

Electronic Temperature Switch

UTS7 Series

Features

- ▶ Dual switch with built-in transducer output
- ▶ 2 solid state outputs and 1 analog output
- ▶ High accuracy with fully adjustable deadband
- ▶ Built-in digital temperature readout
- ▶ All parameters programmable via keypad
- ▶ Adjustable keypad lock
- ▶ UL/CSA approved

Applications

- ▶ Hydraulic and pneumatic systems
- ▶ Process and chemical industry
- ▶ Machine tools



General Specifications*

Accuracy:	0.5 % f. s.
Linearity Error:	± 0.5% f. s. at 77°F (25°C)
Repeatability:	± 0.1 % f. s.
Sensor Element:	Pt 100-element (Class B)
Sensor Length:	0.67 in., 1.97 in., 11.82 in.
Sensor Diameter:	1/4 in. (6 mm)
Material: Housing: Process Seal: Stem:	Stainless steel (316) FKM (fluorelastomer) Stainless steel 1.44 (ST 316L)
Measuring Ranges:	32° to +212°F (0° to +100°C); -22° to +302°F (-30° to +150°C)
Process connection:	1/4 - 18 NPT male (standard), G1/4 male rotatable around 330°
Electrical Connection:	M 12 x 1, 5-pin
Power Supply:	10 - 30 VDC
Power Consumption:	Appr. 40 mA at Ub = 24 VDC (without load)
Output Signal: Delay: Max. load:	4 - 20 mA, short circuit-protection 0.0 - 9.9 s adjustable max. RI = (Ub-12V)/20mA, 600 Ohm at 24 VDC
A/D-Converter: Resolution: Scanning Rate:	12 bit (4096 steps) 100 Hz
Time constant:	appr. 40 s
Data Acquisition:	Microcontroller and self monitoring with error output
Resolution: Scanning Rate	12 bit (4096 steps) 100 Hz

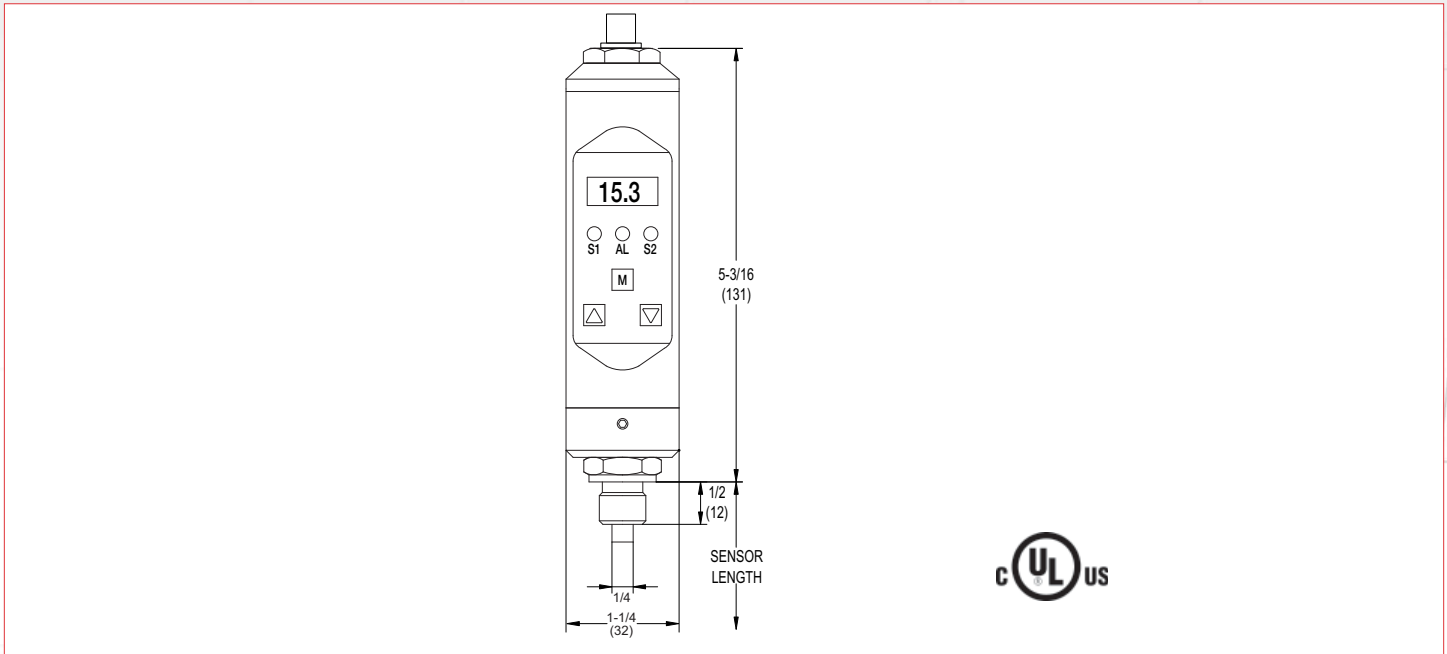
Switching output(s):	1 or 2 pnp-open-collector solid state switching outputs
Adjustment Range: Hysteresis: Switching Frequency: Delay time: Max. constant current: Display:	0 to 125% f. s. 0 to 125% f. s. 100/s 0.0 to 9.9 s - adjustable 500 mA 2 x green LED for activated set point
Digital Display:	4-digit LED-dot-matrix-display, green, height 5 mm with decimal point
Display Rate: Display unit: Delay: Brightness:	5/s °F/°C 0.0 - 9.9s adjustable (for display damping) 20 - 100% - adjustable
Error Display:	Orange LED display (AL).
Operating Elements:	3 easy response pushbuttons at the frontside, all parameters programmable, adjustable keypad lock
Temperature Range: Media: Electronics: Storage:	-22° to 302°F (-30° to +150°C) 14° to 158°F (-10°C to + 70°C) 22° to 176°F (30°C to +80°C)
Temperature Influence:	± 0.1 % f. s. / 10 K
Compensation Range:	14° to 158° F (-10 °C to +70 °C)
Protection Class:	IP65
Dimensions (Housing):	5.1 in. (131 mm) (without electrical plug) rotatable housing for adjusting display after installation
Additional Features:	Alphanumeric 4-digit LED-dot-matrix-display, display rotatable around 330°, microcontroller and self monitoring with error output, all parameters programmable via keypad, adjustable keypad lock, different access levels, rugged stainless steel construction.
Weight:	Appr. 0.8 lb (350 g) with .2 in. (5 mm) sensor length

* See product configurator for additional options.

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Technical Drawings



Product Configurator

Example UTS7 -212 -A -N -3

Base Model

UTS7

Temperature Range

-212	32° to 212°F
-302	-22° to 302°F

Output

-3	Dual Switch plus 4 20 mA output
-6	Dual Switch plus 0-10 VDC output

Process Connection

-A	0.67" Length	-N	1/4 NPT
-B	1.97" Length	-G	G 1/4
-C	11.82" Length		

Accessories

Order #	Description
239263	- 5 Pin, M12 electrical mating connector

Connection Chart

Plug M 12 X 1 5 pin	Model with 2 switching outputs and 1 analog output
Pin 1	+Ub (18 - 32 V DC)
Pin 2	Analog 4 - 20 mA/ 0 - 10 V DC
Pin 3	0 V
Pin 4	SP1 0.5 A max.
Pin 5	SP2 0.5 A max.