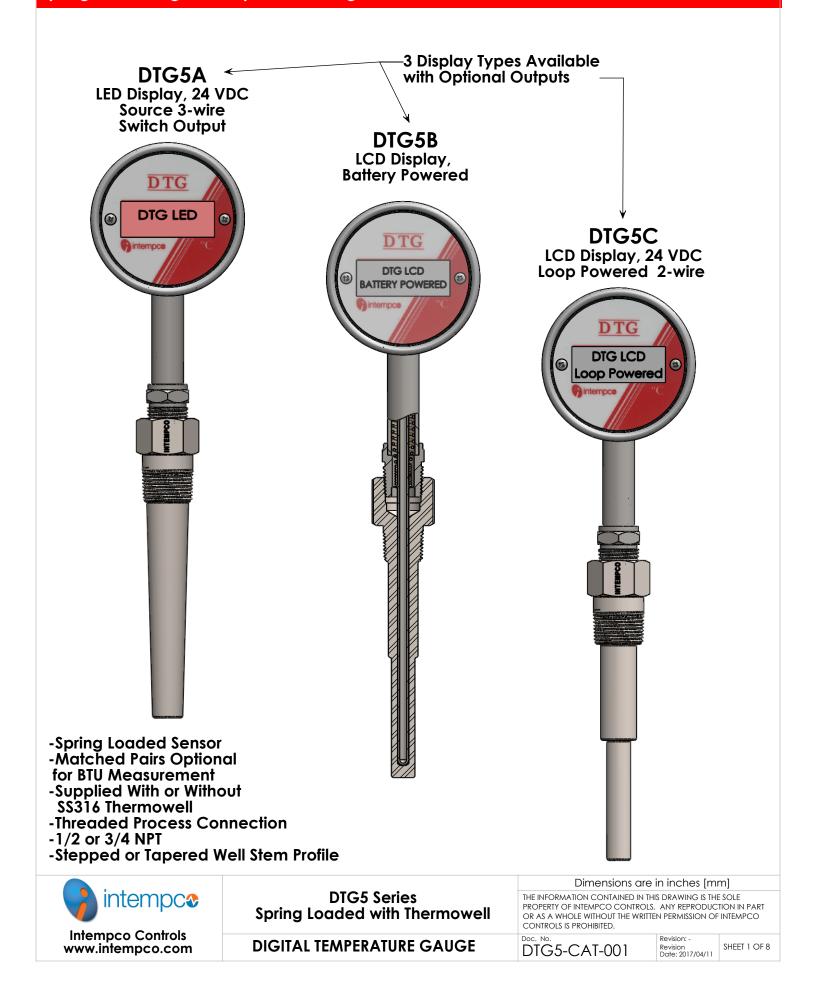
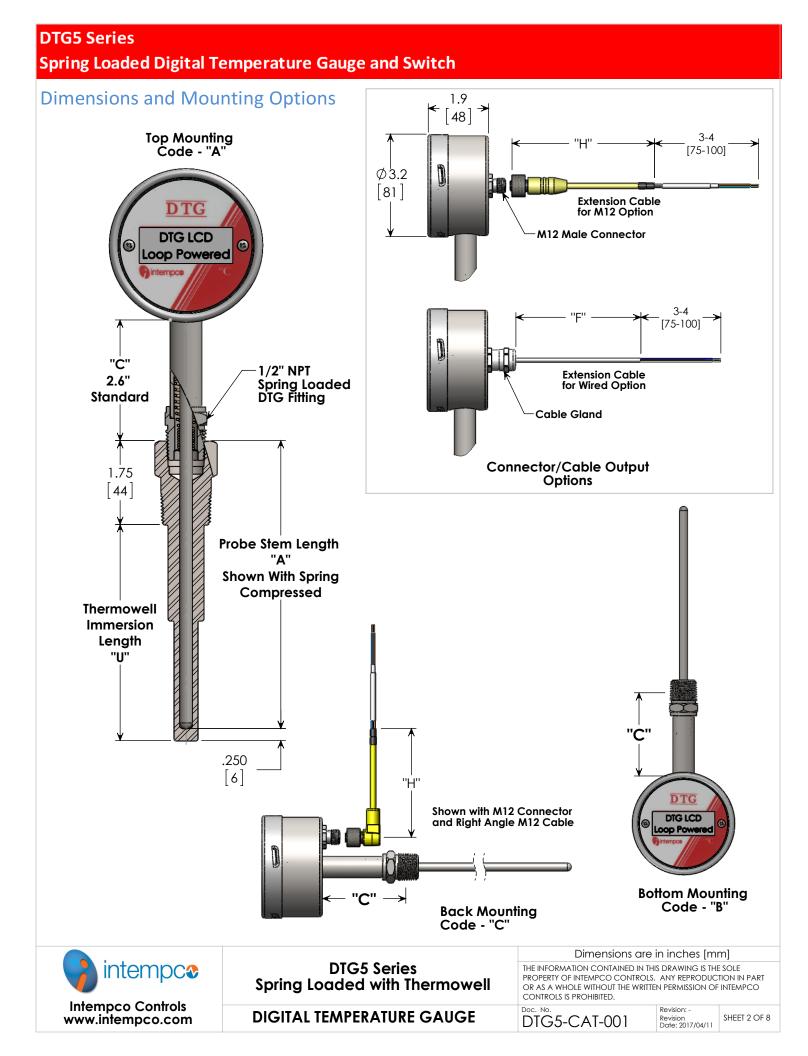
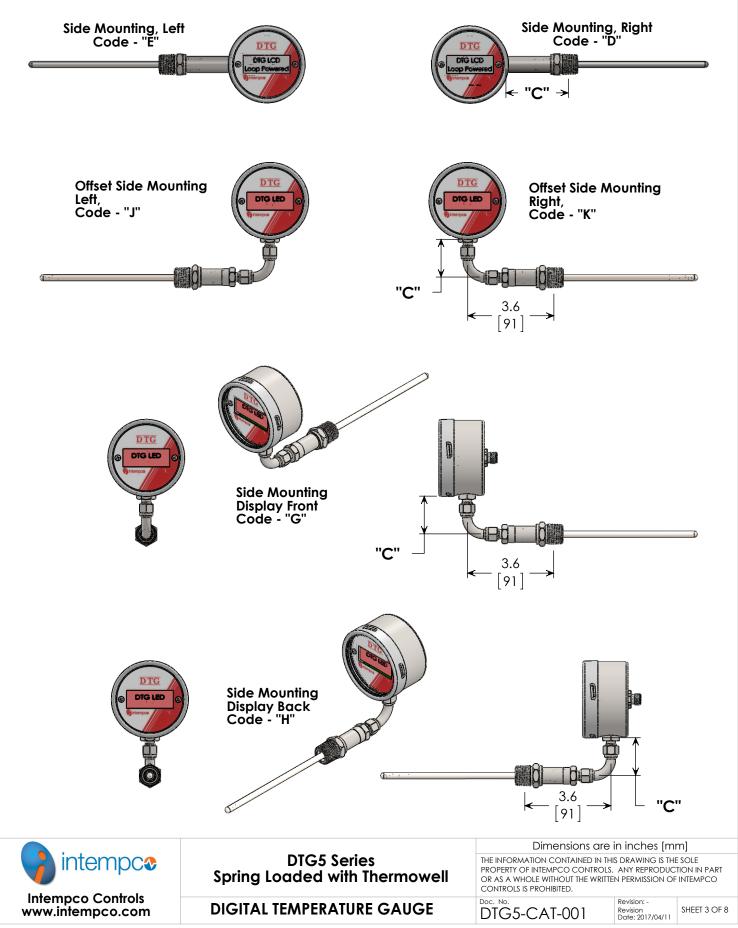
DTG5 Series Spring Loaded Digital Temperature Gauge and Switch





Dimensions and Mounting Options



DTG5 Series Spring Loaded Digital Temperature Gauge and Switch

Custom Buil	der						
Model	1 2 3 4		5	6	7	8	9 10 11 12
	1 2 3 4][н	SF
MODEL	Model Description					BOX6 CODE	Extension Length "C"
CODE	-					N16	C = 1.6 inch
DTG5A	LED Display, 24 VDC					N21	C = 2.1 inch
DTG5B	Source 3-wire LCD Display, Battery Powered	-				N26	C = 2.6 inch standard
	LCD Display, Battery Powered	-				N31	C = 3.1 inch
DTG5C	Loop Powered 2-wire					N36	C = 3.6 inch
BOX1 CODE	Calibrated Temperature Range	DTG5A	DTG5B	DTG5C		BOX7 CODE	Matched Pair Options
05	0°C to 50°C (32/122°F)	©	DIGSD	©		A	Supplied as 1 Single DTG Unit
10	0°C to 100°C (32/212°F)	0		0		В	Supplied as 2 Matched DTG Units *
15	0°C to 150°C (32/302°F)	0		0		* 2 DTG's suppli	ied, factory calibrated as a set, at two
20	0°C to 200°C (32/392°F)	0		0			accuracy required for BTU measurement.
55	-50°C to 50°C (-58/122°F)	0		0		points. Fighest	accuracy required for BTO measurement.
51	-50°C to 150°C (-58/302°F)	<u></u>		٢		BOX8 CODE	Fitting Type SS316/316L
52	-50ºC to 200ºC (-58/392ºF)	٢		0		Н	0,11
L	-50ºC to 200ºC (-58/392ºF)	٢	٢	٢			1/2" NPT Hex Spring Loaded Fitting
Н	-200ºC to 600ºC (-328/1112ºF)	٢	0	٢			Connector / Extension Cable Type
YC	Specify custom range in ⁰C	٢		٢		BOX9 CODE	(Only for Output Options)
YF	Specify custom range in ≌F	٢		٢			No Connector or Cable (DTG5B battery
Default Units a	re ºC, add code F to display in ºF . Ex: 05F =	: 32/212ºF				00	powered model with no output options)
BOX2 CODE	Output	DTG5A	DTG5B	DTG5C		МС	M12 Micro-Male Connector
00	None, indicator only	٢	٢	٢		PV	PVC insulation, 90ºC (195 ºF) max.
LP	4-20 mA, Loop Powered 2-wire,					SL	Silicone insulation, 180 °C (356 °F) max.
	Upscale Burnout			٢		TF	Teflon [®] insulation, 200 °C (392 °F) max.
LD	4-20 mA, Loop Powered 2-wire,						Teflon [®] with SS armor,
	Downscale Burnout			٢		TA	200 ºC (392 ºF) max.
cu	4-20 mA, Source 3-wire,						Teflon [®] / SS armor and PVC coating, 90°C
	Upscale Burnout	٢				TP	(195 °F) max.
CD	4-20 mA, Source 3-wire,	0					Teflon [®] / SS armor and Teflon [®] coating,
C2	Downscale Burnout 4-20mA + Relay SPDT	0				тт	200 ºC (392 ºF) max.
C3	4-20mA + NPN Transistor	0					200 °C (392 °F) IIIdx.
C4	4-20mA + PNP Transistor	0					Extension Cable Length "H"
C5	4-20mA + RTD 3-wire	0				BOX10 CODE	(For M12 Micro-Male Connector Option)
D1	Relay SPDT	0				00	No M12 Cable Supplied
D2	NPN Transistor	0				A2	Straight, 2 meters
D3	PNP Transistor	<u></u>				A5	Straight, 5 meters
A3	100 Ohm DIN EN 60751					B2	Right angle, 2 meters
AS	Cass A (±0.06%), 3-wire	٢	٢	٢		B5	Right angle, 5 meters
BOX3 CODE	Probe Diameter "D"	Thormor	well Bore I	Diamatan			Extension Cable Length "F"
D	.250 inch (Standard)	Thermov	.260 inch			BOX10 CODE	(For Cable option)
6	6mm		6.5mm				In inches
		•					Ex.: 060=60 " long
BOX4 CODE	Thermowell SS316/316L						
A	Stepped 1/2" NPT Threaded	-				BOX11 CODE	Surface Finish
В	Stepped 3/4" NPT Threaded	4				SF	Standard 32 Ra max.
с	Tapered 3/4" NPT Threaded	-					
0	No Thermowell, Spring Loaded DTG assembly Only.					BOX12 CODE	Mounting Options
		J				A	Top Mounting
BOX5 CODE	Sensor	Length				В	Bottom Mounting
	Assembly Supplied with Thermowell		Without T	hermowell		С	Back Mounting
	Specify Immersion Length "U"			n Length "/		D	Side Mounting, Right
	In 0.1 " increments Ex.: 045=4.5"			nts Ex.: 06		E	Side Mounting, Left
	-	•				G	Side Mounting, Display Front
						н	Side Mounting, Display Back
						J	Offset Side Mounting, Left
						к	Offset Side Mounting, Right
							Choccolae mounting, hight

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DTG5 Series Spring Loaded with Thermowell

DIGITAL TEMPERATURE GAUGE

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Revision: -

Revision Date: 2017/04/11

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DTG5A 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
	−50ºC to 200ºC depending model.
Hysteresis (Switch Option)	Customer programmable, 1% of range by factory setting.
Accuracy ¹	With standard 1 Point Factory Calibration at 0.0ºC (32.0ºF),
	accuracy is proportional to reading.
	±(0.18ºF + 0.002 x ºT-32 reading)
	±(0.10ºC + 0.002 x ºT reading)
	With optional 2 Point Factory Calibration, accuracy is proportional to Calibrated Span
	±(0.18ºF + 0.0005 x Calibrated Span)
	±(0.10 ^o 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/ºC
Ambient Temp. Range	-40ºC to 80ºC (-40ºF to 176ºF)
Storage Temp. Range	-50ºC to 85ºC (-58ºF to 185ºF)
Max. Pressure	Determined by thermowell
Housing Material	Stainless steel 316
Probe Material	Stainless steel 316 standard
Cable Materials	PVC, Silicone, Teflon ^{®2} , Teflon [®] with SS armor covered with PVC or Teflon [®]
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
Switching Logic	Relay SPDT 0.5A @ 240 VAC N.C. or N.O. Software selectable.
Switching Logic	
Isolation	500 VDC Input /Output (between probe and output signal) Micro DC male alug or cable only
Electrical Connection	Micro-DC male plug or cable only
1. Maximum error at calibration point i	slessthan 001 x Saan
	siesstnan Juul x Span

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



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DTG5 Series Spring Loaded with Thermowell	

Dimensions are in inches [mm]

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DIGITAL TEMPERATURE GAUGE

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Technical Specifications

Sensing Element	RTD, Type Pt1000 DIN EN 60751, Class A
Measuring Temperature Range	e: -50 ºC to 200 ºC (-58 ºC to 392ºF) or -200ºC to 600 ºC (-328 ºF to 1112ºF)
Accuracy ¹	With standard 1 Point Factory Calibration at 0.0ºC (32.0ºF),
	accuracy is proportional to reading.
	±(0.27ºF + 0.002 x ºT-32 reading)
	±(0.15°C + 0.002 x °T reading)
	With optional 2 Point Factory Calibration, accuracy is proportional to Calibrated Span
	±(0.27ºF + 0.0005 x ºT reading)
	±(0.15°C + 0.0005 x °T reading)
Refresh Rate	3 se conds
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 ºC/ºC
Ambient Temp. Range	0ºC to 50 ºC (32 ºF to 122 ºF)
Storage Temp. Range	- 20ºC to 70 ºC (-4 ºF to 158 ºF)
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} , Teflon [®] with SS armor covered with PVC or Teflon [®]
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

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

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DTG5 Series Spring Loaded with Thermowell

Dimensions are in inches [mm]

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DTG5-CAT-001

Revision: -Revision Date: 2017/04/11

DTG5C 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)
remperature nunges	No re-calibration required.
Accuracy ¹	With standard 1 Point Factory Calibration at 0.0ºC (32.0ºF),
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	accuracy is proportional to reading.
	$\pm (0.27^{\circ}F + 0.002 \times ^{\circ}T - 32 reading)$
	±(0.15°C + 0.002 x °T reading)
	With optional 2 Point Factory Calibration, accuracy is proportional to Calibrated Span
	±(0.27ºF + 0.0005 x Calibrated Span)
	±(0.15ºC + 0.0005 x 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 ºC/ºC
	Output <+/- 0.005% FS/ºC
Ambient Temp. Range	0ºC to 50 ºC (32 ºF to 122 ºF)
Storage Temp. Range	- 20ºC to 70 ºC (-4 ºF to 158 ºF)
Max. Pressure	Determined by thermowell
Housing Material	Stainless steel 316
Probe Material	Stainless steel 316 standard
Cable Materials	PVC, Silicone, Teflon ^{®2} , Teflon [®] with SS armor covered with PVC or Teflon [®]
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
1 Marine and	
1. Maximum error at calibration point	
2. Teflon® is a registered trademark of E	au Pont ae Nemours and Company.



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DTG5 Series					
Spring	Loaded with T	hermowell			

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Technical Specifications

Table 1

Model Range	Factory Settings		Optional Settings			
would hange	Setting	Viewable Range	Setting	Viewable Range	Setting	Viewable Range
-50 ºC to 200 ºC		-50.0 to 200.0 ºC		-9.99 to 99.99 ⁰C		-50 to 200 ºC
(-58 º F to 392 º F)	0.1	-58.0 to 392.0 ºF	0.01	-9.99 to 99.99 ºF	1	-58 to 392 ºF
-200 ºC to 600 ºC		-200 to 600 ºC		-9.99 to 99.99 ⁰C		-99.9 to 600.0 ºC
(-328 º F to 1112 º F)	1	-328 to 1112 ºF	0.01	-9.99 to 99.99 ºF	0.1	-99.9 to 999.9 ºF

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.



DTG5 Series Spring Loaded with Thermowell Dimensions are in inches [mm]

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