TANO
CABLE

河南泰诺电缆有限公司

HENAN TANO CABLE CO.,LTD.

INSTRUMENT CABLE

Henan Tano Cable Co., Ltd.(Tano Cable for short), is a leading and professional manufacturer of cable and wire with more than 20 years' history and manufacturing experience, located in Zhengzhou city which is the capital of Henan province, China.

Tano Cable aims at providing integral power solution for international customers. We are working together as one company to provide products and technologies for building, maintaining and advancing the power and information infrastructures that connect the world. We mainly have the following products with strong competitiveness: All Aluminum Conductors (AAC), All Aluminum Alloy Conductors (AAAC), Aluminum Conductors Steel Reinforcement (ACSR) , Aerial Bundled Cables (ABC), building wire, welding cable, control cable, instrument cable, rubber cable, PVC insulated power cable, XLPE insulated power cable up to 500KV, customer-tailored cable and cable accessories, conforming to many different Country or international standard, such as IEC, HAR, BS, DIN, ICEA, ASTM, SABS, AS/NZS, JIS and so on.

Tano Cable pays great importance on the quality. We have strong teams and equipments for both production and inspection. Moreover, we have been awarded many certificates of ISO, CE, SONCAP, others from China and abroad. We keep improving our quality management system to meet the client's final satisfaction.

Tano Cable has provided services to the global clients who working in all areas of the energy, construction, industrial, specialty and communications market, and obtained the client's trust and compliment.

Welcome your any inquiry! Welcome your any visit! Welcome your any contact! We will take our biggest sincerity to be your long-term friend and partner.

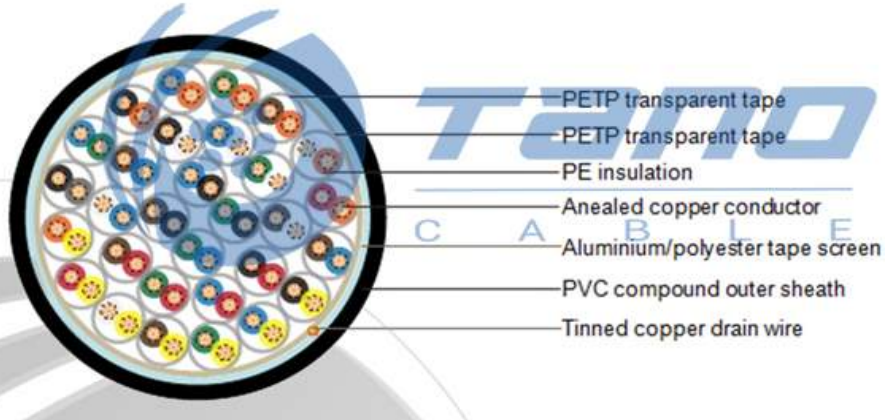
Table of Contents

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

APPLICATION

The unarmored 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 multi-stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multi-stranded(Class 2) to BS6360
Insulation	PE (Polyethylene) type 03 to BS6234
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Color code	Refer to 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 tinned copper drain wire, 0.5mm²
Outer sheath	PVC Sheath, type TM 1 or type 6 to BS 6746
Sheath color	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 OD

Conductor Area Size		mm 2	0.5	0.5	0.75	1	1.5
Conductor Stranding		No. x mm	1 x 0.8	16 x 0.2	24 x 0.2	1 x 1.13	7 x 0.53
Conductor Resistance Max		ohm/km	36.8	39.7	26.5	18.2	12.3
Insulation Resistance Min		Gohm/km	5	5	5	5	5
Capacitance Unbalance At 1 kHz(pair to pair screen)		pF/250m	250				
Max. Mutual Capacitance @ 1 kHz for Non OS or OS cables (except one-pair and two- pairs)		pF/m	115	115	115	115	120
Max. Mutual Capacitance @ 1 kHz for OS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75	85
Max. L/R Ratio for Adjacent Cores(Inductance/ Resistance)		μH/ohm	25	25	25	25	40
Test Voltage	Core to Core	V	1000	1000	1000	1000	1000
	Core to Screen	V	1000	1000	1000	1000	1000
Rated voltage Max		V	300/500	300/500	300/500	300/500	300/500

TECHNICAL 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	mm2	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
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

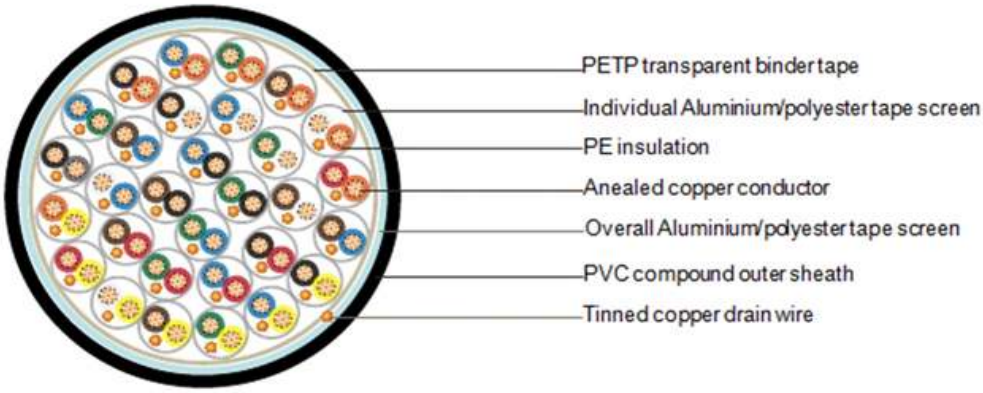
2	24/0.2	0.75	0.6	0.9	8.4	100
5	24/0.2	0.75	0.6	1.2	13.8	250
10	24/0.2	0.75	0.6	1.3	18.4	450
15	24/0.2	0.75	0.6	1.5	21.1	600
20	24/0.2	0.75	0.6	1.5	24.4	920
30	24/0.2	0.75	0.6	1.7	29.5	980
50	24/0.2	0.75	0.6	2	37.6	1690
1	1/1.13	1	0.6	0.8	6.6	85
2	1/1.13	1	0.6	0.8	8	115
5	1/1.13	1	0.6	1.2	13.5	290
10	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

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

APPLICATION

The unarmored 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 multi-stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multi-stranded(Class 2) to BS6360
Insulation	PE (Polyethylene) type 03 to BS6234
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Color code	Refer to 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 color	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 OD

Conductor Area Size	mm 2	0.5	0.5	0.75	1	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 Capacitance1 kHz for Non OS or OS cables (except one-pair and two-pairs)	pF/m	115	115	115	115	120

Max. Mutual Capacitance @1 kHz IS/OS cables (include1 pair and 2 pair)		pF/m	75	75	75	75	85
Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		μH/ohm	25	25	25	25	40
Test voltage	Core to Core	V	1000	1000	1000	1000	1000
	Core to Screen	V	1000	1000	1000	1000	1000
Rated Voltage Max		V	300/500	300/500	300/500	300/500	300/500

TECHNICAL PARAMETER

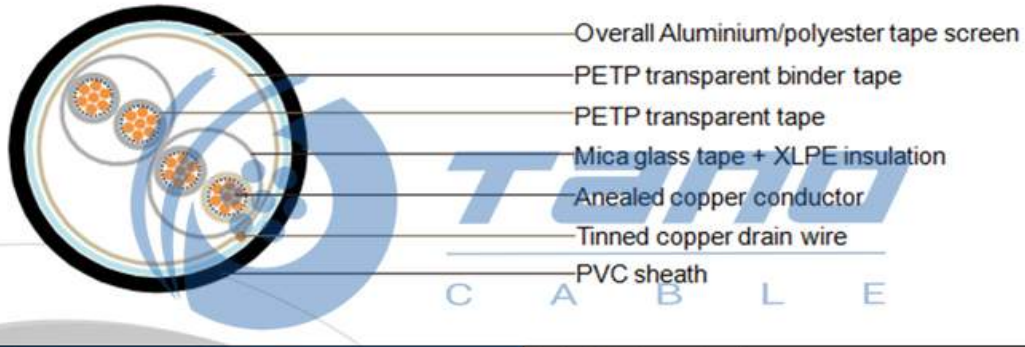
No.of Pairs	No.and Dia. of Wires	Nominal Conductor Cross- Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	No./mm	mm2	mm	mm	mm	kg/km
2	1/0.8	0.5	0.5	0.9	9.7	95
5	1/0.8	0.5	0.5	1.2	13	180
10	1/0.8	0.5	0.5	1.2	16.9	310
15	1/0.8	0.5	0.5	1.3	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
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

Instrument Cable Part 1 Type1 MG-XLPE-OS-LSOH to BS5308 Standard

APPLICATION

The unarmored 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 tape, XLPE (Cross Linked Polyethylene), or PE (optional)
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Color code	Refer to 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 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 color	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 OD

Conductor Area Size		mm 2	0.5	0.75	1	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 UnbalanceAat 1kHz(pair to pair screen)		pF/250m	250			
Max. Mutual Capacitance @ 1kHz for Non OS or OS cables (except one-pair and two- pairs)		pF/m	115	115	115	115
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75
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

TECHNICAL PARAMETER

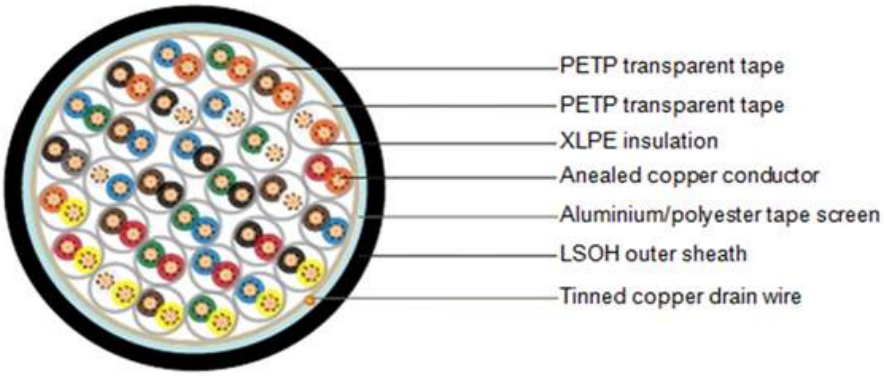
No. of Pairs	No. and Dia. of Wires	Nominal Conductor Cross- Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	No./mm	mm2	mm	mm	mm	kg/km
1	7/0.44	1	0.6	1.4	7.8	89
2	7/0.44	1	0.6	1.4	9.2	121
5	7/0.44	1	0.6	1.4	13.9	298

Instrument Cable Part 1 Type1 XLPE-OS-LSOH/RE-2X(St)H to BS5308 Strandard

APPLICATION

The unarmored 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 multi stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multi stranded(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
Color code	Refer to 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 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 color	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 OD

Conductor Area Size	mm 2	0.5	0.5	0.75	1	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 1kHz(pair to pair screen)	pF/250m	250				

Max. Mutual Capacitance @ 1kHz for Non OS or OS cables (except one-pair and two- pairs)		pF/m	115	115	115	115	115
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75	75
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

TECHNICAL 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	mm2	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
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

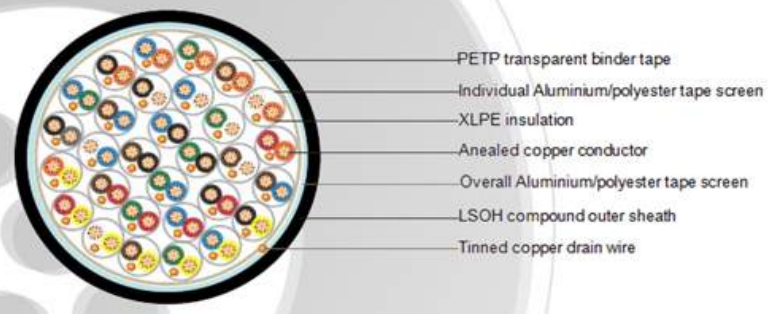
20	1/1.13	1	0.6	1.5	23.8	950
30	1/1.13	1	0.6	1.5	28.4	1030
50	1/1.13	1	0.6	2	36.6	1750
1	7/0.53	1.5	0.6	0.8	7.5	100
2	7/0.53	1.5	0.6	0.9	9.3	150
5	7/0.53	1.5	0.6	1.2	15.6	360
10	7/0.53	1.5	0.6	1.3	20.9	690
15	7/0.53	1.5	0.6	1.5	24.6	880
20	7/0.53	1.5	0.6	1.5	27.8	1230
30	7/0.53	1.5	0.6	1.7	33.7	1560
50	7/0.53	1.5	0.6	2	43	2400

Instrument Cable Part 1 Type1 XLPE-IS-OS-LSOH/RE-2X(St)H PIMF to BS5308 Standard

APPLICATION

The unarmored 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 multi stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multi stranded(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
Color code	Refer to technical information
Individual screen	Aluminum/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	Aluminum/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 color	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	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 1kHz(pair to pair screen)		pF/250m	250				
Max. Mutual Capacitance @ 1kHz for Non OS or OS cables(except one-pair and two-pairs)		pF/m	115	115	115	115	115
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75	75
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

TECHNICAL 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	mm2	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
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

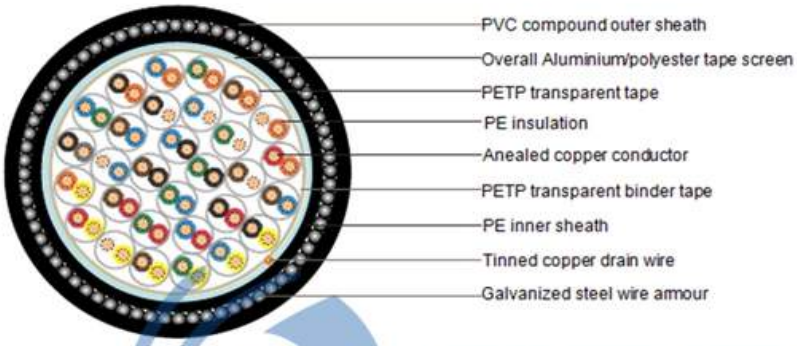
Instrument Cable Part 1 Type 2 PE-OS-SWA-PVC/RE-2Y(St)2Y SWAY to BS5308 Standard

APPLICATION

The armored versions (Part 1 Type 2) are generally used when the risk of mechanical damage is increased. The galvanized steel wire armor 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 multi stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multi stranded(Class 2) to BS6360
Insulation	PE (Polyethylene) type 03 to BS6234
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Color code	Refer to 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 tinned copper drain wire, 0.5mm²
Inner Sheath	PE (Polyethylene) type 2C or type 03 to BS6234
Amour	Galvanized steel wire armor
Outer sheath	PVC Sheath, type TM 1 to BS 6746
Sheath color	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	1.5
Conductor Stranding		No. x mm	1 x 0.8	16 x 0.2	24 x 0.2	1 x 1.13	7 x 0.53
Conductor Resistance Max		ohm/km	36.8	39.7	26.5	18.2	12.3
Insulation Resistance Min		Gohm/km	5	5	5	5	5
Capacitance unbalance at 1 kHz(pair to pair screen)		pF/250m	250				
Max. Mutual Capacitance@ 1 kHz for Non OS or OS cables (except one-pair and two-pairs)		pF/m	115	115	115	115	120
Max. Mutual Capacitance @1 kHz IS/OS cables (include1 pair and 2 pair)		pF/m	75	75	75	75	85
Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		μH/ohm	25	25	25	25	40
Test Voltage	Core to core	V	1000	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000	1000
Rated Voltage Max		V	300/500	300/500	300/500	300/500	300/500

TECHNICAL 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	mm2	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
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

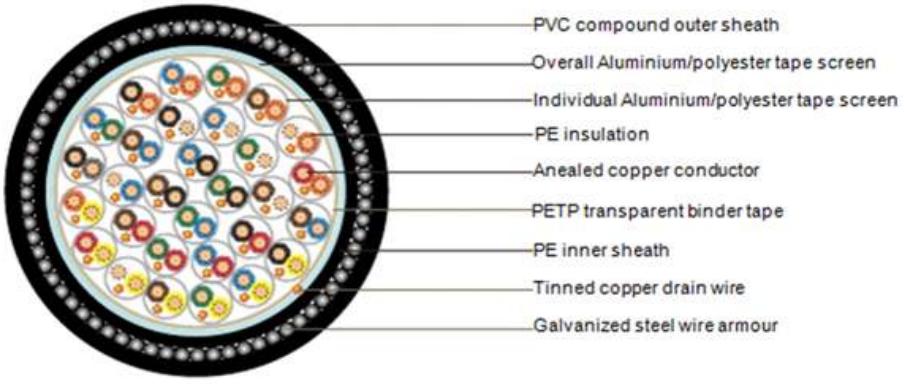
20	24/0.2	0.75	0.6	1.5	24.4	1.6	2	31.4	1890
30	24/0.2	0.75	0.6	1.7	29.5	2	2.1	37	2440
50	24/0.2	0.75	0.6	2	37.6	2.5	2.4	47.3	3210
1	1/1.13	1	0.6	0.8	6.6	0.9	1.3	11	290
2	1/1.13	1	0.6	0.8	8	0.9	1.4	12.6	345
5	1/1.13	1	0.6	1.2	13.5	1.25	1.5	19	790
10	1/1.13	1	0.6	1.2	17.7	1.25	1.7	23.6	1310
15	1/1.13	1	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

Instrument Cable Part1 Type 2 PE-IS-OS-SWA-PVC/RE-2Y(St)2Y PIMF SWAY to BS5308 Standard

APPLICATION

The armored versions (Part 1 Type 2) are generally used when the risk of mechanical damage is increased. The galvanized steel wire armor 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 multi stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multi stranded(Class 2) to BS6360
Insulation	PE (Polyethylene) type 03 to BS6234
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Color code	Refer to technical information
Individual screen	Aluminum/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	Aluminum/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 armor
Outer sheath	PVC Sheath, type TM 1 to BS 6746
Sheath color	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 OD

Conductor Area Size	mm 2	0.5	0.5	0.75	1	1.5
Conductor Stranding	No. x mm	1 x 0.8	16 x 0.2	24 x 0.2	1 x 1.13	7 x 0.53
Conductor Resistance Max	ohm/km	36.8	39.7	26.5	18.2	12.3
Insulation Resistance min	Gohm/km	5	5	5	5	5
Capacitance Unbalance at 1 kHz(pair to pair screen)	pF/250m	250				
Max. Mutual Capacitance @ 1 kHz for Non OS or OS cables (except one-pair and two- pairs)	pF/m	115	115	115	115	120
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)	pF/m	75	75	75	75	85

Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		μH/ohm	25	25	25	25	40
Test voltage	Core to core	V	1000	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000	1000
Rated voltage max		V	300/500	300/500	300/500	300/500	300/500

TECHNICAL PARAMETER

No. of Pairs	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of bedding	Nominal Dia. Over Bedding	Nominal Thickness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	No./mm	mm2	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
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

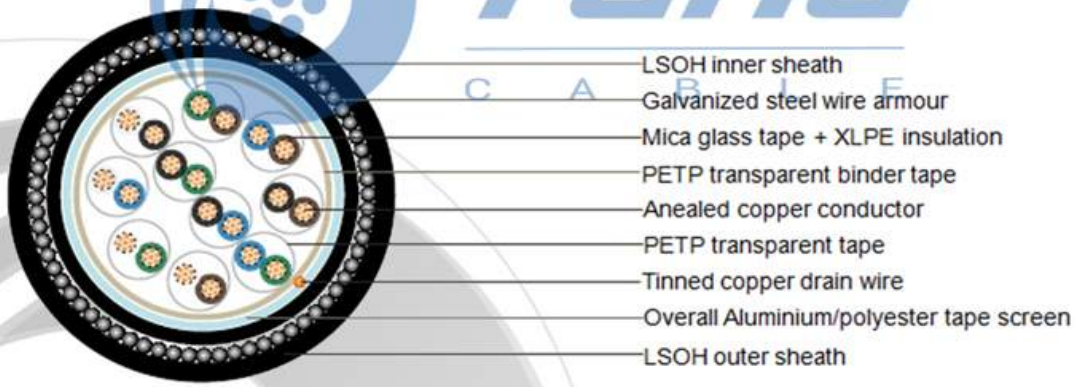
20	7/0.53	1.5	0.6	1.7	31.7	2	2.1	39.9	3030
30	7/0.53	1.5	0.6	2	38.6	2	2.5	48.6	4050
50	7/0.53	1.5	0.6	2.2	48.9	2	2.7	59.3	5960

Instrument Cable Part 1 Type 2 MG-XLPE-OS-SWA-LOSH to BS5308 Standard

APPLICATION

The armored fire resistant versions (Part 1 Type 2) are typically used in chemical and process Industries where there is danger of fire. The galvanized steel wire armor 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
Color code	Refer to 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 tinned copper drain wire, 0.5mm²
Inner Sheath	LSOH(Low Smoke Zero Halogen) sheath

Amour	Galvanized steel wire armor
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 color	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		mm2	0.5	0.75	1	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 1kHz(pair to pair screen)		pF/250m	250			
Max. Mutual Capacitance @ 1kHz for Non OS or OS cables (except one-pair and two- pairs)		pF/m	115	115	115	115
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75
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

TECHNICAL PARAMETER

No. of Pairs	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of bedding	Nominal Dia. over Bedding	Nominal Thickness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	No./mm	mm2	mm	mm	mm	mm	mm	mm	kg/km
1	7/0.44	1	0.6	0.8	7	0.9	1.4	11.6	340
2	7/0.44	1	0.6	0.8	8.4	0.9	1.4	13	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	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

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

APPLICATION

The armored fire resistant versions (Part 1Type 2) are typically used in chemical and process Industries where there is danger of fire. The galvanized steel wire armor 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
Color code	Refer to technical information
Individual screen	Aluminum/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	Aluminum/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 armor
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 color	Black or blue

MECHANICAL AND ELECTRICAL PEOPRETIES

Operating temperature: -20°C up to + 90°C (fixed installation)

0°C to +50°C (during operation)

Minimum bending radius: 6 x OD

Conductor Area Size		mm2	0.5	0.75	1	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 1kHz(pair to pair screen)		pF/250m	250			
Max. Mutual Capacitance @ 1kHz for Non OS or OS cables (except one-pair and two- pairs)		pF/m	115	115	115	115
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75
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

TECHNICAL 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	mm2	mm	mm	mm	mm	mm	mm	kg/km
5	7/0.37	0.75	0.6	0.8	15	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	890

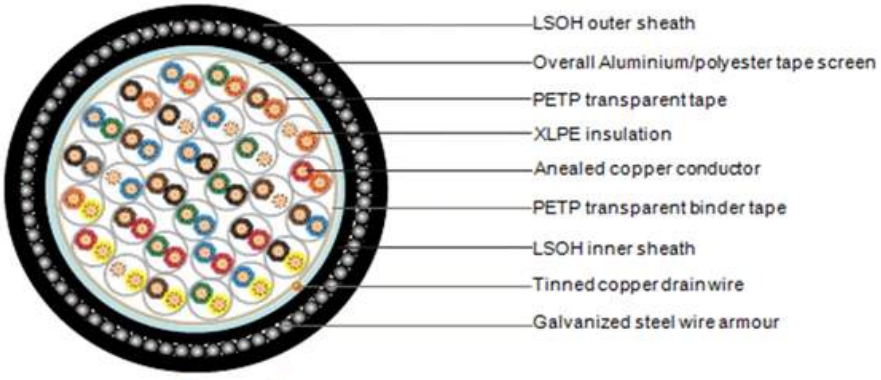
Instrument Cable Part 1 Type 2 XLPE-OS-SWA-LSOH / RE-2X(St)H SWAH to BS5308 Standard

APPLICATION

The armored LSOH versions (Part 1 Type 2) are generally used when the risk of mechanical damage is increased. The galvanized steel wire armor 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 multi stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm² multi stranded(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
Color code	Refer to 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 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 color	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		mm2	0.5	0.5	0.75	1	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 1kHz(pair to pair screen)		pF/250m	250				
Max. Mutual Capacitance @ 1kHz for Non OS or OS cables (except one-pair and two- pairs)		pF/m	115	115	115	115	120
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75	85
Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		μH/ohm	25	25	25	25	40
Test voltage	Core to core	V	1000	1000	1000	1000	1000
	Core to Screen	V	1000	1000	1000	1000	1000
Rated Voltage max		V	300/500	300/500	300/500	300/500	300/500

TECHNICAL PARAMETER

No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thick-ness of Insulation	Nominal Thick-ness of bedding	Nominal Dia. Over Bedding	Thick- ness of Armour	Nominal Thick-ness of Sheath	Nominal Dia. of Cable	Approx. Weight
No./mm	mm2	mm	mm	mm	mm	mm	mm	kg/km
1/0.80	0.5	0.5	0.8	5.5	0.9	1.3	9.9	200
1/0.80	0.5	0.5	0.8	6.8	0.9	1.3	11.2	260
1/0.80	0.5	0.5	1.1	10.9	0.9	1.4	15.5	460
1/0.80	0.5	0.5	1.2	14.4	1.25	1.6	20.1	790
1/0.80	0.5	0.5	1.2	16.5	1.25	1.6	22.2	1100
1/0.80	0.5	0.5	1.3	18.8	1.6	1.7	25.4	1280
1/0.80	0.5	0.5	1.3	22.3	1.6	1.8	29.1	1520
1/0.80	0.5	0.5	1.5	28.5	1.6	2	35.7	2100
16/0.2	0.5	0.6	0.8	6.2	0.9	1.3	10.6	250
16/0.2	0.5	0.6	0.8	7.6	0.9	1.3	12	300
16/0.2	0.5	0.6	1.1	12.4	0.9	1.5	17.2	560
16/0.2	0.5	0.6	1.2	16.5	1.25	1.6	22.2	970
16/0.2	0.5	0.6	1.3	19.2	1.6	1.7	25.8	1240
16/0.2	0.5	0.6	1.3	21.7	1.6	1.8	28.5	1640
16/0.2	0.5	0.6	1.5	26.4	1.6	1.9	33.4	1770
16/0.2	0.5	0.6	1.7	33.4	2	2.1	41.6	2770
24/0.2	0.75	0.6	0.8	6.7	0.9	1.4	10.9	280
24/0.2	0.75	0.6	0.9	8.4	0.9	1.4	12.8	330
24/0.2	0.75	0.6	1.2	13.8	1.25	1.6	19.3	750
24/0.2	0.75	0.6	1.3	18.4	1.6	1.8	24.3	1260
24/0.2	0.75	0.6	1.3	21.1	1.6	1.9	27	1480
24/0.2	0.75	0.6	1.5	24.4	1.6	2	31.4	1890
24/0.2	0.75	0.6	1.7	29.5	2	2.1	37	2440

24/0.2	0.75	0.6	2	37.6	2.5	2.4	47.3	3210
1/1.13	1	0.6	0.8	6.6	0.9	1.3	11	290
1/1.13	1	0.6	0.8	8	0.9	1.4	12.6	345
1/1.13	1	0.6	1.2	13.5	1.25	1.5	19	790
1/1.13	1	0.6	1.2	17.7	1.25	1.7	23.6	1310
1/1.13	1	0.6	1.3	20.6	1.6	1.8	27.4	1740
1/1.13	1	0.6	1.5	23.8	1.6	1.8	30.6	2040
1/1.13	1	0.6	1.5	28.4	1.6	2	35.6	2180
1/1.13	1	0.6	2	36.6	2	2.2	45	3500
7/0.53	1.5	0.6	0.8	7.5	0.9	1.4	11.9	320
7/0.53	1.5	0.6	0.9	9.3	0.9	1.5	14.1	420
7/0.53	1.5	0.6	1.2	15.6	1.25	1.6	21.6	940
7/0.53	1.5	0.6	1.3	20.9	1.6	1.8	27.4	1500
7/0.53	1.5	0.6	1.5	24.6	1.6	1.9	31.2	1970
7/0.53	1.5	0.6	1.5	27.8	1.6	2	35.8	2400
7/0.53	1.5	0.6	1.7	33.7	2	2.2	42.3	3170
7/0.53	1.5	0.6	2	43	2.5	2.5	53.2	5020

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

APPLICATION

The armored LSOH versions (Part 1 Type 2) are generally used when the risk of mechanical damage is increased. The galvanized steel wire armor 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) toBS6360
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 OD

Conductor Area Size	**mm2**	0.5	0.5	0.75	1	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 1kHz(pair to pair screen)		pF/250m	250				
Max. Mutual Capacitance @ 1kHz for Non OS or OS cables (except one-pair and two- pairs)		pF/m	115	115	115	115	120
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75	85
Max. L/R Ratio for adjacent cores(Inductance/Resistance)		μH/ohm	25	25	25	25	40
Test voltage	Core to core	V	1000	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000	1000
Rated voltage max		V	300/500	300/500	300/500	300/500	300/500

TECHNICAL PARAMETER

No. of Pairs	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of bedding	Nominal Dia. Over Bedding	Nominal Thickness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	No./mm	mm2	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
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

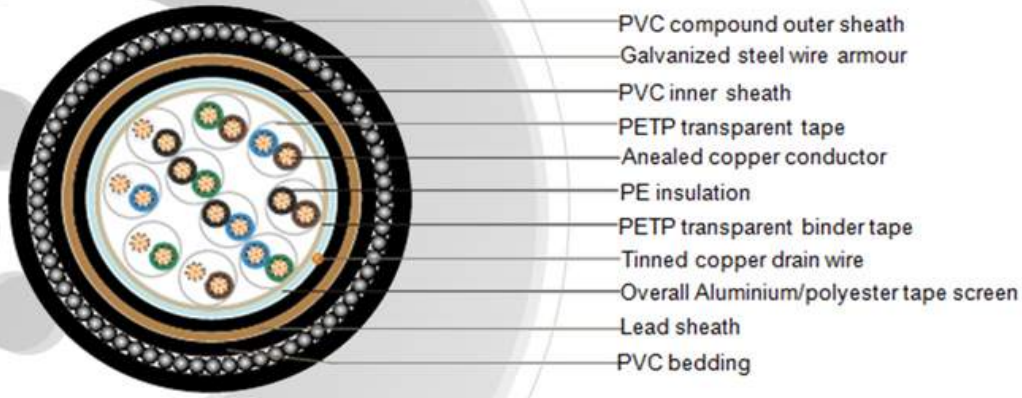
30	1/1.13	1	0.6	2	33.7	2	2.2	42.1	2900
50	1/1.13	1	0.6	2.2	42.5	2.5	2.5	52.5	4800
2	7/0.53	1.5	0.6	1.2	13.6	1.25	1.6	19.3	730
5	7/0.53	1.5	0.6	1.3	17.7	1.6	1.7	24.3	1180
10	7/0.53	1.5	0.6	1.5	23.9	1.6	1.9	30.9	1820
15	7/0.53	1.5	0.6	1.7	28	2	2	36	2350
20	7/0.53	1.5	0.6	1.7	31.7	2	2.1	39.9	3030
30	7/0.53	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

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

APPLICATION

The armored versions (Part 1 Type 3) are generally used when the risk of mechanical damage is increased. The galvanized steel wire armor 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 multi stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multi stranded(Class 2) to BS6360
Insulation	PE (Polyethylene) type 03 to BS6234
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Color code	Refer to 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 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 armor
Outer sheath	PVC Sheath, type TM 1 or type 6 to BS 6746
Sheath color	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 OD

Conductor Area Size		mm2	0.5	0.5	0.75	1	1.5
Conductor Stranding		No. x mm	1 x 0.8	16 x 0.2	24 x 0.2	1 x 1.13	7 x 0.53
Conductor resistance max		ohm/km	36.8	39.7	26.5	18.2	12.3
Insulation resistance min		Gohm/km	5	5	5	5	5
Capacitance unbalance at 1 kHz(pair to pair screen)		pF/250m	250				
Max. Mutual Capacitance@ 1 kHz for Non OS or OS cables (except one-pair and two-pairs)		pF/m	115	115	115	115	120
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75	85
Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		µH/ohm	25	25	25	25	40
Test voltage	Core to core	V	1000	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000	1000
Rated voltage max		V	300/500	300/500	300/500	300/500	300/500

TECHNICAL 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	mm2	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

Instrument Cable Part 1 Type 3 PE-IS-OS-Lead-SWA-PVC/RE-2Y(St)Y PIMF MY SWAY to BS5308 Standard

APPLICATION

The armored versions (Part 1 Type 3) are generally used when the risk of mechanical damage is increased. The galvanized steel wire armor 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 multi stranded(Class 5), 0.5 mm², 1.0 mm² solid(Class 1), 1.5mm² or 2.5mm², multi stranded(Class 2) to BS6360
Insulation	PE (Polyethylene) type 03 to BS6234
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Color code	Refer to technical information
Individual screen	Aluminum/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	Aluminum/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 armor
Outer sheath	PVC Sheath, type TM 1 or type 6 to BS 6746
Sheath color	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 OD

Conductor Area Size		mm2	0.5	0.5	0.75	1	1.5
Conductor Stranding		No. x mm	1 x 0.8	16 x 0.2	24 x 0.2	1 x 1.13	7 x 0.53
Conductor resistance max		ohm/km	36.8	39.7	26.5	18.2	12.3
Insulation resistance min		Gohm/km	5	5	5	5	5
Capacitance unbalance at 1 kHz(pair to pair screen)		pF/250m	250				
Max. Mutual Capacitance @ 1 kHz for Non OS or OS cables (except one-pair and two- pairs)		pF/m	115	115	115	115	120
Max. Mutual Capacitance @1 kHz IS/OS cables (include 1 pair and 2 pair)		pF/m	75	75	75	75	85
Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		µH/ohm	25	25	25	25	40
Test voltage	Core to core	V	1000	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000	1000
Rated voltage max		V	300/500	300/500	300/500	300/500	300/500

TECHINCAL PARAMETER

No. of	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
Pairs	no./mm	mm2	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

Instrument Cable Part 2 Type1 PVC-OS-PVC/RE-Y(St)Y to BS5308 Standard

APPLICATION

The unarmored 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 petrochemical industry.

CONSTRUCTION

Conductor	Annealed or tinned copper, sizes: 0.5mm² and 0.75mm² multi stranded(Class 5), 1.5mm² multi stranded(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
Color code	Multicore cables: up to 40 cores yellow with black numbers, 41 - 80 cores black with yellow numbers. Multi pair cables: Refer to 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 tinned copper drain wire, 0.5mm²
Outer sheath	PVC Sheath, type TM 1 or type 6 to BS 6746
Sheath color	Black or blue

MECHANICAL AND ELECTRICAL PEOPERTIES

Operating temperature: -40°C up to + 70°C(fixed installation)

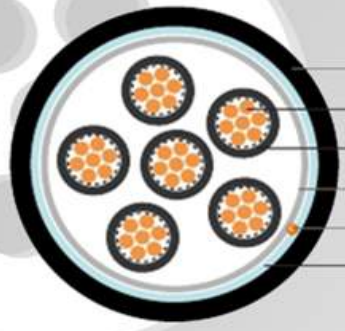
0°C to +50°C(during operation)

Minimum bending radius: 5 x OD

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

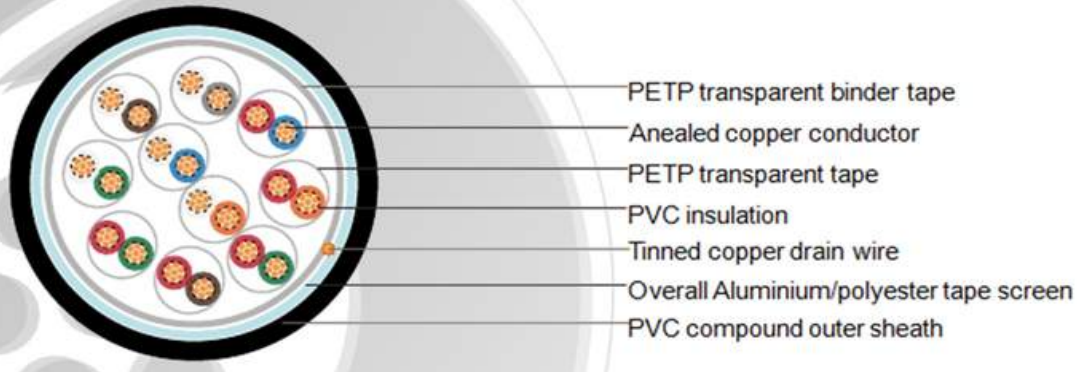
TECHINCAL PARAMETER

Multicore



No. of	No. and Dia. of Wires	Nominal Conductor Cross- Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
Cores	no./mm	mm2	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
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

Multipair



No. of	No. and Dia. of Wires	Nominal Conductor Cross- Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
Cores	no./mm	mm2	mm	mm	mm	kg/km

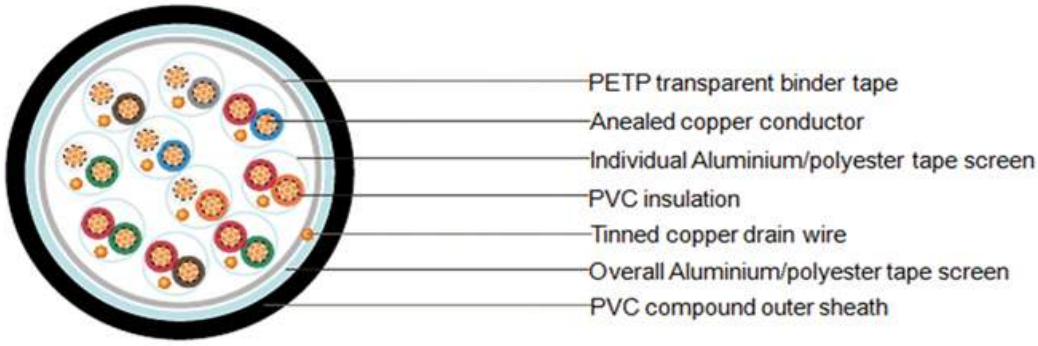
1	16/0.2	0.5	0.6	0.8	6.2	60
2	16/0.2	0.5	0.6	0.8	7.6	80
5	16/0.2	0.5	0.6	1.1	12.4	200
10	16/0.2	0.5	0.6	1.2	16.5	340
15	16/0.2	0.5	0.6	1.3	19.2	480
20	16/0.2	0.5	0.6	1.3	21.7	570
30	16/0.2	0.5	0.6	1.5	26.4	880
50	16/0.2	0.5	0.6	1.7	33.4	1310
1	24/0.2	0.75	0.6	0.8	6.7	75
2	24/0.2	0.75	0.6	0.8	8.2	100
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

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

APPLICATION

The unarmored 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 petrochemical industry.

CONSTRUCTION



Conductor	Annealed or tinned copper, sizes: 0.5mm² and 0.75mm² multi stranded(Class 5), 1.5mm² multi stranded(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
Color code	Refer to technical information
Individual screen	Aluminum/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	Aluminum/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 color	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 OD

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

TECHINCAL PARAMETER

No. of	No. and Dia. of Wires	Nominal Conductor Cross- Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
Cores	no./mm	mm2	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
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

Instrument Cable Part 2 Type 2 PVC-OS-SWA-PVC/RE-Y(St)Y SWAY to BS5308 Standard

APPLICATION

The armored versions (Part 2 Type 2) are generally used when the risk of mechanical damage is increased.

The galvanized steel wire armor 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 petrochemical 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 multi stranded(Class 5), 1.5mm² multi stranded(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
Color code	Multicore cables: up to 40 cores yellow with black numbers, 41 - 80 cores black with yellow numbers. Multi pair cables: Refer to 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 tinned copper drain wire, 0.5mm²
Inner Sheath	PVC (polyvinyl chloride), type TM 1 to BS 6746
Amour	Galvanized steel wire armor
Outer sheath	PVC Sheath, type TM 1 or type 6 to BS 6746
Sheath color	Black or blue

MECHANICAL AND ELECTRICAL PROPERTIES

Operating temperature: -40°C up to + 70°C (fixed installation)

0°C to +50°C (during operation)

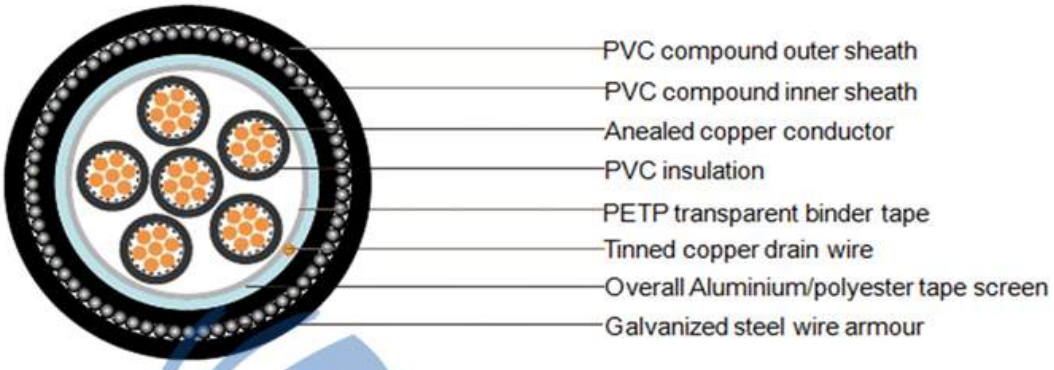
Minimum bending radius: 6 x OD

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

TECHINCAL PARAMETER

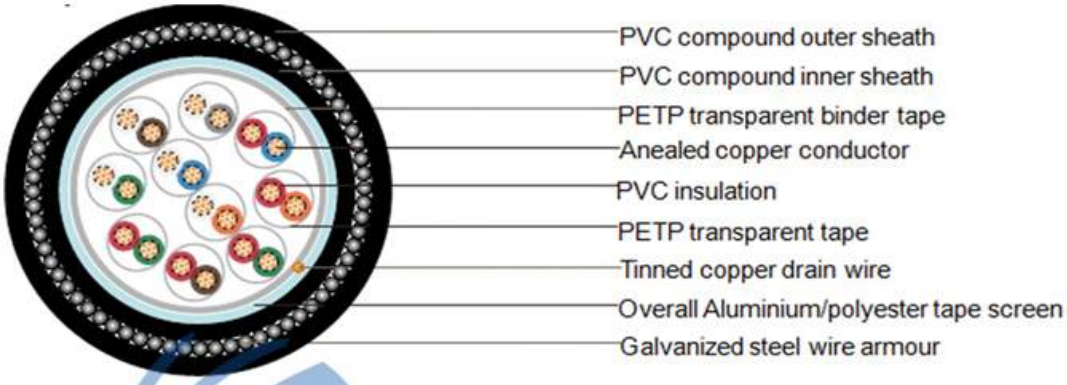
Multicore



No. of Cores	No. and Dia. of Wires	Nominal Conductor Cross- Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Bedding	Nominal Dia. Over Bedding	Nominal Thick-ness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	No./mm	mm2	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	1.1	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
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

Multipair



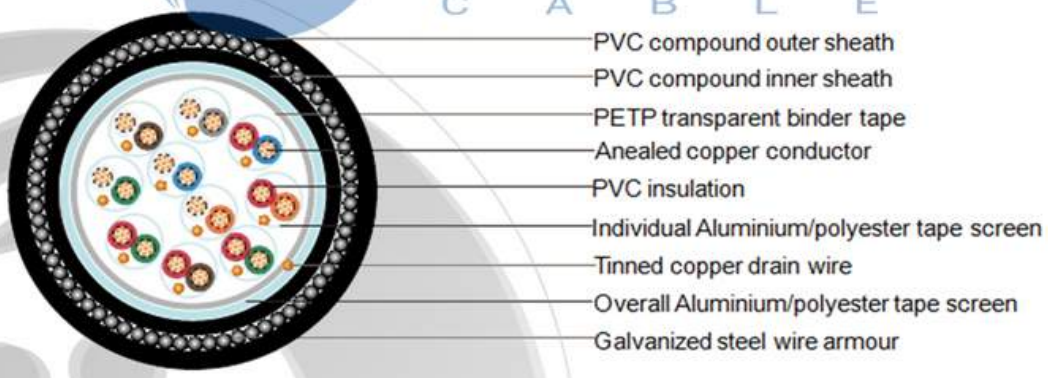
No. of pairs	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of bedding	Nominal Dia. Over Bedding	Nominal Thickness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	No./mm	mm2	mm	mm	mm	mm	mm	mm	kg/km
1	16/0.2	0.5	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

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

APPLICATION

The armored versions (Part 2 Type 2) are generally used when the risk of mechanical damage is increased. The galvanized steel wire armor 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 petrochemical 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(Class5), 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 exceeding100mm
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 OD

Conductor Area Size		mm2	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

TECHINCAL PARAMETER

No. of pairs	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of bedding	Nominal Dia. Over Bedding	Nominal Thickness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	No./mm	mm2	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
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

Instrument Cables BS5308 Part1 Color Code

BS 5308 Part 1 Color 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 color coded in clockwise order of rotation: Black, Blue, Green and Brown Individually screened pairs can also be identified by means of a polyester tape over blue and black pairs For cables in triple configuration please request color code at time of enquiry.

Instrument Cables BS5308 Part 1-PE Insulated

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=1.5mm2; 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)

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
0.5mm2	1/0.8mm	7/0.3mm	16/0.2mm	28/0.15mm
0.75mm2		7/0.37mm	24/0.2mm	42/0.15mm
1.0mm2	1/1.13mm	7/0.44mm	32/0.2mm	56/0.15mm
1.5mm2		7/0.53mm	30/0.25mm	84/0.15mm
2.5mm2		7/0.67mm	50/0.25mm	140/0.15mm

3) **Conductor Resistance:** BS 6360/EN 60228

Nominal cross-section area mm2	Plain copper conductor wires (Ohm/km)		Tinned copper conductor wires (Ohm/km)	
	class 1 and 2	Class 5 and 6	class 1 and 2	Class 5 and 6
0.5mm2	36	39	36.7	40.1
0.75mm2	24.5	26	24.8	26.7

2 1.0mm	18.1	19.5	18.2	20
2 1.5mm	12.1	13.3	12.2	13.7
2 2.5mm	7.41	7.98	7.56	8.21

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

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

6) **Cabling:** Multi core/Multi pair/Multi triple

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

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

9) **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 Color code

BS 5308 Part 2 Color 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- colored cores the first color is the base color

Single Quad (2 pair) are color coded in clockwise order of rotation: Black, Blue, Green and Brown Individually screened pairs can also be identified by means of a polyester tape over blue and black pairs For cables in triple configuration please request color code at time of enquiry.

Instrument cables BS5308 Part 2-PVC Insulated

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)

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
0.5mm2	1/0.8mm	7/0.3mm	16/0.2mm	28/0.15mm
0.75mm2		7/0.37mm	24/0.2mm	42/0.15mm
1.0mm2	1/1.13mm	7/0.44mm	32/0.2mm	56/0.15mm
1.5mm2		7/0.53mm	30/0.25mm	84/0.15mm
2.5mm2		7/0.67mm	50/0.25mm	140/0.15mm

3) Conductor Resistance: BS 6360/EN 60228

Nominal cross-section area mm2	Plain copper conductor wires (Ohm/km)		Tinned copper conductor wires (Ohm/km)	
	class 1 and 2	Class 5 and 6	class 1 and 2	Class 5 and 6
0.5mm2	36	39	36.7	40.1
0.75mm2	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/PE/LSOH

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

6) **Cabling:** Multicore/Multi pair/Multi triple

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

8) **Armoring:** 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)

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