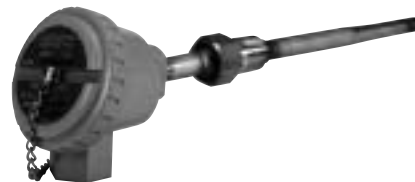


TY783

Pipe-Mounted Temperature Sensor

The TY783 has the output characteristics of a Pt100 sensor (JIS C 1604A) and is used for temperature reading, control and recording of a variety of liquids inside pipes, tanks or heat exchangers. It can be used in combination with most electronic instruments with Pt100 input. It can also be used as a temperature sensor inside ducts or chambers.



Specifications

Sensing range	-50 to +200°C
Sensing element accuracy	±(0.15+0.002 t)°C (t = sensing temperature)
Time constant	<ul style="list-style-type: none"> • TY7830A to F, J, K, TY7831A to F, J, K (welded pipe): approx. 50s (agitated water) • TY7830G, H, M, N, TY7831G, H, M, N, TY7832G, H, M, N (cut-off pipe): approx. 20s (agitated water)
Recommended current	1mA
Wiring	3 wires (single element) / 6 wires (double element)

Pressure resistance	Screw connection: 1.47MPa. Flange connection: JIS 20K
Insulation resistance	500VDC 20MΩ or more
Dielectric strength	Leakage of 1mA or less at 500Vac for 1 min.
Terminal box material	Aluminum
Suitable velocity of flowing fluid	Insertion length 150 to 300mm: 4m/s or less Insertion length 150 to 400mm: 2.5m/s or less Insertion length 150 to 2000mm: 0.3m/s or less (locations with minimal flow such as storage tanks)

Selection Guide

I II III IV V VI VII Example: TY7830A1015-A

Segment	Model No. selection					Description
I	Basic No.	TY78	↓	↓	↓	Pipe-mounted temperature sensor
II	Usage	3	○	○	○	Pipe connection
III	Material of well	0	○	○	○	SUS304
		1	○	○	○	SUS316L
		2	—	—	○	Titanium
IV	Connection	A	—	○	—	R1/2" welded pipe (Insertion length 150mm)
		B	○	—	—	R3/4" welded pipe (Insertion length 150 to 2000mm)
		C	○	—	—	R1" welded pipe (Insertion length 150 to 2000mm)
		D	—	○	—	G1/2" welded pipe (Insertion length 150mm)
		E	○	—	—	G3/4" welded pipe (Insertion length 150 to 2000mm)
		F	○	—	—	G1" welded pipe (Insertion length 150 to 2000mm)
		G	—	—	○	R1/2" cut-off tapered pipe (Insertion length 150 to 400mm)
		H	—	—	○	R3/4" cut-off tapered pipe (Insertion length 150 to 400mm)
		J	—	—	○	JIS20K 20A RF welded pipe (Insertion length 150 to 400mm)
		K	—	—	○	JIS20K 25A RF welded pipe (Insertion length 150 to 400mm)
		M	—	—	○	JIS20K 20A RF cut-off tapered pipe (Insertion length 150 to 400mm)
		N	—	—	○	JIS20K 25A RF cut-off tapered pipe (Insertion length 150 to 400mm)
V	Lock	1	○	○	○	Single element
		2	○	○	○	Double element
VI	Insertion length	015	—	○	—	150mm
		020	○	—	○	200mm
		025	○	—	○	250mm
		030	○	—	○	300mm
		050	○	—	—	500mm
		XXX	○	—	—	XXX cm (screw welded pipe max. 2000mm)
			—	—	○	XXX cm (RF and cut-off tapered pipe max. 400mm)
VII	Test report	-A	○	○	○	With standard test report (0°C, 100°C)

• A circle (o) denotes availability.

Accessories (sold separately)

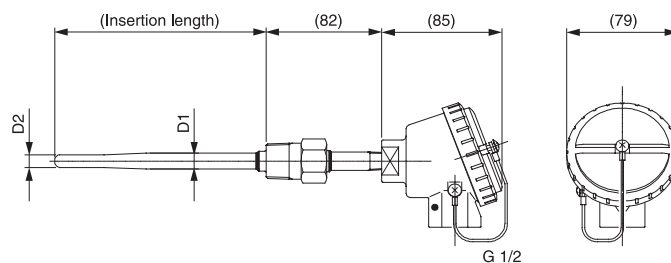
Model No.	Description
8310498-003	Sealed connector (sensing temperature: -30 to +60°C, cable diameter: 8.5 to 12.5mm, plastic)
8310498-004	Sealed connector (sensing temperature: -30 to +60°C, cable diameter: 10.5 to 14.5mm, plastic)
PA1-A3PFH	Heat resistant sealed connector (sensing temperature: -40 to +120°C, cable diameter: 12 to 16mm, metal)

* Used only for open wiring

Dimensions

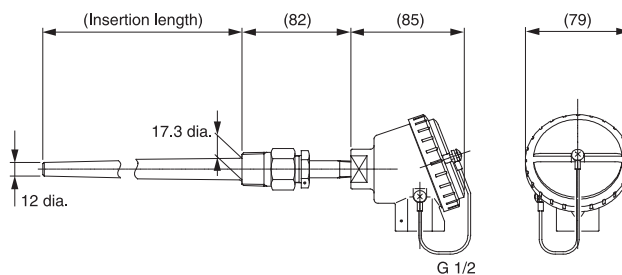
(Unit:mm)

• TY7830A to F, TY7831A to F

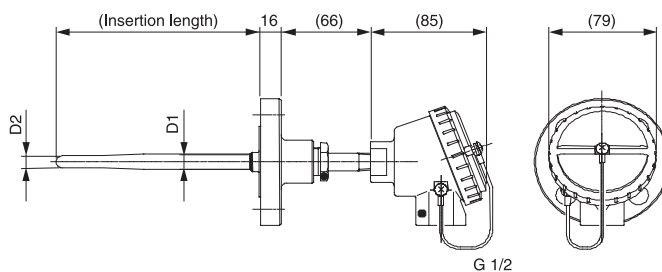


Insertion length	D1	D2
150	12 dia.	9.6 dia.
160 to 400	17.3 dia.	12.5 dia.
410 to 2000	12 dia.	9.6 dia.

• TY7830G/H, TY7831G/H, TY7832G/H



• TY7830J/K, TY7831J/K



Insertion length	D1	D2
150	12 dia.	9.6 dia.
160 to 400	17.3 dia.	12.5 dia.

• TY7830M/N, TY7831M/N, TY7832M/N

