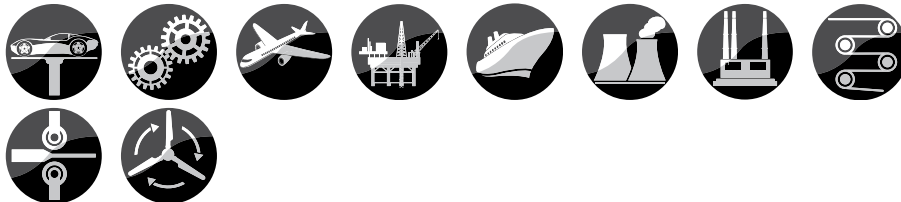


## ETS 320 Series Temperature Switch for Inline and Tank Mounting



### Applications



### Description

The ETS 320 is a compact electronic temperature switch with a 3-digit digital display.

Pressure resistant to 9000 psi with an integral 18 mm temperature probe, this model can be mounted directly inline or on the hydraulic block and has a measuring range of -10 to 212°C.

Different output models with one or two switching outputs, optionally with an additional analog output signal of 4 to 20 mA, offer a variety of application possibilities.

The switching points and the associated hystereses can be adjusted very quickly and easily using the keypad.

For optimum adaptation to the particular application, the unit has many additional adjustment parameters (e.g. switching delay times, N/C / N/O function, etc.).

### Special Features

- Compact temperature switch with integral temperature probe
- 2 transistor switching outputs, up to 1.2 A load per output
- Option: analog output 4 to 20 mA
- 3-digit digital display
- Switching point or window function
- Switching / switch-back points and many useful additional functions can be set using the keypad

### Approvals



CE mark is a mandatory conformity mark on many products placed on the single market in the European Economic Area

### Technical Details

Sensor Specifications	
Measuring range	-13° to 212°F (-25° to 100°C)
Rated pressure - psi	9000
Mechanical connection	G1/2 A DIN 3852 male
Tightening torque	33 lb-ft (45 Nm)
Parts in contact with media	Stainless steel, FPM seal
Accuracy	≤ ±2°F (1°C)
Temperature drift (ambient)	≤ ±0.0085% FS / °F max. zero point ≤ ±0.0085% / °F max. range
Weight	Approximately 300g
Output signal	4 to 20 mA, 2 wire, ohmic resistance max 400 Ω
Switching Specifications	
Type	PNP transistor
Switching current	1.2A per output
Switching cycles	≥ 100 million
Rise time to DIN EN 60751	T50 : 3s T90 : 9s
Environmental Condition	
Operating temperature range	-13° to 176°F (-25° to 80°C)
Storage temperature range	-40° to 176°F (-40° to 80°C)
Media temperature range	-40° to 212°F (-40° to 100°C)
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 0 to 500 Hz	≤ 10g
Environmental protection	IP 65
Electrical Specifications	
Supply voltage	20 to 32 VDC
Residual ripple supply voltage	≤ 5%
Current consumption	100 mA (plus switching current)
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	Standard
Display	7 segment LED display, 3 digits

## Model Code

ETS 3 2 X - X - XXX - XXX

### Mechanical Connection

2 = G 1/2 A DIN 3852, male with integral sensor

### Electrical Connection

6 = M12x1 plug, 4 pole for output codes 2 & 3 (connector not included)

8 = M12x1 plug, 5 pole for output code 5 (connector not included)

### Output

2 = 2 Switching Outputs (only with electrical connection 6)

3 = 1 Switching Output with 1 analog output (only with electrical connection 6)

5 = 2 Switching Outputs with 1 analog output (only with electrical connection 8)

### Measuring Range

100 = -13° to 212°F

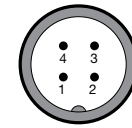
### Modification Number

000 = Standard Display in °C

400 = Standard Display in °F

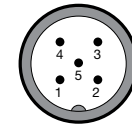
## Pin Connections

### M12x1, 4 pole



Pin	326-2	326-3
1	+U <sub>B</sub>	+U <sub>B</sub>
2	nc	analog
3	0 V	0 V
4	SP 1	SP 1

### M12x1, 5 pole

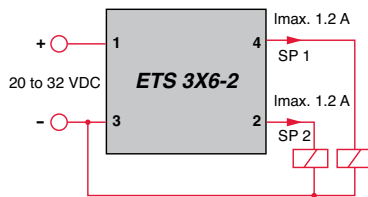


Pin	328-5
1	+UB
2	analog
3	0 V
4	SP 1
5	SP 2

## Circuit Diagram

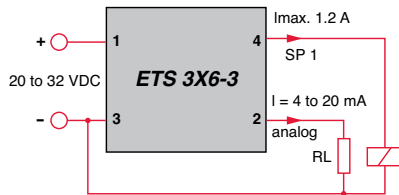
### Model ETS 3X6-2

2 switching outputs



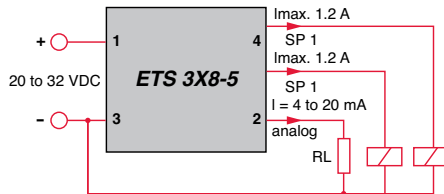
### Model ETS 3X6-3

1 switching output, 1 analog output



### Model ETS 3X8-5

2 switching outputs, 1 analog output



## Dimensions

