

Thermocouple extension and compensating cables

RT-2Y(Si)2YSWAY PiMF, RT-Y(Si)YSWAY PiMF

Works Standard

Multipairs, layers, individual and collective screen, round wire armour



Conductor diameter

0.8 mm
1.02 mm
1.13 mm
1.29 mm
1.38 mm

Description:

- Solid conductor* of thermocouple material to table page 55
- Insulation polyvinylchloride YI3 or polyethylene 2YI1 to DIN VDE 0207
- Cores twisted to form pairs
- Colour code: see table page 55
- Individual screen of plastic bonded aluminium tape with tinned copper drain wire 0.6 mm, polyester tapes over and under the screen; approx. 25% overlap
- Screened pairs twisted in concentric layers
- Wrapping of polyester tape(s)
- Collective screen of plastic bonded aluminium tape with tinned copper drain wire 7 x 0.3 mm, polyester tape(s); approx. 25% overlap
- Bedding of polyvinylchloride or polyethylene
- Galvanized steel wire armour to BS 1442
- Outer sheath of polyvinylchloride YM1 to DIN VDE 0207, colour: see table page 55, for intrinsically safe systems: blue with identification stripe

Abbreviations:

RT- thermocouple extension and compensating cable
2Y insulation or sheath of polyethylene
Y insulation or sheath of polyvinylchloride
(Si) collective screen
SWA galvanized steel wire armour
PiMF individual pair screen

Application:

for transmission of thermoelectric voltage from measuring junction to reference junction

Use:

for indoor and outdoor installation and direct burial

Temperature rating:

during operation: -30 °C up to +70 °C
during installation: - 5 °C up to +50 °C

Min. bending radius:

10 x d (d = overall diameter)

Other properties:

flame retardant to DIN VDE 0472 part 804
test method B

Electrical properties at 20 °C**

		Character	Unit	Conductor size				
				0.8 mm	1.02 mm	1.13 mm	1.29 mm	1.38 mm
Insulation resistance	PE-insulated PVC-insulated	min.	MΩ x km	5000 100				
Mutual capacitance at 800 Hz	PE-insulated PVC-insulated	max.	nF / km	120 170				
Test voltage	U _{eff}		V	2000 1000				
Core: core								
Core: screen			V					
Operating voltage	U _{eff}	max.	V	300				

* conductor also available with 0.20 mm strands

** for loop resistance and inductance please see tables on pages 55 and 57

Data sheet (geometrical): solid conductors

Number of pairs	Conductor n/mm	Thickness of insulation (nominal) mm	Steel wire diameter (approx.) mm	Thickness of outer sheath (nominal) mm	Overall diameter (nominal) mm	Cable weight (approx.) kgs/km
Conductor size 0.8 mm						
2	1/0.8	0.4	0.9	1.4	12.0	270
4	1/0.8	0.4	0.9	1.4	13.4	340
6	1/0.8	0.4	0.9	1.4	15.4	470
8	1/0.8	0.4	0.9	1.5	16.2	595
10	1/0.8	0.4	1.25	1.5	18.5	670
12	1/0.8	0.4	1.25	1.5	19.3	710
16	1/0.8	0.4	1.25	1.6	21.0	820
20	1/0.8	0.4	1.25	1.6	22.5	1090
24	1/0.8	0.4	1.25	1.7	24.9	1210
Conductor size 1.02 mm						
2	1/1.02	0.4	0.9	1.4	12.0	320
4	1/1.02	0.4	0.9	1.4	13.4	405
6	1/1.02	0.4	0.9	1.5	15.4	555
8	1/1.02	0.4	1.25	1.5	16.2	700
10	1/1.02	0.4	1.25	1.6	18.5	795
12	1/1.02	0.4	1.25	1.6	19.3	845
16	1/1.02	0.4	1.25	1.7	21.0	1145
20	1/1.02	0.4	1.25	1.7	22.5	1305
24	1/1.02	0.4	1.6	1.7	24.9	1465
Conductor size 1.13 mm						
2	1/1.13	0.4	0.9	1.4	13.4	350
4	1/1.13	0.4	0.9	1.4	15.1	440
6	1/1.13	0.4	1.25	1.5	18.1	600
8	1/1.13	0.4	1.25	1.5	18.9	755
10	1/1.13	0.4	1.25	1.6	20.9	850
12	1/1.13	0.4	1.25	1.6	21.5	910
16	1/1.13	0.4	1.6	1.7	24.7	1245
20	1/1.13	0.4	1.6	1.7	26.4	1420
24	1/1.13	0.4	1.6	1.8	28.2	1600
Conductor size 1.29 mm						
2	1/1.29	0.4	0.9	1.4	13.9	400
4	1/1.29	0.4	0.9	1.5	16.0	480
6	1/1.29	0.4	1.25	1.5	19.0	660
8	1/1.29	0.4	1.25	1.6	20.0	835
10	1/1.29	0.4	1.25	1.6	21.9	970
12	1/1.29	0.4	1.25	1.7	22.5	1200
16	1/1.29	0.4	1.6	1.7	25.9	1390
20	1/1.29	0.4	1.6	1.8	28.0	1605
24	1/1.29	0.4	1.6	1.8	30.2	1870
Conductor size 1.38 mm						
2	1/1.38	0.5	0.9	1.4	15.3	510
4	1/1.38	0.5	1.25	1.5	18.1	660
6	1/1.38	0.5	1.25	1.6	20.6	815
8	1/1.38	0.5	1.25	1.6	21.6	965
10	1/1.38	0.5	1.6	1.7	24.8	1245
12	1/1.38	0.5	1.6	1.7	25.7	1335
16	1/1.38	0.5	1.6	1.8	28.4	1580
20	1/1.38	0.5	1.6	1.9	31.4	1880
24	1/1.38	0.5	1.6	1.9	33.3	2135