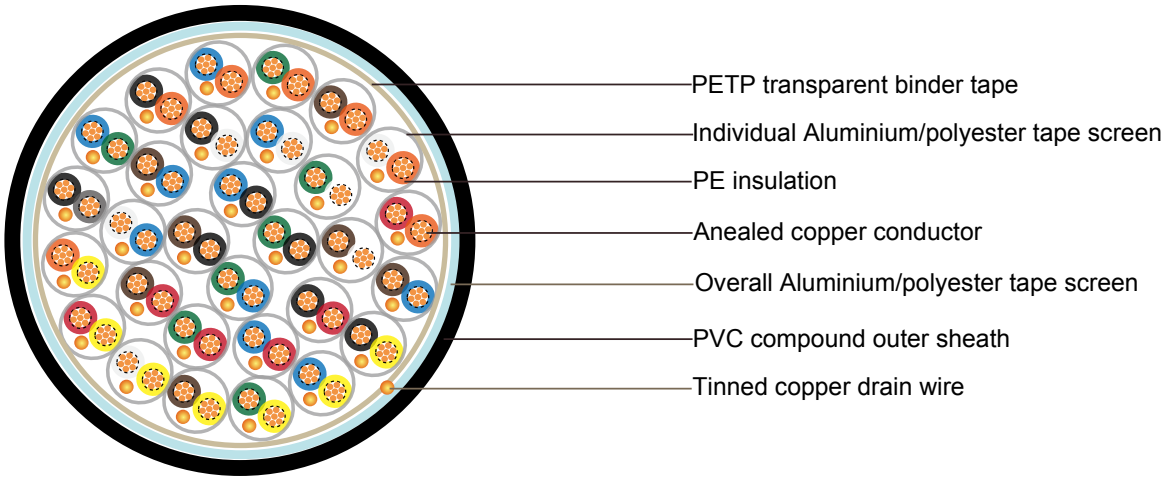
BS5308 Cable Part 1 Type1 PE-IS-OS-PVC/ *RE-2Y(St)Y PIMF*

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
Individual screen	Aluminium/polyester tape is applied over each pair metallic side down in contact with tinned copper drain wire, 0.5mm²
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
2	1/0.8	0.5	0.5	0.9	9.7	95
5	1/0.8	0.5	0.5	1.2	13	180
10	1/0.8	0.5	0.5	1.2	16.9	310
15	1/0.8	0.5	0.5	1.3	19.7	440
20	1/0.8	0.5	0.5	1.3	22.3	560
30	1/0.8	0.5	0.5	1.5	27.1	820
50	1/0.8	0.5	0.5	2	35	1370
2	16/0.2	0.5	0.6	1.1	11.2	110
5	16/0.2	0.5	0.6	1.2	14.5	250
10	16/0.2	0.5	0.6	1.3	19.3	480

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
15	16/0.2	0.5	0.6	1.5	22.6	570
20	16/0.2	0.5	0.6	1.5	25.7	780
30	16/0.2	0.5	0.6	1.7	31	1020
50	16/0.2	0.5	0.6	2.2	39.9	1680
2	1/1.13	1	0.6	1.1	11.9	200
5	1/1.13	1	0.6	1.2	15.4	290
10	1/1.13	1	0.6	1.3	20.5	580
15	1/1.13	1	0.6	1.5	24.1	780
20	1/1.13	1	0.6	1.7	27.7	1010
30	1/1.13	1	0.6	2	33.7	1430
50	1/1.13	1	0.6	2.2	42.5	2360
2	7/0.53	1.5	0.6	1.2	13.6	250
5	7/0.53	1.5	0.6	1.3	17.7	460
10	7/0.53	1.5	0.6	1.5	23.9	760
15	7/0.53	1.5	0.6	1.7	28	1020
20	7/0.53	1.5	0.6	2	31.7	1350
30	7/0.53	1.5	0.6	2.2	38.6	1900
50	7/0.53	1.5	0.6	2.2	48.9	3060