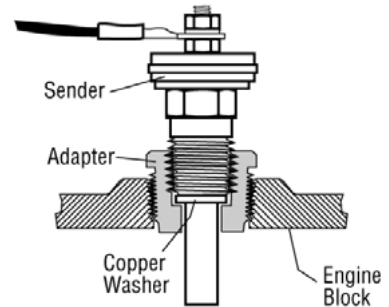


# Temperature Senders

These Temperature Senders are designed to be used in conjunction with our EG Series Switchgagge Instruments as well as CAN I/O modules. See the bulletin 95090 EG Series – Electric Gage and Switchgagge Instrument for more information.

**NOTE:** Always provide proper circuit protection with fuses or circuit breakers.



## Specifications

**Housing Material:** Brass

**Temperature Range:**

100°-250°F (40°-120°C) or 140°-300°F (60°-150°C)

## Resistance Values

### EST-250/300, ES2T-250/300 Senders:

100 F = 1050 ohms (rising temperature)

150 F = around 330 ohms (rising temperature)

180 F = 174 ohms (rising temperature) (secondary calibration point)

210 F = 100 ohms (rising temperature) (primary calibration point)

250 F = 54 ohms (rising temperature)

### EST-250/300, ES2T-250/300 Senders:

140 F = 410 ohms (rising temperature)

180 F = 176 ohms (rising temperature)

210 F = 100 ohms (rising temperature) (secondary calibration point)

240 F = 63 ohms (rising temperature) (primary calibration point)

300 F = 26 ohms (rising temperature)

## Resistance Table for Temperature Sender

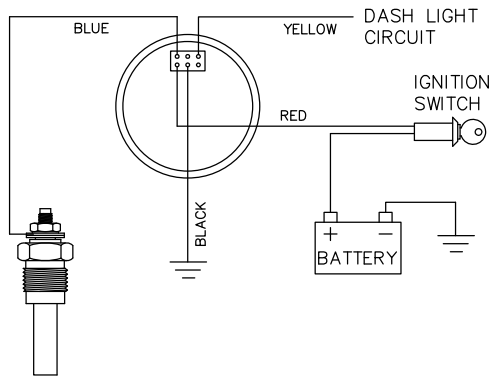
The voltage generated when excited by a 2.5mA DC constant current

°C	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
<b>R(Ohm)</b>	7208	4115	2529	1594	1029	680	460	321	227	164	120	89	74	52	40
<b>V (mV)</b>	18.0V	10.3V	6.32V	3.98V	2.57V	1.70V	1.15V	(0.80)	(0.57)	(0.41)	(300)	(222)	(185)	(130)	(100)

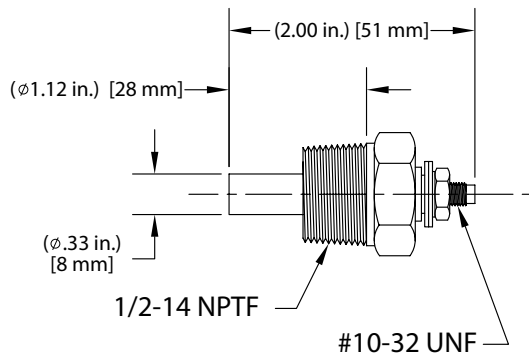
Resistive Range Table (Nominal OHMS)							
100–250°F		40–120°C		140–300°F		60–150°C	
Temp.	OHMS	Temp.	OHMS	Temp.	OHMS	Temp.	OHMS
100	1050	40	1050	140	410	60	410
150	330	60	410	180	176	80	189
180	176	80	193	210	100	100	97
210	103	100	100	240	63	120	55
250	54	120	55	300	26	150	25

## Model EST Series

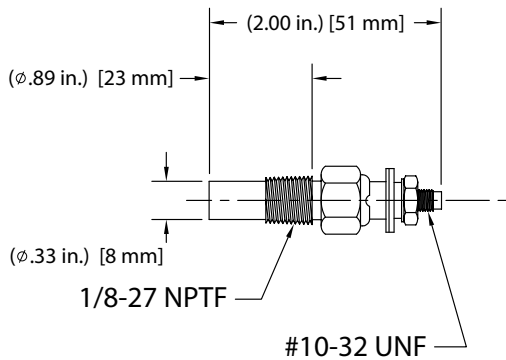
### EST Wiring



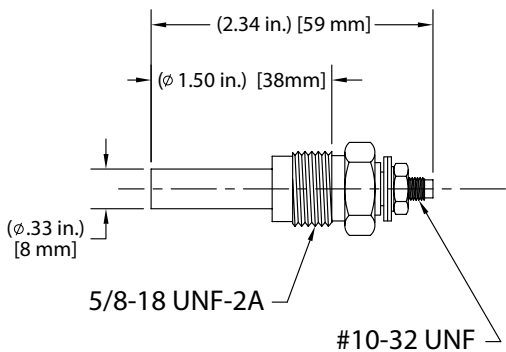
### EST 250/300 1/2-14 NPT



### EST 250/300 1/8-27 NPT

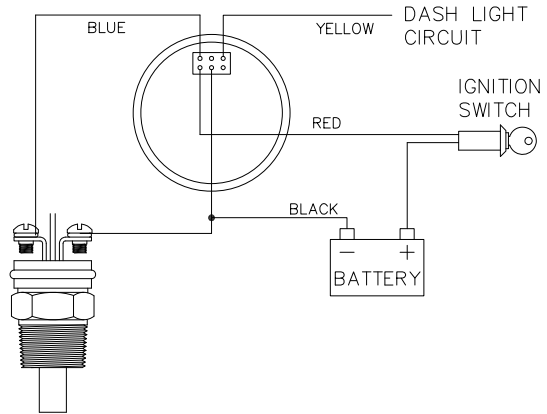


### EST 250/300-X 5/8-18 UNF

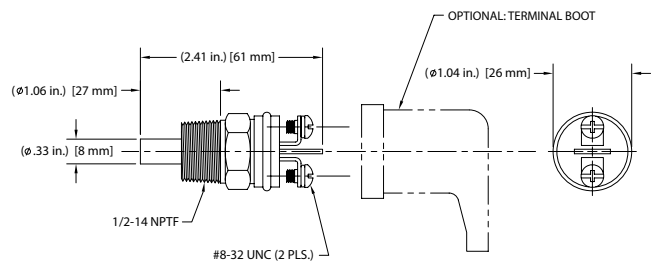


## Model ES2T Series

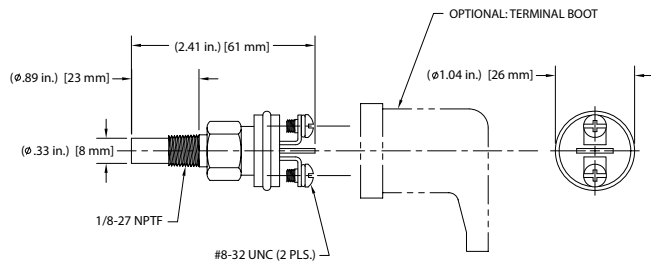
### ES2T Wiring



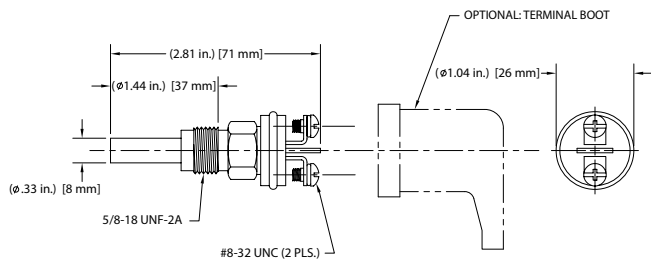
### ES2T 250/300 1/2-14 NPT



### ES2T 250/300 1/8-27 NPT

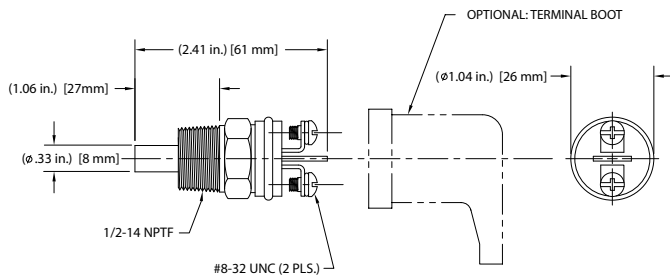


### ES2T 250/300-X 5/8-18 UNF

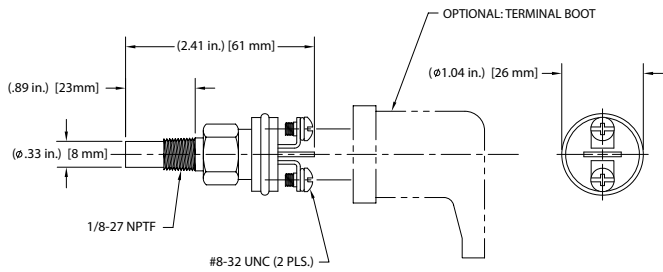


# Model ESDT Series

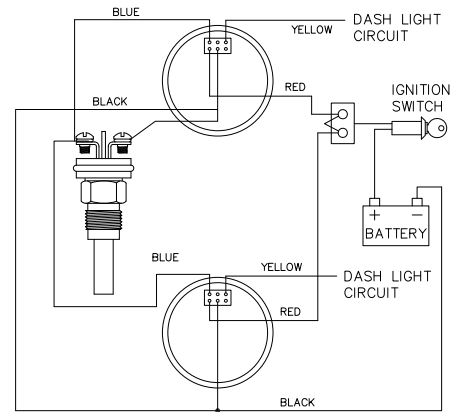
## ESDT 250/300 1/2-14 NPT



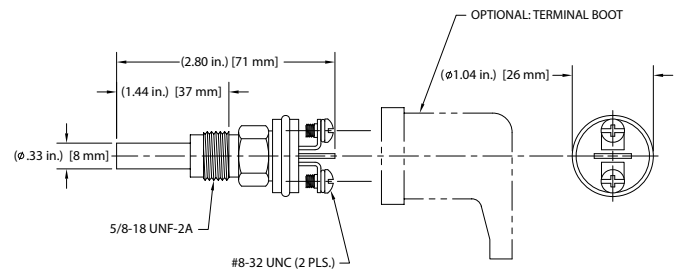
## ESDT 250/300 1/8-27 NPT



## ESDT Wiring



## ESDT 250/300-X 5/8-18 UNF



## How to Order

Part Number	Model and Description	Notes
10702010	EST-250/300-1/8: 1-wire-to-ground Temperature sender	
10702014	ES2T-250/300-1/8: 2-wire ungrounded Temperature sender	Thread 1/8 - 27 NPT
10702017	ESDT-250/300-1/8: 2-wire ungrounded Temperature sender	
10702009	EST-250/300-1/2: 1-wire-to-ground Temperature sender	
10702013	ES2T-250/300-1/2: 2-wire ungrounded Temperature sender	Thread 1/2 - 14 NPT
10702016	ESDT-250/300-1/2: 2-wire ungrounded Temperature sender	
10704691	EST-250/300-X: 1-wire-to-ground Temperature sender	
10706175	ES2T-250/300-X: 2-wire ungrounded Temperature sender	Thread 5/8 - 18 UNF
10704690	ESDT-250/300-X: 2-wire ungrounded Temperature sender	
00003624	EST Boot	

**NOTE:** X = 5/8-18 thread for adaptors.

**NOTE:** See bulletin 8428 for available adaptors (Group 1).

**NOTE:** Always provide proper circuit protection with fuses or circuit breakers.