

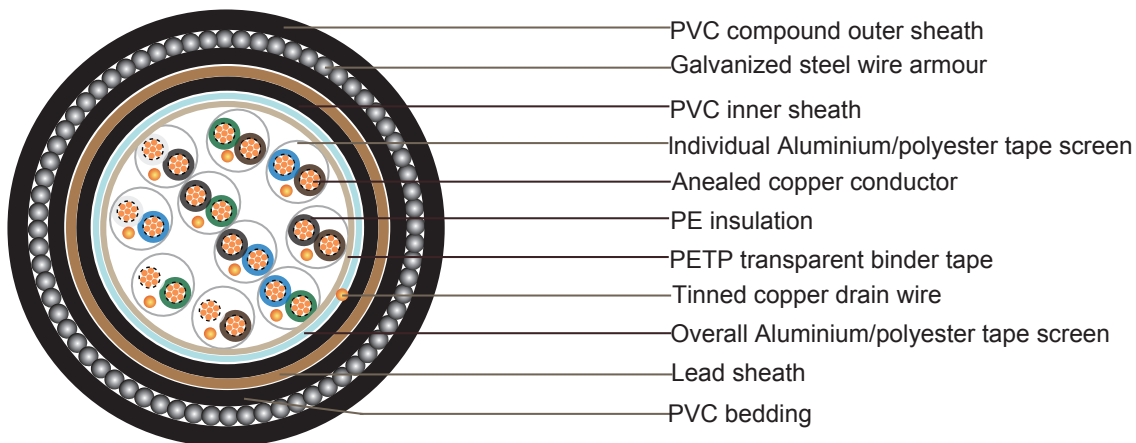


BS5308 Cable Part 1 Type 3 PE-IS-OS-Lead-SWA-PVC/ RE-2Y(St)Y PIMF MYSWAY

Application

The armoured versions (Part 1 Type 3) are generally used when the risk of mechanical damage is increased. The galvanised steel wire armour provides excellent protection. 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. They are well adapted to underground use in industrial applications, in moist areas, where chemical and mechanical protections are needed. The lead sheath brings an enhanced resistance to aromatic hydrocarbons.

Construction



Conductor	Annealed or tinned copper, sizes: 0.5mm ² and 0.75mm ² multistranded(Class 5), 0.5 mm ² , 1.0 mm ² solid(Class 1), 1.5mm ² or 2.5mm ² , 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, 0.5mm ²
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, 0.5mm ²
Inner Sheath	PVC (polyvinyl chloride), type TM 1 or type 6 to BS 6746
Lead Sheath	Lead Alloy
Bedding	PVC (polyvinyl chloride), type TM 1 to BS 6746
Amour	Galvanized steel wire armour
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: 15 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 for Non 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
	Core to screen	V	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 Dia. over Bedding	Nominal Thickness of Armour	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm ²	mm	mm	mm	mm	kg/km
2	1/0.8	0.5	0.5	10.3	0.9	14.9	380
5	1/0.8	0.5	0.5	13.5	1.25	19	640
10	1/0.8	0.5	0.5	18.3	1.25	24.2	890
15	1/0.8	0.5	0.5	21.2	1.6	27.7	1350
20	1/0.8	0.5	0.5	23.5	1.6	30.3	1470
30	1/0.8	0.5	0.5	27.9	1.6	34.9	1870
50	1/0.8	0.5	0.5	36.1	2	44.5	3000
2	16/0.2	0.5	0.6	12	0.9	16.8	460
5	16/0.2	0.5	0.6	15.2	1.25	20.9	760
10	16/0.2	0.5	0.6	21.1	1.6	27.9	1300
15	16/0.2	0.5	0.6	24.5	1.6	31.3	1440
20	16/0.2	0.5	0.6	27.3	1.6	34.3	1870
30	16/0.2	0.5	0.6	32.3	2	40.5	2400
50	16/0.2	0.5	0.6	41.7	2.5	51.5	3930
2	1/1.13	1	0.6	12.8	0.9	17.6	515
5	1/1.13	1	0.6	16.2	1.25	21.9	950
10	1/1.13	1	0.6	22.6	1.6	29.4	1330
15	1/1.13	1	0.6	26.2	1.6	33.2	1680
20	1/1.13	1	0.6	29.8	2	37.8	2540
30	1/1.13	1	0.6	35.4	2	43.8	2900
50	1/1.13	1	0.6	44.9	2.5	54.9	4800
2	7/0.53	1.5	0.6	14.7	1.25	20.4	730
5	7/0.53	1.5	0.6	18.8	1.6	25.4	1180
10	7/0.53	1.5	0.6	26.5	1.6	33.5	1820
15	7/0.53	1.5	0.6	30.8	1.6	38.8	2350
20	7/0.53	1.5	0.6	34.4	2	42.6	3030
30	7/0.53	1.5	0.6	41	2.5	50.8	4050
50	7/0.53	1.5	0.6	52.2	2.5	62.6	5960

