

Mica-Tape Double Wrapped and Silica Glass Fiber Braided Insulation(SB) Wire

NSBL 6×4-I

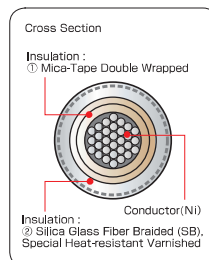
Max. Rated Temp. 400°C Rated voltage 600V

This kind of Heat-resistant Wire is Nickel Conductor, Mica-Tape Double Wrapped and Silica Glass Fiber Braided, Special Heat-resistant Varnished Insulation.

It is a Super Heat-resistant Wire for the continuous use in the temperature of 400°C.
It can be used for the continuous use in the temperature of 500°C,
in case of a varnish un-disposed article.



- **Conductor** Nickel (Ni)
- **Insulation**
 - ① Mica-Tape Double Wrapped
 - ② Silica Glass Fiber Braided (SB), Special Heat-resistant Varnished
- **Standard Color:** White
- **Main Usage:** As a lead wire for a high temperature furnace and high temperature apparatus, etc.



Nominal sectional area	Conductor		Nom. thick of Insulation		Standard overall diam.	Electrical Properties				Approx Length	Weight
	Combination	Outer diam.	Mica-Tape Wrapped	Silica Glass Fiber Braided		Conductor Resistance 20°C	Dielectric Strength Test	Insulation Resistance	Standard Voltage Value		
SQ (mm ²)	Core/mm	mm	mm	mm	mm	Max. Ω /km	V/mm	Min. MΩ /km	N	M	kg/km
0.75SQ	14/0.26	1.2	0.52	0.45	3.2	148	AC1500	5.0	10	1000	26
1.25SQ	24/0.26	1.5	0.52	0.45	3.5	86.3	AC1500	5.0	15	1000	27
2SQ	37/0.26	1.8	0.52	0.45	3.8	56.0	AC1500	5.0	20	1000	36
3.5SQ	22/0.45	2.5	0.52	0.45	4.5	31.4	AC1500	5.0	30	600	50
5.5SQ	35/0.45	3.1	0.52	0.45	5.4	19.7	AC1500	5.0	40	400	76
8SQ	50/0.45	3.7	0.52	0.45	5.7	13.8	AC1500	5.0	50	200	100
14SQ	7/12/0.45	5.4	0.52	0.90	8.3	8.23	AC2000	3.0	70	100	200
22SQ	7/20/0.45	7.0	0.52	0.90	9.9	4.94	AC2000	3.0	90	100	276
38SQ	7/34/0.45	9.1	0.52	0.90	12.0	2.85	AC2000	3.0	130	100	470
60SQ	19/20/0.45	11.6	0.52	0.90	14.5	1.58	AC2000	3.0	170	100	700
80SQ	19/27/0.45	13.6	0.52	1.35	17.4	1.21	AC3000	1.0	220	100	910
100SQ	19/34/0.45	15.2	0.52	1.35	19.0	1.10	AC3000	1.0	240	100	1120

Warning notice :

- When power turns on, it becomes very high temperature by self-generation of heat. For the buildings with which an electric wire is in contact or approach please use the materials which shall not yield to the high temperature, and please arrange the wiring at the place away from people's reach.
- The glass fiber currently used for the electric wire is very weak in the material to too much crookedness. Please avoid use in a place (equipment) with the crookedness after electric wire construction, or an intense vibration/fixed wiring).
- Since this electric wire is hygroscopic and has a threat of sparking (short circuit) if applied in the place of humidity and moisture, therefore please do not carry out wiring.

Mica-Tape double Wrapped and Silica Glass Fiber Braided Insulation(SB) Wire

NSBL 6×5

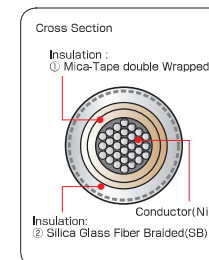
Max. Rated Temp. 500°C Rated voltage 600V

This kind of Heat-resistant Wire is Nickel Conductor, Mica-Tape Double Wrapped and Silica Glass Fiber Braided Insulation.

It is a Super Heat-resistant Wire for the continuous use in the temperature of 500°C.
Silica Glass Fiber Braided Insulation is proceeded in a varnish un-disposed article,
for the purpose of removing impurities gas generated in a high temperature.



- **Conductor:** Nickel (Ni)
- **Insulation:**
 - ① Mica-Tape Double Wrapped
 - ② Silica Glass Fiber Braided (SB)
- **Standard Color:** White
- **Main Usage:** As a lead wire for a high temperature furnace and high temperature apparatus, etc.



Nominal sectional area	Conductor		Nom.thick of Insulation		Standard overall diam.	Electrical Properties				Approx Length	Weight
	Combination	Outer diam.	Mica-Tape Wrapped	Silica Glass Fiber Braided		Conductor Resistance 20°C	Dielectric Strength Test	Insulation Resistance	Standard Voltage Value		
SQ (mm ²)	Core/mm	mm	mm	mm	mm	Max. Ω /km	V/mm	Min. MΩ /km	N	M	kg/km
3.5SQ	22/0.45	2.5	0.52	0.45	4.5	31.4	AC1500	5.0	30	100	50
5.5SQ	35/0.45	3.1	0.52	0.45	5.1	19.7	AC1500	5.0	40	100	76
8SQ	50/0.45	3.7	0.52	0.45	5.7	13.8	AC1500	5.0	50	100	100
14SQ	7/12/0.45	5.4	0.52	0.9	8.3	8.23	AC2000	3.0	70	50	200
22SQ	7/20/0.45	7.0	0.52	0.9	9.9	4.94	AC2000	3.0	90	30	276
38SQ	7/34/0.45	9.1	0.52	0.9	12.0	2.85	AC2000	3.0	130	20	470

Warning notice :

- When power turns on, it becomes very high temperature by self-generation of heat. For the buildings with which an electric wire is in contact or approach please use the materials which shall not yield to the high temperature, and please arrange the wiring at the place away from people's reach.
- The glass fiber currently used for the electric wire is very weak in the material to too much crookedness. Please avoid use in a place (equipment) with the crookedness after electric wire construction, or an intense vibration/fixed wiring).
- Since this electric wire is hygroscopic and has a threat of sparking (short circuit) if applied in the place of humidity and moisture, therefore please do not carry out wiring.

Current Tolerance Table

■ NSBL 6 × 5

(A)

Products	Size	Standard Electric Current Value	300℃	310℃	320℃	330℃	340℃	350℃	360℃	370℃	380℃	390℃
NSBL 6 × 5	3.5SQ	30	27.9	27.3	26.4	25.8	25.0	24.1	23.4	22.6	21.6	20.7
	5.5SQ	40	37.3	36.4	35.3	34.4	33.4	32.2	31.2	30.1	28.8	27.7
	8.0SQ	50	46.6	45.5	44.1	43.0	41.8	40.3	39.0	37.7	36.0	34.6
	14.0SQ	70	65.2	63.7	61.8	60.2	58.5	56.4	54.6	52.8	50.4	48.4
	22.0SQ	90	83.9	81.9	79.4	77.4	75.2	72.5	70.2	67.9	64.8	62.3
	38.0SQ	130	121.2	118.4	114.8	111.8	108.7	104.8	101.5	98.1	93.7	90.0
	Size	Standard Electric Current Value	400℃	410℃	420℃	430℃	440℃	450℃	460℃	470℃	480℃	490℃
	3.5SQ	30	19.6	18.7	17.7	16.4	15.2	14.0	12.3	10.8	9.0	6.0
	5.5SQ	40	26.2	24.9	23.6	21.9	20.3	18.7	16.4	14.4	12.0	8.0
	8.0SQ	50	32.7	31.2	29.5	27.3	25.4	23.4	20.6	18.0	15.0	10.0
	14.0SQ	70	45.9	43.7	41.4	38.3	35.6	32.8	28.8	25.2	21.0	14.0
	22.0SQ	90	59.0	56.2	53.2	49.2	45.8	42.2	37.1	32.4	27.0	18.0
	38.0SQ	130	85.2	81.1	76.9	71.2	66.2	60.9	53.6	46.8	39.0	26.0
Safe Current Tolerance Calculating Formula $\text{NSBL } 6 \times 5 \text{ (A)} = \sqrt{\frac{500 - \theta}{230}} \times \text{(N)}$ θ = Use Temperature(℃) N = Standard Electric Current Value												

In the case of Multi-Core, pls refer to Electric Current Decrease Coefficient mentioned below and multiply the Safe Current Tolerance in above Table

The Electric Current Decrease Coefficient Table due to Multi-core.	Number of Core (C)	2 ~ 3	4	5 ~ 6	7 ~ 15
	Current Decrease Coefficient	0.70	0.63	0.56	0.49



Instructions on Products

Products	Instructions
Thermocouple Extension/ Compensating Cables	● About The Choice of Cable Type The cable will be connected to Thermocouple Sensor, Please make sure the type of Thermocouple Sensor first and then choose the type of Thermocouple Extension /Compensating Cable to match the same type of Thermocouple Sensor, otherwise correct temperature can not be measured. ● About The Cable Wiring Environment ① Glass Fiber Braided type Cable can not be wired in an environment of damp and water. ② Please avoid using in an alkali atmosphere. ③ The cable can not be used as an electric cable for power supplies. ④ Please be noticed that the cable used outdoors and of a long-time storage, the color might fade. ● About The Colors The color of cable in this Catalog is only an example, The color may be different for different type or different standard.
Thermocouple Wires (Duplex type)	● About Standards Our wire is based on the Standards of JIS-C1602 and JIS C-1605. ● About the Colors The color code of our wire is based on the Standards of JIS C1610-2012 revised on June of 2012. ● About Wiring of Positive(+) and Negative(—) Please be careful not to reverse Positive(+) and Negative(—) while wiring. ● About Sheath Bending Radius The wire can be bent more than 2 times of bend radius of sheath outer diameter.
Heat-resistant Wires	● About the use methods The wire in this Catalog are used as a lead wire which is connected to some electric generator apparatus or device in high temperature etc. ● About Standard Voltage Value. Please be careful not to use the Voltage above the Standard Value listed in this catalog. ● About the wiring environment ① When power turns on, it becomes very high temperature by self-generation of heat, For the buildings with which an electric wire is in contact or approach please use the materials which shall not yield to the high temperature, and please arrange the wiring at the place away from the people's reach. ② The glass fiber currently used for the electric wire is a very weak material to too much crookedness. Please avoid using in a place (equipment) with the crookedness or an intense vibration (It must be used for fixed wiring). ③ Since this electric wire is hygroscopic and may threaten a sparking (short circuit) if applied in the place of humidity and moisture, therefore please avoid wiring in such places.
Thermocouple Extension/ Compensating Cables, Thermocouple Wires (Duplex type), Heat-resistant Wires	● About the weight of the cable(wire) The weight of each kind of cable(wire) in this catalog is only a design value for your reference, sometimes there may be a little difference in the completed cable(wire), due to different type and materials of insulation and sheath. ● About the overall diameter of Thermocouple Extension/Compensating Cable The Overall diameter (O.D) of each kind of cable in this catalog is only a design value for your reference, There might be ±10% error in a completed cable diameter.