

Vacuum Thermocouple Sensors

With KF Style Flanges and Integral Cables

TCV-CB Series

MEETS OR EXCEEDS
SPECIAL LIMITS
OF ERROR (SLE)
AND EN 60584-2:
Tolerance Class 1

- ✓ ISO 2861 Fitting Standard 25, and #40
- ✓ #25 and #40 Flanged Sensors Have 1/4" Diameter Probes
- ✓ 1 m (40") PFA Insulated Cable with SS Overbraid and Strain Relief
- ✓ 304 SS Construction
- ✓ Grounded and Ungrounded K, T or E Thermocouple, Special Limits of Error
- ✓ Optional Probe and Cable Lengths

The OMEGA[®] TCV-CB style thermocouples can be installed into an existing KF style flanged connection. #25 and #40 flanged sensors are provided with 1/4" diameter probes. These sensors are available with 3", 6" and 12" standard lengths and ungrounded junctions. Special Limits of Error (SLE) Type K, T and E calibrations, and 304 stainless steel sheaths and flanges. Cables are #24AWG stranded thermocouple wires with PFA Insulation, PFA jacket and stainless steel overbraid and SMPW connector. Please consult sales for other probe lengths, cable lengths, grounded junctions or other options.

For Use
in Vacuum
Processes

#40 KF flange
fitting, 304 SS.

Integral cable
with nylon
cable clamp.

1 m (40") of PFA
with SS over
braid insulated and
jacketed #24 AWG
thermocouple cable
standard.

SMPW-M connector optional.
Visit omega for details.

1/4" diameter

6" Probe
length



TCV probe shown installed using customer supplied clamp and O-ring.

TCV-KU-G-0600-40-CB-40,
shown smaller
than actual size.

Thermocouple Specifications

Thermocouple Type	Temp Range at Tip °C (°F)	Accuracy (Above 0°C)
K	-200 to 900 (-328 to 1652)	2.2 °C or 0.75 whichever is greater
E	-200 to 900 (-328 to 1652)	1.7 °C or 0.5 whichever is greater
T	-200 to 400 (-328 to 752)	1.0 °C or 0.75 whichever is greater

To Order

Model No.	KF Flange	Thermocouple Type	Sheath Diameter
TCV-(*)(**)-(***)-25-CB-40	#25	K, T or E	1/4"
TCV-(*)(**)-(***)-40-CB-40	#40	K, T or E	1/4"

(*) = Specify Type ("K", "T" or "E" Thermocouple)

(**) = Specify Junction Style ("G" = Grounded, "U" = Ungrounded)

(***) = Specify the probe length in inches ("0300" = 3", "0600" = 6", "0950" = 9½", "1200" = 12")

For lengths between those shown, indicate the required length as shown above (additional costs apply).

For longer or shorter cable lengths, change "-40" to length in inches (additional costs apply).

Ordering Examples: TCV-KU-0600-25-CB-40, Type K ungrounded thermocouple with 1/4" diameter probe and #25 flange with 40" of cable and SMPW connector.

TCV-TG-0950-40-CB-240, Type T grounded thermocouple with 1/4" diameter probe and #40 flange with 240" of cable and SMPW connector.

