

The E52-E PT100 and thermocouples provide accurate temperature sensing for standard as well as challenging environments, special applications and special mounting requirements. The E52-E series is optimized to work with the range of E5 temperature controllers.

- Thermocouples and PT100 elements
- Wide range of housing, mounting and connection options
- Best performance match with E5 temperature controller portfolio
- Line up for best fitting application performance



Ordering information

Line	Shape type ¹⁾	Type			Temperature range		Sensing tube			Connection			Order code		
		Series	Tech-nology	Sub-type	Min [°C]	Max [°C]	Diameter [mm]	Length [mm]	Material	Type	Fixing	Length [m]			
		smooth tube	Thermo-couple	T	-80	400	3	100	SUS 316	2-wire	pre-wired with cable end shoes	2	E52-ETT3-100-2-A		
				6									E52-ETT6-100-2-A		
				1									E52-ETJ1-100-2-A		
				2									E52-ETJ2-100-2-A		
				3									E52-ETJ3-100-2-A		
				4.5									E52-ETJ4.5-100-2-A		
				6			E52-ETJ6-100-2-A								
				J	0	400	4		SUS 304						E52-ELTJ4-100-2-A
							5								E52-ELTJ5-100-2-A
							6								E52-ELTJ6-100-2-A
							8								E52-ELTJ8-100-2-A
				K	-80	1100	1		INCONEL 600						E52-ETK1-100-2-A
							2								E52-ETK2-100-2-A
							3								E52-ETK3-100-2-A
							4.5								E52-ETK4.5-100-2-A
							6							E52-ETK6-100-2-A	
					0	400	4		SUS 304						E52-ELTK4-100-2-A
							5								E52-ELTK5-100-2-A
							6								E52-ELTK6-100-2-A
							8								E52-ELTK8-100-2-A
		PT100	class B	-50	500	3	250	SUS 316	3-wire	pre-wired with open cable ends		E52-EP3-250-2-B			
				6	250		E52-EP6-250-2-B								
					0	400	4	50		SUS 304		pre-wired with cable end shoes	E52-ELP4-50-2-A		
							5	100						E52-ELP5-100-2-A	
							6							E52-ELP6-100-2-A	
							8							E52-ELP8-100-2-A	
						-50		6		35		SUS 316	pre-wired with open cable ends	E52-EP6-35-2-BG1/4G-B	
								6		15				E52-ETJ6-15-2-BG1/4G-B	
		bajonet mounting	Thermo-couple	J	0	1150	6	200	INCONEL 600	2-wire	enclosed screw terminals	-	E52-ETK6-200-T2-B		
		enclosed terminals, smooth tube		K			720	6					200	E52-ETJ6-200-T2-B	
				J											E52-EP6-200-T2-B
				PT100			class B	-50					500	6	200

¹⁾ See Dimensions on page 3

Line	Shape type ^{*1}	Type			Temperature range		Sensing tube			Connection			Order code
		Series	Tech-nology	Sub-type	Min [°C]	Max [°C]	Diameter [mm]	Length [mm]	Material	Type	Fixing	Length [m]	
		enclosed terminals, G1/2" g mounting	Thermo-couple	K	0	1150	6	200	INCONEL 600	2-wire	enclosed screw terminals	-	E52-ETK6-200-T2-CG1/2G-B
				J		720	6	200					E52-ETJ6-200-T2-CG1/2G-B
						500	6	200					E52-EP6-200-T2-CG1/2G-B
		enclosed terminals; Clamp mounting 1.5"	PT100	class B	-50	200	6	100	SUS 316	3-wire			E52-EP6-100-T2-CC1.5-B
													enclosed terminals; Clamp mounting 2"
		Surface temperature	Thermo-couple	J	0	250	10	dia 4 mm screw hole	Cu (tin plated)	2-wire	pre-wired with open cable ends	2	E52-ETJS1-B
		Environmental temperature	PT100	class B	-40	80	-	-	Aluminium	3-wire	enclosed screw terminals	-	E52-EPE1-B
					-40	80			PVC				E52-EPE2-B
		Non-contact	Infrared sensor	up to Sn = 60 mm	10	260	M18	44.5	ABS	4-wire	pre-wired with open cable ends	3	ES1B
				up to Sn = 1 m	0	400	M18	120	SUS 304	5-wire		2	ES1C-A40

¹ See **Dimensions** on page 3

Note: Models with tube diameters of 2 inches, 3 inches and 4 inches are available. Refer to the separate E52 Inch Temperature Sensor Datasheet.

Accessories

Type			Temperature range		Size	Length	Material	Order code
			Min [°C]	Max [°C]				
Compression fitting	RC 1/2		-200	800	6		AISI 316	E52-EACF1/2-6-B
					8			E52-EACF1/2-8-B
	RC 1/4				6			E52-EACF1/4-6-B
					8			E52-EACF1/4-8-B
	M20×1.5				6			E52-EACFM20-6-B
					8			E52-EACFM20-8-B
Compensation cable	Thermocouple	K	-40	200	n.a.	1	Silicone rubber	E52-EACW-K1-B
						25		E52-EACW-K25-B
	J	1				E52-EACW-J1-B		
		25				E52-EACW-J25-B		
Compensation connector	male	J	-50	120			Thermoplastic	E52-EACC-JM1-B
	female							E52-EACC-JF1-B
	male	K						E52-EACC-KM1-B
	female							E52-EACC-KF1-B
Thermo well ¹	G1/2 gas		-200	800	6 (for 3)	150	AISI 316	E52-EATW1/2G-6-3-150-B
					10 (for 6)			E52-EATW1/2G-10-6-150-B
					12 (for 8)			E52-EATW1/2G-12-8-150-B
Signal converters (for enclosed terminal type)	DIGITAL	Pt100						E52-EASCP1-B
		K						E52-EASCK1-B
		J						E52-EASCJ1-B

¹ Thermo wells with different tube lengths and diameters are available. For solutions with matching pairs of temperature sensors and thermowells with fitting screw connections, contact your Omron representative.

Options (available on request)

1) Sensing head variations

- a) tip shapes
- b) lengths please specify required length
- c) diameters please specify required diameter (metric or inch)

2) Mounting variations

- a) termowell (different process side thread and well fittings)
- b) bajonet (different process side thread and bajonet fittings)
- c) thread (different sizes and types (metric, inch))

3) Connection variations

- a) pre-wired
 - length please specify length
 - material (fiberglass, silicone, PTFE, PVC)
 - colour codings (refer to page 5)
 - ends (open, cable shoes, cable clamps)
- b) Terminals
 - open
 - enclosed

4) Special types

Please contact your OMRON representative for special applications e.g. surface temperature measurement, for hygienic environments, special shapes, mountings, materials, etc.