

Thermocouple extension and compensating cables

RT-2Y(St)Yv, RT-Y(St)Yv

Works Standard

Multipairs, layers, collective screen



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, pairs twisted in concentric layers
- Colour code: see table page 55
- Wrapping of polyester tapes
- Collective screen of plastic bonded aluminium tape with tinned drain wire 7 x 0.3 mm, polyester tape(s), approx. 25% overlap
- 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 of polyethylene
- Y insulation of polyvinylchloride
- Yv thicker sheath of polyvinylchloride
- (St) collective 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:

7.5 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	80 120				
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

*** values can be exceeded by 20% on cables up to 4 pairs

Data sheet (geometrical): solid conductors

Dimension	Conductor n/mm	Thickness of insulation (nominal) mm	Thickness of outer sheath (nominal) mm	Overall diameter (approx.) mm	Cable weight (approx.) kgs/km
Conductor size 0.8 mm					
1 x 2 x 0.8	1/0.8	0.4	1.8	7.1	60
Conductor size 1.02 mm					
1 x 2 x 1.02	1/1.02	0.4	1.8	7.5	70
Conductor size 1.13 mm					
1 x 2 x 1.13	1/1.13	0.4	1.8	7.9	80
Conductor size 1.29 mm					
1 x 2 x 1.29	1/1.29	0.4	1.8	8.1	90
Conductor size 1.38 mm					
1 x 2 x 1.38	1/1.38	0.5	1.8	8.7	100