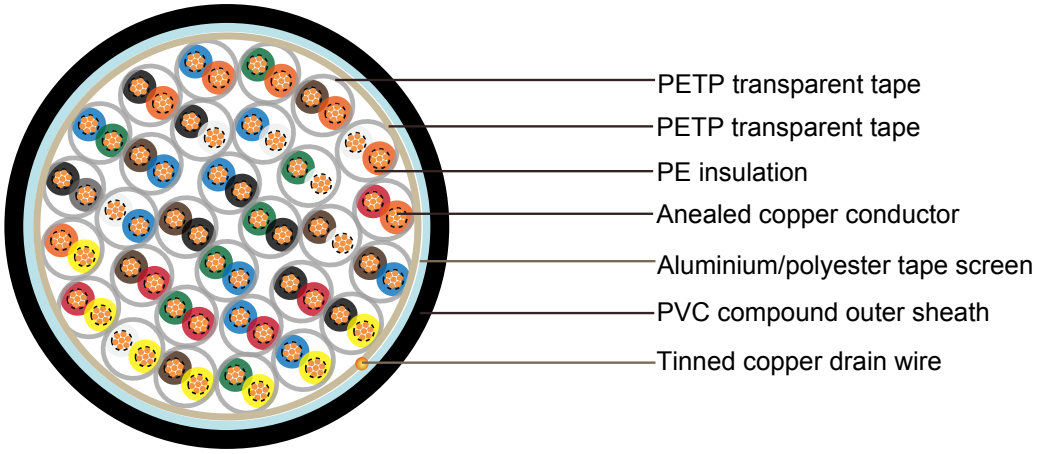
BS5308 Cable Part 1 Type1 PE-OS-PVC / *RE-2Y(St)Y*

Application

The unarmoured versions (Part 1 Type 1) are generally use for indoor installation and suitable for wet and damp areas. Generally used within industrial process manufacturing plants for communication, data and voice transmission signals and services, Also used for the interconnection of electrical equipment and instruments, typically in petroleum industry.

Construction



Conductor	Annealed or tinned copper, sizes: 0.5mm² and 0.75mm² mulitistranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multistranded(Class 2) to BS6360
Insulation	PE (Polyethylene) type 03 to BS6234
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Colour code	See technical information
Binder tape	PETP transparent tape
Collective screen	Aluminium/polyester tape is applied over the laid up pairs metallic side down in contact with tinned copper drain wire, 0.5mm²
Outer sheath	PVC Sheath, type TM 1 or type 6 to BS 6746
Sheath colour	Black or blue

Mechanical and Electrical Properties

Operating temperature: -40˚C up to + 70˚C(fixed installation)
0˚C to +50˚C(during operation)

Minimum bending radius: 5 x overall diameter

Conductor Area Size		mm ^{2}	0.5	0.5	0.75	1.0	1.5
Conductor Stranding		No. x mm	1 x 0.8	16 x 0.2	24 x 0.2	1 x 1.13	7 x 0.53
Conductor resistance max		ohm/km	36.8	39.7	26.5	18.2	12.3
Insulation resistance min		Gohm/km	5	5	5	5	5
Capacitance unbalance at 1 kHz(pair to pair screen)		pF/250m	250				
Max. Mutual Capacitance @ 1 kHz forNon OS or OS cables (except one-pair and two-pairs)		pF/m	115	115	115	115	120
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75	85
Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		μH/ohm	25	25	25	25	40
Test voltage	**Core to core**	V	1000	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000	1000
Rated voltage max		V	300/500	300/500	300/500	300/500	300/500

Parameter

No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	kg/km
1	1/0.8	0.5	0.5	0.8	5.5	35
2	1/0.8	0.5	0.5	0.8	6.8	55
5	1/0.8	0.5	0.5	1.1	10.9	125
10	1/0.8	0.5	0.5	1.2	14.4	215
15	1/0.8	0.5	0.5	1.2	16.5	300
20	1/0.8	0.5	0.5	1.3	18.8	385
30	1/0.8	0.5	0.5	1.3	22.3	545
50	1/0.8	0.5	0.5	1.5	28.5	875
1	16/0.2	0.5	0.6	0.8	6.2	60
2	16/0.2	0.5	0.6	0.8	7.6	80

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No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	kg/km
5	16/0.2	0.5	0.6	1.1	12.4	210
10	16/0.2	0.5	0.6	1.2	16.5	340
15	16/0.2	0.5	0.6	1.3	19.2	440
20	16/0.2	0.5	0.6	1.3	21.7	570
30	16/0.2	0.5	0.6	1.5	26.4	780
50	16/0.2	0.5	0.6	1.7	33.4	1130
1	24/0.2	0.75	0.6	0.8	6.7	75
2	24/0.2	0.75	0.6	0.9	8.4	100
5	24/0.2	0.75	0.6	1.2	13.8	250
10	24/0.2	0.75	0.6	1.3	18.4	450
15	24/0.2	0.75	0.6	1.5	21.1	600
20	24/0.2	0.75	0.6	1.5	24.4	920
30	24/0.2	0.75	0.6	1.7	29.5	980
50	24/0.2	0.75	0.6	2	37.6	1690
1	1/1.13	1	0.6	0.8	6.6	85
2	1/1.13	1	0.6	0.8	8	115
5	1/1.13	1	0.6	1.2	13.5	290
10	1/1.13	1	0.6	1.2	17.7	500
15	1/1.13	1	0.6	1.3	20.6	670
20	1/1.13	1	0.6	1.5	23.8	950
30	1/1.13	1	0.6	1.5	28.4	1030
50	1/1.13	1	0.6	2	36.6	1750
1	7/0.53	1.5	0.6	0.8	7.5	100
2	7/0.53	1.5	0.6	0.9	9.3	150
5	7/0.53	1.5	0.6	1.2	15.6	360
10	7/0.53	1.5	0.6	1.3	20.9	690
15	7/0.53	1.5	0.6	1.5	24.6	880
20	7/0.53	1.5	0.6	1.5	27.8	1230
30	7/0.53	1.5	0.6	1.7	33.7	1560
50	7/0.53	1.5	0.6	2	43	2400