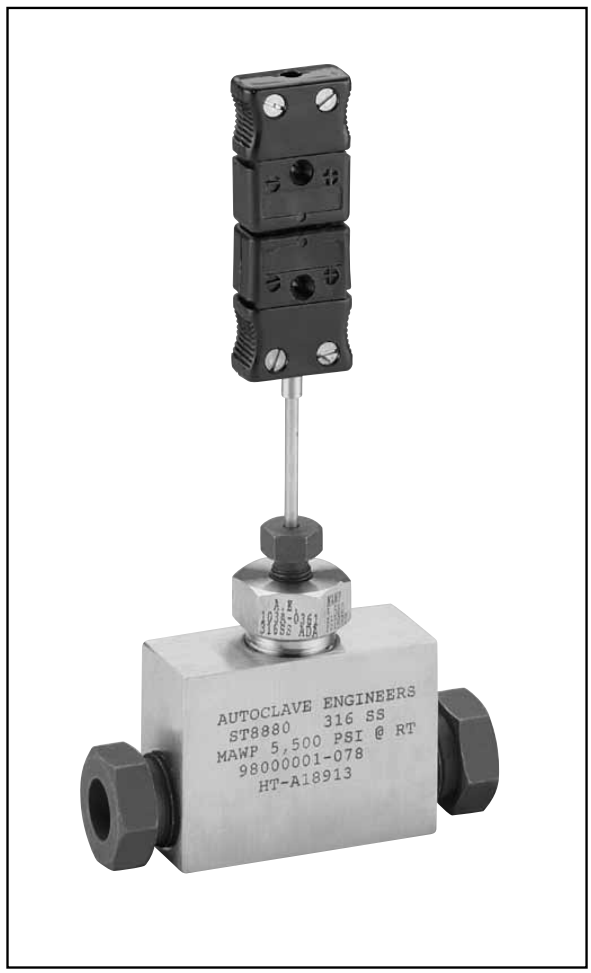
Accessories - Pencil-type Thermocouples

Pressures to 15,000 psi (1034 bar)

Thermocouples provide reliable temperature measurement within a system.

The design permits installation of the element in direct contact with the fluid stream, thereby providing reliable temperature measurement. The quick-connector affords system flexibility. The thermocouple tip has a grounded-type junction.



Materials

Precision-molded plastic connectors have heavy duty, spring-loaded jack inserts for positive contact. The sheath is type 316 stainless steel with 316 SS ferrule and gland. We offer a choice of iron constantan (J) or chromel-alumel (K) type elements (please specify when ordering). Basic assembly includes 1/8" Parker Autoclave Engineers Speedbite connection with adapters for other connection sizes.

Pressure/Temperature Ratings

Ratings to 15,000 psi (1034 bar) maximum working pressure. Temperature rating based on connection style. Low pressure Speedbite connection not recommended below 0°F (-17.8C) or above 650°F (343°C)

Ordering Information

Catalog order numbers in the table refer to the complete assembly. Add suffix"J" for iron constantan element or "K" for chromel-alumel. To order a basic thermocouple with plug/jack assembly and connection **(without through or angle block)**, change last digit in order number to "0" and specify sheath length if different from standard 3.62" (91.94 mm) length.

Ordering examples: TP4400K 6" (152.4 mm) denotes basic thermocouple to fit into a 1/4" Parker Autoclave Engineers SpeedBite connection with chromel-alumel element and 6" (152.4 mm) sheath. TP 4401K denotes the above unit complete with through-type block and standard 3.62" (91.94 mm) sheath.

Thermocouple Specification Table

Calibration Type	Type of Thermocouple	Temperature Range	Comments
J	Iron (+) Constantan (-)	32 - 1400°F (0 - 760°C)	Reducing atmoshphere recommended. Iron leg subject to oxidation to elevated temperatures- use larger gauge to compensate.
K	Chromel (+) Alumel (-)	-328 - 2300°F (-200 - 1260°)	Well suited for oxidizing atmosphere. Most commonly used calibration type.

All general terms and conditions of sale, including limitations of our liability, apply to all products and services sold.

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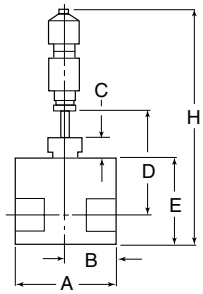
Catalog Number	Fits Connection Type	Tubing Size Inches (mm)	Dimensions - inches (mm)						Block Thickness	Fitting Pattern
			A	B	C	D	E	H		
Through-Type										
TP2201	W125	1/8	1.38	0.69	0.31	3.62	1.00	7.18	0.50	See Figure 1
		(3.18)	(35.05)	(17.53)	(7.87)	(91.95)	(25.40)	(182.37)	(12.70)	
TP4401	SW250	1/4	1.75	0.88	0.44	3.62	1.19	7.25	0.62	
		(6.35)	(44.45)	(22.35)	(11.18)	(91.95)	(30.23)	(184.15)	(15.75)	
TP6601	SW375	3/8	2.00	1.00	0.53	3.62	1.38	7.31	0.75	
		(9.52)	(50.80)	(25.40)	(13.46)	(91.95)	(35.05)	(185.67)	(19.05)	
TP8801	SW500	1/2	2.50	1.25	0.53	3.62	1.75	7.44	1.00	
		(12.70)	(63.50)	(31.75)	(13.46)	(91.95)	(44.45)	(188.98)	(25.40)	
Angle-Type										
TP2202	W125	1/8	1.00	0.75	0.31	3.62	1.38	7.62	0.50	See Figure 2
		(3.18)	(25.40)	(19.05)	(7.87)	(91.95)	(35.05)	(193.55)	(12.70)	
TP4402	SW250	1/4	1.19	0.88	0.44	3.62	1.75	7.81	0.62	
		(6.35)	(30.23)	(22.35)	(11.18)	(91.95)	(44.45)	(198.37)	(15.75)	
TP6602	SW375	3/8	1.38	1.00	0.53	3.62	2.00	7.94	0.75	
		(9.52)	(35.05)	(25.40)	(13.46)	(91.95)	(50.80)	(201.68)	(19.05)	
TP8802	SW500	1/2	1.75	1.25	0.53	3.62	2.50	8.19	1.00	
		(12.70)	(44.45)	(31.75)	(13.46)	(91.95)	(63.50)	(208.03)	(25.40)	

Note: All thermocouples are furnished complete with connection components unless otherwise specified.

Maximum pressure rating is based on the lowest rating of any component.
Actual working pressure may be determined by tubing pressure rating, if lower.

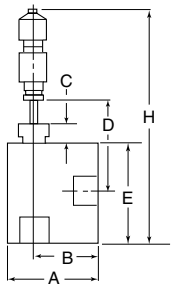
All dimensions for reference only and subject to change.
For prompt service, Parker Autoclave Engineers stocks select products. Consult your local representative.

Figure 1



Through-Type

Figure 2



Angle-Type

Note: Tee or elbow is included in standard catalog number.

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