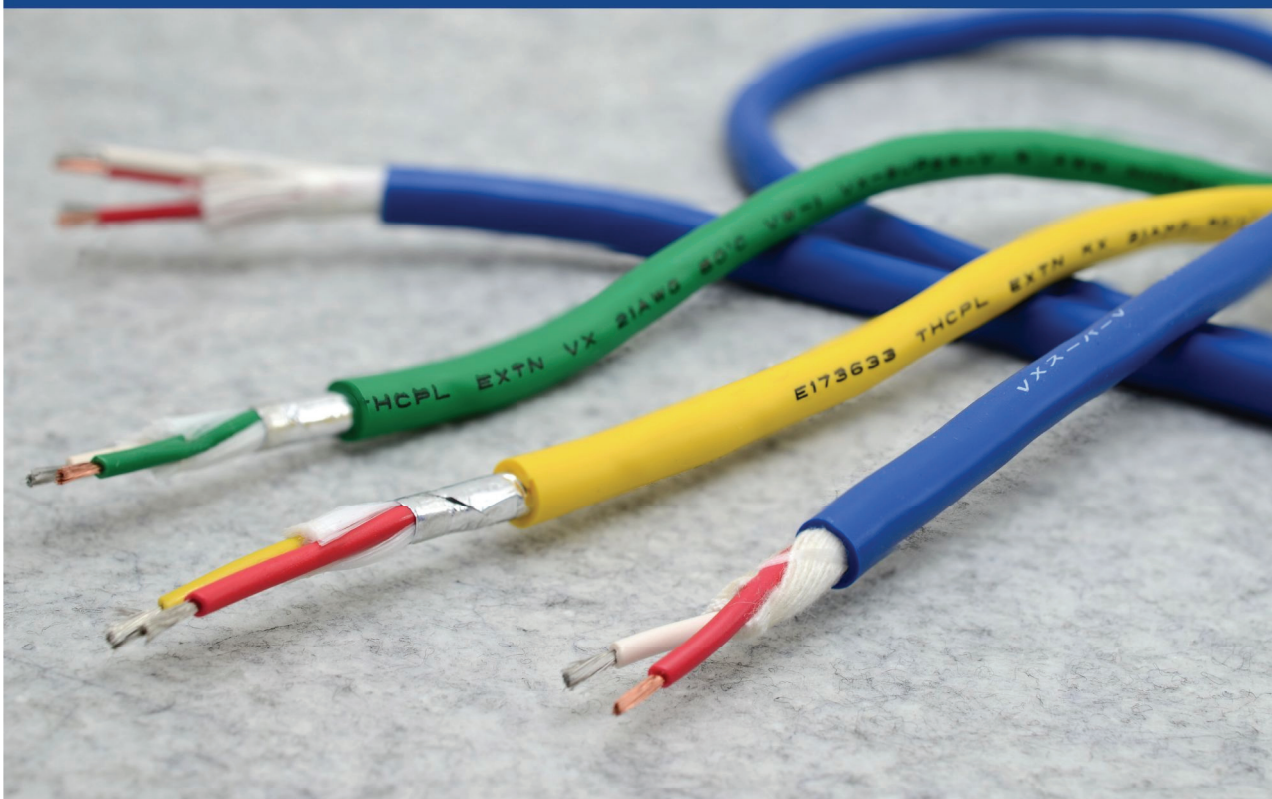


# VX Super V series

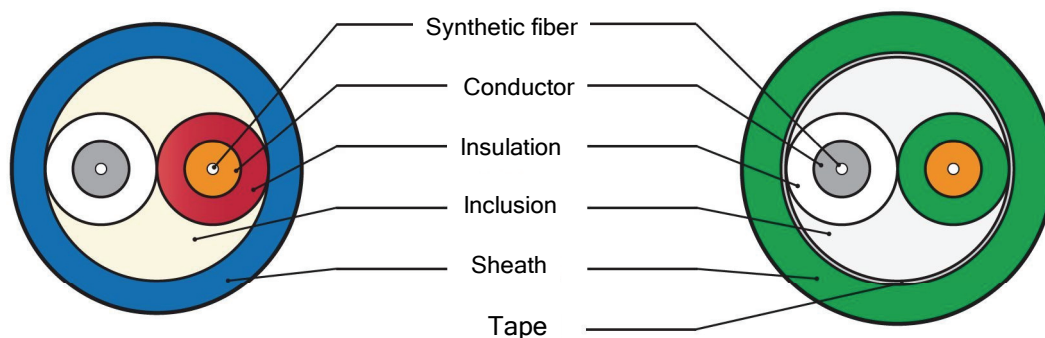


## Features of VX Super V series

The VX Super V series offers VX (KCB) extension and compensating cables for thermocouples, used as lead wires for K (Chromel-Alumel) thermocouples compliant with JIS C 1610.

With highly excellent flexibility that provides flex and twist resistance, they are recommended for use in wiring moving elements of injection molding machines, robots, and other equipment.

## Cross Section



VX Super V

AWG21(45/0.12) x1P VX-SUPER·V-J1-[RU]

# Specifications

Conductor	The conductor is JIS C 1610 compliant thin VX (KCB, a copper-nickel alloy for copper-VX) wire that is twisted together with synthetic fibers, which exhibit excellent flexibility.
Insulation and sheath	Insulation: Vinyl material resistant to heat up to 90°C Sheath: Soft vinyl material resistant to flex, twists, and heat up to 105°C. Color coding: (+) = red, (-) = white, sheath = blue according to JIS Category 2 (The color coding can be compliant with JIS Category 1 or the like)
Pair twisting	Individually insulated extension and compensating cables for thermocouples are twisted together in pairs with an inclusion. The inclusion restrains flex and other stresses applied to the metal conductors by reducing the frictional resistance.
Maximum operating temperature	90°C

## Structure

Nominal cross-sectional area	Composition		Insulation		Twisted pair	Sheath	Standard diameter	Max length	Estimated weight
	No./diameter of component wire Pcs/mm	Outside diameter mm	Thickness mm	Outside diameter mm	Outside diameter mm	Thickness mm	Outside diameter mm	m	kg/km
mm 2									
0.5	45/0.12	1.2	0.5	2.2	4.4	0.8	6.0	1,000	43

## Electrical Characteristics

Thermal electromotive force			Temperature tolerance	
°C	50	100	0°C ~ 100°C 0°C to 100°C	
μV	2023	4096	±100μV ±100 μV	

## Flex Test

Sample			Number of complete breaks
A	VX Super V	Resistant to flex and twists	36,800
B	7/0.3x1P VX-G	Most common flat cable	350
C	30/0.18x1P VX-G-IS=VVR	Round shielded cable	1,650
D	30/0.18x1P VX-G-IS=VV3R	Cable that uses a soft vinyl material for the sheath	3,080

Testing device: Flex testing device based on the rubber/plastic insulated wire testing method (as per 4.27(a) of JIS C 3005)

Testing conditions: Test type B (r = 150 mm, I = 200 mm) - 20 revolutions/minute

\* The measurement data represents actually measured values, not guaranteed values. From the test results, B is not recommended for use in wiring moving elements, although it is the most commonly used extension and compensating cable for thermocouples. With a thickness of 0.3 mm and a parallel structure, it delivered a completely unfavorable result for flex/twist actions. With the thinness and round structure, C and D delivered relatively good results; A, designed to resist flex and twists, exhibits remarkably better results.

\* Please feel free to contact our Sales Department for multi-pair cables and other custom-made products not listed above.



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