



STRAIN GAUGE EXTENSION LEADWIRES

¶ Enamel leadwires

Enamel leadwires have a single core insulated with a resin. Heat resistance and handling methods vary depending on resin. Because the wire mass and diameter are small, enamel leadwires are used for strain measurement of rotating specimens and/or measurement of multiple points located in close proximity. Since the enamel leadwire contains one core covered with a thin resin, it must be handled with care.

•Polyurethane leadwires




Polyurethane leadwires allow easy post-processing because the resin can be removed with a soldering iron. The resin is not strong, therefore, polyurethane wires must be handled with special care.

•Polyester leadwires

Polyester leadwires are harder than polyurethane wires. It cannot be removed with a soldering iron.

•Polyimide leadwires

Polyimide leadwires are harder than the polyester wire. A soldering iron cannot be used for post-processing.

Leadwire type	Core/Diameter ^(*)	Applicable temperature	Total resistance of leadwire	Outer insulated dimensions	Colors
Polyurethane leadwire ^(*) LP/LP-F 	1/0.14	-10~+120°C	2.5Ω/m	Φ0.16mm	Red, Brown, Green
	1/0.18		1.5Ω/m	Φ0.20mm	
Polyester leadwire ^(*) LU/LU-F 	1/0.14	-196~+200°C	2.5Ω/m	Φ0.16mm	Brown
	1/0.18		1.5Ω/m	Φ0.20mm	
Polyimide leadwire LE/LE-F 	1/0.14	-269~+300°C	2.5Ω/m	Φ0.16mm	Brown
	1/0.18		1.5Ω/m	Φ0.20mm	

N.B.: *1: Two types with different core diameters, which are 0.14 mm and 0.18 mm, are available for each enamel wire.




*2: Attachment of lead wire cannot be performed on stacked-type two-element or three-element gauges.

¶ Cross-linked Vinyl leadwires

The cross-linked vinyl insulation provides improved resistance against environmental elements. It is often used for underwater measurement in ordinary temperature.

¶ Cross-linked Polyethylene leadwires

The cross-linked polyethylene leadwire offers higher durability than the cross-linked vinyl leadwire. Cross-linked polyethylene leadwires can be used in steam, warm water and concrete with virtually no insulation degradation.

Leadwire type	Core/Diameter (Cross section)	Applicable temperature	Total resistance of leadwire	Outer insulated dimensions	Length per roll	Colors
2-wire twisted cross-linked vinyl leadwire LJRA 	7/0.16 (0.14mm ²)	-20~+100°C	0.24Ω/m	Φ3.0mm	—	White
3-wire twisted cross-linked vinyl leadwire LJRTA 	7/0.127 (0.09mm ²)	-20~+100°C	0.4Ω/m	Φ2.0mm	200m	Red-Green-Black
3-wire twisted cross-linked polyethylene leadwire LJQTA 	7/0.127 (0.09mm ²)	-65~+125°C	0.4Ω/m	Φ2.0mm	—	Red-Yellow-Black Red-Yellow-White Red-Yellow-Blue