cable
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 optional outputs only)
RTD Output Option	RTD, Type Pt100 or Pt1000 Ohm, 3-wire, Class A DIN IEC 60715
Shipping Volume	Imperial Volume = 3.5"W x 3"H x (6" + "A" + "C") L Metric Volume = 9.0cm W X 8 cm H X (15 cm + "A" + "C") L
Weight	400 grams (.9 lbs) with 6" probe, no thermowell

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DTG6 Series
Spring Loaded with Hot Tap Thermowell

DIGITAL TEMPERATURE GAUGE

Dimensions are in inches [mm]

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Revision: -
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DTG6C Series Spring Loaded Digital Temperature Gauge

LCD Display, 24 VDC Loop Powered 2-wire

Technical Specifications

Sensing Element	RTD, Type Pt1000 DIN EN 60751, Class A
Temperature Ranges	Customer re-scalable between -50°C to 200°C or -200°C to 600°C (depending on model) No re-calibration required.
Accuracy ¹	With standard 1 Point Factory Calibration at 0.0°C (32.0°F), accuracy is proportional to reading. $\pm(0.27^{\circ}\text{F} + 0.002 \times ^{\circ}\text{T} - 32 \text{ reading})$ $\pm(0.15^{\circ}\text{C} + 0.002 \times ^{\circ}\text{T} \text{ reading})$ With optional 2 Point Factory Calibration, accuracy is proportional to Calibrated Span $\pm(0.27^{\circ}\text{F} + 0.0005 \times \text{Calibrated Span})$ $\pm(0.15^{\circ}\text{C} + 0.0005 \times \text{Calibrated Span})$
Open circuit detection	Upscale (22mA) or Downscale (2.5mA) current output. Error message on display.
Warm-up	30 seconds.
Display	4-digit LCD, 1/2" high (12.7mm), decimal point selectable by software
Display resolution	See Table 1
RFI effect	1% or less typical
Temp. Effect	Display < +/- 0.005 °C/°C Output < +/- 0.005% 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	Determined by thermowell
Housing Material	Stainless steel 316
Probe Material	Stainless steel 316 standard
Cable Materials	PVC, Silicone, Teflon®2, or SS armor with PVC or teflon® jacket over Teflon® insulated cable
Environmental Protection	NEMA 4/ IP 65
Shipping Volume	Imperial Volume = 3.5"W x 3"H x (6" + "A" + "C") L Metric Volume = 9.0cm W X 8 cm H X (15 cm + "A" + "C") L
Weight	400 grams (.9 lbs) with 6" probe, no thermowell
ELECTRICAL	
Power Supply	9-30VDC, polarity protected
Supply effect	0.005%/V
Output	4-20mA loop powered, 2-wire, linear to temperature
Maximum Loop Resistance	[(Vsupply - 9V) /20mA] ohms (for 4-20mA output only)
Isolation	500 VDC Input /Output (between probe and output signal)
Electrical Connection	Micro-DC male plug or cable only

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DTG6 Series
Spring Loaded with Hot Tap Thermowell

DIGITAL TEMPERATURE GAUGE

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Technical Specifications

Table 1

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	-50.0 to 200.0 °C -58.0 to 392.0 °F	0.01	-9.99 to 99.99 °C -9.99 to 99.99 °F	1	-50 to 200 °C -58 to 392 °F
-200 °C to 600 °C (-328 ° F to 1112 ° F)	1	-200 to 600 °C -328 to 1112 °F	0.01	-9.99 to 99.99 °C -9.99 to 99.99 °F	0.1	-99.9 to 600.0 °C -99.9 to 999.9 °F

Application Notes:

Installation requirements of the DTG are similar to those of temperature sensor assemblies with head mounted hockey puck transmitter and display. If the temperature of the electronics in the housing exceeds 80°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. Consult Intempco for alternative models. 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.