Caledonian

Instrumentation cables to BS 5308 and ESI 09-6

www.caledonian-cables.co.uk
www.caledonian-cables.com

Addison

Company Profile

Caledonian. established in 1978.offers one of the most complete lines of fiber and copper cabling system solutions with over hundreds of different cabling system products. . Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS - British Standard; LPCB Fire Performance Standard. ISO Standard etc. Caledonian Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables has continually expanded its global presence in Europe and Asia.

Caledonian & Addison. produces a wide range of cables for communication. power and electronics in its primary plants in UK. Italy and Spain. To stay in front. we continually keep expanding our manufacturing capabilities in more low cost region such as Romania. Taiwan. Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible. scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing. logistic services. and vertically integrated with our E commerce technologies. to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality. excellent service level. competitive pricing and a unique and innovative spirit. With our latest technologies. we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning. we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized. country and industry-specific solutions. Caledonian & Addison has established an extensive network of design. manufacturing. and logistics facilities in the world’s major markets to serve the growing outsourcing needs of both multinational and regional customers.

Our Certificate

INTERNATIONAL FIRST CERTIFICATION

INTERNATIONAL FIRST CERTIFICATION

CERTIFICATE

This certificate,

CALEDONIAN KABLO ELEKTRIK SANAYI VE TICARET LIMITED SIRKETI

MERKEZ MAHALLESI BAGLAR CADDESI C BLOK APARTMANI NO:14 C/4 KAGITHANE ISTANBUL, TURKEY

to do organization,

DESIGN, SUPPLY, FABRICATION, INSTALLATION, ASSEMBLY, COMMISSIONING, TESTING AND MAINTENANCE OF LV/MV/HV ENERGY CABLES, DATA CABLES, INSTRUMENTATION CABLES, TELECOMMUNICATION CABLES, FIBER OPTIC CABLES, RAILWAY CABLES, ROLLING STOCK CABLES, PHOTOVOLTAIC CABLES, MARINE CABLES, CABLING SYSTEM, CABLE ACCESORIES, ABC, AAC, ACSR, AAAC, POWER AND DISTRIBITION TRANSFORMERS, SWITCH GEARS, COMMUNICATION SYSTEMS, IT SYSTEMS

According to the scope,

ISO 9001:2015

To certify that Quality Management System in accordance with standard's clauses is established and being implemented.

Initial Date	:	24.08.2021
Issue Date	:	10.08.2022
Date of Validity	:	3 Yıl/ 23.08.2024
Expiry Date	:	23.08.2023
Certificate No	:	IFC-Q-8-21-I-10180

IAS ACCREDITED

MSCB-170

Approval

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Instrument Cables to ESI 09-6

Technical Reference

BS5308 Part 1

BS5308 Part 1 / Type 1 (unarmoured cables)

BS5308 Cable Part 1 Type 1 PE-OS-PVC
BS5308 Cable Part 1 Type 1 PE-IS-OS-PVC
BS5308 Cable Part 1 Type 1 MG-XLPE-OS-LSOH
BS5308 Cable Part 1 Type 1 XLPE-OS-LSOH
BS5308 Cable Part 1 Type 1 XLPE-IS-OS-LSOH

BS5308 Part 1 / Type 2 (armoured cables)

BS5308 Cable Part 1 Type 2 PE-OS-SWA-PVC
BS5308 Cable Part 1 Type 2 PE-IS-OS-SWA-PVC
BS5308 Cable Part 1 Type 2 MG-XLPE-OS-SWA-LSOH
BS5308 Cable Part 1 Type 2 MG-XLPE-IS-OS-SWA-LSOH
BS5308 Cable Part 1 Type 2 XLPE-OS-SWA-LSOH
BS5308 Cable Part 1 Type 2 XLPE-IS-OS-SWA-LSOH

BS5308 Part 1 / Type 3 (lead sheath cables)

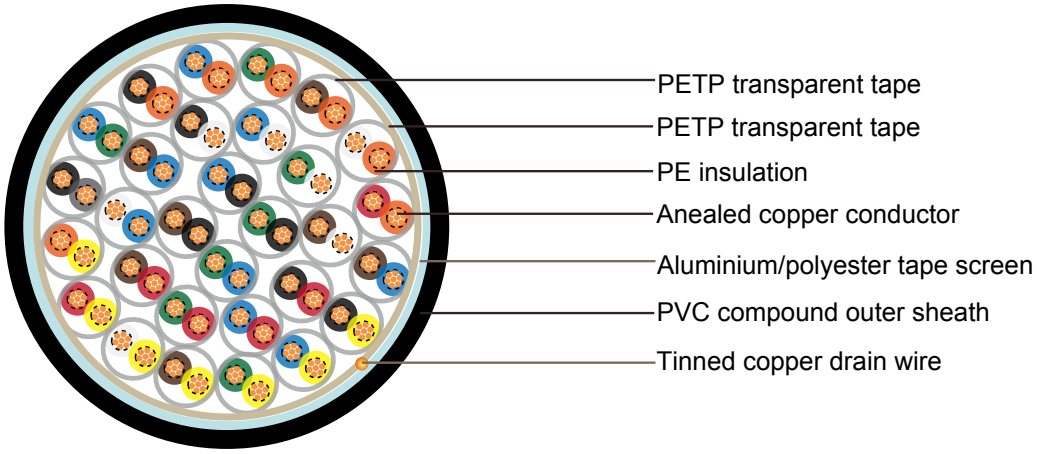
BS5308 Cable Part 1 Type 3 PE-OS-Lead-SWA-PVC
BS5308 Cable Part 1 Type 3 PE-IS-OS-Lead-SWA-PVC

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	75	75	75	75	85
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	120
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

BS5308 Part 1

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

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

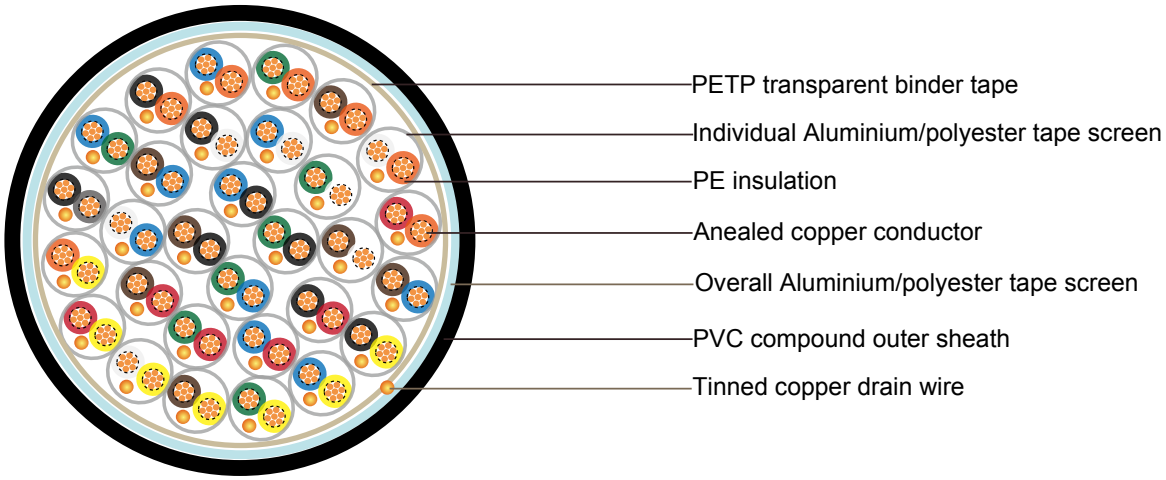
BS5308 Cable Part 1 Type1 PE-IS-OS-PVC/

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	75	75	75	75	85
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	120
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

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	1.2	14.5	250
10	16/0.2	0.5	0.6	1.3	19.3	480
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

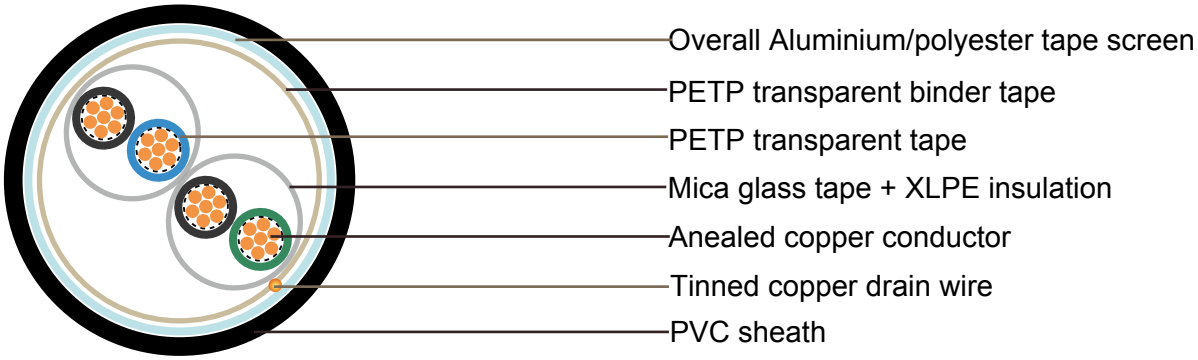
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

BS5308 Cable Part 1 Type1
MG-XLPE-OS-LSOH

Application

The unarmoured fire resistant versions (Part 1 Type 1) are typically used in chemical and process industries where there is danger of fire.

Construction



Conductor	Annealed or tinned copper, Class 2
Insulation	Mica glass tape, XLPE (Cross Linked Polyethylene), or PE (optional)
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	LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Fire resistant to IEC60331 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2
Sheath colour	Black or blue

Mechanical and Electrical Properties

Operating temperature: -20˚C up to + 90˚C(fixed installation)
0˚C to +50˚C(during operation)

Minimum bending radius: 5 x overall diameter

Conductor Area Size		mm ^{2}	0.5	0.75	1.0	1.5
Conductor Stranding		No. x mm	7 x 0.3	7 x 0.37	7 x 0.44	7 x 0.53
Conductor resistance max		ohm/km	36	24.5	18.1	12.1
Insulation resistance min		Gohm/km	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	75	75	75	75
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115
Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		µH/ohm	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

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	7/0.44	1	0.6	1.4	7.8	89
2	7/0.44	1	0.6	1.4	9.2	121
5	7/0.44	1	0.6	1.4	13.9	298

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

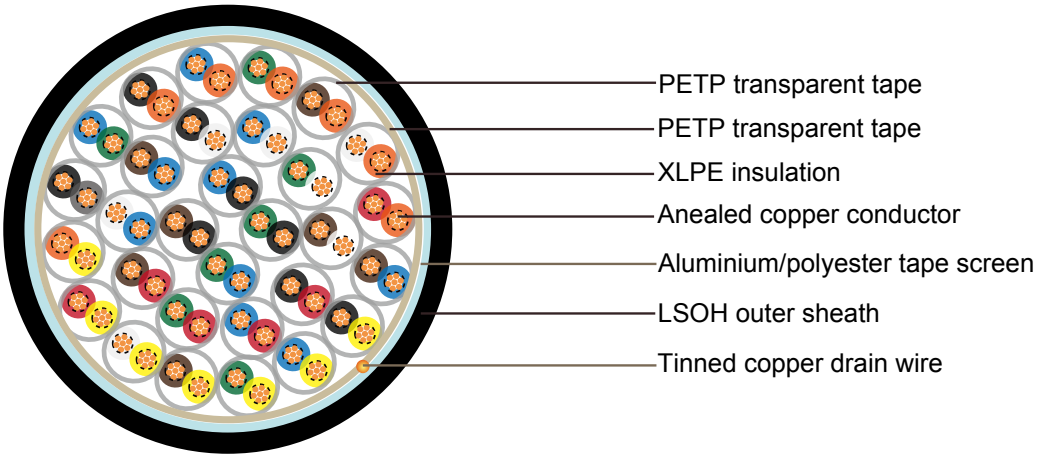
BS5308 Cable Part 1 Type1 XLPE-OS-LSOH/

RE-2X(St)H

Application

The unarmoured LSOH 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, the LSOH sheath can reduce toxic smoke and fume emission.

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	XLPE (Cross Linked Polyethylene), or PE (optional)
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	LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2
Sheath colour	Black or blue

Mechanical and Electrical Properties

Operating temperature: -20˚C up to + 90˚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	75	75	75	75	75
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	115
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

Number of Pairs	Number and Diameter of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Diameter of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	kg/km
1	1/0.80	0.5	0.5	0.8	5.5	35
2	1/0.80	0.5	0.5	0.8	6.8	55
5	1/0.80	0.5	0.5	1.1	10.9	125
10	1/0.80	0.5	0.5	1.2	14.4	215
15	1/0.80	0.5	0.5	1.2	16.5	300
20	1/0.80	0.5	0.5	1.3	18.8	385
30	1/0.80	0.5	0.5	1.3	22.3	545
50	1/0.80	0.5	0.5	1.5	28.5	875
1	16/0.20	0.5	0.6	0.8	6.2	60
2	16/0.20	0.5	0.6	0.8	7.6	80

BS5308 Part 1

Number of Pairs	Number and Diameter of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Diameter of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	kg/km
5	16/0.20	0.5	0.6	1.1	12.4	210
10	16/0.20	0.5	0.6	1.2	16.5	340
15	16/0.20	0.5	0.6	1.3	19.2	440
20	16/0.20	0.5	0.6	1.3	21.7	570
30	16/0.20	0.5	0.6	1.5	26.4	780
50	16/0.20	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

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

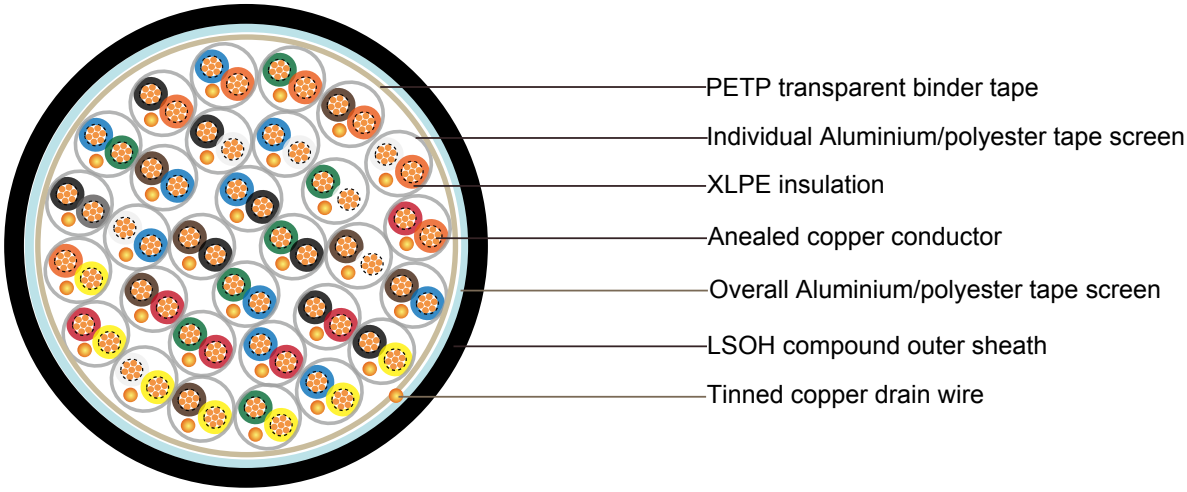
BS5308 Cable Part 1 Type1 XLPE-IS-OS-LSOH/

RE-2X(St)H PIMF

Application

The unarmoured LSOH 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, the LSOH sheath can reduce toxic smoke and fume emission.

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	XLPE (Cross Linked Polyethylene), or PE (optional)
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	LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2
Sheath colour	Black or blue

Mechanical and Electrical Properties

Operating temperature: -20˚C up to + 90˚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	75	75	75	75	75
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	115
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

Number of Pairs	Number and Diameter of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Diameter 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

Number of Pairs	Number and Diameter of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Diameter 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

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

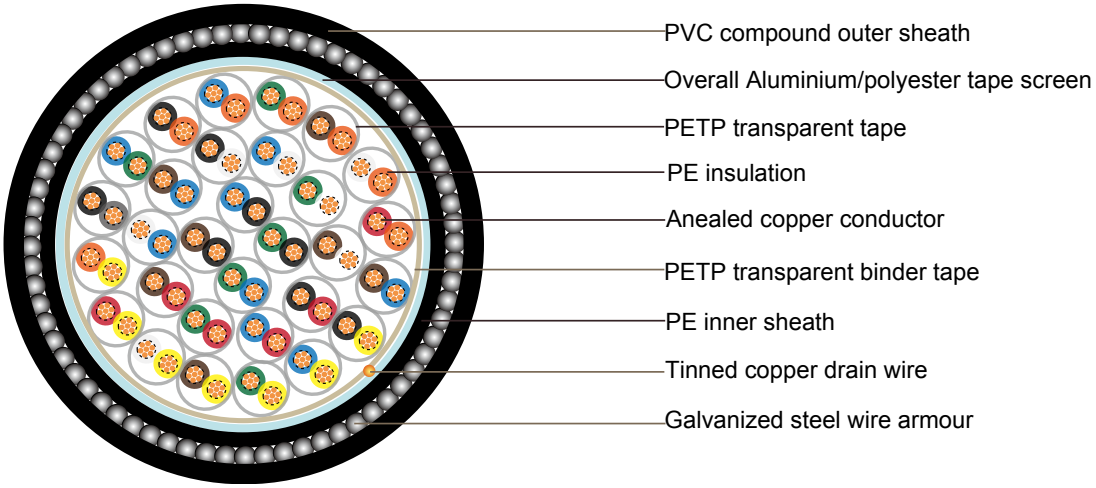
BS5308 Cable Part 1 Type 2 PE-OS-SWA-PVC

RE-2Y(St)2YSWAY

Application

The armoured versions (Part 1 Type 2) 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.The armored versions are generally use for outdoor installation for direct burial or installed in the duct and suitable for wet and damp areas.

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
Inner Sheath	PE (Polyethylene) type 2C or type 03 to BS6234
Amour	Galvanized steel wire armour
Outer sheath	PVC Sheath, type TM 1 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: 6 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	75	75	75	75	85
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	120
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 Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
1	1/0.8	0.5	0.5	0.8	5.5	0.9	1.3	9.9	200
2	1/0.8	0.5	0.5	0.8	6.8	0.9	1.3	11.2	260
5	1/0.8	0.5	0.5	1.1	10.9	0.9	1.4	15.5	460
10	1/0.8	0.5	0.5	1.2	14.4	1.25	1.6	20.1	790
15	1/0.8	0.5	0.5	1.2	16.5	1.25	1.6	22.2	1100
20	1/0.8	0.5	0.5	1.3	18.8	1.6	1.7	25.4	1280
30	1/0.8	0.5	0.5	1.3	22.3	1.6	1.8	29.1	1520
50	1/0.8	0.5	0.5	1.5	28.5	1.6	2	35.7	2100
1	16/0.2	0.5	0.6	0.8	6.2	0.9	1.3	10.6	250
2	16/0.2	0.5	0.6	0.8	7.6	0.9	1.3	12	300

BS5308 Part 1

No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
5	16/0.2	0.5	0.6	1.1	12.4	0.9	1.5	17.2	560
10	16/0.2	0.5	0.6	1.2	16.5	1.25	1.6	22.2	970
15	16/0.2	0.5	0.6	1.3	19.2	1.6	1.7	25.8	1240
20	16/0.2	0.5	0.6	1.3	21.7	1.6	1.8	28.5	1640
30	16/0.2	0.5	0.6	1.5	26.4	1.6	1.9	33.4	1770
50	16/0.2	0.5	0.6	1.7	33.4	2	2.1	41.6	2770
1	24/0.2	0.75	0.6	0.8	6.7	0.9	1.4	10.9	280
2	24/0.2	0.75	0.6	0.9	8.4	0.9	1.4	12.8	330
5	24/0.2	0.75	0.6	1.2	13.8	1.25	1.6	19.3	750
10	24/0.2	0.75	0.6	1.3	18.4	1.6	1.8	24.3	1260
15	24/0.2	0.75	0.6	1.3	21.1	1.6	1.9	27	1480
20	24/0.2	0.75	0.6	1.5	24.4	1.6	2	31.4	1890
30	24/0.2	0.75	0.6	1.7	29.5	2	2.1	37	2440
50	24/0.2	0.75	0.6	2	37.6	2.5	2.4	47.3	3210
1	1/1.13	1	0.6	0.8	6.6	0.9	1.3	11	290
2	1/1.13	1	0.6	0.8	8	0.9	1.4	12.6	345
5	1/1.13	1	0.6	1.2	13.5	1.25	1.5	19	790
10	1/1.13	1	0.6	1.2	17.7	1.25	1.7	23.6	1310
15	1/1.13	1	0.6	1.3	20.6	1.6	1.8	27.4	1740
20	1/1.13	1	0.6	1.5	23.8	1.6	1.8	30.6	2040
30	1/1.13	1	0.6	1.5	28.4	1.6	2	35.6	2180
50	1/1.13	1	0.6	2	36.6	2	2.2	45	3500
1	7/0.53	1.5	0.6	0.8	7.5	0.9	1.4	11.9	320
2	7/0.53	1.5	0.6	0.9	9.3	0.9	1.5	14.1	420
5	7/0.53	1.5	0.6	1.2	15.6	1.25	1.6	21.6	940
10	7/0.53	1.5	0.6	1.3	20.9	1.6	1.8	27.4	1500
15	7/0.53	1.5	0.6	1.5	24.6	1.6	1.9	31.2	1970
20	7/0.53	1.5	0.6	1.5	27.8	1.6	2	35.8	2400
30	7/0.53	1.5	0.6	1.7	33.7	2	2.2	42.3	3170
50	7/0.53	1.5	0.6	2	43	2.5	2.5	53.2	5020

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

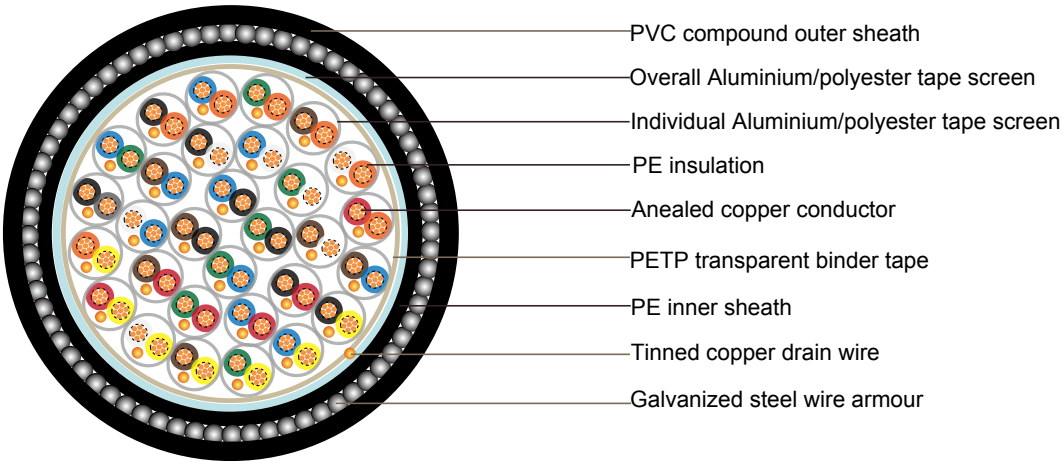
BS5308 Cable Part 1 Type 2 PE-IS-OS-SWA-PVC

RE-2Y(St)2Y PIMF SWA Y

Application

The armoured versions (Part 1 Type 2) 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. The armored versions are generally use for outdoor installation for direct burial or installed in the duct and suitable for wet and damp areas.

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
Inner Sheath	PE (Polyethylene) type 2C or type 03 to BS6234
Amour	Galvanized steel wire armour
Outer sheath	PVC Sheath, type TM 1 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: 6 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	75	75	75	75	85
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	120
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 Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
2	1/0.8	0.5	0.5	0.9	9.7	0.9	1.4	14.3	380
5	1/0.8	0.5	0.5	1.2	13	1.25	1.5	18.5	640
10	1/0.8	0.5	0.5	1.2	16.9	1.25	1.7	22.8	890
15	1/0.8	0.5	0.5	1.3	19.7	1.6	1.7	26.3	1350
20	1/0.8	0.5	0.5	1.3	22.3	1.6	1.8	29.1	1470
30	1/0.8	0.5	0.5	1.5	27.1	1.6	1.9	34.1	1870
50	1/0.8	0.5	0.5	2	35	2	2.2	43.4	3000
2	16/0.2	0.5	0.6	1.1	11.2	0.9	1.5	16	460
5	16/0.2	0.5	0.6	1.2	14.5	1.25	1.6	20.2	760

No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
10	16/0.2	0.5	0.6	1.3	19.3	1.6	1.8	26.1	1300
15	16/0.2	0.5	0.6	1.5	22.6	1.6	1.8	29.4	1440
20	16/0.2	0.5	0.6	1.5	25.7	1.6	1.9	32.7	1870
30	16/0.2	0.5	0.6	1.7	31	2	2.1	39.2	2400
50	16/0.2	0.5	0.6	2.2	39.9	2.5	2.4	49.7	3930
2	24/0.2	0.75	0.6	1.1	12.1	0.9	1.5	16.9	500
5	24/0.2	0.75	0.6	1.2	15.7	1.25	1.6	21.4	920
10	24/0.2	0.75	0.6	1.3	20.9	1.6	1.7	27.5	1610
15	24/0.2	0.75	0.6	1.5	24.6	1.6	1.9	31.6	1960
20	24/0.2	0.75	0.6	1.5	27.9	1.6	1.9	34.9	2420
30	24/0.2	0.75	0.6	2	34.4	2	2.2	42.8	3180
50	24/0.2	0.75	0.6	2.2	43.5	2.5	2.5	53.5	4506
2	1/1.13	1	0.6	1.1	11.9	0.9	1.5	16.7	515
5	1/1.13	1	0.6	1.2	15.4	1.25	1.6	21.1	950
10	1/1.13	1	0.6	1.3	20.5	1.6	1.8	27.3	1330
15	1/1.13	1	0.6	1.5	24.1	1.6	1.9	31.1	1680
20	1/1.13	1	0.6	1.7	27.7	2	2	35.7	2540
30	1/1.13	1	0.6	2	33.7	2	2.2	42.1	2900
50	1/1.13	1	0.6	2.2	42.5	2.5	2.5	52.5	4800
2	7/0.53	1.5	0.6	1.2	13.6	1.25	1.6	19.3	730
5	7/0.53	1.5	0.6	1.3	17.7	1.6	1.7	24.3	1180
10	7/0.53	1.5	0.6	1.5	23.9	1.6	1.9	30.9	1820
15	7/0.53	1.5	0.6	1.7	28	2	2	36	2350
20	7/0.53	1.5	0.6	1.7	31.7	2	2.1	39.9	3030
30	7/0.53	1.5	0.6	2	38.6	2	2.5	48.6	4050
50	7/0.53	1.5	0.6	2.2	48.9	2	2.7	59.3	5960

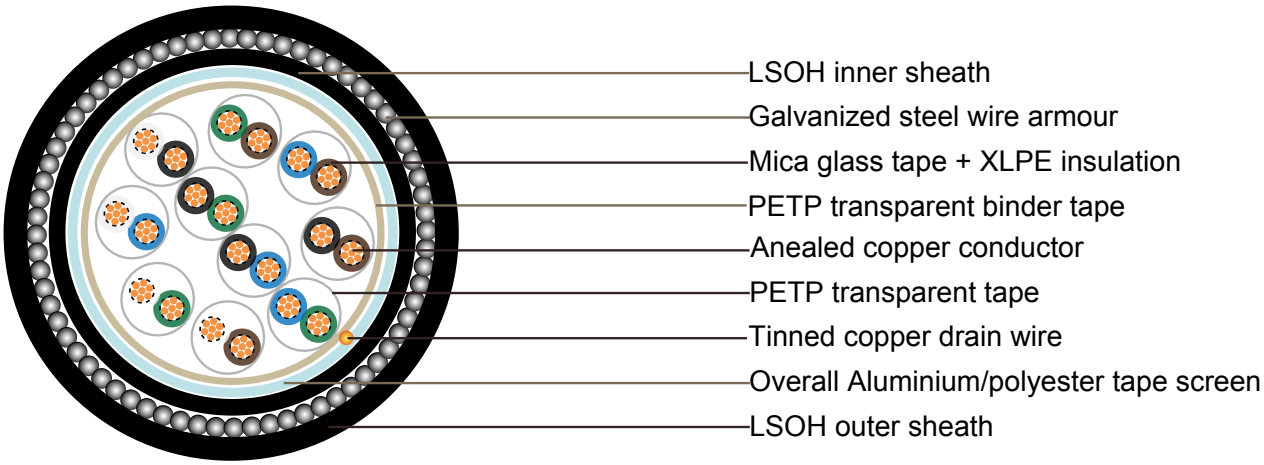
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

BS5308 Cable Part 1
Type 2 MG-XLPE-OS-SWA-LSOH

Application

The armoured fire resistant versions (Part 1 Type 2) are typically used in chemical and process industries where there is danger of fire. The galvanised steel wire armour provides excellent protection.

Construction



Conductor	Annealed or tinned copper, Class 2
Insulation	Mica glass tape, XLPE (Cross Linked Polyethylene),, or PE (optional)
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
Inner Sheath	LSOH(Low Smoke Zero Halogen) sheath
Amour	Galvanized steel wire armour
Outer sheath	LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Fire resistant to IEC60331 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2
Sheath colour	Black or blue

Mechanical and Electrical Properties

Operating temperature: -20˚C up to + 90˚C(fixed installation)
0˚C to +50˚C(during operation)

Minimum bending radius: 6 x overall diameter

Conductor Area Size		mm^2	0.5	0.75	1.0	1.5
Conductor Stranding		No. x mm	7 x 0.3	7 x 0.37	7 x 0.44	7 x 0.53
Conductor resistance max		ohm/km	36	24.5	18.1	12.1
Insulation resistance min		Gohm/km	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	75	75	75	75
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115
Max. L/R Ratio for adjacent cores(Inductance/Resistance)		μH/ohm	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

Parameter

No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
1	7/0.44	1	0.6	0.8	7.0	0.9	1.4	11.6	340
2	7/0.44	1	0.6	0.8	8.4	0.9	1.4	13.0	350
5	7/0.44	1	0.6	0.8	12.3	0.9	1.4	16.9	740
10	7/0.44	1	0.6	0.8	16.5	0.9	1.4	21.1	1150
20	7/0.44	1	0.6	0.8	21.4	0.9	1.4	26.0	1840
1	7/0.53	1.5	0.6	0.8	7.5	0.9	1.4	11.9	320
2	7/0.53	1.5	0.6	0.8	9.1	0.9	1.4	13.7	410
5	7/0.53	1.5	0.6	0.8	14.8	0.9	1.4	21.1	910

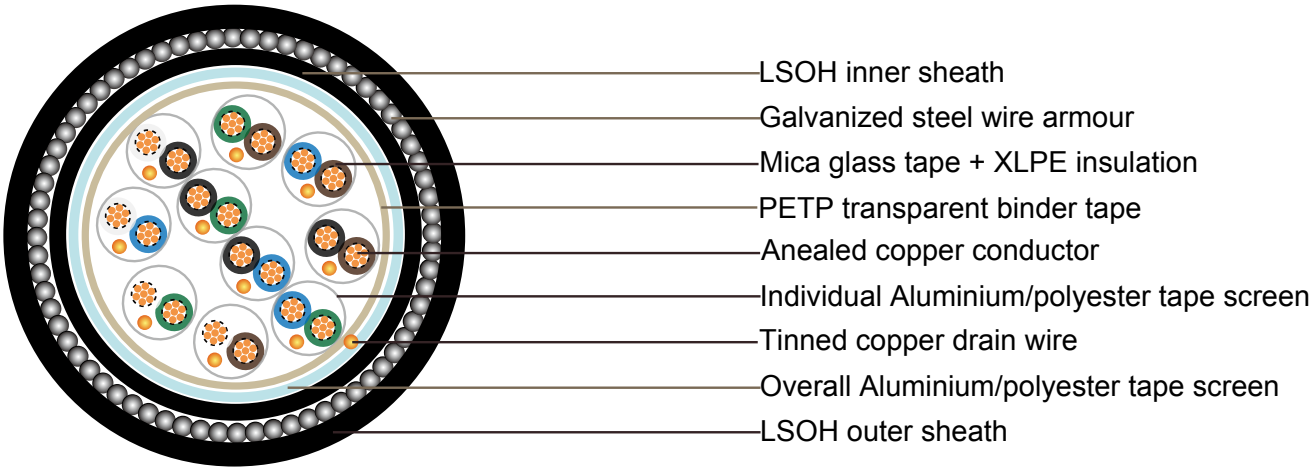
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

BS5308 Cable Part 1
Type 2 MG-XLPE-IS-OS-SWA-LSOH

Application

The armoured fire resistant versions (Part 1Type 2) are typically used in chemical and process industries where there is danger of fire. The galvanised steel wire armour provides excellent protection.

Construction



Conductor	Annealed or tinned copper, Class 2
Insulation	Mica glass tape, XLPE (Cross Linked Polyethylene), or PE (optional)
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
Inner Sheath	LSOH(Low Smoke Zero Halogen) sheath
Amour	Galvanized steel wire armour
Outer sheath	LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Fire resistant to IEC60331 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2
Sheath colour	Black or blue

Mechanical and Electrical Properties

Operating temperature: -20˚C up to + 90˚C(fixed installation)
0˚C to +50˚C(during operation)

Minimum bending radius: 6 x overall diameter

Conductor Area Size		mm^2	0.5	0.75	1.0	1.5
Conductor Stranding		No. x mm	7 x 0.3	7 x 0.37	7 x 0.44	7 x 0.53
Conductor resistance max		ohm/km	36	24.5	18.1	12.1
Insulation resistance min		Gohm/km	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	75	75	75	75
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115
Max. L/R Ratio for adjacent cores(Inductance/Resistance)		μH/ohm	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

Parameter

No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
5	7/0.37	0.75	0.6	0.8	15.0	0.9	1.4	20.3	870
10	7/0.37	0.75	0.6	0.8	19.8	0.9	1.4	25.9	1480
5	7/0.44	1	0.6	0.8	14.8	0.9	1.4	20.0	890

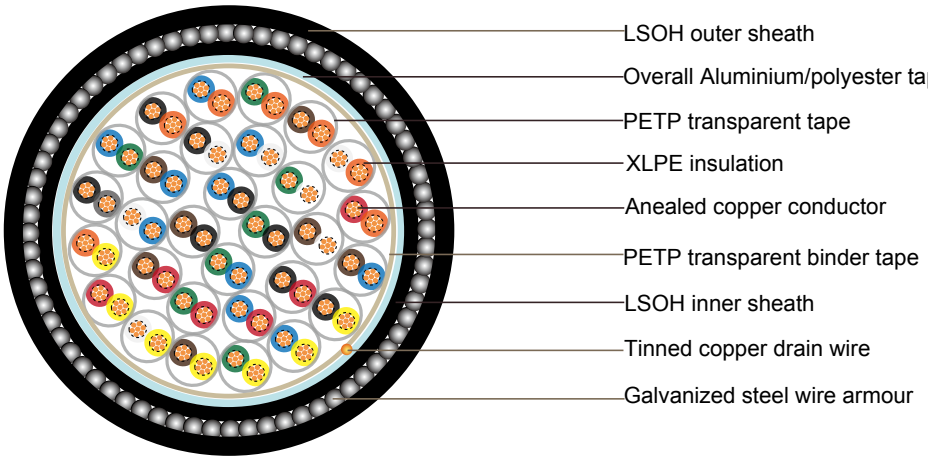
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

BS5308 Cable Part 1 Type 2
XLPE-OS-SWA-LSOH / *RE-2X(St)HSWAH*

Application

The armoured LSOH versions (Part 1 Type 2) 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, the LSOH sheath can reduce toxic smoke and fume emission.

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	XLPE (Cross Linked Polyethylene), or PE (optional)
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
Inner Sheath	LSOH(Low Smoke Zero Halogen) sheath
Amour	Galvanized steel wire armour
Outer sheath	LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2
Sheath colour	Black or blue

Mechanical and Electrical Properties

Operating temperature: -20˚C up to + 90˚C(fixed installation)
0˚C to +50˚C(during operation)

Minimum bending radius: 6 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	75	75	75	75	85
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	120
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 Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
1	1/0.80	0.5	0.5	0.8	5.5	0.9	1.3	9.9	200
2	1/0.80	0.5	0.5	0.8	6.8	0.9	1.3	11.2	260
5	1/0.80	0.5	0.5	1.1	10.9	0.9	1.4	15.5	460
10	1/0.80	0.5	0.5	1.2	14.4	1.25	1.6	20.1	790
15	1/0.80	0.5	0.5	1.2	16.5	1.25	1.6	22.2	1100
20	1/0.80	0.5	0.5	1.3	18.8	1.6	1.7	25.4	1280
30	1/0.80	0.5	0.5	1.3	22.3	1.6	1.8	29.1	1520
50	1/0.80	0.5	0.5	1.5	28.5	1.6	2	35.7	2100
1	16/0.2	0.5	0.6	0.8	6.2	0.9	1.3	10.6	250
2	16/0.2	0.5	0.6	0.8	7.6	0.9	1.3	12	300

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No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
5	16/0.2	0.5	0.6	1.1	12.4	0.9	1.5	17.2	560
10	16/0.2	0.5	0.6	1.2	16.5	1.25	1.6	22.2	970
15	16/0.2	0.5	0.6	1.3	19.2	1.6	1.7	25.8	1240
20	16/0.2	0.5	0.6	1.3	21.7	1.6	1.8	28.5	1640
30	16/0.2	0.5	0.6	1.5	26.4	1.6	1.9	33.4	1770
50	16/0.2	0.5	0.6	1.7	33.4	2	2.1	41.6	2770
1	24/0.2	0.75	0.6	0.8	6.7	0.9	1.4	10.9	280
2	24/0.2	0.75	0.6	0.9	8.4	0.9	1.4	12.8	330
5	24/0.2	0.75	0.6	1.2	13.8	1.25	1.6	19.3	750
10	24/0.2	0.75	0.6	1.3	18.4	1.6	1.8	24.3	1260
15	24/0.2	0.75	0.6	1.3	21.1	1.6	1.9	27	1480
20	24/0.2	0.75	0.6	1.5	24.4	1.6	2	31.4	1890
30	24/0.2	0.75	0.6	1.7	29.5	2	2.1	37	2440
50	24/0.2	0.75	0.6	2	37.6	2.5	2.4	47.3	3210
1	1/1.13	1	0.6	0.8	6.6	0.9	1.3	11	290
2	1/1.13	1	0.6	0.8	8	0.9	1.4	12.6	345
5	1/1.13	1	0.6	1.2	13.5	1.25	1.5	19	790
10	1/1.13	1	0.6	1.2	17.7	1.25	1.7	23.6	1310
15	1/1.13	1	0.6	1.3	20.6	1.6	1.8	27.4	1740
20	1/1.13	1	0.6	1.5	23.8	1.6	1.8	30.6	2040
30	1/1.13	1	0.6	1.5	28.4	1.6	2	35.6	2180
50	1/1.13	1	0.6	2	36.6	2	2.2	45	3500
1	7/0.53	1.5	0.6	0.8	7.5	0.9	1.4	11.9	320
2	7/0.53	1.5	0.6	0.9	9.3	0.9	1.5	14.1	420
5	7/0.53	1.5	0.6	1.2	15.6	1.25	1.6	21.6	940
10	7/0.53	1.5	0.6	1.3	20.9	1.6	1.8	27.4	1500
15	7/0.53	1.5	0.6	1.5	24.6	1.6	1.9	31.2	1970
20	7/0.53	1.5	0.6	1.5	27.8	1.6	2	35.8	2400
30	7/0.53	1.5	0.6	1.7	33.7	2	2.2	42.3	3170
50	7/0.53	1.5	0.6	2	43	2.5	2.5	53.2	5020

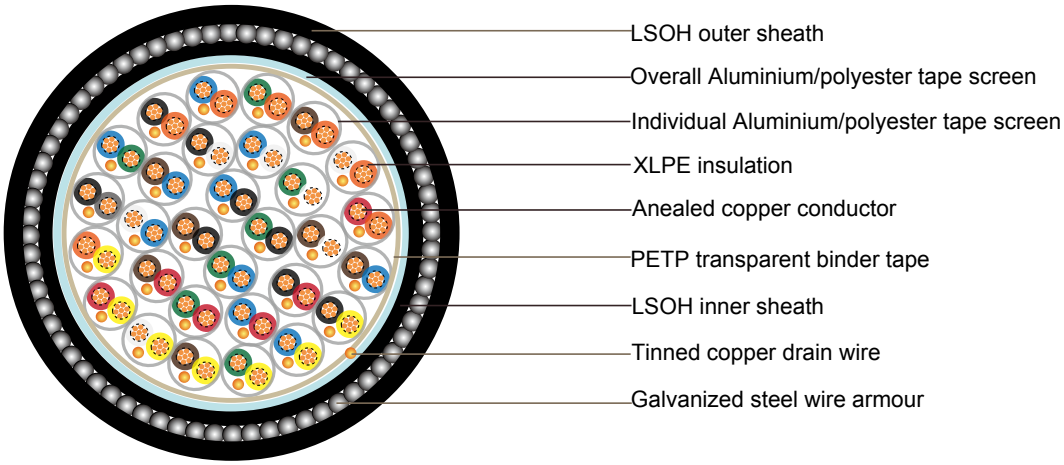
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

BS5308 Cable Part 1 Type 2
XLPE-IS-OS-SWA-LSOH/ *RE-2X(St)H PIMF SWAH*

Application

The armoured LSOH versions (Part 1 Type 2) 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, the LSOH sheath can reduce toxic smoke and fume emission.

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	XLPE (Cross Linked Polyethylene), or PE (optional)
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
Inner Sheath	LSOH(Low Smoke Zero Halogen) sheath

Amour	Galvanized steel wire armour
Outer sheath	LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2
Sheath colour	Black or blue

Mechanical and Electrical Properties

Operating temperature: -20˚C up to + 90˚C(fixed installation)
0˚C to +50˚C(during operation)

Minimum bending radius: 6 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	75	75	75	75	85
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	120
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 Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
2	1/0.80	0.5	0.5	0.9	9.7	0.9	1.4	14.3	380
5	1/0.80	0.5	0.5	1.2	13	1.25	1.5	18.5	640

No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
10	1/0.80	0.5	0.5	1.2	16.9	1.25	1.7	22.8	890
15	1/0.80	0.5	0.5	1.3	19.7	1.6	1.7	26.3	1350
20	1/0.80	0.5	0.5	1.3	22.3	1.6	1.8	29.1	1470
30	1/0.80	0.5	0.5	1.5	27.1	1.6	1.9	34.1	1870
50	1/0.80	0.5	0.5	2	35	2	2.2	43.4	3000
2	16/0.2	0.5	0.6	1.1	11.2	0.9	1.5	16	460
5	16/0.2	0.5	0.6	1.2	14.5	1.25	1.6	20.2	760
10	16/0.2	0.5	0.6	1.3	19.3	1.6	1.8	26.1	1300
15	16/0.2	0.5	0.6	1.5	22.6	1.6	1.8	29.4	1440
20	16/0.2	0.5	0.6	1.5	25.7	1.6	1.9	32.7	1870
30	16/0.2	0.5	0.6	1.7	31	2	2.1	39.2	2400
50	16/0.2	0.5	0.6	2.2	39.9	2.5	2.4	49.7	3930
2	24/0.2	0.75	0.6	1.1	12.1	0.9	1.5	16.9	500
5	24/0.2	0.75	0.6	1.2	15.7	1.25	1.6	21.4	920
10	24/0.2	0.75	0.6	1.3	20.9	1.6	1.7	27.5	1610
15	24/0.2	0.75	0.6	1.5	24.6	1.6	1.9	31.6	1960
20	24/0.2	0.75	0.6	1.5	27.9	1.6	1.9	34.9	2420
30	24/0.2	0.75	0.6	2	34.4	2	2.2	42.8	3180
50	24/0.2	0.75	0.6	2.2	43.5	2.5	2.5	53.5	4506
2	1/1.13	1	0.6	1.1	11.9	0.9	1.5	16.7	515
5	1/1.13	1	0.6	1.2	15.4	1.25	1.6	21.1	950
10	1/1.13	1	0.6	1.3	20.5	1.6	1.8	27.3	1330
15	1/1.13	1	0.6	1.5	24.1	1.6	1.9	31.1	1680
20	1/1.13	1	0.6	1.7	27.7	2	2	35.7	2540
30	1/1.13	1	0.6	2	33.7	2	2.2	42.1	2900
50	1/1.13	1	0.6	2.2	42.5	2.5	2.5	52.5	4800
2	7/0.53	1.5	0.6	1.2	13.6	1.25	1.6	19.3	730
5	7/0.53	1.5	0.6	1.3	17.7	1.6	1.7	24.3	1180
10	7/0.53	1.5	0.6	1.5	23.9	1.6	1.9	30.9	1820
15	7/0.53	1.5	0.6	1.7	28	2	2	36	2350
20	7/0.53	1.5	0.6	1.7	31.7	2	2.1	39.9	3030
30	7/0.53	1.5	0.6	2	38.6	2	2.5	48.6	4050
50	7/0.53	1.5	0.6	2.2	48.9	2	2.7	59.3	5960

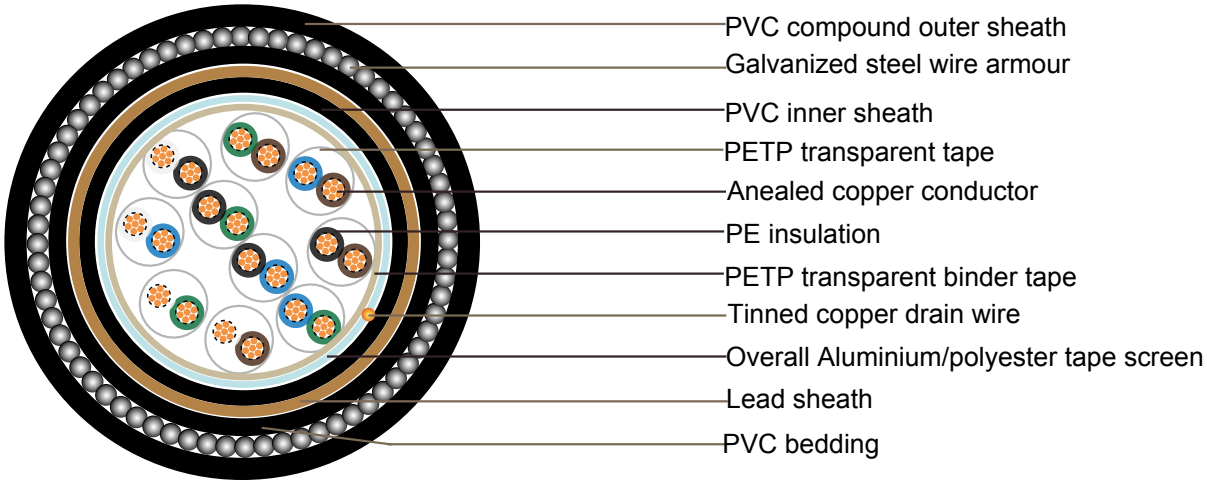
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

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

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: 0.5mm² 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
Inner Sheath	PVC (polyvinyl chloride), type TM 1 or type 6 to BS 6746
Lead Sheath	Lead Alloy
Bedding	PVC (polyvinyl chloride), 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 forNon OS or OS cables (except one-pair and two-pairs)		pF/m	75	75	75	75	85
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	120
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 Dia. over Bedding	Nominal Thickness of Armour	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	kg/km
1	1/0.80	0.5	0.5	6.3	0.9	10.7	200
2	1/0.80	0.5	0.5	7.1	0.9	11.5	260
5	1/0.80	0.5	0.5	11.6	0.9	16.2	460
10	1/0.80	0.5	0.5	15	1.25	20.7	790
15	1/0.80	0.5	0.5	17.1	1.25	22.8	1100
20	1/0.80	0.5	0.5	19.4	1.6	26	1280
30	1/0.80	0.5	0.5	23	1.6	29.8	1520
50	1/0.80	0.5	0.5	28.9	1.6	26.1	2100
1	16/0.20	0.5	0.6	7	0.9	11.4	250
2	16/0.20	0.5	0.6	7.9	0.9	12.3	300
5	16/0.20	0.5	0.6	13.1	0.9	17.9	560
10	16/0.20	0.5	0.6	17.2	1.25	22.9	970
15	16/0.20	0.5	0.6	19.8	1.6	26.4	1240
20	16/0.20	0.5	0.6	22.3	1.6	29.1	1640
30	16/0.20	0.5	0.6	26.9	1.6	33.9	1770
50	16/0.20	0.5	0.6	33.9	2	42.1	2770
1	1/1.13	1	0.6	7.4	0.9	11.8	290
2	1/1.13	1	0.6	8.4	0.9	13	345
5	1/1.13	1	0.6	14.2	1.25	19.7	790
10	1/1.13	1	0.6	17.4	1.25	24.3	1310
15	1/1.13	1	0.6	21.3	1.6	28.1	1740
20	1/1.13	1	0.6	24.4	1.6	31.2	2040
30	1/1.13	1	0.6	29	1.6	36.2	2180
50	1/1.13	1	0.6	37.3	2	45.7	3500
1	7/0.53	1.5	0.6	8.3	0.9	12.9	320
2	7/0.53	1.5	0.6	9.7	0.9	14.3	420
5	7/0.53	1.5	0.6	16.4	1.25	22.1	940
10	7/0.53	1.5	0.6	21.6	1.6	28.4	1500
15	7/0.53	1.5	0.6	25.2	1.6	32.2	1970
20	7/0.53	1.5	0.6	28.5	2	36.5	2400
30	7/0.53	1.5	0.6	34.3	2	42.5	3170
50	7/0.53	1.5	0.6	43.6	2.5	53.4	5020

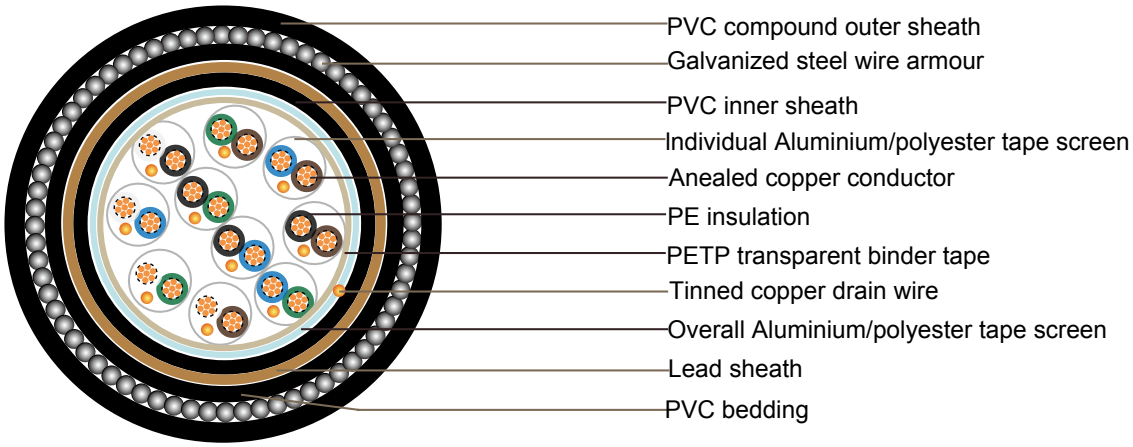
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

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: 0.5mm² 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
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 forNon OS or OS cables (except one-pair and two-pairs)		pF/m	75	75	75	75	85
Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	115	115	115	115	120
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 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

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

BS5308 Part 2

BS5308 Part 2 / Type 1 (unarmoured cables)

BS5308 Cable Part 2 Type 1 PVC-OS-PVC
BS5308 Cable Part 2 Type 1 PVC-IS-OS-PVC

BS5308 Part 2 / Type 2 (armoured cables)

BS5308 Cable Part 2 Type 2 PVC-OS-SWA-PVC
BS5308 Cable Part 2 Type 2 PVC-IS-OS-SWA-PVC

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

Application

The unarmoured versions (Part 2 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 chemical or petrolchemical industry.

Construction

Conductor	Annealed or tinned copper, sizes: 0.5mm² and 0.75mm² mulitistranded(Class 5), 1.5mm² multistranded(Class 2) to BS6360
Insulation	PVC (polyvinyl chloride), type TI1 to BS 6746
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Colour code	Multicore cables: up to 40 cores yellow with black numbers, 41 - 80 cores black with yellow numbers. Multipair cables: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

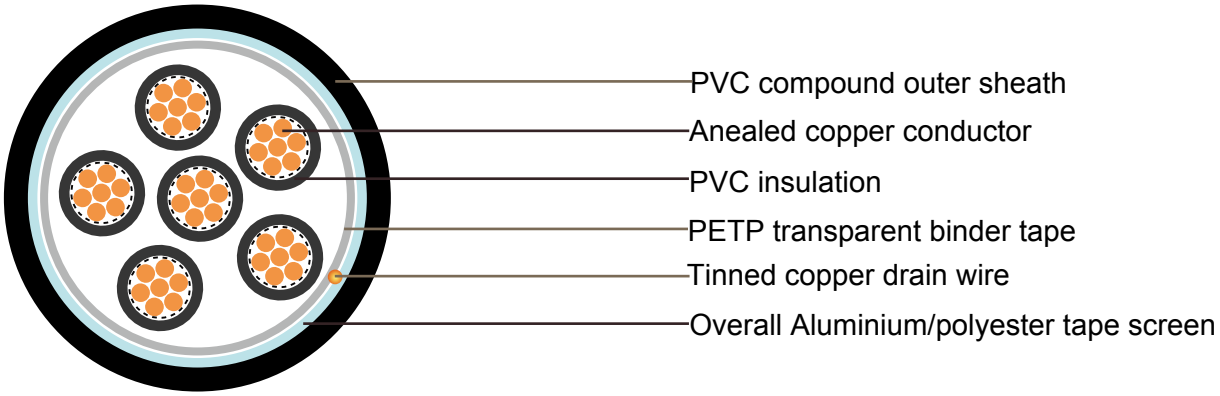
Operating temperature: -40˚C up to + 70˚C(fixed installation)
0˚C to +50˚C(during operation)

Minimum bending radius: 5 x overall diameter

Conductor Area Size		mm ^{2}	0.5	0.75	1.5
Conductor Stranding		No. x mm	16 x 0.2	24 x 0.2	7 x 0.53
Conductor resistance max		ohm/km	39.7	26.5	12.3
Insulation resistance min		Mohm/km	25	25	25
Max. Mutual Capacitance: pair or adjacent cores		pF/m	250	250	250
Capacitance between any core or screen max.		pF/m	400	400	400
Max. L/R Ratio for adjacent cores(Inductance/Resistance)		µH/ohm	25	25	40
Test voltage	**Core to core**	V	1000	1000	1000
	Core to screen	V	1000	1000	1000
Rated voltage max		V	300/500	300/500	300/500

Parameter

Multicore

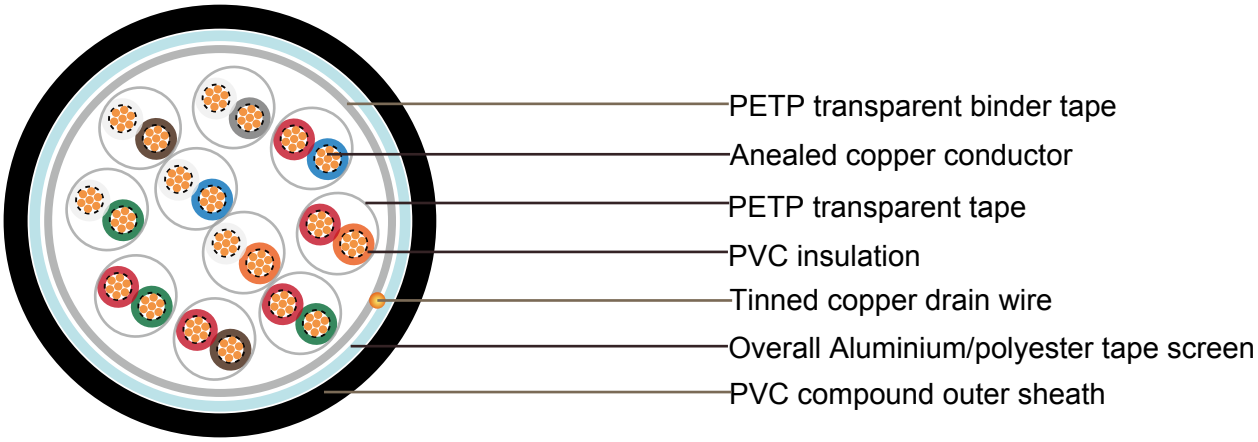


No.of Cores	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	kg/km
2	16/0.2	0.5	0.6	0.8	6.2	60
3	16/0.2	0.5	0.6	0.8	6.6	75
4	16/0.2	0.5	0.6	0.8	7.2	80
6	16/0.2	0.5	0.6	0.9	8.6	110
10	16/0.2	0.5	0.6	1.1	11.2	180
20	16/0.2	0.5	0.6	1.2	14.2	310

No.of Cores	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
40	16/0.2	0.5	0.6	1.3	18.7	570
80	16/0.2	0.5	0.6	1.5	26.5	1080
2	24/0.2	0.75	0.6	0.8	6.7	75
3	24/0.2	0.75	0.6	0.8	7.2	90
4	24/0.2	0.75	0.6	0.8	7.8	100
6	24/0.2	0.75	0.6	0.9	9.4	140
10	24/0.2	0.75	0.6	1.1	12.2	220
20	24/0.2	0.75	0.6	1.2	15.6	390
40	24/0.2	0.75	0.6	1.3	20.6	710
80	24/0.2	0.75	0.6	1.5	28.5	1350
2	7/0.53	1.5	0.6	0.8	8	105
3	7/0.53	1.5	0.6	0.9	8.2	135
4	7/0.53	1.5	0.6	0.9	9	150
6	7/0.53	1.5	0.6	1.1	11	205
10	7/0.53	1.5	0.6	1.2	14	330
20	7/0.53	1.5	0.6	1.3	17.9	580
40	7/0.53	1.5	0.6	1.5	24	1065
80	7/0.53	1.5	0.6	1.7	32.9	2025

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

Multipair



BS5308 Part 2

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	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
5	16/0.2	0.5	0.6	1.1	12.4	200
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	480
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	880
50	16/0.2	0.5	0.6	1.7	33.4	1310
1	24/0.2	0.75	0.6	0.8	6.7	75
2	24/0.2	0.75	0.6	0.8	8.2	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	1.3	21.1	600
20	24/0.2	0.75	0.6	1.5	24.4	800
30	24/0.2	0.75	0.6	1.7	29.5	1080
50	24/0.2	0.75	0.6	2	37.6	1860
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	670
15	7/0.53	1.5	0.6	1.5	24.6	970
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	1730
50	7/0.53	1.5	0.6	2	43	2740

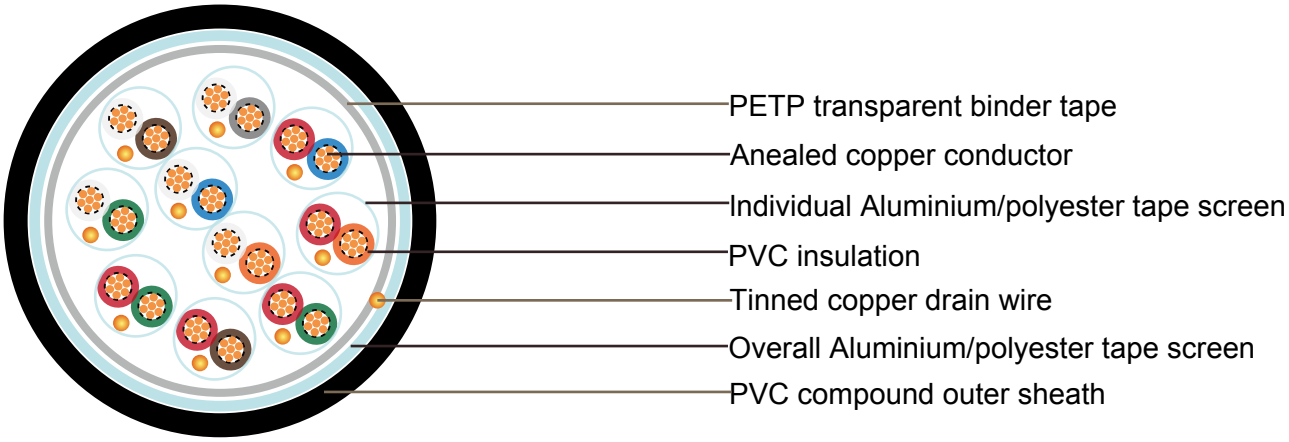
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

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

Application

The unarmoured versions (Part 2 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 chemical or petrolchemical industry.

Construction



Conductor	Annealed or tinned copper, sizes: 0.5mm² and 0.75mm² mulitistranded(Class 5), 1.5mm² multistranded(Class 2) to BS6360
Insulation	PVC (polyvinyl chloride), type TI1 to BS 6746
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	0.75	1.5
Conductor Stranding		No. x mm	16 x 0.2	24 x 0.2	7 x 0.53
Conductor resistance max		ohm/km	39.7	26.5	12.3
Insulation resistance min		Mohm/km	25	25	25
Max. Mutual Capacitance: pair or adjacent cores		pF/m	250	250	250
Capacitance between any core or screen max.		pF/m	400	400	400
Max. L/R Ratio for adjacent cores(Inductance/Resistance)		µH/ohm	25	25	40
Test voltage	**Core to core**	V	1000	1000	1000
	Core to screen	V	1000	1000	1000
Rated voltage max		V	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	16/0.2	0.5	0.6	1.1	11.2	170
5	16/0.2	0.5	0.6	1.2	14.6	270
10	16/0.2	0.5	0.6	1.3	19.4	520
15	16/0.2	0.5	0.6	15	22.7	650
20	16/0.2	0.5	0.6	1.5	25.9	860
30	16/0.2	0.5	0.6	1.7	31.2	1130
50	16/0.2	0.5	0.6	2.2	40.1	1880
2	24/0.2	0.75	0.6	1.1	12.2	200
5	24/0.2	0.75	0.6	1.2	15.8	355
10	24/0.2	0.75	0.6	1.3	21.1	560
15	24/0.2	0.75	0.6	1.5	24.9	770
20	24/0.2	0.75	0.6	1.7	28.6	990
30	24/0.2	0.75	0.6	2	34.7	1380

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
50	24/0.2	0.75	0.6	2.2	43.9	2225
2	7/0.53	1.5	0.6	1.2	13.6	265
5	7/0.53	1.5	0.6	1.3	147.8	490
10	7/0.53	1.5	0.6	1.5	24.1	820
15	7/0.53	1.5	0.6	1.7	28.2	1110
20	7/0.53	1.5	0.6	1.7	31.9	1470
30	7/0.53	1.5	0.6	2	38.8	2070
50	7/0.53	1.5	0.6	2.2	49.1	3340

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

BS5308 Cable Part 2 Type 2 PVC-OS-SWA-PVC/ *RE-Y(St)YSWAY*

Application

The armoured versions (Part 2 Type 2) 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 chemical or petrolchemical industry. The armored versions are generally use for outdoor installation for direct burial or installed in the duct and suitable for wet and damp areas.

Construction

Conductor	Annealed or tinned copper, sizes: 0.5mm² and 0.75mm² mulitistranded(Class 5), 1.5mm² multistranded(Class 2) to BS6360
Insulation	PVC (polyvinyl chloride), type TI1 to BS 6746
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Colour code	Multicore cables: up to 40 cores yellow with black numbers, 41 - 80 cores black with yellow numbers. Multipair cables: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
Inner Sheath	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

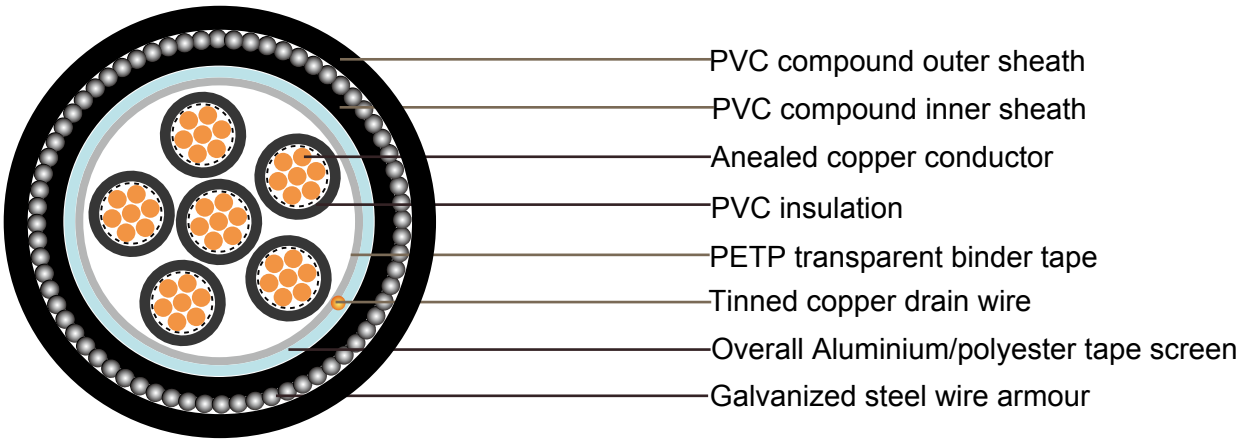
Operating temperature: -40˚C up to + 70˚C(fixed installation)
0˚C to +50˚C(during operation)

Minimum bending radius: 6 x overall diameter

Conductor Area Size		mm ^{2}	0.5	0.75	1.5
Conductor Stranding		No. x mm	16 x 0.2	24 x 0.2	7 x 0.53
Conductor resistance max		ohm/km	39.7	26.5	12.3
Insulation resistance min		Mohm/km	25	25	25
Max. Mutual Capacitance: pair or adjacent cores		pF/m	250	250	250
Capacitance between any core or screen max.		pF/m	400	400	400
Max. L/R Ratio for adjacent cores(Inductance/Resistance)		µH/ohm	25	25	40
Test voltage	**Core to core**	V	1000	1000	1000
	Core to screen	V	1000	1000	1000
Rated voltage max		V	300/500	300/500	300/500

Parameter

Multicore



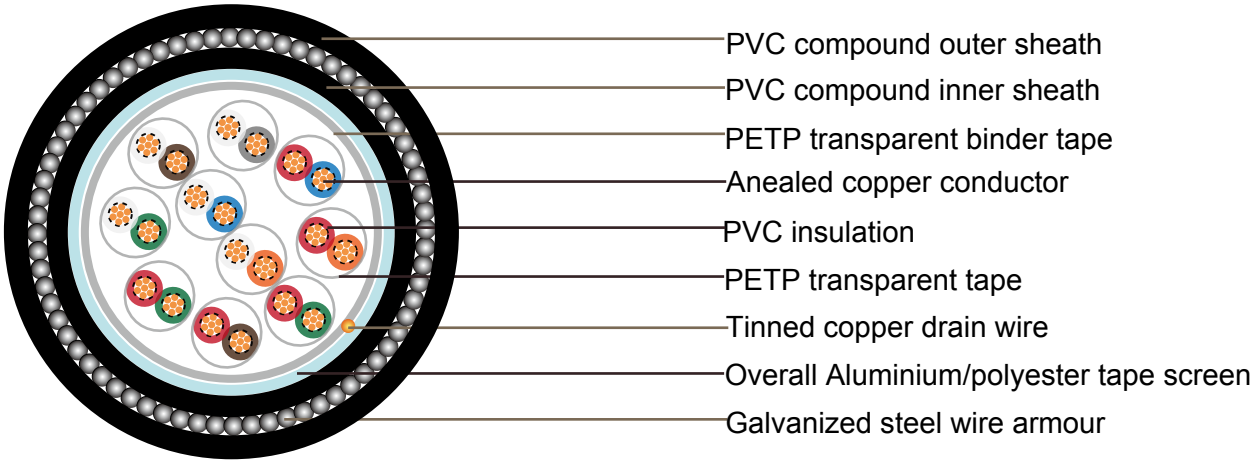
No.of Cores	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
2	16/0.2	0.5	0.6	0.8	6.7	0.9	1.3	11.1	255
3	16/0.2	0.5	0.6	0.8	6.6	0.9	1.3	11.3	280
4	16/0.2	0.5	0.6	0.8	7.2	0.9	1.3	11.6	305
6	16/0.2	0.5	0.6	0.9	8.6	0.9	1.4	13.2	360
10	16/0.2	0.5	0.6	14.1	11.2	0.9	1.5	16	510
20	16/0.2	0.5	0.6	1.2	14.2	1.25	1.6	19.9	960
40	16/0.2	0.5	0.6	1.3	18.7	1.6	1.7	25.3	1440
80	16/0.2	0.5	0.6	1.5	25.8	1.6	1.9	32.8	2200

BS5308 Part 2

No.of Cores	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
2	24/0.2	0.75	0.6	0.8	7.2	0.9	1.3	11.2	280
3	24/0.2	0.75	0.6	0.8	7.2	0.9	1.3	11.6	305
4	24/0.2	0.75	0.6	0.8	7.8	0.9	1.3	12.4	335
6	24/0.2	0.75	0.6	0.9	9.4	0.9	1.4	14	400
10	24/0.2	0.75	0.6	1.1	12.2	0.9	1.5	17	565
20	24/0.2	0.75	0.6	1.2	15.6	1.25	1.6	21.3	950
40	24/0.2	0.75	0.6	1.3	20.6	1.6	1.7	27.4	1590
80	24/0.2	0.75	0.6	1.5	28.5	1.6	1.9	35.7	2450
2	7/0.53	1.5	0.6	0.8	8	0.9	1.4	12.6	330
3	7/0.53	1.5	0.6	0.9	8.2	0.9	1.4	12.8	380
4	7/0.53	1.5	0.6	0.9	9	0.9	1.4	13.6	420
6	7/0.53	1.5	0.6	1.1	11	0.9	1.4	15.6	540
10	7/0.53	1.5	0.6	1.2	14	1.25	1.6	19.7	750
20	7/0.53	1.5	0.6	1.3	17.9	1.6	1.7	24.5	1260
40	7/0.53	1.5	0.6	1.5	24	1.6	1.9	31	2140
80	7/0.53	1.5	0.6	1.7	32.9	2	2.1	41.1	3300

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

Multipair



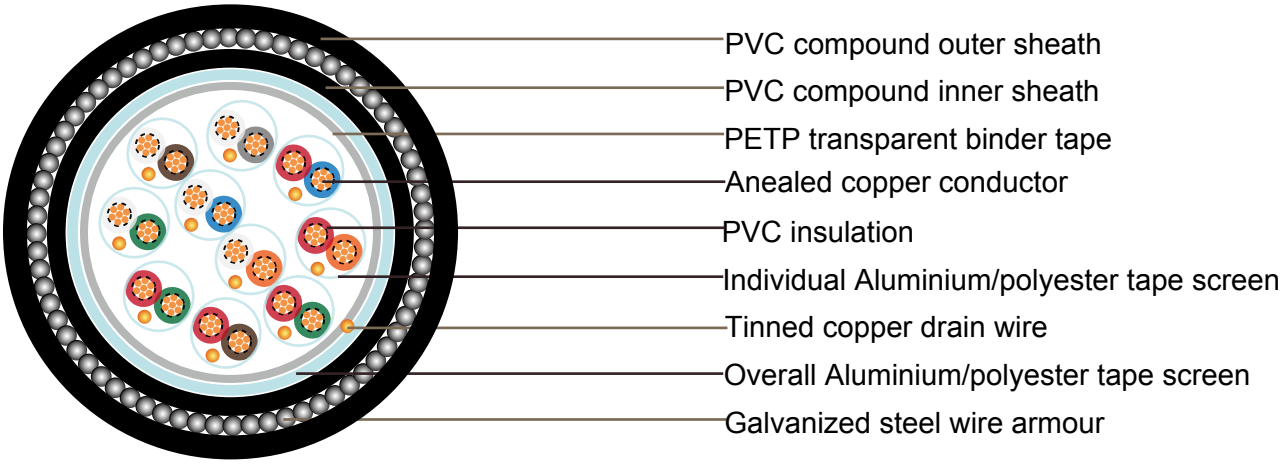
No.of pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
1	16/0.2	0.5	0.6	0.8	6.2	0.9	1.3	10.6	260
2	16/0.2	0.5	0.6	0.8	7.1	0.9	1.3	11.5	305
5	16/0.2	0.5	0.6	1.1	12.4	0.9	1.5	17.2	610
10	16/0.2	0.5	0.6	1.2	16.5	1.25	1.6	22.2	1060
15	16/0.2	0.5	0.6	1.3	19.2	1.6	1.7	25.8	1330
20	16/0.2	0.5	0.6	1.3	21.7	1.6	1.8	28.5	1800
30	16/0.2	0.5	0.6	1.5	26.4	1.6	1.9	33.4	1980
50	16/0.2	0.5	0.6	1.7	33.4	2	2.1	41.6	3070
1	24/0.2	0.75	0.6	0.8	6.7	0.9	1.3	11.1	305
2	24/0.2	0.75	0.6	0.8	7.7	0.9	1.4	12.3	360
5	24/0.2	0.75	0.6	1.2	13.8	1.25	1.5	19.3	820
10	24/0.2	0.75	0.6	1.3	18.4	1.6	1.7	25	1250
15	24/0.2	0.75	0.6	1.3	21.1	1.6	1.8	27.9	1600
20	24/0.2	0.75	0.6	1.5	24.4	1.6	1.8	31.2	1800
30	24/0.2	0.75	0.6	1.7	29.6	2	2	37.6	2570
50	24/0.2	0.75	0.6	2	37.4	2.5	2.3	47.3	3800
1	7/0.53	1.5	0.6	0.8	7.5	0.9	1.4	12.1	360
2	7/0.53	1.5	0.6	0.9	8.8	0.9	1.4	13.4	460
5	7/0.53	1.5	0.6	1.2	15.6	1.25	1.6	21.3	1040
10	7/0.53	1.5	0.6	1.3	20.9	1.6	1.8	27.7	1610
15	7/0.53	1.5	0.6	1.5	24.6	1.6	1.9	31.6	2060
20	7/0.53	1.5	0.6	1.5	27.8	1.6	2	35	2630
30	7/0.53	1.5	0.6	1.7	33.7	2	2.1	41.9	3460
50	7/0.53	1.5	0.6	2	43	2.5	2.4	52.8	5520

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

BS5308 Cable Part 2 Type 2
PVC-IS-OS-SWA-PVC/
RE-Y(St)Y PIMF SWAY

Application

The armoured versions (Part 2 Type 2) 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 chemical or petrolchemical industry. The armored versions are generally use for outdoor installation for



direct burial or installed in the duct and suitable for wet and damp areas.

Construction

Conductor	Annealed or tinned copper, sizes: 0.5mm² and 0.75mm² mulitistranded(Class 5), 1.5mm² multistranded(Class 2) to BS6360
Insulation	PVC (polyvinyl chloride),type TI1 to BS 6746
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Colour code	Multipair cables: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
Inner Sheath	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: 6 x overall diameter

Conductor Area Size		mm^2	0.5	0.75	1.5
Conductor Stranding		No. x mm	16 x 0.2	24 x 0.2	7 x 0.53
Conductor resistance max		ohm/km	39.7	26.5	12.3
Insulation resistance min		Mohm/km	25	25	25
Max. Mutual Capacitance: pair or adjacent cores		pF/m	250	250	250
Capacitance between any core or screen max.		pF/m	400	400	400
Max. L/R Ratio for adjacent cores(Inductance/Resistance)		μH/ohm	25	25	40
Test voltage	**Core to core**	V	1000	1000	1000
	Core to screen	V	1000	1000	1000
Rated voltage max		V	300/500	300/500	300/500

Parameter

No.of pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
2	16/0.2	0.5	0.6	0.8	10.6	0.9	1.3	15	505
5	16/0.2	0.5	0.6	1.1	14.3	0.9	1.5	19.1	830
10	16/0.2	0.5	0.6	1.2	19.1	1.25	1.6	24.8	1420
15	16/0.2	0.5	0.6	1.3	22.2	1.6	1.7	28.8	1570

BS5308 Part 2

No.of pairs	No.and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. over Bedding	Nominal Thick-ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm^2	mm	mm	mm	mm	mm	mm	kg/km
20	16/0.2	0.5	0.6	1.3	25.3	1.6	1.8	32.1	2040
30	16/0.2	0.5	0.6	1.5	30.6	1.6	1.9	37.6	2610
50	16/0.2	0.5	0.6	1.7	38.9	2	2.1	47.1	4270
2	24/0.2	0.75	0.6	0.8	11.5	0.9	1.4	16.1	545
5	24/0.2	0.75	0.6	1.2	15.7	1.25	1.5	21.2	1005
10	24/0.2	0.75	0.6	1.3	20.9	1.6	1.7	27.5	1400
15	24/0.2	0.75	0.6	1.3	24.2	1.6	1.8	31	1750
20	24/0.2	0.75	0.6	1.5	27.9	1.6	1.8	34.7	2300
30	24/0.2	0.75	0.6	1.7	33.8	2	2	41.8	2460
50	24/0.2	0.75	0.6	2	43.1	2.5	2.3	52.7	4800
2	7/0.53	1.5	0.6	0.9	13	0.9	1.4	17.6	800
5	7/0.53	1.5	0.6	1.2	17.5	1.25	1.6	23.2	1290
10	7/0.53	1.5	0.6	1.3	23.5	1.6	1.8	30.3	1990
15	7/0.53	1.5	0.6	1.5	27.6	1.6	1.9	34.6	2590
20	7/0.53	1.5	0.6	1.5	31.3	1.6	2	38.5	3310
30	7/0.53	1.5	0.6	1.7	38	2	2.1	46.2	4380
50	7/0.53	1.5	0.6	2	48.5	2.5	2.4	58.3	6260

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

ESI 09-6

Multipair instrument cables ESI 09-6 Issue 5

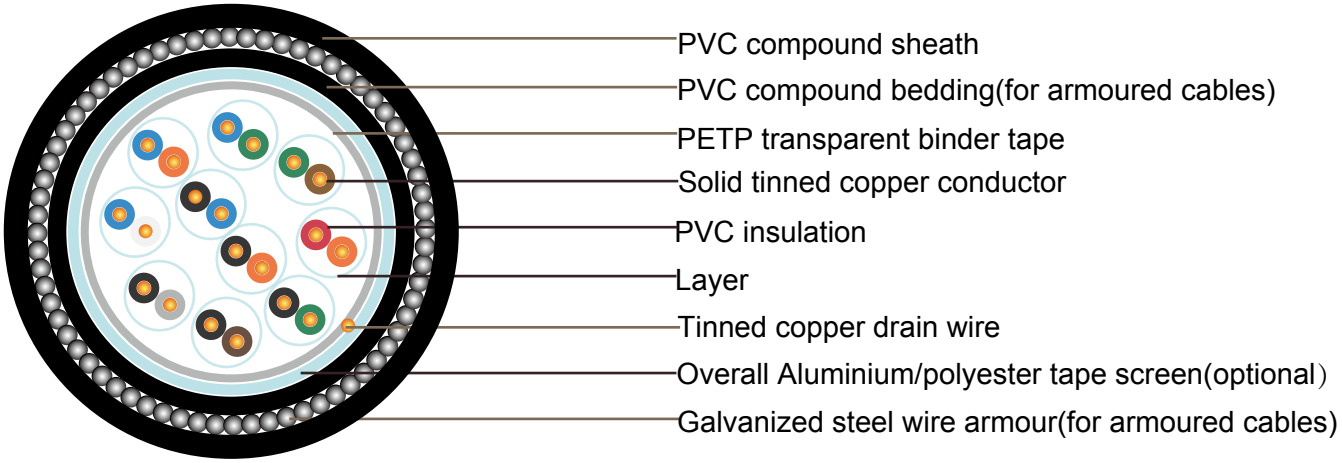
Multipair instrument cables ESI 09-6 Issue 6

Multipair instrument cables ESI 09-6 Issue 5

Application

These light current control cables are intended primarily for use with control, indication and alarm equipment for switchgear and similar power apparatus in power stations and substations where the nominal voltage does not exceed 150V d.c. or 110V a.c.The cables are also suitable for telemetry applications where large conductor size are required. An optional collective aluminum tape screen can be provided. In case if the installation environment is prone to flooding or prolonged period of dampness, PE insulation should be considered as an alternative to PVC.

Construction



Conductor	Solid tinned annealed copper, sizes: 1/0.9mm(0.64mm^2) to BS6360
Insulation	PVC (polyvinyl chloride) type 2 to BS7655
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(optional)	Aluminum/polyester tape is applied over the laid up pairs metallic side down in contact with a longitudinal 1/0.5mm to 1/0.8mm tinned copper drain wire
Bedding (for armoured cables)	PVC (polyvinyl chloride) to type TM 1 or 6 to BS EN 50363-4-1
Armouring (for armoured cables)	Galvanized steel wire armour
Outer sheath	Black PVC (polyvinyl chloride) to type TM 1 or 6 to BS EN 50363-4-1

Electrical Properties

Maximum conductor temperature: + 70˚C

Minimum bending radius: 6 x overall diamter

Minimum ambient temperature: - 20˚C after installation and only when cable is in a fixed position

Voltage rating	150V d.c. or 110V a.c.
Test voltage	2Kv r.m.s. between conductors, 5Kv r.m.s. between all conductors and aromur
Maximum conductor resistance(loop)	59.34Ohm/km at 20 ˚C
Minimum insulation resistance	80MOhm/km at 20 ˚C
Maximum mutual capacitance	150Nf/km at 1 KHz
Flame retardancy	BS 4066 part 1(IEC 60332-1) or BS 4066 part 3(IEC 60332-3)

Parameter

Unarmoured

Number of pairs	Nominal diameter of conductor	Nominal Conductor Cross-Sectional Area	Insulation thickness	Sheath thickness	Diameter Under Armour	Cable weight
	mm	mm^2	mm	mm	mm	Kg/Km
UN-SCREENED CABLES						
2(Q)	0.9	0.64	0.3	1.3	5.7	45
5	0.9	0.64	0.3	1.4	9.4	115
10	0.9	0.64	0.3	1.5	13	205
20	0.9	0.64	0.3	1.6	16.8	380
30	0.9	0.64	0.3	1.7	19.9	570
50	0.9	0.64	0.3	1.9	25.4	920
100	0.9	0.64	0.3	2	35.5	1820
SCREENED CABLES						
2(Q)	0.9	0.64	0.3	1.3	6.2	50
5	0.9	0.64	0.3	1.4	9.9	125
10	0.9	0.64	0.3	1.5	13.5	215
20	0.9	0.64	0.3	1.6	17.3	390
30	0.9	0.64	0.3	1.7	20.4	580
50	0.9	0.64	0.3	1.9	25.9	940
100	0.9	0.64	0.3	2	36	1850

armoured

Number of pairs	Nominal diameter of conductor	Insulation thickness	Bedding Thickness	Diameter Under Armour	Diameter of armour wire	Sheath thickness	Overall diameter	Cable weight
	mm	mm	mm	mm	mm	mm	mm	Kg/Km
UN-SCREENED CABLES								
2(Q)	0.9	0.3	0.8	5.7	0.9	1.3	10.1	200
5	0.9	0.3	1	9.4	0.9	1.4	14.1	370
10	0.9	0.3	1.1	13	1.25	1.5	18.6	610
20	0.9	0.3	1.2	16.8	1.25	1.6	22.7	930
30	0.9	0.3	1.4	19.9	1.6	1.7	26.7	1390
50	0.9	0.3	1.6	25.4	1.6	1.9	32.6	1940
100	0.9	0.3	1.9	35.5	2	2	44.1	3700
SCREENED CABLES								
2(Q)	0.9	0.3	0.8	6.2	0.9	1.3	10.6	220
5	0.9	0.3	1	9.9	0.9	1.4	14.6	380
10	0.9	0.3	1.1	13.5	1.25	1.5	19.1	630
20	0.9	0.3	1.2	17.3	1.25	1.6	23.2	955
30	0.9	0.3	1.4	20.4	1.6	1.7	27.2	1415
50	0.9	0.3	1.6	25.9	1.6	1.9	33.1	2000
100	0.9	0.3	1.9	36	2	2	44.6	3750

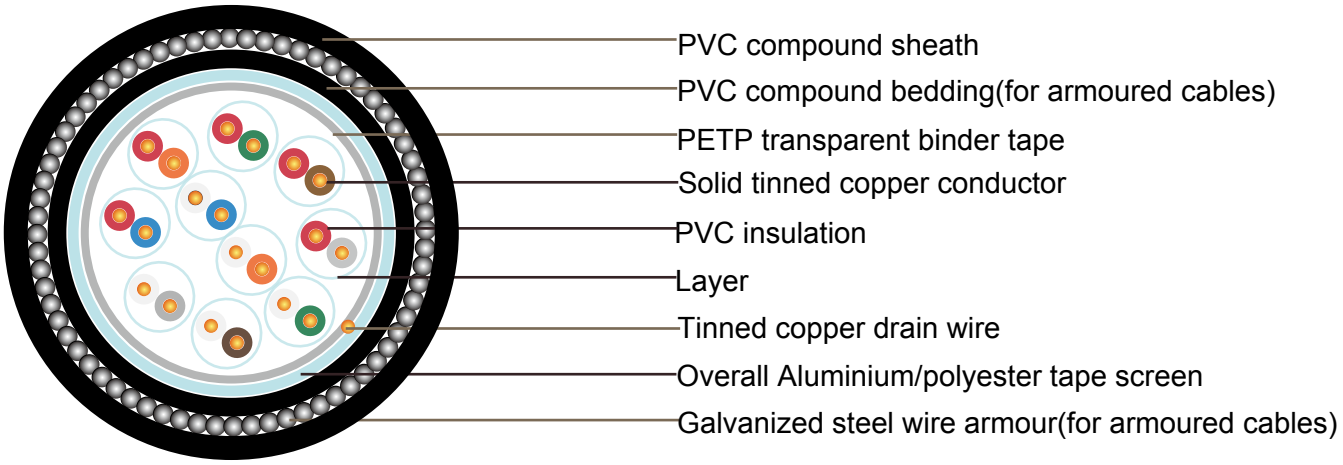
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

Multipair instrument cables ESI 09-6 Issue 6

Application

These light current control cables are intended primarily for use with control, indication and alarm equipment for switchgear and similar power apparatus in power stations and substations where the nominal voltage does not exceed 150V d.c. or 110V a.c.The cables are also suitable for telemetry applications where large conductor size are required. An optional collective aluminum tape screen can be provided. In case if the installation environment is prone to flooding or prolonged period of dampness, PE insulation should be considered as an alternative to PVC.

Construction



Conductor	Solid tinned annealed copper, sizes: 1/0.8mm(0.5mm^2) to BS6360
Insulation	PVC (polyvinyl chloride) type 2 to BS7655
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	Aluminum/polyester tape is applied over the laid up pairs metallic side down in contact with a longitudinal 1/0.5mm to 1/0.8mm tinned copper drain wire
Bedding (for armoured cables)	PVC (polyvinyl chloride) to type TM 1 or 6 to BS EN 50363-4-1
Armouring (for armoured cables)	Galvanized steel wire armour
Outer sheath	Black PVC (polyvinyl chloride) to type TM 1 or 6 to BS EN 50363-4-1

Electrical Properties

Maximum conductor temperature: + 70˚C

Minimum bending radius: 6 x overall diamter

Minimum ambient temperature: - 20˚C after installation and only when cable is in a fixed position

Voltage rating	150V d.c. or 110V a.c.
Test voltage	2Kv r.m.s. between conductors, 5Kv r.m.s. between all conductors and aromur
Maximum conductor resistance(loop)	73.6Ohm/km at 20 ˚C
Minimum insulation resistance	80MOhm/km at 20 ˚C
Maximum mutual capacitance	150Nf/km at 1 KHz
Flame retardancy	BS 4066 part 1(IEC 60332-1) or BS 4066 part 3(IEC 60332-3)

Parameter

unarmoured

Number of pairs	Nominal diameter of conductor	Nominal Conductor Cross-Sectional Area	Insulation thickness	Sheath thickness (Min)	Overall diameter	Cable weight
	mm	mm^2	mm	mm	mm	Kg/Km
2	0.8	0.5	0.3	0.8	5.1	40
5	0.8	0.5	0.3	1	8.5	100
10	0.8	0.5	0.3	1.1	10.9	170
20	0.8	0.5	0.3	1.2	14.4	280
40	0.8	0.5	0.3	1.4	22.9	600
60	0.8	0.5	0.3	1.6	25.9	880
100	0.8	0.5	0.3	1.9	32.6	1440
200	0.8	0.5	0.3	2.2	46	2780

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

armoured

Number of pairs	Nominal diameter of conductor	Insulation thickness	Bedding thickness	Diameter of armour wire	Sheath thickness	Overall diameter	Cable weight
	mm	mm	mm	mm	mm	mm	Kg/Km
2	0.8	0.3	0.8	0.9	1.3	9.5	200
5	0.8	0.3	1	0.9	1.4	13.1	290
10	0.8	0.3	1.1	1.25	1.5	16.4	540
20	0.8	0.3	1.2	1.25	1.6	20.1	770
40	0.8	0.3	1.4	1.6	1.8	29.7	1430
60	0.8	0.3	1.6	1.6	2	33.1	1900
100	0.8	0.3	1.9	2	2.2	41	3010
200	0.8	0.3	2.2	2.2	2.5	56	5660

Number of pairs	Nominal diameter of conductor	Insulation thickness	Bedding thickness	Diameter of armour wire	Diameter of steel tape	Sheath thickness	Overall diameter	Cable weight
	mm	mm	mm	mm	mm	mm	mm	Kg/Km
2	0.8	0.3	1.5	0.9	-	1.9	12.1	300
5	0.8	0.3	1.5	0.9	-	2	15.3	450
10	0.8	0.3	1.5	1.25	-	2.2	18.6	730
20	0.8	0.3	1.5	-	0.5	2.4	21.8	930
40	0.8	0.3	2	-	0.5	2.8	31.7	1570
60	0.8	0.3	2.6	-	0.5	3.1	36.1	2120
100	0.8	0.3	2.6	-	0.5	3.1	42.2	2850
200	0.8	0.3	3	-	0.5	3.8	57.2	4860

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

Technical Information

BS5308 Part 1

BS5308 Cable Part 1 Color Code
BS5308 Cable Part 1 Ordering Code

BS5308 Part 2

BS5308 Cable Part 2 Color Code
BS5308 Cable Part 2 Ordering Code

Instrument Cables to ESI 09-6

Colour Code and Ordering Code

Instrument Cables BS 5308 Part 1 Colour code

BS 5308 Part 1 Colour Identification

Pair No.	a-wire	b-wire	Pair No.	a-wire	b-wire
1	Black	Blue	26	White	Yellow
2	Black	Green	27	Red	Yellow
3	Blue	Green	28	Orange	Yellow
4	Black	Brown	29	Black	Grey
5	Blue	Brown	30	Blue	Grey
6	Green	Brown	31	Green	Grey
7	Black	White	32	Brown	Grey
8	Blue	White	33	White	Grey
9	Green	White	34	Red	Grey
10	Brown	White	35	Orange	Grey
11	Black	Red	36	Yellow	Grey
12	Blue	Red	37	Black	Violet
13	Green	Red	38	Blue	Violet
14	Brown	Red	39	Green	Violet
15	White	Red	40	Brown	Violet
16	Black	Orange	41	White	Violet
17	Blue	Orange	42	Red	Violet
18	Green	Orange	43	Orange	Violet
19	Brown	Orange	44	Yellow	Violet
20	White	Orange	45	Grey	Violet
21	Red	Orange	46	Black	Turquoise
22	Black	Yellow	47	Blue	Turquoise
23	Blue	Yellow	48	Green	Turquoise
24	Green	Yellow	49	Brown	Turquoise
25	Brown	Yellow	50	White	Turquoise

Single Quad (2 pair) are colour coded in clockwise order of rotation: Black, Blue, Green and Brown.

Individually screened pairs can also be identified by means of a numbered polyester tape over one black and one blue core.

For cables in triple configuration please request colour code at time of enquiry.

Instrument Cables BS 5308 Part 1- PE Insulated

VDE Reference Code

PVC Sheath Version:

RE-2Y(St)Y (Overall Screen)

RE-2Y(St)Y PiMF(Individual Screen+Overall Screen)

RE-2Y(St)Y-SWA-Y(Overall Screen+Steel Wire Amour)

RE-2Y(St)Y PiMF-SWA-Y(Individual Screen+Overall Screen+Steel Wire Amour)

LSOH Sheath Version:

RE-2Y(St)H (Overall Screen)

RE-2Y(St)HPiMF(Individual Screen+Overall Screen)

RE-2Y(St)-SWA-H(Overall Screen+Steel Wire Amour)

RE-2Y(St)HPiMF-SWA-H(Individual Screen+Overall Screen+ Steel Wire Amour)

Ordering Code

CCA -BC-DEFGH-IJ-K-LM

A- **Cable Series**

FSN=FIRESCREEN

B- **Screen Type**

US=Unscreen; OS=Overall Screen

IS=Individual Pair Screen;

IOS=Individual Pair Screen and Overall Screen;

FRUS=Fire Resistant Unscreen;

FROS=Fire Resistant Overall Screen;

FRIS=Fire Resistant Individual Pair Screen;

FRIOS=Fire Resistant Individual Pair Screen+Overall Screen

C- **Rated Voltage**

115=115/300V; 300=300/500V; 450=450/750V; 600=600/1000V

D- **Insulation**

2X= XLPE; Y= PVC; 2Y= PE;

H= LSHF; O2Y= Foam PE

E- **Screening**

ST=Aluminum / Polyester Tape

PIMF=Pair Shield with Aluminum/Polyester Tape

PIC= Pair Shield with Copper Braid

F- **Inner Sheath/ Bedding**

Y= PVC; 2Y= PE; H= LSHF

G- Armouring

SWA=steel wire armour; STA=steel tape armour; SWB=steel wire braid;

DSTA= double steel tape armour

H- **Sheath**

Y= PVC; Yu= FR-PVC;

Yv=Reinforced PVC; 2Y= PE;

H=LSHF

I- **No.of cores/Pairs/Triads/Quads**

2C=2cores; 3C=3cores; 4C=4cores

J- **Cross Section Area/Wire Gauge**

1.5S=1.5mm^2; 2.5=2.5mm^2

1.91S(39/0.21)=1.91 mm2 (39/0.21mm)

24A(7)=24 AWG(7Strand)

24A(16/0.2)=24 AWG(16/0.2mm)

K- **Standard(option)**

530811=BS5308-1 Type1; 530812=BS5308-1 Type2; 530813=BS5308-1 Type3;

530821=BS5308-2 Type1; 530822=BS5308-2 Type2;

L- **Fire Propagation Level(option)**

1=IEC60332-1; 3C=IEC60332-3C; 3A=IEC60332-3A

M- **Fire Resistant Level(option)**

331=IEC 60331; 6387CWZ=BS 6387 CWZ

Ordering Options:

1) **Conductor**:Bare or Tinned Copper

2) **Conductor Size**: BS 6360/EN 60228

Size	Class 1	Class 2	Class 5	Class 6
0.5mm^2	1/0.8mm	7/0.3mm	16/0.2mm	28/0.15mm
0.75mm^2		7/0.37mm	24/0.2mm	42/0.15mm
1.0mm^2	1/1.13mm	7/0.44mm	32/0.2mm	56/0.15mm
1.5mm^2		7/0.53mm	30/0.25mm	84/0.15mm
2.5mm^2		7/0.67mm	50/0.25mm	140/0.15mm

3)Conductor Resistance: BS 6360/EN 60228

Nominal cross-section area	Plain copper conductor wires (Ohm/km)		Tinned copper conductor wires (Ohm/km)	
mm^2	class 1 and 2	Class 5 and 6	class 1 and 2	Class 5 and 6
0.5mm^2	36	39	36.7	40.1
0.75mm^2	24.5	26	24.8	26.7
1.0mm^2	18.1	19.5	18.2	20
1.5mm^2	12.1	13.3	12.2	13.7
2.5mm^2	7.41	7.98	7.56	8.21

3) **Insulation**: PE/XLPE/LSF/LSOH

4) **Screening**: Aluminum Tape/Copper Braid

5) **Cabling**: Multicore/Multipair/Multitriple

6) **Bedding/Sheath Material**: PE /PVC/LSF/LSOH

7) **Armouring**: Steel Tape Amour/Steel Wire Amour

8) **Fire Performance:**

IEC 60332-1(for Flame Retardant PVC Sheath)

IEC 60332-3C(for Flame Retardant PVC/LSOH Sheath)

IEC 61034 Part 1&Part 2 (LSOH Sheath)

IEC 60754 Part 1&Part 2 (5%-15%LSF Sheath & 0.5%LSOH Sheath)

Oxygen Index(32%-40% depending on different LSOH compound)

Temperature Index(250˚C-300˚C,depending on different LSOH compound)

IEC 60331 (for Fire Resistant Type)

Instrument Cables BS 5308 Part 2 Colour code

BS 5308 Part 2 Colour Identification

Pair No.	a-wire		b-wire	Pair No.	a-wire		b-wire
1	White		Blue	26	Red	Blue	Blue
2	White		Orange	27	Red	Blue	Orange
3	White		Green	28	Red	Blue	Green
4	White		Brown	29	Red	Blue	Brown
5	White		Grey	30	Red	Blue	Grey
6	Red		Blue	31	Blue	Black	Blue
7	Red		Orange	32	Blue	Black	Orange
8	Red		Green	33	Blue	Black	Green
9	Red		Brown	34	Blue	Black	Brown
10	Red		Grey	35	Blue	Black	Grey
11	Black		Blue	36	Yellow	Blue	Blue
12	Black		Orange	37	Yellow	Blue	Orange
13	Black		Green	38	Yellow	Blue	Green
14	Black		Brown	39	Yellow	Blue	Brown
15	Black		Grey	40	Yellow	Blue	Grey
16	Yellow		Blue	41	White	Orange	Blue
17	Yellow		Orange	42	White	Orange	Orange
18	Yellow		Green	43	White	Orange	Green
19	Yellow		Brown	44	White	Orange	Brown
20	Yellow		Grey	45	White	Orange	Grey
21	White	Blue	Blue	46	Orange	Red	Blue
22	White	Blue	Orange	47	Orange	Red	Orange
23	White	Blue	Green	48	Orange	Red	Green
24	White	Blue	Brown	49	Orange	Red	Brown
25	White	Blue	Grey	50	Orange	Red	Grey

*For bi- coloured cores the first colour is the base colour

Single Quad (2 pair) are colour coded in clockwise order of rotation: Black, Blue, Green and Brown. Individually screened pairs can also be identified by means of a numbered polyester tape over one white and one blue core.

For cables in triple configuration please request colour code at time of enquiry

Instrument Cables BS 5308 Part 2- PVC Insulated

VDE Reference Code

PVC SheathType:

RE-Y(St)Y (Overall Screen)

RE-Y(St)Y PiMF(Individual Screen+Overall Screen)

RE-Y(St)Y-SWA(Overall Screen+Steel Wire Amour)

RE-Y(St)Y PiMF-SWA(Individual Screen+Overall Screen+Steel Wire Amour)

LSOH SheathType:

RE-H (St)H(Overall Screen)

RE-H(St)HPiMF(Individual Screen+Overall Screen)

RE-H(St)-H-SWA(Overall Screen+Steel Wire Amour)

RE-H(St)HPiMF-SWA(Individual Screen+Overall Screen+ Steel Wire Amour)

Ordering Code

CCA-BC-DEFGH-IJ-K-LM

A- **Cable Series**
FSN=FIRESCREEN

B- **ScreenType**
US=Unscreen; OS=Overall Screen; IS=Individual Pair Screen;
IOS=Individual Pair Screen+Overall Screen; FRUS=Fire Resistant Unscreen;
FROS=Fire Resistant Overall Screen; FRIS=Fire Resistant Individual Pair Screen;
FRIOS=Fire Resistant Individual Pair Screen+Overall Screen

C- **Rated Voltage**
115=115/300V; 300=300/500V;
450=450/750V; 600=600/1000V

D- **Insulation**
2X=XLPE; Y=PVC; 2Y=PE;
H=LSOH; O2Y=Foam PE

E- **Screening**

ST=Aluminum/Polyester Tape

PIMF=Pair Shielded with Aluminum/Polyester Tape

PIC=Pair Shielded with Copper Screen

F- **Sheath**

Y=PVC; 2Y=PE; H=LSOH

G- **Armouring**

SWA=Steel Wire Armour;STA= Steel Tape Armour; SWB= Steel Wire Braid Armour;

DSTA= Double Steel Tape Armour

H- **Sheath**

Y= PVC; Yu= FR-PVC;

Yv=Reinforced PVC; 2Y= PE;

H=LSHF

I- **No.of cores/Pairs/Triads/Quads**

2C=2cores; 3C=3cores; 4C=4cores

J- **Cross Section Area/Wire Gauge**

1.5S=1.5mm^2;2.5=2.5mm^2

1.91S(39/0.21)=1.91 mm^2 (39/0.21mm)

24A(7)=24 AWG(7Strand)

24A(16/0.2)=24 AWG(16/0.2mm)

K- **Standard(option)**

530811=BS5308-1 Type1; 530812=BS5308-1 Type2;

530821=BS5308-2 Type1; 530822=BS5308-2 Type2;

L- **Fire Propagation Level(option)**

1=IEC60332-1; 3C=IEC 60332-3C; 3A=IEC60332-3A

M- **Fire Resistant Level(option)**

331=IEC 60331; 6387CWZ=BS 6387 CWZ

Ordering Options:

1) **Conductor**:Bare or Tinned Copper

2) **Conductor Size**: BS 6360/EN 60228

Size	Class 1	Class 2	Class 5	Class 6
0.5mm^2	1/0.8mm	7/0.3mm	16/0.2mm	28/0.15mm
0.75mm^2		7/0.37mm	24/0.2mm	42/0.15mm
1.0mm^2	1/1.13mm	7/0.44mm	32/0.2mm	56/0.15mm
1.5mm^2		7/0.53mm	30/0.25mm	84/0.15mm
2.5mm^2		7/0.67mm	50/0.25mm	140/0.15mm

3)Conductor Resistance: BS 6360/EN 60228

Nominal cross-section area	Plain copper conductor wires (Ohm/km)		Tinned copper conductor wires (Ohm/km)	
mm^2	class 1 and 2	Class 5 and 6	class 1 and 2	Class 5 and 6
0.5mm^2	36	39	36.7	40.1
0.75mm^2	24.5	26	24.8	26.7
1.0mm^2	18.1	19.5	18.2	20
1.5mm^2	12.1	13.3	12.2	13.7
2.5mm^2	7.41	7.98	7.56	8.21

4)**Insulation**: PVC/XLPE/LSF/LSOH

5)**Screening**: Aluminum Tape/Copper Braid

6)**Cabling**: Multicore/Multipair/Multitriple

7)**Bedding/Sheath Material**: PVC/LSF/LSOH(PVC/LSF/LSHF)

8)**Armouring**: Steel Tape Amour/Steel Wire Amour

9)**Fire Performance**:

IEC 60332-1 (for Flame Retardant PVC)

IEC 60332-3C (for Flame Retardant PVC/LSOH Sheath)

IEC 61034 Part 1&Part 2 (for LSOH Sheath)

IEC 60754 Part 1&Part 2 (5%-15%LSF Sheath & 0.5%LSOH Sheath)

Oxygen Index (32%-40% depending on different LSOH compound)

Temperature Index (250˚C-300˚C,depending on different LSOH compound)

IEC 60331 (for Fire Resistant Type)

Multipair instrument cables ESI 09-6 Issue 5 and 6

ESI 09-6 Issue 5 Colour Identification

Two-pair cables are cabled in quad formation and colour coded as follows:Blue, Orange, Green and Brown.

Pair No.	a-wire	b-wire	Pair No.	a-wire	b-wire
1	Black	Blue	26	White	Yellow
2	Black	Orange	27	White	Violet
3	Black	Green	28	Blue	Red
4	Black	Brown	29	Blue	Yellow
5	Black	Grey	30	Blue	Violet
6	Blue	White	31	Green	Red
7	Blue	Orange	32	Green	Yellow
8	Blue	Green	33	Green	Violet
9	Blue	Brown	34	Red	Grey
10	Blue	Grey	35	Red	Orange
11	Orange	White	36	Red	Yellow
12	Orange	Green	37	Red	Brown
13	Orange	Brown	38	Red	Violet
14	Orange	Grey	39	Grey	Yellow
15	Green	White	40	Grey	Violet
16	Green	Brown	41	Orange	Yellow
17	Green	Grey	42	Orange	Violet
18	Brown	White	43	Yellow	Brown
19	Brown	Grey	44	Yellow	Violet
20	Grey	White	45	Brown	Violet
21	Black	White	46	Turquoise	Black
22	Black	Red	47	Turquoise	Blue
23	Black	Yellow	48	Turquoise	Red
24	Black	Violet	49	Turquoise	Orange
25	White	Red	50	Turquoise	Yellow

ESI 09-6 Issue 6 Colour Identification

Two-pair cables are cabled in quad formation and colour coded as follows:White, red, blue & orange.

Pair No.	a-wire	b-wire	Pair No.	a-wire	b-wire
1	White	Blue	11	Black	Blue
2	White	Orange	12	Black	Orange
3	White	Green	13	Black	Green
4	White	Brown	14	Black	Brown
5	White	Grey	15	Black	Grey
6	Red	Blue	16	Yellow	Blue
7	Red	Orange	17	Yellow	Orange
8	Red	Green	18	Yellow	Green
9	Red	Brown	19	Yellow	Brown
10	Red	Grey	20	Yellow	Grey

Cables having 40 pairs are produced in 20 pair unit,each unit with pair identification as above.Each core is identified by a number(running from 1 upwords) applied directly to its binder tape or by a separate longitudinal tape applied under a clear binder tape.

Ordering Code

CCA-BC-DEFGH-IJ-K-LM

A- **Cable Series**

FSN=FIRESCREEN

B- **ScreenType**

US=Unscreen; OS=Overall Screen; IS=Individual Pair Screen;
IOS=Individual Pair Screen+Overall Screen; FRUS=Fire Resistant Unscreen;
FROS=Fire Resistant Overall Screen; FRIS=Fire Resistant Individual Pair Screen;
FRIOS=Fire Resistant Individual Pair Screen+Overall Screen

C- **Rated Voltage**

115=115/300V; 300=300/500V;
450=450/750V; 600=600/1000V

D- **Insulation**

2X=XLPE; Y=PVC; 2Y=PE;
H=LSOH; O2Y=Foam PE

E- **Screening**

ST=Aluminum/Polyester Tape

PIMF=Pair Shielded with Aluminum/Polyester Tape

PIC=Pair Shielded with Copper Screen

F- **Sheath**

Y=PVC; 2Y=PE; H=LSOH

G- **Armouring**

SWA=Steel Wire Armour;STA= Steel Tape Armour; SWB= Steel Wire Braid Armour;

DSTA= Double Steel Tape Armour

H- **Sheath**

Y= PVC; Yu= FR-PVC;

Yv=Reinforced PVC; 2Y= PE;

H=LSHF

I- **No.of cores/Pairs/Triads/Quads**

2C=2cores; 3C=3cores; 4C=4cores

J- **Cross Section Area/Wire Gauge**

1.5S=1.5mm2;2.5=2.5mm2

1.91S(39/0.21)=1.91 mm2 (39/0.21mm)

24A(7)=24 AWG(7Strand)

24A(16/0.2)=24 AWG(16/0.2mm)

K- **Standard(option)**

E965=ESI 09-5 Issue 5; E966=ESI 09-6 Issue 6

L- **Fire Propagation Level(option)**

1=IEC60332-1; 3C=IEC 60332-3C; 3A=IEC60332-3A

M- **Fire Resistant Level(option)**

331=IEC 60331; 6387CWZ=BS 6387 CWZ

Ordering Options:

1) **Conductor**:Bare or Tinned Copper

2) **Conductor Size**: BS 6360/EN 60228

Size	Class 1	Class 2	Class 5	Class 6
0.5mm^2	1/0.8mm	7/0.3mm	16/0.2mm	28/0.15mm
0.75mm^2		7/0.37mm	24/0.2mm	42/0.15mm
1.0mm^2	1/1.13mm	7/0.44mm	32/0.2mm	56/0.15mm
1.5mm^2		7/0.53mm	30/0.25mm	84/0.15mm
2.5mm^2		7/0.67mm	50/0.25mm	140/0.15mm

3)Conductor Resistance: BS 6360/EN 60228

Nominal cross-section area	Plain copper conductor wires (Ohm/km)		Tinned copper conductor wires (Ohm/km)	
mm^2	class 1 and 2	Class 5 and 6	class 1 and 2	Class 5 and 6
0.5mm^2	36	39	36.7	40.1
0.75mm^2	24.5	26	24.8	26.7
1.0mm^2	18.1	19.5	18.2	20
1.5mm^2	12.1	13.3	12.2	13.7
2.5mm^2	7.41	7.98	7.56	8.21

4)**Insulation**: PVC/XLPE/LSF/LSOH

5)**Screening**: Aluminum Tape/Copper Braid

6)**Cabling**: Multicore/Multipair/Multitriple

7)**Bedding/Sheath Material**: PVC/LSF/LSOH(PVC/LSF/LSHF)

8)**Armouring**: Steel Tape Amour/Steel Wire Amour

9)**Fire Performance**:

IEC 60332-1 (for Flame Retardant PVC)

IEC 60332-3C (for Flame Retardant PVC/LSOH Sheath)

IEC 61034 Part 1&Part 2 (for LSOH Sheath)

IEC 60754 Part 1&Part 2 (5%-15%LSF Sheath & 0.5%LSOH Sheath)

Oxygen Index (32%-40% depending on different LSOH compound)

Temperature Index (250˚C-300˚C,depending on different LSOH compound)

IEC 60331 (for Fire Resistant Type)

VDE code for BS 5308 cable

BS5308 Cable Part 1 Type 1 PE-OS-PVC is equal to VDE code RE-2Y(St)Y

BS5308 Cable Part 1 Type 1 PE-IS-OS-PVC is equal to VDE code RE-2Y(St)Y PIMF

BS5308 Cable Part 1 Type 1 XLPE-OS-LSOH is equal to VDE code RE-2X(St)H

BS5308 Cable Part 1 Type 1 XLPE-IS-OS-LSOH is equal to VDE code RE-2X(St)H PIMF

BS5308 Cable Part 1 Type 2 PE-OS-SWA-PVC is equal to VDE code RE-2Y(St)Y SWA Y

BS5308 Cable Part 1 Type 2 PE-IS-OS-SWA-PVC is equal to VDE code RE-2Y(St)Y PIMF SWA Y

BS5308 Cable Part 1 Type 2 XLPE-OS-SWA-LSOH is equal to VDE code RE-2X(St)H SWA H

BS5308 Cable Part 1 Type 2 XLPE-IS-OS-SWA-LSOH is equal to VDE code RE-2X(St)H PIMF SWA H

BS5308 Cable Part 1 Type 3 PE-OS-Lead-SWA-PVC is equal to VDE code RE-2Y(St)Y MY SWA Y

BS5308 Cable Part 1 Type 3 PE-IS-OS-Lead-SWA-PVC is equal to VDE code RE-2Y(St)Y PIMF MY SWA Y

BS5308 Cable Part 2 Type 1 PVC-OS-PVC is equal to VDE code RE-Y(St)Y

BS5308 Cable Part 2 Type 1 PVC-IS-OS-PVC is equal to VDE code RE-Y(St)Y PIMF

BS5308 Cable Part 2 Type 2 PVC-OS-SWA-PVC is equal to VDE code RE-Y(St)Y SWA Y

BS5308 Cable Part 2 Type 2 PVC-IS-OS-SWA-PVC is equal to VDE code RE-Y(St)Y PIMF SWA Y

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