

# spirax/sarco®

## EL2270 and EL2271 Temperature Probes

### Description

This range of temperature probes offers a range of Pt100 platinum resistance sensors and a range of 4 - 20 mA temperature transmitters. All probes are available in several insertion lengths and separate pockets are available for applications that require the probe to be removed from the pipe without depressurising the process.

The **EL2270** is a Pt100 platinum resistance temperature sensor designed for general industrial use. The sensing device is a three wire device that meets BS EN 60751:1996 Class B (DIN 43760 Class B). This sensor can be connected directly to any temperature indicator or controller that has a three wire Pt100 input.

The **EL2271** is a combined Pt100 sensor and transmitter assembly. The sensing element is a 3 wire device that meets BS EN 60751:1996 Class A (DIN 43760 Class A) and the transmitter outputs 4 - 20 mA output. The 4 - 20 mA output can be connected directly to any temperature indicator, controller or flow computer that has a 4 - 20 mA input.

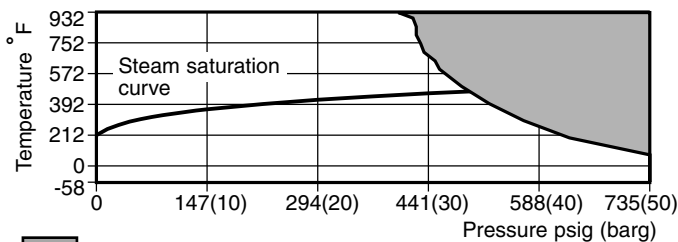
The **EL2810** is a stand alone 4 - 20 mA temperature transmitter for general industrial use. The transmitter accepts a Pt100 input and converts it to a 4 - 20 mA output. The 4 - 20 mA output can be connected directly to any temperature indicator, controller or flow computer that has a 4 - 20 mA input.

### Technical data

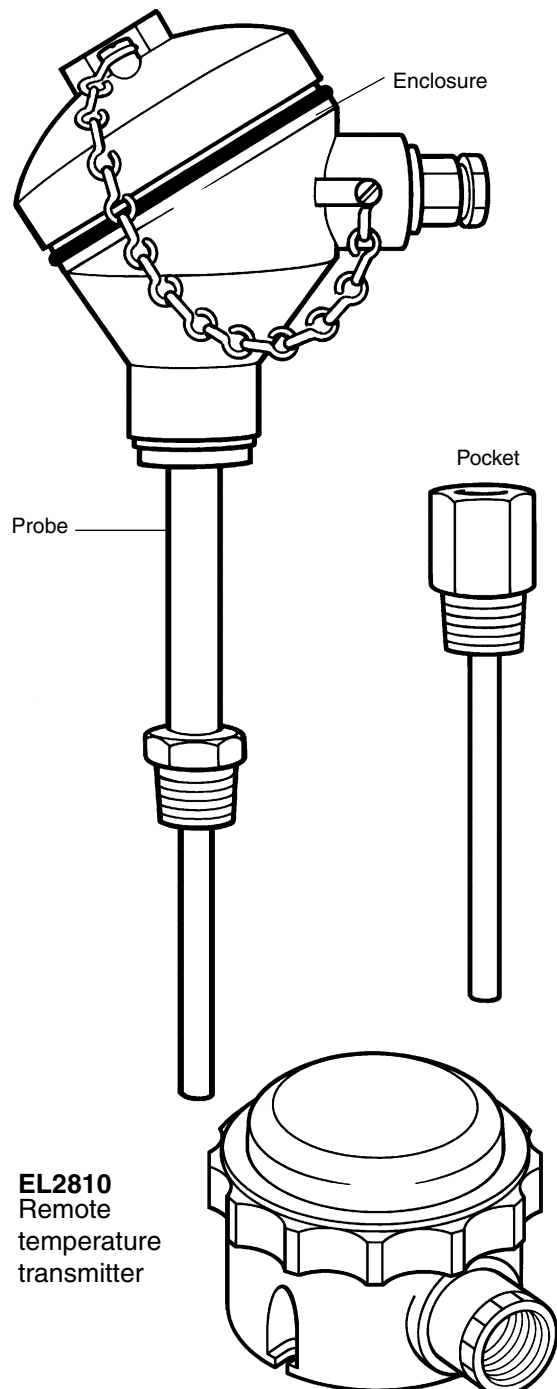
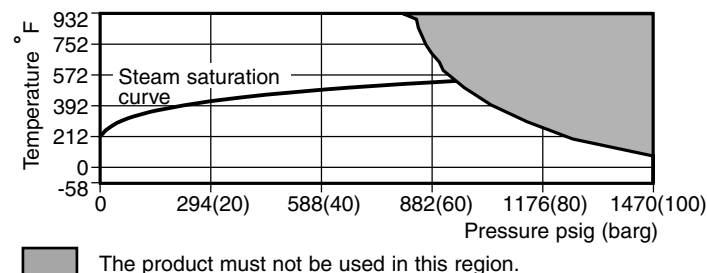
The EL2270 and EL2271 temperature probes can be used in applications where process temperature is within the following limits. Where greater temperatures and pressures are present, the temperature probe should be fitted with an additional pocket.

### Operating range

Pressure and temperature limits of temperature probe.



Pressure and temperature limits of additional pocket.



Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.  
In the interests of development and improvement of the product, we reserve the right to change the specification.

# EL2270 and EL2271 Temperature Probes

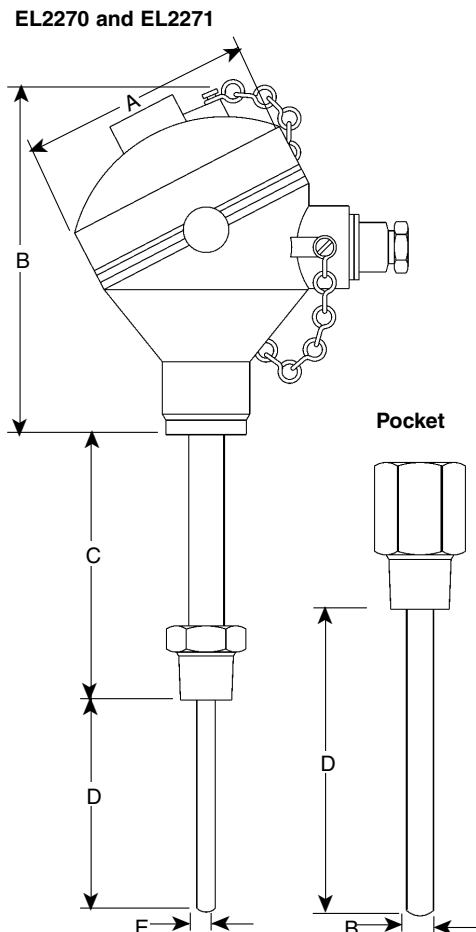
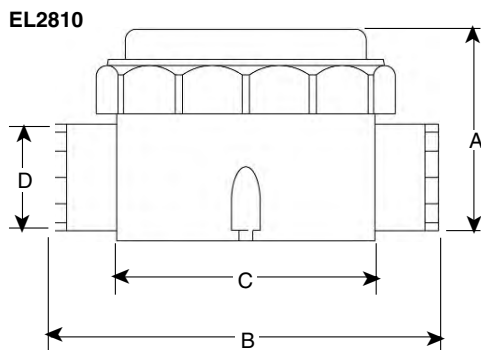
## Technical data

Mechanical data	EL2270	EL2271	EL2810	Pocket
Enclosure	Epoxy coated aluminium alloy	Epoxy coated aluminium alloy	ABS plastic	
Probe	316 Stainless steel	316 Stainless steel		316 Stainless steel
Process connection	1/2" NPT	1/2" NPT	-	1/2" NPT
Electrical connection	M20 with cable gland fitted	M20 with cable gland fitted	M20	-
Enclosure rating	NEMA 4 (IP65)	NEMA 4 (IP65)	NEMA 4 (IP65)	-
Maximum ambient temperature	158°F (70°C)	131°F (55°C)	158°F (70°C)	-
Electrical data				
Available ranges	-58°F TO 662°F (-50°C to +350°C) -58°F TO 932°F (-50°C to +500°C)	-58°F TO 122°F (-50°C to +50°C) 32°F TO 212°F (0°C to 100°C) 212°F TO 482°F (100°C to 250°C)	32°F TO 212°F (0°C to 100°C) 32°F TO 302°F (0°C to 150°C) 32°F TO 392°F (0°C to 200°C) 32°F TO 482°F (0°C to 250°C) 212°F TO 482°F (100°C to 250°C) 212°F TO 752°F (100°C to 400°C) 302°F TO 572°F (150°C to 300°C) 392°F TO 622°F (200°C to 350°C) 392°F TO 932°F (200°C to 500°C) 482°F TO 752°F (250°C to 400°C)	-
Output	Pt100 to BS EN 60751: 1996 Class B	Loop powered 4 - 20 mA	Loop powered 4 - 20 mA	-
Output on sensor failure	-	23.5 mA	30 mA	-
Supply	-	10 to 30 Vdc	10 to 30 Vdc	-
Maximum loop resistance	-	700 Ω at 24 Vdc	700 Ω at 24 Vdc	-
Accuracy	-	±(0.36°F + 0.2 % of reading)	±(0.18°F + 0.1 % of reading)	-
Approvals	-	-	EEX ia. iic. T5	-
EMC emissions	-	BS EN 50081-1	BS EN 50081-1	-
EMC susceptibility	-	BS EN 50082-2	BS EN 50082-1	-

Dimensions (approximate) in inches				
	EL2270	EL2271	EL2810	Pocket
A	3.5	3.5	2.3	-
B	5	5	4	-
C	3	3	2.8	-
D	1,2,3,5, 9, 28.5	1,2,3,5	M20 .059	1,2,4,8, 8, 27.5
E	.25	.25	-	-

Note: Pocket should be 1" shorter than the EL2270/EL2271.

Example: EL2270=9", Pocket=8"



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