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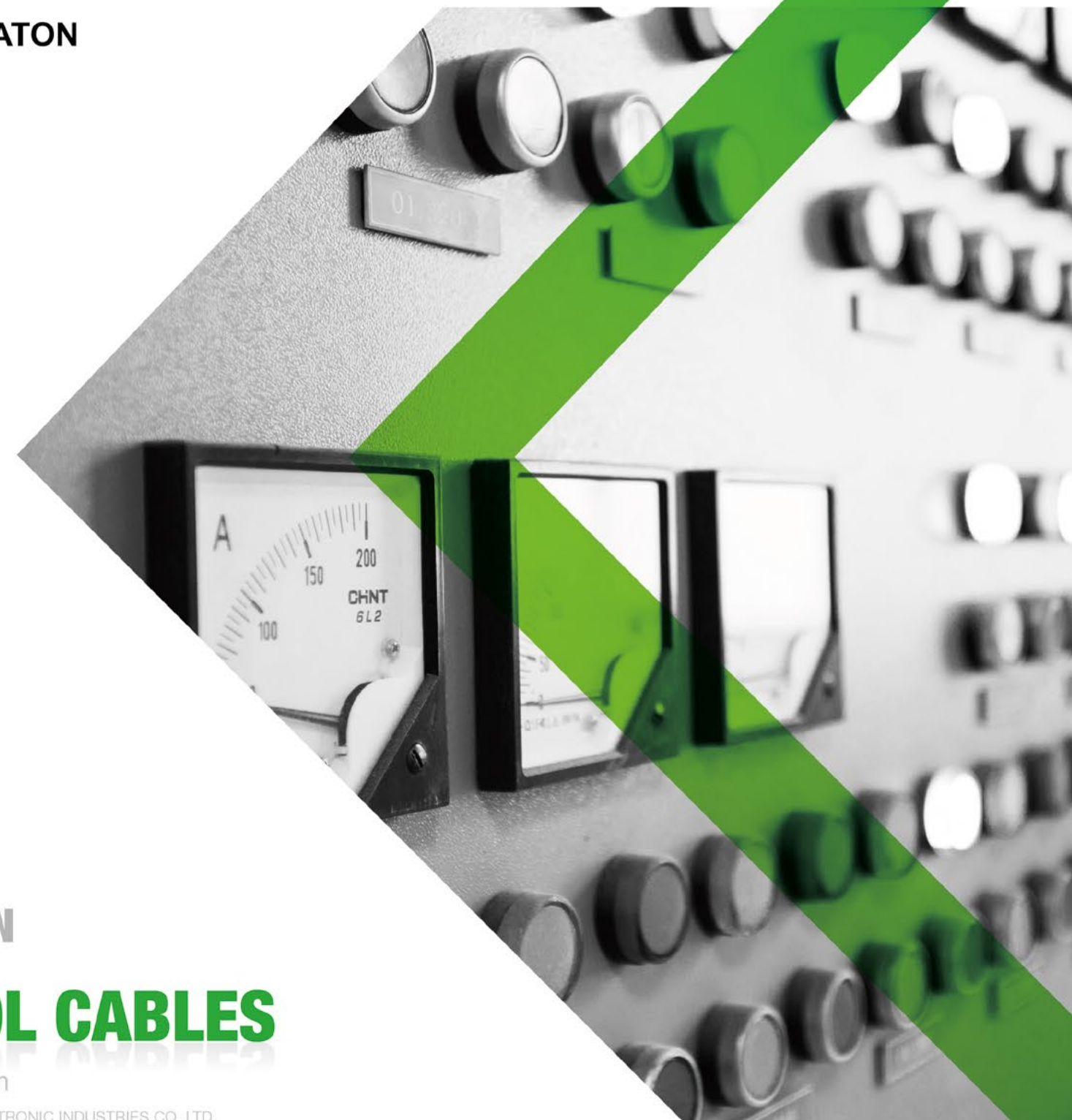
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CONTROL CABLES

en.aipu-waton.com

SHANGHAI AIPU WATON ELECTRONIC INDUSTRIES CO.,LTD.



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Aipu Waton, founded in 1992, is a well-known high-tech enterprise that was jointly invested and established by Waton International (HongKong) Investment Co.,Ltd and Shanghai Aipu Electronic Cable System Co., Ltd. in 2004 with headquarter located in Shanghai. Aipu Waton Group was formally established with 8 wholly-owned subsidiaries, which develop and manufacture a wide range of products including ELV cable, data cable, instrumentation cable, industrial control cable, low voltage & high voltage power supply cable, fiber optic cable, Generic Cabling Systems and IP Video Surveillance System.

Through 20 years' development, Aipu Waton has grown to be an enterprise group integrated R&D, manufacture, sales and service of network and information transmission products. As the pioneer and leader in low voltage system and extra low voltage industry, we are rewarded the "Top 10 National Brands of Security Industry in China", "Top 10 Enterprise in China Security Industry" and "Shanghai Enterprise Star" etc. and our products are widely used in Finance, Intelligent Building, Transportation, Public Security, Radio & Television, Energy, Education, Health and Culture industry. Currently, we have more than 3,000 employees (including 200 R&D staff) and annual sales are over 200 million US dollars. More than 100 branches are set up almost in all the province and medium and large-scale cities in China.

AIPU, the mark for high-performed products & reliable service.

COMPANY PROFILE

BMS CABLE

» BMS cable also commonly known as Building Management System cable, intelligent building cables or automation cables are used to automate all of the systems in place within a building or home.

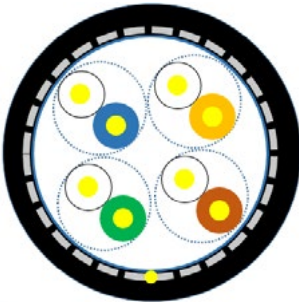
- RS-485 Cable
- RS-232 Cable (Multi-Core, Foil Screened)
- RS-232 Cable (Multi-Pair, Foil Screened)
- RS-232 Cable (Multi-Core, Foil & Braid Screened)
- RS-232 Cable (Multi-Pair, Foil & Braid Screened)
- RS-232/422 Cable

- Audio Cable (Analog)
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- Speaker Cable

- Audio, Control and Instrumentation Cables (Multi-Core, Unscreened)
- Audio, Control and Instrumentation Cables (Multi-Pair, Unscreened)
- Audio, Control and Instrumentation Cables (Multi-Core, Screened)
- Audio, Control and Instrumentation Cables (Multi-Pair, Screened)
- Audio, Control and Instrumentation Cables (Special)

- Security And Alarm Cable (Screened)
- Security & Commercial Audio System (Screened)
- Security & Commercial Audio System (Unscreened)
- Computer, Instrumentation and Medical Electronics Cable

EIA RS-485 Cable



Application

For data communication and automation systems, microprocessor to device, etc.

Constructions

- Conductor: Stranded Tinned Copper Wire
- Insulation: S-PE, S-FPE
- Cabling: Twist Pairs laying-up
- Screened: Individually Screened (Optional)
 - Al-PET tape with Tinned Copper Drain Wire
 - Tinned Copper Wire Braided Screen
 - Al-PET Tape & Tinned Copper Braided
- Bedding for Armoured Cable (Where Applicable):
 - Polyethylene (PE)
 - PVC
- Armour (Where Applicable): Galvanized Steel Wire
- Oversheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C

Reference Standards

- » TIA/EIA-485
- » BS EN 60228
- » RoHS Directives
- » BS EN 50288-7
- » BS EN 50290

Identification of Insulation

1P	White, Blue	3P	White, Green
2P	White, Yellow	4P	White, Brown

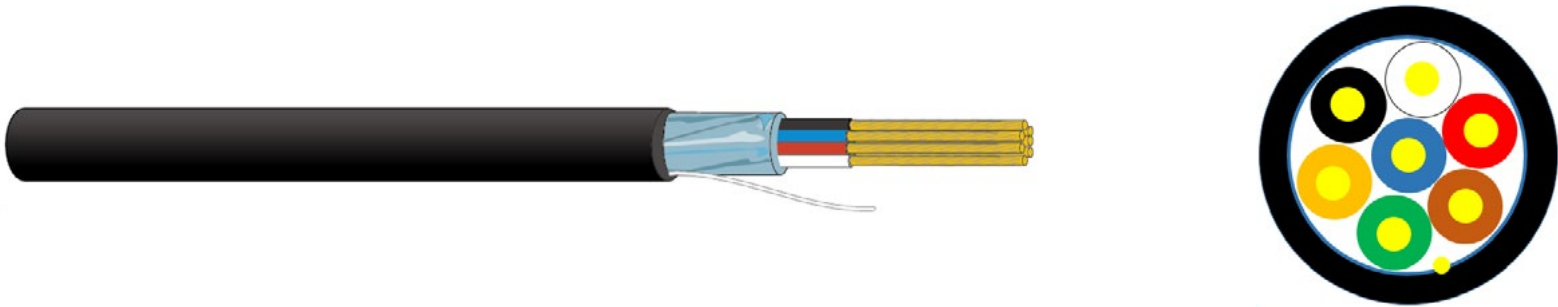
Electrical Performance

Working Voltage	300V
Characteristic Impedance	120 Ω ± 15 Ω
Velocity of Propagation	S-FPE: 78%, SPE: 66%
Conductor DCR	57.0 Ω/km (Max. @ 20°C) for 22AWG
	91.80 Ω/km (Max. @ 20°C) for 24AWG

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9841	TC	1x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9842	TC	2x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9843	TC	3x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9844	TC	4x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9841NH	TC	1x2x24AWG	S-PE	Al-foil + Braid	LSZH
AP9842NH	TC	2x2x24AWG	S-PE	Al-foil + Braid	LSZH
AP9843NH	TC	3x2x24AWG	S-PE	Al-foil + Braid	LSZH
AP9844NH	TC	4x2x24AWG	S-PE	Al-foil + Braid	LSZH
AP3105A	TC	1x2x22AWG	S-FPE	Al-foil + Braid	PVC
AP3107A	TC	2x2x22AWG	S-FPE	Al-foil + Braid	PVC
AP3108A	TC	3x2x22AWG	S-FPE	Al-foil + Braid	PVC
AP3109A	TC	4x2x22AWG	S-FPE	Al-foil + Braid	PVC

Notes: Other cores are available upon request.

RS-232 Cable (Multi-Core, Foil Screened)



Application

For low data rate transmission as audio, control and instrumentation cables.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: PE, PVC, Polyolefin
- 3. Cabling: Cores, Twist Pairs laying-up
- 4. Screened: Al-PET tape with Tinned Copper Drain Wire
- 5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C

Reference Standards

- » ANSI/TIA/EIA-232
- » BS EN 60228
- » RoHS Directives
- » UL2464
- » BS EN 50290

Identification of Insulation

1C	Black	9C	Green/Black
2C	White	10C	Orange/Black
3C	Red	11C	Blue/Black
4C	Green	12C	Black/White
5C	Orange	13C	Red/White
6C	Blue	14C	Green/White
7C	White/Black	15C	Blue/White
8C	Red/Black		

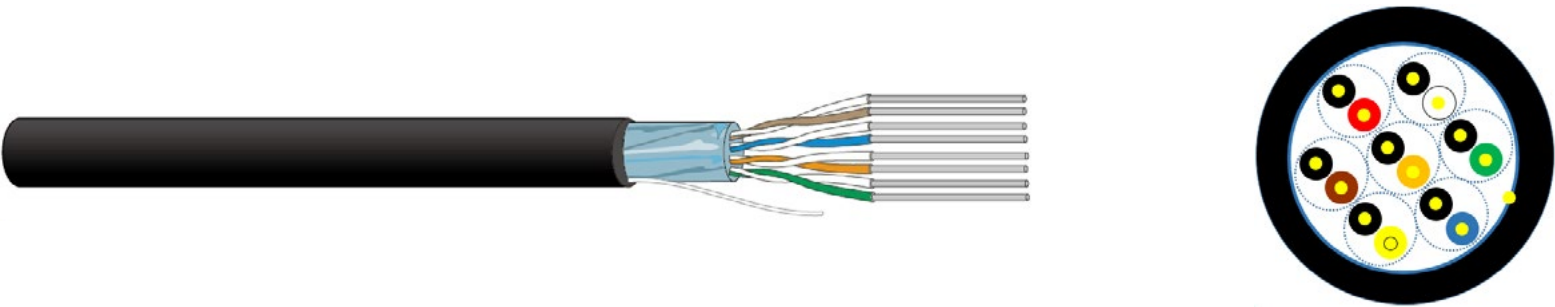
Electrical Performance

Working Voltage	300V
Test Voltage	800V
Conductor DCR	91.80 Ω/km (Max. @ 20°C)

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9533	TC	3x24AWG	PVC	Al-foil	PVC
AP9534	TC	4x24AWG	PVC	Al-foil	PVC
AP9535	TC	5x24AWG	PVC	Al-foil	PVC
AP9536	TC	6x24AWG	PVC	Al-foil	PVC
AP9537	TC	7x24AWG	PVC	Al-foil	PVC
AP9538	TC	8x24AWG	PVC	Al-foil	PVC
AP9539	TC	9x24AWG	PVC	Al-foil	PVC
AP9540	TC	10x24AWG	PVC	Al-foil	PVC
AP9541	TC	15x24AWG	PVC	Al-foil	PVC
AP9534NH	TC	4x24AWG	S-PE	Al-foil	LSZH
AP9536NH	TC	6x24AWG	S-PE	Al-foil	LSZH
AP9541NH	TC	15x24AWG	S-PE	Al-foil	LSZH

Notes: Other cores are available upon request.

RS-232 Cable (Multi-Pair, Foil Screened)



Application

For low data rate transmission as audio, control and instrumentation cables.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: PE, PVC, Polyolefin
- 3. Cabling: Cores, Twist Pairs laying-up
- 4. Screened: Al-PET tape with Tinned Copper Drain Wire
- 5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C

Reference Standards

- » BS EN 50288-7
- » BS EN 50290
- » BS EN 60228
- » RoHS Directives

Identification of Insulation

1P	Black, Red	6P	Black, Brown
2P	Black, White	7P	Black, Orange
3P	Black, Green	8P	Red, White
4P	Black, Blue	9P	Red, Green
5P	Black, Yellow	10P	Red, Blue

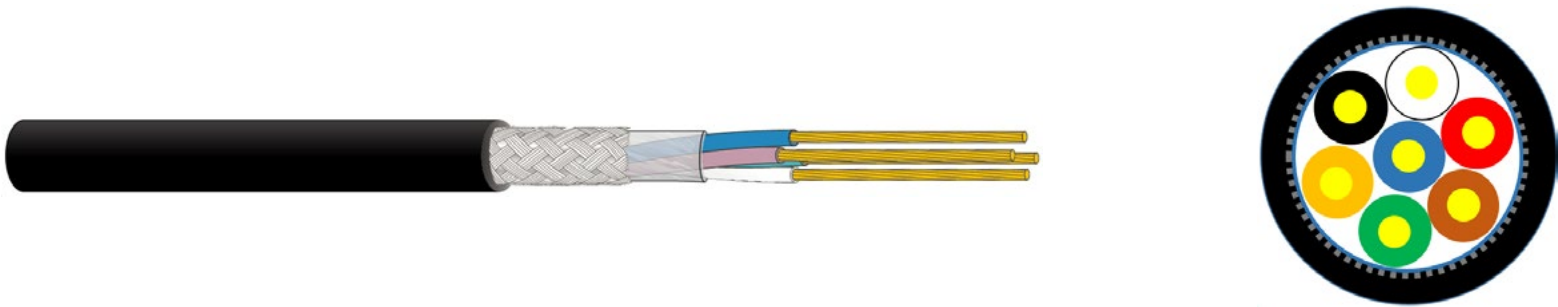
Electrical Performance

Working Voltage	300V
Test Voltage	800V
Conductor DCR	91.80 Ω/km (Max. @ 20°C)

Notes: Other cores are available upon request.

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9501	TC	1x2x24AWG	PVC	Al-foil	PVC
AP9502	TC	2x2x24AWG	PVC	Al-foil	PVC
AP9503	TC	3x2x24AWG	PVC	Al-foil	PVC
AP9504	TC	4x2x24AWG	PVC	Al-foil	PVC
AP9505	TC	5x2x24AWG	PVC	Al-foil	PVC
AP9506	TC	6x2x24AWG	PVC	Al-foil	PVC
AP9507	TC	7x2x24AWG	PVC	Al-foil	PVC
AP9508	TC	8x2x24AWG	PVC	Al-foil	PVC
AP9509	TC	9x2x24AWG	PVC	Al-foil	PVC
AP9510	TC	10x2x24AWG	PVC	Al-foil	PVC
AP9515	TC	15x2x24AWG	PVC	Al-foil	PVC
AP9501NH	TC	1x2x24AWG	S-PE	Al-foil	LSZH
AP9502NH	TC	2x2x24AWG	S-PE	Al-foil	LSZH
AP9503NH	TC	3x2x24AWG	S-PE	Al-foil	LSZH
AP9504NH	TC	4x2x24AWG	S-PE	Al-foil	LSZH
AP9505NH	TC	5x2x24AWG	S-PE	Al-foil	LSZH
AP9506NH	TC	6x2x24AWG	S-PE	Al-foil	LSZH
AP9507NH	TC	7x2x24AWG	S-PE	Al-foil	LSZH
AP9508NH	TC	8x2x24AWG	S-PE	Al-foil	LSZH
AP9510NH	TC	10x2x24AWG	S-PE	Al-foil	LSZH

RS-232 Cable (Multi-Core, Foil & Braid Screened)



Application

For low data rate transmission as audio, control and instrumentation cables.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: PVC
- 3. Cabling: Cores, Twist Pairs laying-up
- 4. Screened: Al-PET Tape & Tinned Copper Braided
- 5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C

Reference Standards

- » UL2464
- » BS EN 50290
- » BS EN 60228
- » RoHS Directives

Identification of Insulation

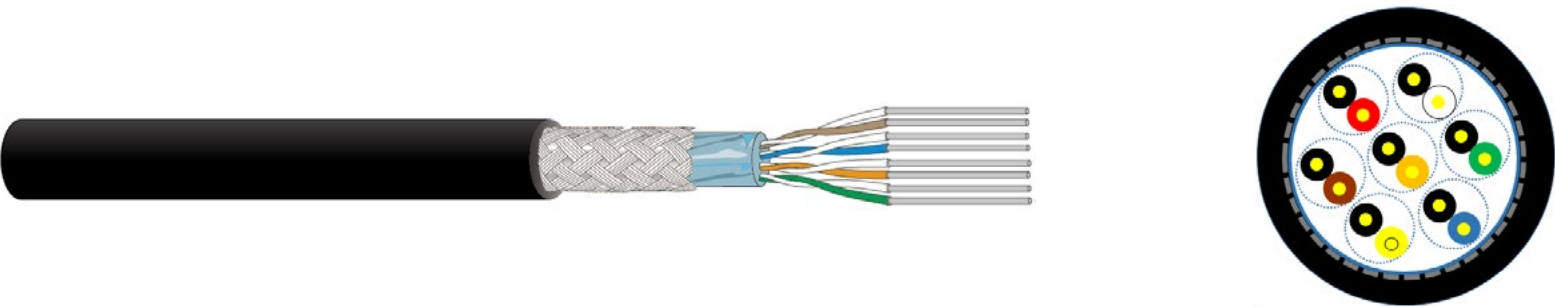
1C	Black	6C	Blue
2C	White	7C	White/Black
3C	Red	8C	Red/Black
4C	Green	9C	Green/Black
5C	Orange	10C	Orange/Black

Electrical Performance

Working Voltage	150V
Test Voltage	800V
Conductor DCR	91.80 Ω/km (Max. @ 20°C)

Notes: Other cores are available upon request.

RS-232 Cable (Multi-Pair, Foil & Braid Screened)



Application

For EIA RS-232 and CAD/CAM applications, used as computer cables.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: PVC, Polyolefin
- 3. Cabling: Cores, Twist Pairs laying-up
- 4. Screened: Al-PET Tape & Tinned Copper Braided
- 5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C

Reference Standards

- » UL 2464
- » BS EN 50290
- » BS EN 60228
- » RoHS Directives

Identification of Insulation

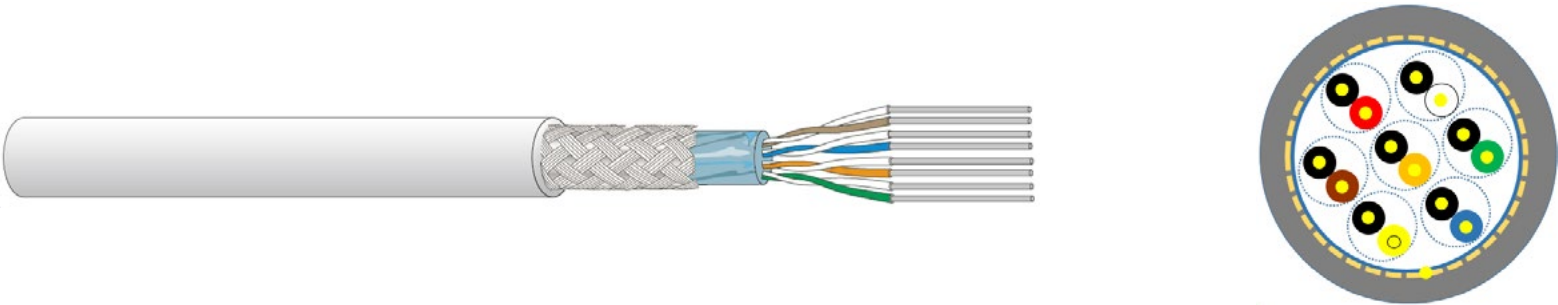
1C	Black	6C	Blue
2C	White	7C	White/Black
3C	Red	8C	Red/Black
4C	Green	9C	Green/Black
5C	Orange	10C	Orange/Black

Electrical Performance

Working Voltage	300V
Test Voltage	800V
Conductor DCR	57.0 Ω/km (Max. @ 20°C) for 22AWG
	91.80 Ω/km (Max. @ 20°C) for 24AWG

Notes: Other cores are available upon request.

RS-232/422 Cable



Application

For EIA RS-232 or RS-422 applications, used as computer cables.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: S-PE, S-FPE
- 3. Cabling: Twist Pairs laying-up
- 4. Screened: Individually Screened (Optional)
 - Al-PET tape with Tinned Copper Drain Wire
 - Al-PET Tape & Tinned Copper Braided
- 5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C

Reference Standards

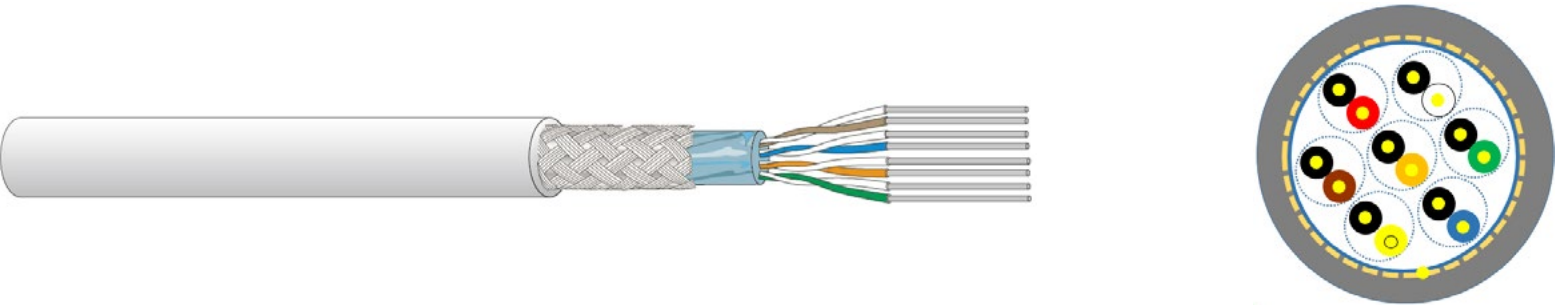
- » UL 2919, 2493
- » BS EN 50290
- » BS EN 60228
- » RoHS Directives

Electrical Performance

Working Voltage	30V
Characteristic Impedance	100 Ω ± 15 Ω
Velocity of Propagation	S-FPE: 78%, SPE: 66%
Capacitance	55 pF/m for Conductor to Conductor
	95 pF/m for Conductor to Other Conductor & Screen
Conductor DCR	91.80 Ω/km (Max. @ 20°C) for 24AWG

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9680	TC	3x2x24AWG	S-PE	Al-foil	PVC
AP9681	TC	4x2x24AWG	S-PE	Al-foil	PVC
AP9682	TC	6x2x24AWG	S-PE	Al-foil	PVC
AP9683	TC	9x2x24AWG	S-PE	Al-foil	PVC
AP9684	TC	12x2x24AWG	S-PE	Al-foil	PVC
AP9829	TC	2x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9830	TC	3x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9831	TC	4x2x24AWG	S-PE	Al-foil + Braid	PVC

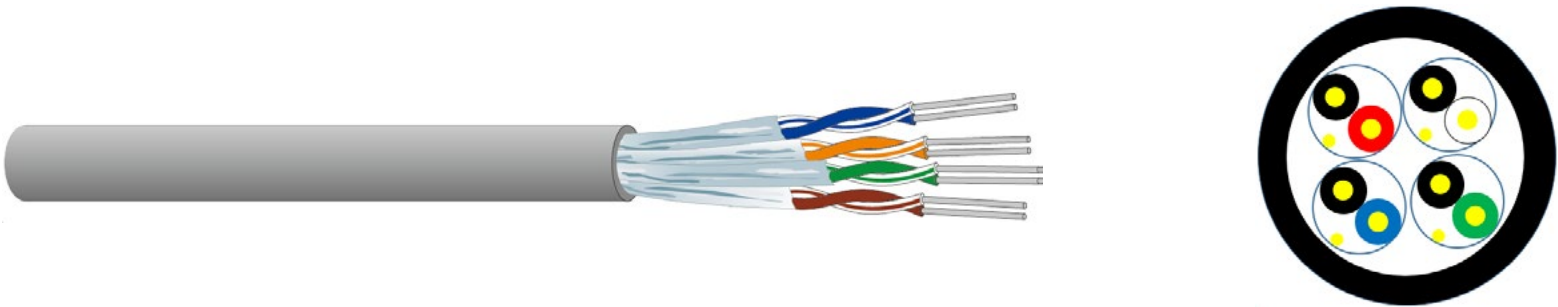
RS-232/422 Cable



Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9832	TC	5x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9839	TC	6x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9833	TC	7x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9834	TC	9x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9835	TC	10x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9836	TC	12x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9837	TC	18x2x24AWG	S-PE	Al-foil + Braid	PVC
AP9829NH	TC	2x2x24AWG	S-PE	Al-foil + Braid	LSZH
AP8102	TC	2x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8103	TC	3x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8104	TC	4x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8105	TC	5x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8106	TC	6x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8107	TC	7x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8108	TC	8x2x24AWG	S-FPE	Al-foil + Braid	PVC

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP8110	TC	10x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8112	TC	12x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8115	TC	15x2x24AWG	S-FPE	Al-foil + Braid	PVC
AP8162	TC	2x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC
AP8163	TC	3x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC
AP8164	TC	4x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC
AP8165	TC	5x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC
AP8166	TC	6x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC
AP8167	TC	7x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC
AP8168	TC	8x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC
AP8170	TC	10x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC
AP8175	TC	15x2x24AWG	S-FPE	I/OS Al-foil + Braid	PVC

RS-422 Cable



Application

For EIA RS 422 applications, used as computer cables.

Constructions

1. Conductor: Stranded Tinned Copper Wire
2. Insulation: S-FPE
3. Cabling: Twist Pairs laying-up
4. Screened: Individually Al-PET tape with Tinned Copper Drain Wire
5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C

Reference Standards

- » ANSI/TIA/EIA-422
- » BS EN 60228
- » RoHS Directives
- » UL 2493
- » BS EN 50290

Identification of Insulation

1P	Black, Red	9P	Red, Green
2P	Black, White	10P	Red, Blue
3P	Black, Green	11P	Red, Yellow
4P	Black, Blue	12P	Red, Brown
5P	Black, Yellow	13P	Red, Orange
6P	Black, Brown	14P	Green, White

7P	Black, Orange	15P	Green, Blue
8P	Red, White		

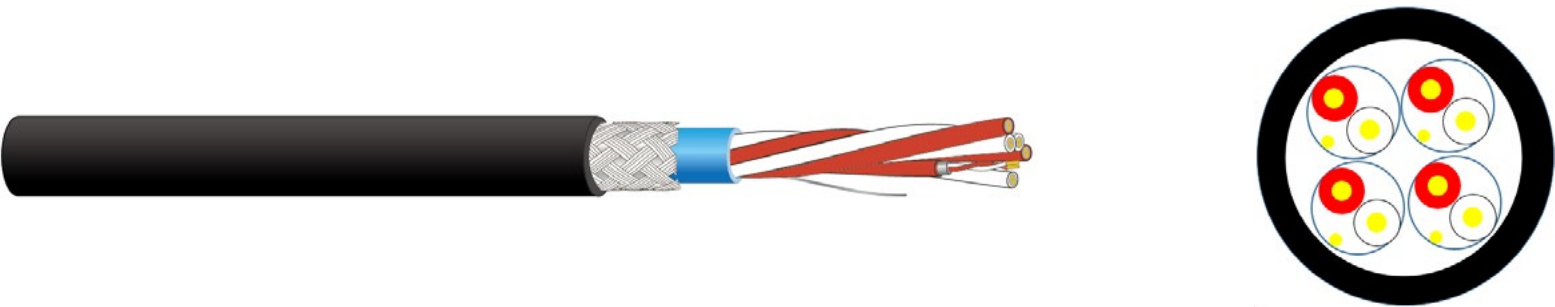
Electrical Performance

Working Voltage	300V
Characteristic Impedance	100 Ω ± 15 Ω
Velocity of Propagation	78%
Capacitance	45 pF/m for Conductor to Conductor
	80 pF/m for Conductor to Other Conductor & Screen
Conductor DCR	91.80 Ω/km (Max. @ 20°C) for 24AWG

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9729	TC	2x2x24AWG	S-FPE	IS Al-foil	PVC
AP9730	TC	3x2x24AWG	S-FPE	IS Al-foil	PVC
AP9728	TC	4x2x24AWG	S-FPE	IS Al-foil	PVC
AP9731	TC	6x2x24AWG	S-FPE	IS Al-foil	PVC
AP9732	TC	9x2x24AWG	S-FPE	IS Al-foil	PVC
AP9734	TC	12x2x24AWG	S-FPE	IS Al-foil	PVC
AP9735	TC	15x2x24AWG	S-FPE	IS Al-foil	PVC

Notes: Other cores are available upon request.

Audio Cable (Analog)



Application

For analog audio transmission.

Constructions

1. Conductor: Stranded Oxygen Free Copper
2. Insulation: S-PE
3. Cabling: Twist Pairs laying-up
4. Screened: Individually Screened (Optional)
Al-PET tape with Tinned Copper Drain Wire
Al-PET Tape & Tinned Copper Braided
5. Sheath: PVC/LSZH

» Insulation cores are in blue and white color with number printed.

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives

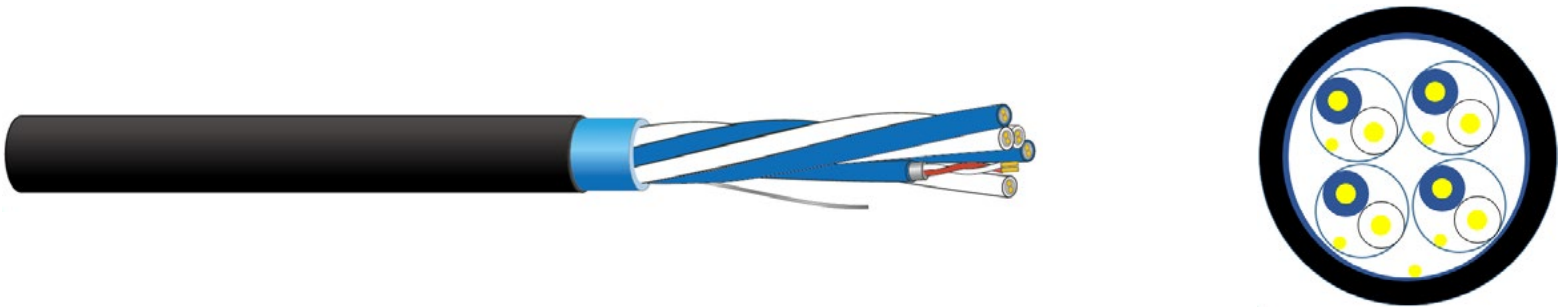
Notes: Other cores are available upon request.

Electrical Performance

Velocity of Propagation	66%
Conductor DCR	134 Ω/km (Max. @ 20°C) for 26AWG
	89.0 Ω/km (Max. @ 20°C) for 24AWG
	56.0 Ω/km (Max. @ 20°C) for 22AWG

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP70030	BC	1x2x24AWG	S-PE	Al-foil	LSZH
AP70031	BC	1x2x22AWG	S-PE	Al-foil	LSZH
AP70032	BC	4x2x26AWG	S-PE	Al-foil + Braid	PVC
AP70033	BC	8x2x26AWG	S-PE	Al-foil + Braid	PVC
AP70034	BC	12x2x26AWG	S-PE	Al-foil + Braid	PVC
AP70041	BC	2x2x26AWG	S-PE	I/OS Al-foil	LSZH
AP70042	BC	4x2x26AWG	S-PE	I/OS Al-foil	LSZH
AP70043	BC	8x2x26AWG	S-PE	I/OS Al-foil	LSZH
AP70044	BC	12x2x26AWG	S-PE	I/OS Al-foil	LSZH

Audio Cable (Digital)



Application

For digital audio transmission.

Constructions

1. Conductor: Stranded Oxygen Free Copper
2. Insulation: S-FPE
3. Cabling: Twist Pairs laying-up
4. Screened: Individually Screened (Optional)
Al-PET tape with Tinned Copper Drain Wire
Al-PET Tape & Tinned Copper Braided
5. Sheath: PVC/LSZH

» Insulation cores are in blue and white color with number printed.

» Installation Temperature: Above 0°C

» Operating Temperature: -15°C ~ 65°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives

Electrical Performance

Velocity of Propagation	76%
Impedance 0.1 -6MHz	110 Ω ± 15 Ω
Test Voltage	1.0 KVdc
Conductor DCR	134 Ω/km (Max. @ 20°C) for 26AWG
	89.0 Ω/km (Max. @ 20°C) for 24AWG
	56.0 Ω/km (Max. @ 20°C) for 22AWG

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP70049	BC	1x2x24AWG	S-FPE	Al-foil	LSZH
AP70057	BC	2x2x24AWG	S-FPE	I/OS Al-foil	LSZH
AP70058	BC	4x2x24AWG	S-FPE	I/OS Al-foil	LSZH
AP70059	BC	8x2x24AWG	S-FPE	I/OS Al-foil	LSZH
AP70060	BC	12x2x24AWG	S-FPE	I/OS Al-foil	LSZH
AP70050	BC	1x2x22AWG	S-FPE	Al-foil	LSZH
AP70051	BC	1x2x26AWG	S-FPE	Al-foil	LSZH
AP70052	BC	2x2x26AWG	S-FPE	I/OS Al-foil	LSZH
AP70053	BC	4x2x26AWG	S-FPE	I/OS Al-foil	LSZH
AP70054	BC	8x2x26AWG	S-FPE	I/OS Al-foil	LSZH
AP70055	BC	12x2x26AWG	S-FPE	I/OS Al-foil	LSZH

Notes: Other cores are available upon request.

Speaker Cable



Application

For loudspeaker application indoor & outdoor.

Constructions

1. Conductor: Stranded Oxygen Free Copper
2. Insulation: Polyolefin
3. Cabling: Cores laying-up
4. Sheath: PVC/LSZH

» Installation Temperature: Above 0°C

» Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

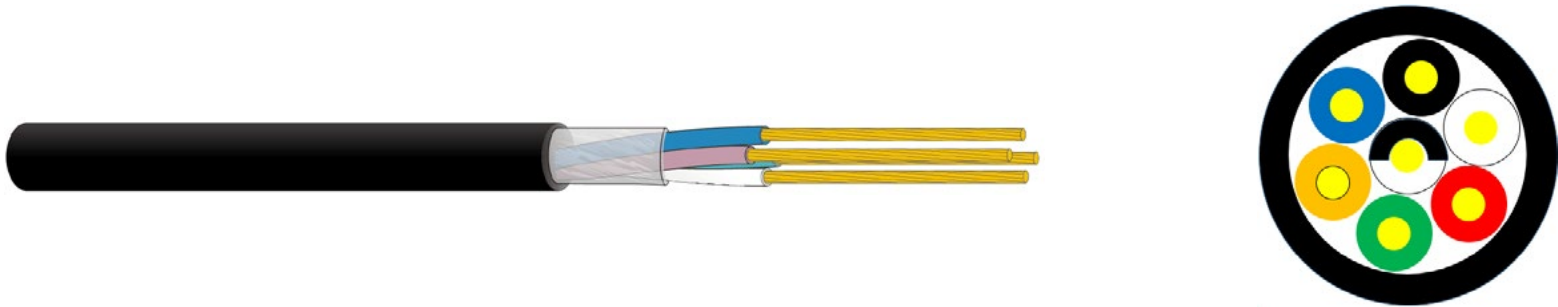
Notes: Other cores are available upon request.

Electrical Performance

Operating Voltage	300V
Test Voltage	1.0 KVdc
Conductor DCR	13.3 Ω/km (Max. @ 20°C) for 1.5mm²
	7.98 Ω/km (Max. @ 20°C) for 2.5mm²
	4.95 Ω/km (Max. @ 20°C) for 4.0mm²
Insulation Resistance	200 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Sheath
	Material	Size		
AP70045	OFC	2x1.5mm²	LSZH	LSZH
AP70046	OFC	2x2.5mm²	LSZH	LSZH
AP70047	OFC	4x2.5mm²	LSZH	LSZH
AP70048	OFC	2x4.0mm²	LSZH	LSZH
AP1307A	OFC	2x16AWG	Polyolefin	PVC
AP1308A	OFC	4x16AWG	Polyolefin	PVC
AP1309A	OFC	2x14AWG	Polyolefin	PVC
AP1310A	OFC	4x14AWG	Polyolefin	PVC
AP1311A	OFC	2x12AWG	Polyolefin	PVC
AP1312A	OFC	2x16AWG	Polyolefin	PVC

Audio, Control and Instrumentation Cables (Multi-Core, Unscreened)



Application

For BMS, Sound, Audio, Security, Safety, Control and Instrumentation application indoor & outdoor.

Constructions

- 1. Conductor: Stranded Oxygen Free Copper or Tinned Copper
- 2. Insulation: Polyolefin
- 3. Cabling: Cores laying-up
- 4. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

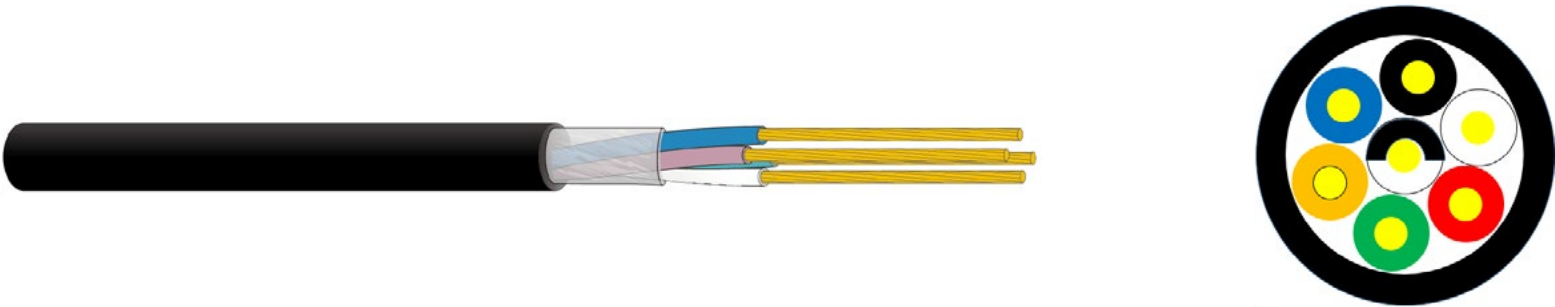
Electrical Performance

Operating Voltage	600V
Test Voltage	1.0 KVdc

Conductor DCR	57.0 Ω/km (Max. @ 20°C) for 22AWG
	39.50 Ω/km (Max. @ 20°C) for 20AWG
	25.0 Ω/km (Max. @ 20°C) for 18AWG
	14.0 Ω/km (Max. @ 20°C) for 16AWG
	9.3 Ω/km (Max. @ 20°C) for 14AWG
Insulation Resistance	200 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Sheath
	Material	Size		
AP8620	TC	4x16AWG	PVC	PVC
AP9620	TC	5x16AWG	PVC	PVC
AP8621	TC	7x16AWG	PVC	PVC
AP9721	TC	8x16AWG	PVC	PVC
AP9621	TC	9x16AWG	PVC	PVC
AP8622	TC	12x16AWG	PVC	PVC
AP8623	TC	15x16AWG	PVC	PVC
AP8624	TC	19x16AWG	PVC	PVC
AP8627	TC	4x14AWG	PVC	PVC
AP9623	TC	5x14AWG	PVC	PVC

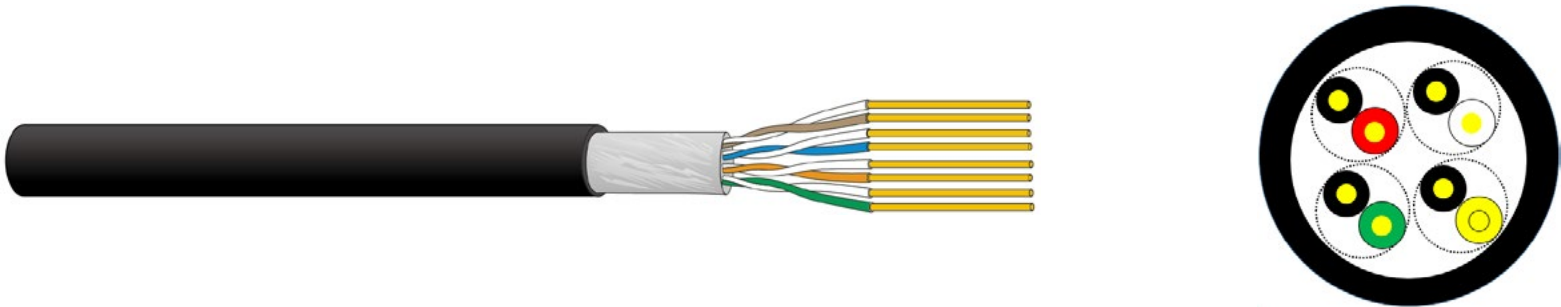
Audio, Control and Instrumentation Cables (Multi-Core, Unscreened)



Part No.	Conductor Construction		Insulation	Sheath
	Material	Size		
AP8628	TC	7x14AWG	PVC	PVC
AP8629	TC	12x14AWG	PVC	PVC
AP8795	BC	2x22AWG	S-PE	PVC
AP8794	BC	3x22AWG	S-PE	PVC
AP9794	BC	4x22AWG	S-PE	PVC
AP9443MN	TC	3x20AWG	S-PE	PVC
AP9444	TC	4x20AWG	PVC	PVC
AP9445	TC	5x20AWG	PVC	PVC
AP9439	TC	7x20AWG	PVC	PVC
AP9439MN	TC	7x20AWG	S-PE	PVC
AP9455	TC	9x20AWG	PVC	PVC
AP9455MN	TC	9x20AWG	S-PE	PVC
AP9457	TC	12x20AWG	PVC	PVC
AP8463MN	TC	3x18AWG	PVC	PVC
AP8489	TC	4x18AWG	PVC	PVC
AP8465	TC	5x18AWG	PVC	PVC
AP8467	TC	7x18AWG	PVC	PVC

Part No.	Conductor Construction		Insulation	Sheath
	Material	Size		
AP8469	TC	9x18AWG	PVC	PVC
AP8466	TC	12x18AWG	PVC	PVC
AP8468	TC	15x18AWG	PVC	PVC
AP8619	TC	19x18AWG	PVC	PVC
AP8442	TC	2x22AWG	PVC	PVC
AP8443	TC	3x22AWG	PVC	PVC
AP8444	TC	4x22AWG	PVC	PVC
AP8445	TC	5x22AWG	PVC	PVC
AP9430	TC	7x22AWG	PVC	PVC
AP9421	TC	8x22AWG	PVC	PVC
AP9423	TC	9x22AWG	PVC	PVC
AP8456	TC	10x22AWG	PVC	PVC
AP1242A	BC	4x22AWG	S-PE	PVC

Audio, Control and Instrumentation Cables (Multi-Pair, Unscreened)



Application

For loudspeaker application indoor & outdoor.

Constructions

- 1. Conductor: Stranded Oxygen Free Copper or Tinned Copper
- 2. Insulation: Polyolefin, PVC
- 3. Cabling: Twist Pairs laying-up
- 4. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

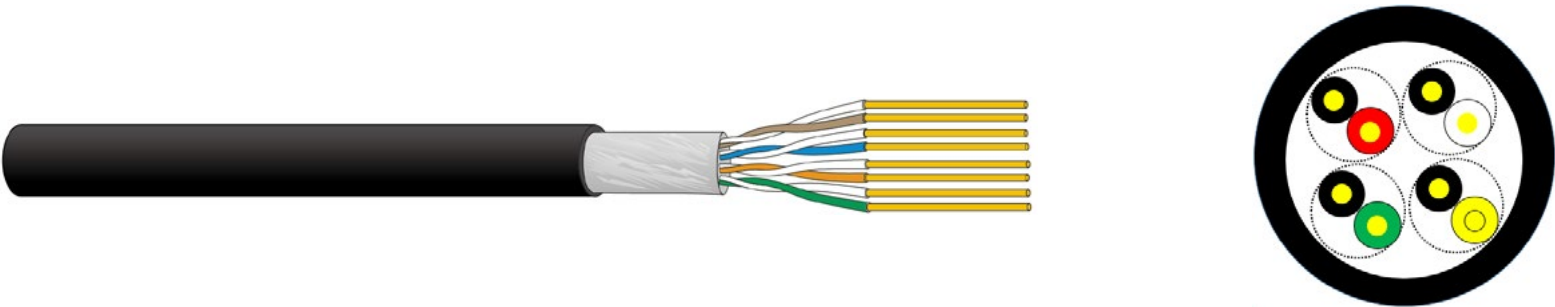
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Operating Voltage	150V, 300V, 600V
Test Voltage	1.0 KVdc
Conductor DCR	57.0 Ω/km (Max. @ 20°C) for 22AWG
	39.50 Ω/km (Max. @ 20°C) for 20AWG
	25.0 Ω/km (Max. @ 20°C) for 18AWG
	14.0 Ω/km (Max. @ 20°C) for 16AWG
	9.3 Ω/km (Max. @ 20°C) for 14AWG
Insulation Resistance	200 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Sheath
	Material	Size		
AP8205	TC	1x2x20AWG	PVC	PVC
AP8205NH	TC	1x2x20AWG	S-PE	LSZH
AP9750	TC	3x2x20AWG	PVC	PVC
AP9751	TC	6x2x20AWG	PVC	PVC
AP9752	TC	9x2x20AWG	PVC	PVC
AP9755	TC	15x2x20AWG	PVC	PVC
AP8486	BC	1x2x19AWG	PVC	PVC
AP8461	TC	1x2x18AWG	PVC	PVC
AP8461NH	TC	1x2x18AWG	S-PE	LSZH
AP9740	TC	1x2x18AWG	PVC	PVC
AP9740NH	TC	1x2x18AWG	S-PE	LSZH
AP9156	TC	2x2x18AWG	PVC	PVC
AP9156NH	TC	2x2x18AWG	S-PE	LSZH
AP8690	TC	3x2x18AWG	PVC	PVC
AP9157	TC	4x2x18AWG	PVC	PVC
AP9159	TC	5x2x18AWG	PVC	PVC
AP8691	TC	6x2x18AWG	PVC	PVC

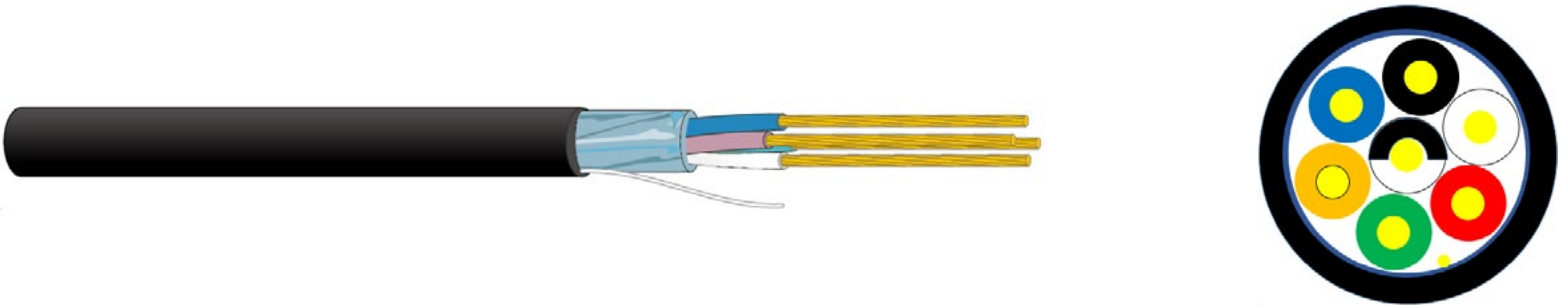
Audio, Control and Instrumentation Cables (Multi-Pair, Unscreened)



Part No.	Conductor Construction		Insulation	Sheath
	Material	Size		
AP9161	TC	8x2x18AWG	PVC	PVC
AP8692	TC	9x2x18AWG	PVC	PVC
AP9741	TC	12x2x18AWG	PVC	PVC
AP9742	TC	15x2x18AWG	PVC	PVC
AP8471	TC	1x2x16AWG	PVC	PVC
AP8471NH	TC	1x2x16AWG	S-PP	LSZH
AP8473	TC	1x2x14AWG	PVC	PVC
AP8477	TC	1x2x12AWG	PVC	PVC
AP9562	TC	2x2x24AWG	PVC	PVC
AP9566	TC	6x2x24AWG	PVC	PVC
AP9570	TC	10x2x24AWG	PVC	PVC
AP8740	TC	1x2x22AWG	PVC	PVC
AP8741	TC	2x2x22AWG	PVC	PVC
AP8742	TC	3x2x22AWG	PVC	PVC
AP8757	TC	4x2x22AWG	PVC	PVC
AP8743	TC	6x2x22AWG	PVC	PVC
AP9160	TC	8x2x22AWG	PVC	PVC

Part No.	Conductor Construction		Insulation	Sheath
	Material	Size		
AP8744	TC	9x2x22AWG	PVC	PVC
AP9744	TC	2x2x22AWG	PVC	PVC
AP9745	TC	3x2x22AWG	PVC	PVC
AP9746	TC	4x2x22AWG	PVC	PVC
AP8747	TC	6x2x22AWG	PVC	PVC
AP8748	TC	9x2x22AWG	PVC	PVC
AP9747	TC	12x2x22AWG	PVC	PVC
AP8749	TC	15x2x22AWG	PVC	PVC

Audio, Control and Instrumentation Cables (Multi-Core, Screened)



Application

For BMS, Sound, Audio, Security, Safety, Control and Instrumentation application indoor & outdoor.

Constructions

- Conductor: Stranded Tinned Copper Wire
- Insulation: Polyolefin, PVC
- Cabling: Cores laying-up
- Screened: Individually Screened (Optional)
 - Al-PET tape with Tinned Copper Drain Wire
 - Tinned Copper Braided
 - Tinned Copper Spiral
- Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

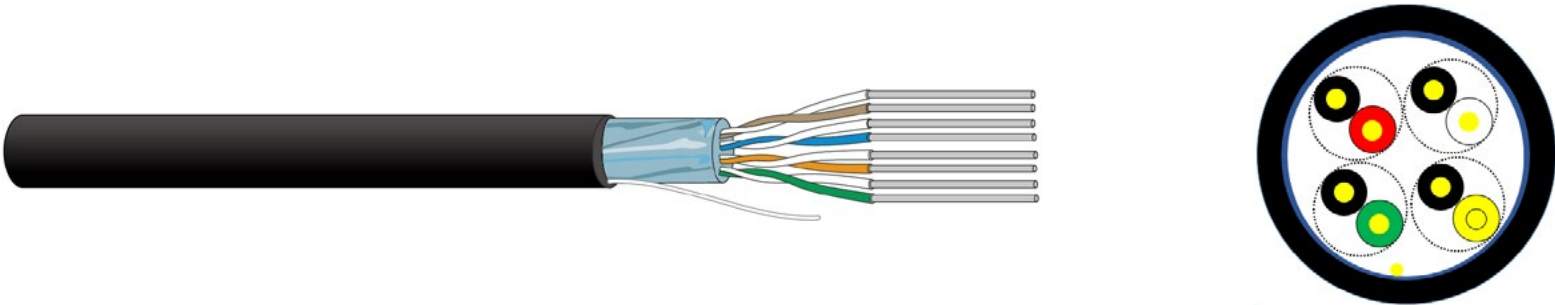
Electrical Performance

Operating Voltage	300V, 600V
Test Voltage	1.0 KVdc
Conductor DCR	57.0 Ω/km (Max. @ 20°C) for 22AWG
	39.50 Ω/km (Max. @ 20°C) for 20AWG
	25.0 Ω/km (Max. @ 20°C) for 18AWG
	14.0 Ω/km (Max. @ 20°C) for 16AWG
Insulation Resistance	100 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP8771	TC	3x22AWG	S-PE	Al-foil	PVC
AP8772	TC	3x20AWG	S-PE	Al-foil	PVC
AP8770	TC	3x18AWG	S-PE	Al-foil	PVC
AP8618	TC	3x16AWG	S-PE	Al-foil	PVC
AP8771NH	TC	3x22AWG	S-PE	Al-foil	LSZH
AP8772NH	TC	3x20AWG	S-PE	Al-foil	LSZH
AP8770NH	TC	3x18AWG	S-PE	Al-foil	LSZH
AP8729	TC	4x22AWG	S-PE	Al-foil	PVC
AP9418	TC	4x18AWG	PVC	Al-foil	PVC
AP9770	TC	3x22AWG	S-PP	Al-foil	PVC
AP8735	TC	3x22AWG	PVC	Braid	PVC
AP9260	TC	6x20AWG	PVC	Braid	PVC
AP8791	TC	3x18AWG	PVC	Spiral	PVC
AP8734	TC	3x22AWG	PVC	Braid	PVC

Notes: Other cores are available upon request.

Audio, Control and Instrumentation Cables (Multi-Pair, Screened)



Application

For BMS, Sound, Audio, Security, Safety, Control and Instrumentation application indoor & outdoor.

Constructions

- Conductor: Stranded Tinned Copper Wire
- Insulation: Polyolefin, PVC
- Cabling: Twist Pairs laying-up
- Screened: Individually Screened (Optional)
 - Al-PET tape with Tinned Copper Drain Wire
- Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

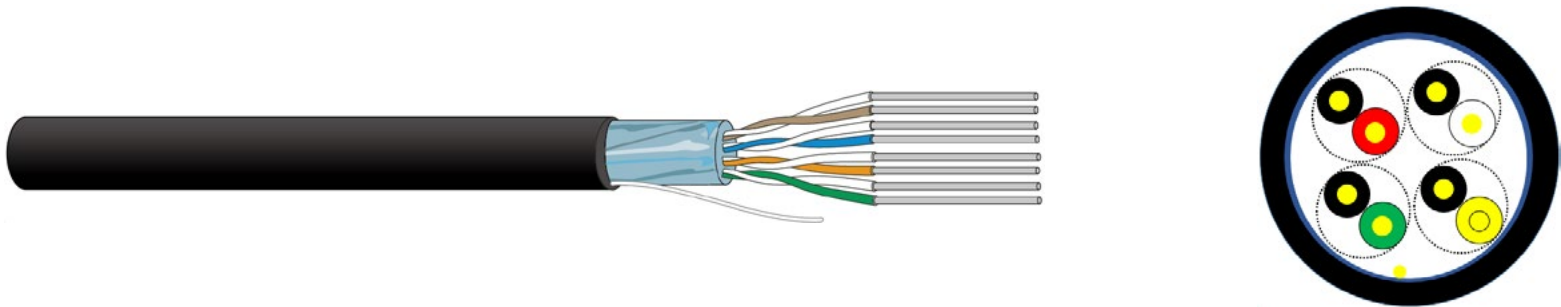
Notes: Other cores are available upon request.

Electrical Performance

Operating Voltage	300V, 600V
Test Voltage	1.0 KVdc
Conductor DCR	91.80 Ω/km (Max. @ 20°C) for 24AWG
	57.0 Ω/km (Max. @ 20°C) for 22AWG
	39.50 Ω/km (Max. @ 20°C) for 20AWG
	25.0 Ω/km (Max. @ 20°C) for 18AWG
	14.0 Ω/km (Max. @ 20°C) for 16AWG
	9.3 Ω/km (Max. @ 20°C) for 14AWG
Insulation Resistance	100 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9414	TC	1x2x22AWG	PVC	Al-foil	PVC
AP8761	TC	1x2x22AWG	S-PE	Al-foil	PVC
AP8761NH	TC	1x2x22AWG	S-PP	Al-foil	LSZH
AP9451	TC	1x2x22AWG	S-PP	Al-foil	PVC
AP8451					
AP1266A					
AP1503A	TC	1x2x22AWG	PVC	Al-foil	PVC
AP9154	TC	1x2x20AWG	PVC	Al-foil	PVC
AP8762	TC	1x2x20AWG	S-PE	Al-foil	PVC

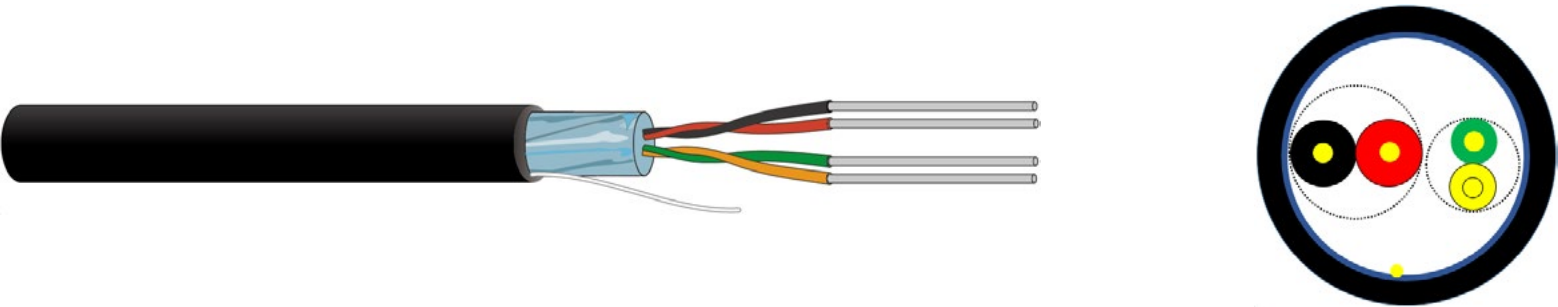
Audio, Control and Instrumentation Cables (Multi-Pair, Screened)



Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP8762NH	TC	1x2x20AWG	S-PE	Al-foil	LSZH
AP8760	TC	1x2x18AWG	S-PE	Al-foil	PVC
AP9460					
AP8760NH	TC	1x2x18AWG	S-PE	Al-foil	LSZH
AP8719	TC	1x2x16AWG	S-PE	Al-foil	PVC
AP8719NH	TC	1x2x16AWG	S-PE	Al-foil	LSZH
AP8720	TC	1x2x14AWG	S-PE	Al-foil	PVC
AP8718	TC	1x2x12AWG	S-PE	Al-foil	PVC
AP9302	TC	2x2x22AWG	PVC	Al-foil	PVC
AP9305	TC	4x2x22AWG	PVC	Al-foil	PVC
AP9306	TC	6x2x22AWG	PVC	Al-foil	PVC
AP9309	TC	9x2x22AWG	PVC	Al-foil	PVC
AP1508A	TC	1x2x24AWG	S-PE	Al-foil	PVC
AP8641	TC	1x2x24AWG	S-PE	Al-foil	PVC
AP1883A	TC	1x2x24AWG	S-PP	Al-foil	PVC
AP9990	TC	3x2x24AWG	S-PE	IS Al-foil	PVC
AP9991	TC	6x2x24AWG	S-PE	IS Al-foil	PVC
AP9992	TC	9x2x24AWG	S-PE	IS Al-foil	PVC

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9993	TC	12x2x24AWG	S-PE	IS Al-foil	PVC
AP8767	TC	3x2x22AWG	PVC	IS Al-foil	PVC
AP8768	TC	6x2x22AWG	PVC	IS Al-foil	PVC
AP8764	TC	9x2x22AWG	PVC	IS Al-foil	PVC
AP8723	TC	2x2x22AWG	S-PP	IS Al-foil	PVC
AP8723NH	TC	2x2x22AWG	S-PP	IS Al-foil	LSZH
AP8778	TC	6x2x22AWG	S-PP	IS Al-foil	PVC
AP8774	TC	9x2x22AWG	S-PP	IS Al-foil	PVC
AP8775	TC	11x2x22AWG	S-PP	IS Al-foil	PVC
AP9402	TC	2x2x20AWG	PVC	IS Al-foil	PVC
AP9883	TC	3x2x20AWG	S-PP	IS Al-foil	PE
AP9886	TC	6x2x20AWG	S-PP	IS Al-foil	PE
AP9873	TC	3x2x20AWG	S-PP	IS Al-foil	PVC
AP9874	TC	6x2x20AWG	S-PP	IS Al-foil	PVC
AP9875	TC	9x2x20AWG	S-PP	IS Al-foil	PVC
AP9773	TC	3x2x18AWG	S-PP	IS Al-foil	PVC
AP9774	TC	6x2x18AWG	S-PP	IS Al-foil	PVC
AP9775	TC	9x2x18AWG	S-PP	IS Al-foil	PVC

Audio, Control and Instrumentation Cables (Special)



Application
For BMS, Sound, Audio, Security, Safety, Control and Instrumentation application indoor & outdoor.

- Constructions**
- Conductor: Stranded Tinned Copper Wire
 - Insulation: Polyolefin, PVC
 - Cabling: Twist laying-up
 - Screened: Individually Screened (Optional)
Al-PET tape with Tinned Copper Drain Wire
 - Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
» Operating Temperature: -15°C ~ 70°C

- Reference Standards**
- » BS EN 60228

» BS EN 50290

» RoHS Directives

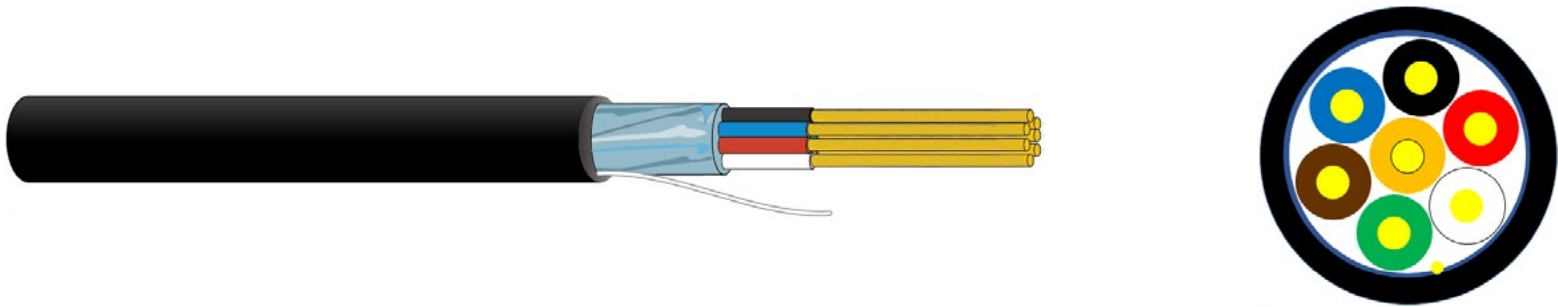
» IEC60332-1

Operating Voltage	200V, 300V
Test Voltage	1.0 KVdc
Conductor DCR	91.80 Ω/km (Max. @ 20°C) for 24AWG
	57.0 Ω/km (Max. @ 20°C) for 22AWG
	39.50 Ω/km (Max. @ 20°C) for 20AWG
	25.0 Ω/km (Max. @ 20°C) for 18AWG
Insulation Resistance	100 MΩhms/km (Min.)

Notes: Other cores are available upon request.

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP8787	TC	2x4x24AWG	S-PE	Al-foil	PVC
	TC	2x22AWG	PVC	/	
AP8788	TC	3x22AWG	PVC	IS Al-foil	PVC
	TC	2x22AWG	PVC	/	
AP8786	TC	4x24AWG	PVC	Al-foil	PVC
	TC	2x22AWG	PVC	/	
AP9685	TC	1x2x22AWG	PVC	Al-foil	PVC
	TC	1x22AWG	PVC	/	
AP8730	TC	1x2x22AWG	S-PP	Al-foil	PVC
	TC	2x22AWG	S-PP	/	
AP8728	TC	2x2x22AWG	S-PP	I/OS Al-foil	PVC
AP8763	TC	1x2x20AWG	S-PE	Al-foil	PVC
	TC	1x20AWG	S-PE	/	
AP8722	TC	1x2x20AWG	PVC	Al-foil	PVC
	TC	1x2x20AWG	PVC	/	
AP8725	TC	4x2x20AWG	S-PP	IS Al-foil	PVC
AP9155	TC	1x2x18AWG	S-PE	/	PVC
	TC	1x2x20AWG	S-PE	Al-foil	

Security & Commercial Audio System (Screened)



Application

For BMS, Sound, Audio, Intercom/PA, Security, Safety, Control and Instrumentation application indoor & outdoor.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: Polyolefin
- 3. Cabling: Cores laying-up
- 4. Screened: Al-PET tape with Tinned Copper Drain Wire
- 5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

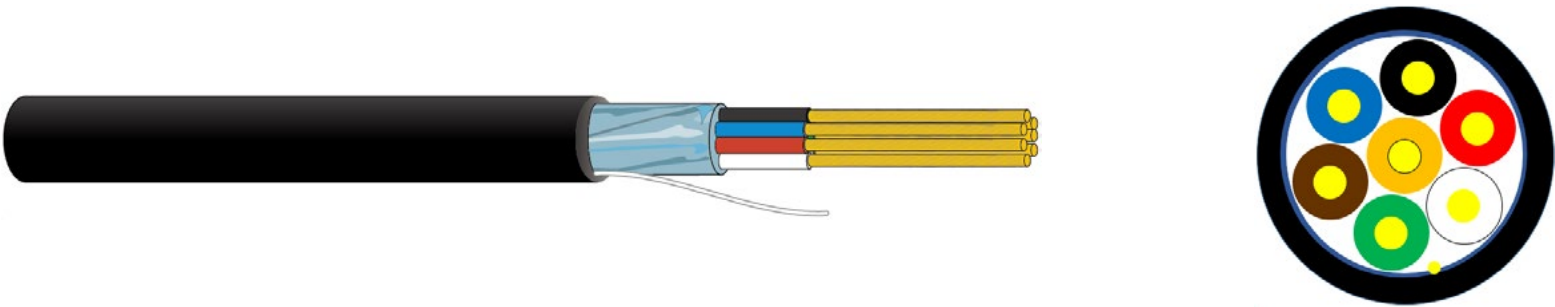
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Operating Voltage	300V
Test Voltage	1.50 KVdc
Conductor DCR	86.0 Ω/km (Max. @ 20°C) for 24AWG
	54.0 Ω/km (Max. @ 20°C) for 22AWG
	39.0 Ω/km (Max. @ 20°C) for 20AWG
	24.0 Ω/km (Max. @ 20°C) for 18AWG
Insulation Resistance	100 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP5300FE	BC	2x18AWG	S-PP	Al-foil	PVC
AP5301FE	BC	3x18AWG	S-PP	Al-foil	PVC
AP5302FE	BC	4x18AWG	S-PP	Al-foil	PVC
AP5303FE	BC	5x18AWG	S-PP	Al-foil	PVC
AP5304FE	BC	6x18AWG	S-PP	Al-foil	PVC
AP5305FE	BC	7x18AWG	S-PP	Al-foil	PVC
AP5306FE	BC	8x18AWG	S-PP	Al-foil	PVC
AP5307FE	BC	9x18AWG	S-PP	Al-foil	PVC
AP4300FE	BC	2x18AWG	S-PE	Al-foil	LSZH
AP4301FE	BC	3x18AWG	S-PE	Al-foil	LSZH
AP4302FE	BC	4x18AWG	S-PE	Al-foil	LSZH
AP4303FE	BC	5x18AWG	S-PE	Al-foil	LSZH
AP4304FE	BC	6x18AWG	S-PE	Al-foil	LSZH
AP4306FE	BC	8x18AWG	S-PE	Al-foil	LSZH
AP4307FE	BC	9x18AWG	S-PE	Al-foil	LSZH
AP5400FE	BC	2x20AWG	S-PP	Al-foil	PVC
AP5401FE	BC	3x20AWG	S-PP	Al-foil	PVC
AP5402FE	BC	4x20AWG	S-PP	Al-foil	PVC

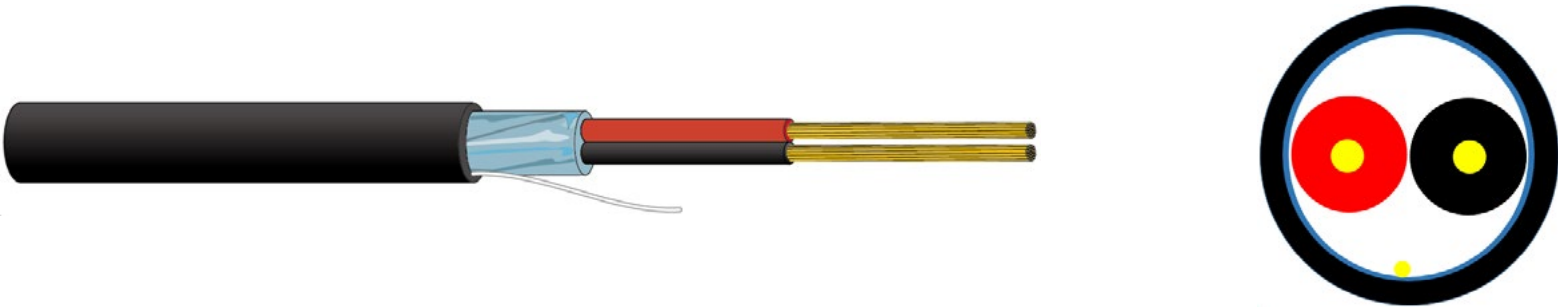
Security & Commercial Audio System (Screened)



Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP5403FE	BC	5x20AWG	S-PP	Al-foil	PVC
AP5405FE	BC	7x20AWG	S-PP	Al-foil	PVC
AP5407FE	BC	9x20AWG	S-PP	Al-foil	PVC
AP4400FE	BC	2x20AWG	S-PE	Al-foil	LSZH
AP4401FE	BC	3x20AWG	S-PE	Al-foil	LSZH
AP4402FE	BC	4x20AWG	S-PE	Al-foil	LSZH
AP4403FE	BC	5x20AWG	S-PE	Al-foil	LSZH
AP4405FE	BC	7x20AWG	S-PP	Al-foil	LSZH
AP4407FE	BC	9x20AWG	S-PP	Al-foil	LSZH
AP5500FE	BC	2x22AWG	S-PP	Al-foil	PVC
AP5501FE	BC	3x22AWG	S-PP	Al-foil	PVC
AP5502FE	BC	4x22AWG	S-PP	Al-foil	PVC
AP5503FE	BC	5x22AWG	S-PP	Al-foil	PVC
AP5504FE	BC	6x22AWG	S-PP	Al-foil	PVC
AP5506FE	BC	8x22AWG	S-PP	Al-foil	PVC
AP5508FE	BC	10x22AWG	S-PP	Al-foil	PVC
AP4500FE	BC	2x22AWG	S-PE	Al-foil	LSZH
AP4501FE	BC	3x22AWG	S-PE	Al-foil	LSZH

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP4502FE	BC	4x22AWG	S-PE	Al-foil	LSZH
AP4503FE	BC	5x22AWG	S-PE	Al-foil	LSZH
AP4504FE	BC	6x22AWG	S-PE	Al-foil	LSZH
AP4506FE	BC	8x22AWG	S-PE	Al-foil	LSZH
AP4508FE	BC	10x22AWG	S-PE	Al-foil	LSZH
AP5600FE	BC	2x24AWG	S-PE	Al-foil	PVC
AP4600FE	TC	2x24AWG	S-PE	Al-foil	LSZH
AP5200FE	TC	2x16AWG	S-PE	Al-foil	PVC
AP4200FE	BC	2x16AWG	S-PE	Al-foil	LSZH

Security & Commercial Audio System (Screened)



Application

For BMS, Sound, Audio, Intercom/PA, Security, Safety, Control and Instrumentation application indoor & outdoor.

Constructions

1. Conductor: Stranded Oxygen Free Copper
2. Insulation: Polyolefin
3. Cabling: Corers laying-up
4. Screened: Individually Screened (Optional)
AI-PET tape with Tinned Copper Drain Wire
5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

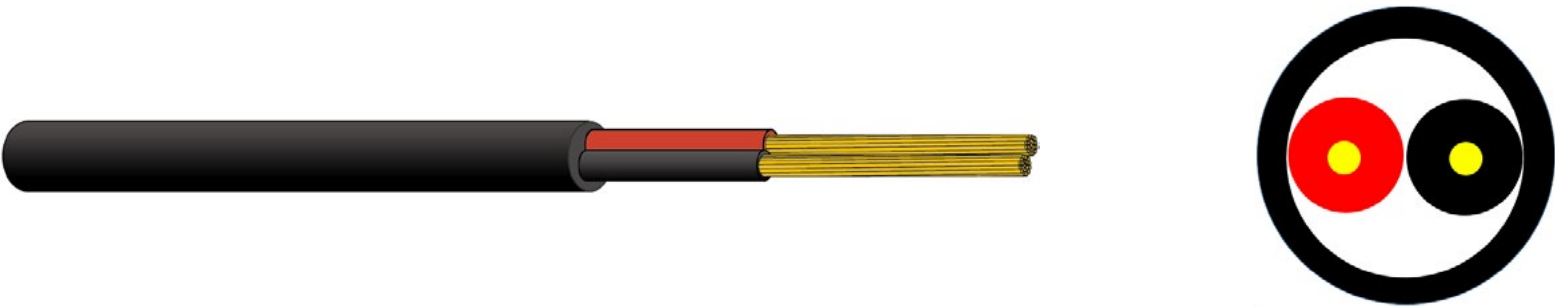
Operating Voltage	300V
Test Voltage	1.0 KVdc

Conductor DCR	57.0 Ω/km (Max. @ 20°C) for 22AWG
	39.50 Ω/km (Max. @ 20°C) for 20AWG
	25.0 Ω/km (Max. @ 20°C) for 18AWG
	14.0 Ω/km (Max. @ 20°C) for 16AWG
	9.3 Ω/km (Max. @ 20°C) for 14AWG
	5.30 Ω/km (Max. @ 20°C) for 12AWG
Insulation Resistance	100 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP5000FE	BC	2x12AWG	S-PP	Al-foil	PVC
AP4000FE	BC	2x12AWG	S-PP	Al-foil	LSZH
AP5100FE	BC	2x14AWG	S-PP	Al-foil	PVC
AP4100FE	BC	2x14AWG	S-PP	Al-foil	LSZH
AP5200FE	BC	2x16AWG	S-PP	Al-foil	PVC
AP4200FE	BC	2x16AWG	S-PP	Al-foil	LSZH
AP5300FE	BC	2x18AWG	S-PP	Al-foil	PVC
AP4300FE	BC	2x18AWG	S-PP	Al-foil	LSZH
AP5400FE	BC	2x20AWG	S-PP	Al-foil	PVC
AP4400FE	BC	2x20AWG	S-PP	Al-foil	LSZH
AP5500FE	BC	2x22AWG	S-PP	Al-foil	PVC
AP4500FE	BC	2x22AWG	S-PP	Al-foil	LSZH

Notes: Other cores are available upon request.

Security & Commercial Audio System (Unscreened)



Application

For BMS, Sound, Audio, Intercom/PA, Security, Safety, Control and Instrumentation application indoor & outdoor.

Constructions

1. Conductor: Stranded Oxygen Free Copper
2. Insulation: Polyolefin
3. Cabling: Cores laying-up
4. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Operating Voltage	300V
Test Voltage	1.0 KVdc

Notes: Other cores are available upon request.

Conductor DCR	57.0 Ω/km (Max. @ 20°C) for 22AWG
	39.50 Ω/km (Max. @ 20°C) for 20AWG
	25.0 Ω/km (Max. @ 20°C) for 18AWG
	14.0 Ω/km (Max. @ 20°C) for 16AWG
	9.3 Ω/km (Max. @ 20°C) for 14AWG
	5.30 Ω/km (Max. @ 20°C) for 12AWG
Insulation Resistance	100 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Sheath
	Material	Size		
AP5000UE	BC	2x12AWG	S-PP	PVC
AP4000UE	BC	2x12AWG	S-PP	LSZH
AP5100UE	BC	2x14AWG	S-PP	PVC
AP4100UE	BC	2x14AWG	S-PP	LSZH
AP5200UE	BC	2x16AWG	S-PP	PVC
AP4200UE	BC	2x16AWG	S-PP	LSZH
AP5300UE	BC	2x18AWG	S-PP	PVC
AP4300UE	BC	2x18AWG	S-PP	LSZH
AP5400UE	BC	2x20AWG	S-PP	PVC
AP4400UE	BC	2x20AWG	S-PP	LSZH
AP5500UE	BC	2x22AWG	S-PP	PVC
AP4500UE	BC	2x22AWG	S-PP	LSZH

Computer, Instrumentation and Medical Electronics Cable



Application

For BMS, Sound, Audio, Intercom/PA, Security, Safety, Control and Instrumentation application indoor & outdoor.

Constructions

1. Conductor: Stranded Tinned Copper Wire
2. Insulation: Polyolefin, PVC
3. Cabling: Cores laying-up
4. Screened: Individually Screened (Optional)
AI-PET tape with Tinned Copper Drain Wire
5. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Operating Voltage	300V
Test Voltage	1.0 KVdc
Conductor DCR	122.0 Ω/km (Max. @ 20°C) for 26AWG
	39.50 Ω/km (Max. @ 20°C) for 20AWG
Insulation Resistance	100 MΩhms/km (Min.)

Part No.	Conductor Construction		Insulation	Screen	Sheath
	Material	Size			
AP9802	TC	2x20AWG	S-PP	Al-foil	PE
AP9803	TC	3x20AWG	S-PP	Al-foil	PE
AP9890	TC	10x20AWG	S-PP	Al-foil	PE
AP9894	TC	15x20AWG	S-PP	Al-foil	PE
AP1211A	TC	4x26AWG	PVC	Al-foil	PVC
AP1212A	TC	6x26AWG	PVC	Al-foil	PVC
AP1213A	TC	8x26AWG	PVC	Al-foil	PVC
AP1214A	TC	16x26AWG	PVC	Al-foil	PVC

Notes: Other cores are available upon request.

BUS CABLE

» Bus Cable is used for the digital signal transmission between sensors and the corresponding display units, also designed for high-speed data transmission of industrial fieldbus systems and industrial Ethernet in automation and process control applications.

- KNX/EIB Cable
- CAN BUS Cable
- PROFIBUS PA Cable
- PROFIBUS DP Cable
- Foundation Fieldbus Type A Cable
- Foundation Fieldbus Type B Cable
- PROFINET Cable Type A
- DeviceNet Cable
- LonWorks Cable
- ControlBus Cable
- MODBUS Cable

KNX/EIB Cable



Application

For use in KNX system, formerly know as EIB, application to lighting, heating or ventilation in pipe, dry, moist and wet areas.

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 50090
- » BS EN 50290
- » IEC60332-1
- » BS EN 60228
- » RoHS Directives

Electrical Performance

Working Voltage	150V
Test Voltage	4KV
Conductor DCR	37.0 Ω/km (Max. @ 20°C)
Insulation Resistance	100 MΩhms/km (Min.)
Mutual Capacitance	100 nF/Km (Max. @ 800Hz)
Unbalanced Capacitance	200 pF/100m (Max.)

Mechanical Characteristics

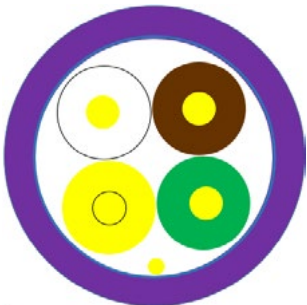
Test Object	Sheath	
Test Material	PVC	
Before Aging	Tensile Strength (Mpa)	≥10
	Elongation (%)	≥100
Aging Condition (°CXhrs)	100X168	

After Aging	Tensile Strength (Mpa)	≥70% unaged
	Elongation (%)	≥60% unaged
Cold Bend (-20°CX4hrs)	No crack	
Impact Test (-15°C)	No crack	
Longitudinal Shrinkage (%)	≤5	

Cable Construction

Part No.	APYE00819 for PVC	AP-KNX 2x2x20AWG	APYE00820 for PVC
	APYE00905 for LSZH	AP-KNX 2x2x20AWGLSZH	APYE00906 for LSZH
	1x2x20AWG	2x2x20AWG	4x20AWG
Conductor Material	Solid Oxygen Free Copper		
Conductor Size	0.80mm		
Insulation	S-PE		
Identification	Red, Black	Red, Black, Yellow, White	
Cabling	Cores Twisted into a Pair	Cores Twisted into Pairs, Pairs Laying-up	Cores Twisted into a Quad
Screen	Aluminium/Polyester Foil		
Drain Wire	Tinned Copper Wire		
Sheath	PVC, LSZH		
Sheath Color	Green		
Cable Diameter	5.10mm	5.80mm	7.50mm

CAN Bus Cable



Application

CAN Bus (Control Area Network) is a non addressable system for fast changing needs of automation industry.

Constructions

- Conductor: Stranded Oxygen Free Copper
- Insulation: S-FPE
- Identification:
 - 1 Pair: White, Brown
 - 1 Quad: White, Brown, Green, Yellow
- Wrapping Polyester Tape
- Screen: Tinned Copper Wire Braided
- Sheath: PVC/LSZH
- Sheath: Violet

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Working Voltage	250V
Test Voltage	1.5KV
Characteristic Impedance	120 Ω ± 10 Ω @ 1MHz
Conductor DCR	89.50 Ω/km (Max. @ 20°C) for 24AWG
	56.10 Ω/km (Max. @ 20°C) for 22AWG
	39.0 Ω/km (Max. @ 20°C) for 20AWG
Insulation Resistance	500 MΩhms/km (Min.)
Mutual Capacitance	40 nF/Km @ 800Hz

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
1x2x24AWG	7/0.20	0.5	0.8	TC Braided	5.4
1x4x24AWG	7/0.20	0.5	1.0	TC Braided	6.5
1x2x22AWG	7/0.25	0.6	0.9	TC Braided	6.4
1x4x22AWG	7/0.25	0.6	1.0	TC Braided	7.5
1x2x20AWG	7/0.30	0.6	1.0	TC Braided	6.8
1x4x20AWG	7/0.30	0.6	1.1	TC Braided	7.9

PROFIBUS PA Cable



Application

For the connection of control systems to field instruments on process automation applications.

Constructions

- 1. Conductor: Solid Oxygen Free Copper (Class 1)
- 2. Insulation: S-PE
- 3. Identification: Red, Green
- 4. Filler: Halogen Free Compound
- 5. Screen:
 - 1. Aluminium/Polyester Tape
 - 2. Tinned Copper Wire Braided (60%)
- 6. Sheath: PVC/LSZH
- 7. Sheath: Blue

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN/IEC 61158
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Working Voltage	300V
Test Voltage	2.5KV
Characteristic Impedance	100 Ω ± 10 Ω @ 1MHz
Conductor DCR	22.80 Ω/km (Max. @ 20°C)
Insulation Resistance	1000 MΩhms/km (Min.)
Mutual Capacitance	60 nF/Km @ 800Hz

Part No.	No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
AP-PROFIBUS PA	1x2x18AWG	1/1.0	1.2	1.0	AL-Foil + TC Braided	7.5
AP70001E	1x2x18AWG	16/0.25	1.2	1.1	AL-Foil + TC Braided	8
AP70110E	1x2x18AWG	16/0.25	1.2	1.0	AL-Foil + TC Braided	7.8

Notes: Armor by Gavanized Steel Wire or Steel Tape is upon request.

PROFIBUS DP Cable



Application

For deliver time-critical communication between process automation systems and distributed peripherals. This cable is usually referred as S iemens profibus.

Constructions

- 1. Conductor: Solid Oxygen Free Copper (Class 1)
- 2. Insulation: S-FPE
- 3. Identification: Red, Green
- 4. Bedding: PVC
- 5. Screen:
 - 1. Aluminium/Polyester Tape
 - 2. Tinned Copper Wire Braided (60%)
- 6. Sheath: PVC/LSZH/PE
- 7. Sheath: Violet

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN/IEC 61158
- » BS EN 50290
- » IEC60332-1
- » BS EN 60228
- » RoHS Directives

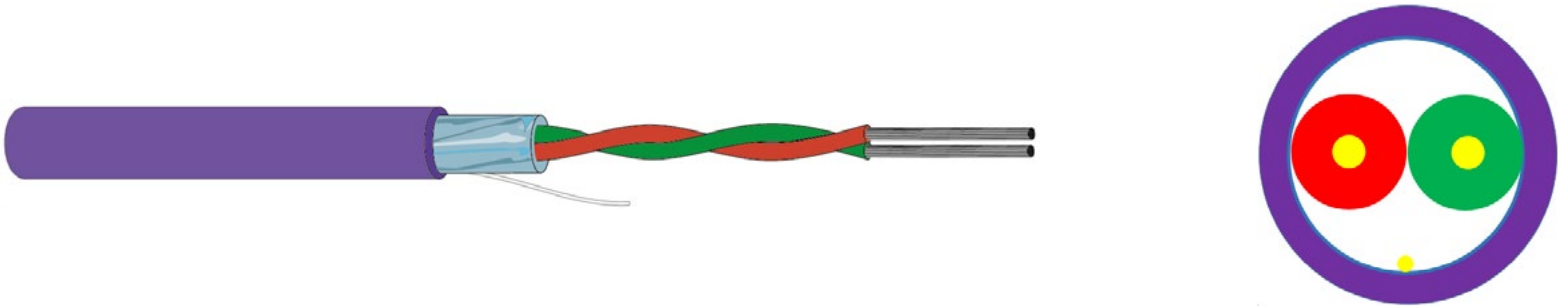
Electrical Performance

Working Voltage	350V
Test Voltage	1.5KV
Characteristic Impedance	150 Ω ± 15 Ω @ 1MHz
Conductor DCR	57.1 Ω/km (Max. @ 20°C)
Insulation Resistance	1000 MΩhms/km (Min.)
Mutual Capacitance	30 nF/Km @ 800Hz

Part No.	No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
AP3079A	1x2x22AWG	1/0.64	0.9	1.0	AL-Foil + TC Braided	8.0
AP3079ANH	1x2x22AWG	1/0.64	0.9	1.0	AL-Foil + TC Braided	8.0
AP3079E	1x2x22AWG	7/0.25	0.9	1.0	AL-Foil + TC Braided	8.0
AP70101E	1x2x22AWG	1/0.64	0.9	1.0	AL-Foil + TC Braided	8.0
AP70101NH	1x2x22AWG	1/0.64	0.9	1.0	AL-Foil + TC Braided	8.0
AP70102E	1x2x22AWG	7/0.25	0.9	1.0	AL-Foil + TC Braided	8.0
AP70103E	1x2x22AWG	1/0.64	0.9	1.0	AL-Foil + TC Braided	8.4

Notes: Armor by Gavanized Steel Wire or Steel Tape is upon request.

Foundation Fieldbus Type A Cable 22AWG



Application

For process control automation industry and quick connection of the cable to the respective plugs in the field area.

Constructions

1. Conductor: Stranded Oxygen Free Copper
2. Insulation: S-FPE
3. Identification: Red, Green
4. Bedding: PVC
5. Screen:
 1. Aluminium/Polyester Tape
 2. Tinned Copper Wire Braided (60%)
6. Sheath: PVC/LSZH
7. Sheath: Violet

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN/IEC 61158
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

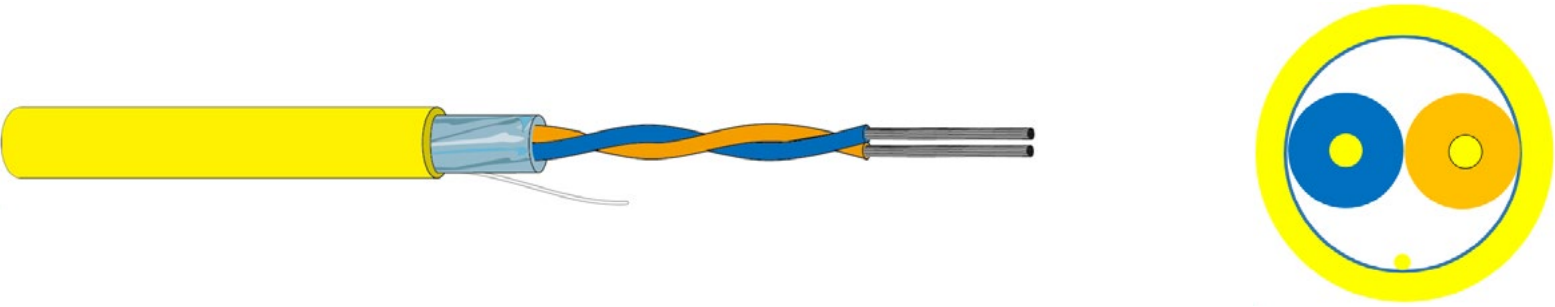
Electrical Performance

Working Voltage	300V
Test Voltage	1.5KV
Characteristic Impedance	150 Ω ± 10 Ω 3~20MHz
Conductor DCR	57.0 Ω/km (Max. @ 20°C)
Insulation Resistance	1000 MΩhms/km (Min.)
Mutual Capacitance	35 nF/Km @ 800Hz

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
1x2x22AWG	7/0.25	0.7	1.0	AL-Foil + TC Braided	8.1

Notes: Armor by Gavanized Steel Wire or Steel Tape is upon request.

Foundation Fieldbus Type A Cable 18~14AWG



Application

For process control automation industry and quick connection of the cable to the respective plugs in the field area.

Constructions

1. Conductor: Stranded Tinned Copper Wire
2. Insulation: Polyolefin
3. Identification: Blue, Orange
4. Screen: Individual & Overall Screen
5. Sheath: PVC/LSZH
6. Sheath: Yellow

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN/IEC 61158
- » BS EN 50363
- » BS EN 60228
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Working Voltage	300V
Test Voltage	1.5KV
Conductor DCR	21.5 Ω/km (Max. @ 20°C) for 18AWG
	13.8 Ω/km (Max. @ 20°C) for 16AWG
	8.2 Ω/km (Max. @ 20°C) for 14AWG
Insulation Resistance	1000 MΩhms/km (Min.)
Mutual Capacitance	79 nF/m
Velocity of Propagation	66%

Part No.	No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
AP3076F	1x2x18AWG	19/0.25	0.5	0.8	AL-Foil	6.3
AP1327A	2x2x18AWG	19/0.25	0.5	1.0	AL-Foil	11.2
AP1328A	5x2x18AWG	19/0.25	0.5	1.2	AL-Foil	13.7
AP1360A	1x2x16AWG	30/0.25	0.9	1.0	AL-Foil	9.0
AP1361A	2x2x16AWG	30/0.25	0.9	1.2	AL-Foil	14.7
AP1334A	1x2x18AWG	19/0.25	0.5	1.0	AL-Foil + TC Braided	7.3
AP1335A	1x2x16AWG	30/0.25	0.9	1.0	AL-Foil + TC Braided	9.8
AP1336A	1x2x14AWG	49/0.25	1.0	1.0	AL-Foil + TC Braided	10.9

Foundation Fieldbus Type B Cable



Application

For process control automation industry and quick connection of the cable to the respective plugs in the field area.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: S-FPE
- 3. Identification: White, Black
- 4. Bedding: PVC
- 5. Screen: Aluminium/Polyester Tape
- 6. Sheath: PVC/LSZH
- 7. Sheath: Orange

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

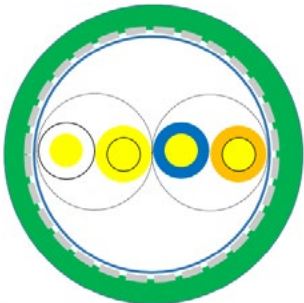
- » BS EN/IEC 61158
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Working Voltage	300V
Test Voltage	1.5KV
Characteristic Impedance	100 Ω ± 20 Ω @ 1MHz
Conductor DCR	56.5 Ω/km (Max. @ 20°C)
Insulation Resistance	1000 MΩhms/km (Min.)
Mutual Capacitance	35 nF/Km @ 800Hz

Part No.	No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
AP3078F	1x2x22AWG	7/0.25	1	1.2	AL-Foil	8.0

PROFINET Cable Type A



Application

For reliable network communications in the demanding Industrial and Process Control environment where difficult EMC conditions.

Constructions

- 1. Conductor: Solid Oxygen Free Copper (Class 1)
- 2. Insulation: S-PE
- 3. Identification: White, Yellow, Blue, Orange
- 4. Cabling: Star Quad
- 5. Inner Sheath: PVC/LSZH
- 6. Screen:
 - 1. Aluminium/Polyester Tape
 - 2. Tinned Copper Wire Braided (60%)
- 7. Outer Sheath: PVC/LSZH
- 8. Sheath: Green

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

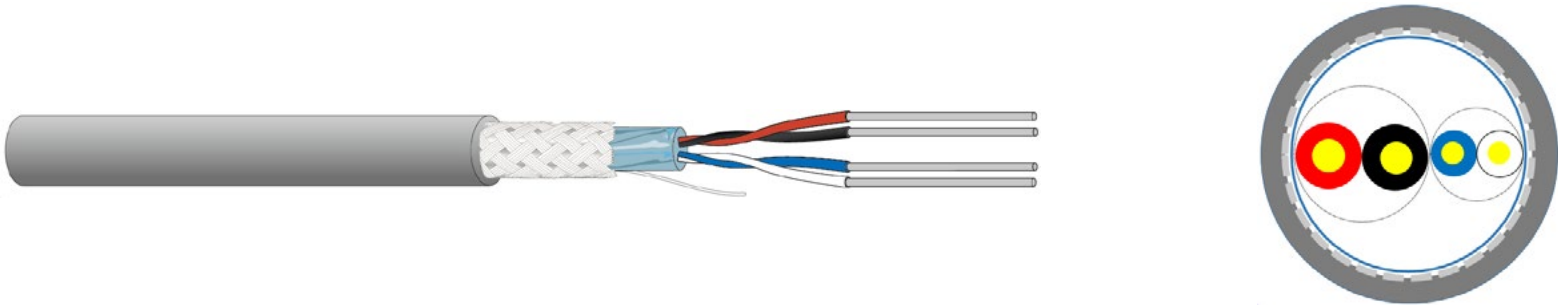
- » BS EN/IEC 61158
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Working Voltage	300V
Test Voltage	1.5KV
Characteristic Impedance	100 Ω ± 15 Ω @ 1~100MHz
Conductor DCR	57.0 Ω/km (Max. @ 20°C)
Insulation Resistance	500 MΩhms/km (Min.)
Mutual Capacitance	50 nF/Km

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
1x2x22AWG	7/0.25	0.7	1.0	AL-Foil + TC Braided	8.1

DeviceNet Cable



Application

For interconnection various industrial devices, such as SPS controls or limit switches, integrated with a power supply pair and a data pair together.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: PVC, S-PE, S-FPE
- 3. Identification:
 - Data: White, Blue
 - Power: Red, Black
- 4. Cabling: Twisted Pair Laying-up
- 5. Screen:
 - 1. Aluminium/Polyester Tape
 - 2. Tinned Copper Wire Braided (60%)
- 6. Sheath: PVC/LSZH
- 7. Sheath: Violet/Grey/Yellow

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

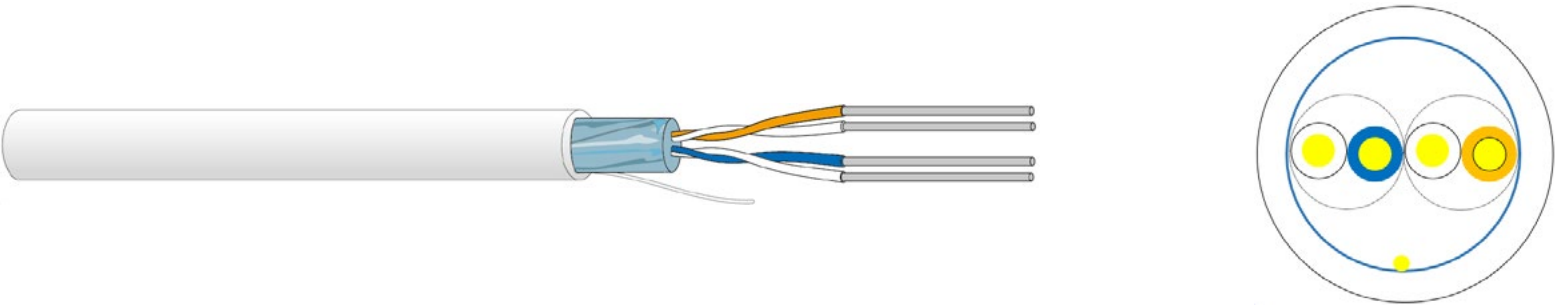
- » BS EN/IEC 61158
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Working Voltage	300V
Test Voltage	1.5KV
Characteristic Impedance	120 Ω ± 10 Ω @ 1MHz
Conductor DCR	92.0 Ω/km (Max. @ 20°C) for 24AWG
	57.0 Ω/km (Max. @ 20°C) for 22AWG
	23.20 Ω/km (Max. @ 20°C) for 18AWG
	11.30 Ω/km (Max. @ 20°C) for 15AWG
Insulation Resistance	500 MΩhms/km (Min.)
Mutual Capacitance	40 nF/Km

Part No.	No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
AP3084A	1x2x22AWG+1x2x24AWG	7/0.20	0.5	1.0	AL-Foil + TC Braided	7.0
		7/0.25	0.5			
AP3082A	1x2x15AWG+1x2x18AWG	19/0.25	0.6	1.5	AL-Foil + TC Braided	12.2
		37/0.25	0.6			
AP7895A	1x2x18AWG+1x2x20AWG	19/0.25	0.6	1.2	AL-Foil + TC Braided	9.8
		19/0.20	0.6			

LonWorks Cable



Application

For data transmission to instrumentation and automation signal.

Constructions

- 1. Conductor: Solid Oxygen Free Copper
- 2. Insulation: S-PE, S-FPE
- 3. Identification:
 - Pair 1: White, Blue
 - Pair 2: White, Orange
- 4. Cabling: Twisted Pair
- 5. Screen: Aluminium/Polyester Tape
- 6. Sheath: LSZH
- 7. Sheath: White

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » EN 50090
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

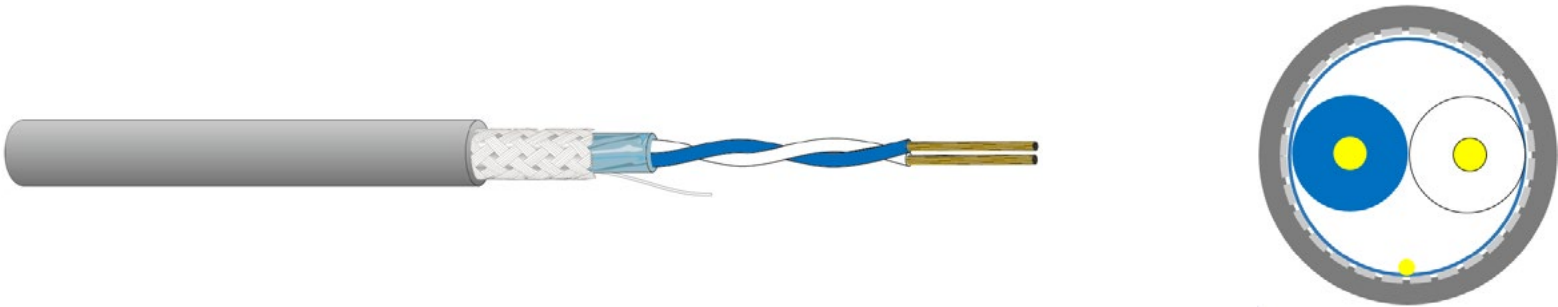
Electrical Performance

Working Voltage	300V
Test Voltage	1.5KV
Characteristic Impedance	100 Ω ± 10 Ω @ 1~20MHz
Conductor DCR	57.0 Ω/km (Max. @ 20°C)
Insulation Resistance	500 MΩhms/km (Min.)
Mutual Capacitance	50 nF/Km

Part No.	No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)
AP7701NH	1x2x22AWG	1/0.64	0.3	0.6	/	3.6
AP7702NH	2x2x22AWG	1/0.64	0.3	0.6	/	5.5
AP7703NH	1x2x22AWG	1/0.64	0.45	0.6	Al-foil	4.4
AP7704NH	2x2x22AWG	1/0.64	0.45	0.6	Al-foil	6.6

Notes: Armor by Gavanized Steel Wire or Steel Tape is upon request.

ControlBus Cable



Application

For data transmission to instrumentation and computer cable.

Constructions

- 1. Conductor: Oxygen Free Copper or Tinned Copper Wire
- 2. Insulation: S-PE, S-FPE
- 3. Identification: Color Coded
- 4. Cabling: Twisted Pair
- 5. Screen:
 - 1. Aluminium/Polyester Tape
 - 2. Tinned Copper Wire Braided
- 6. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Part No.	Conductor		Insulation Material	Screen (mm)	Sheath
	Material	Size			
AP9207	TC	1x20AWG	S-PE	AL-Foil + TC Braided	PVC
	BC	1x20AWG			
AP9207NH	TC	1x20AWG	S-PE	AL-Foil + TC Braided	LSZH
	BC	1x20AWG			
AP9250	BC	1x18AWG	S-PE	Double Braid	PVC
	BC	1x18AWG			
AP9271	TC	1x2x24AWG	S-PE	Al-foil	PVC
AP9272	TC	1x2x20AWG	S-PE	Braid	PVC
AP9463	TC	1x2x20AWG	S-PE	AL-Foil + TC Braided	PVC
AP9463DB	TC	1x2x20AWG	S-PE	AL-Foil + TC Braided	PE
AP9463NH	TC	1x2x20AWG	S-PE	AL-Foil + TC Braided	LSZH
AP9182	TC	1x2x22AWG	S-FPE	Al-foil	PVC
AP9182NH	TC	1x2x22AWG	S-FPE	Al-foil	LSZH
AP9860	BC	1x2x16AWG	S-FPE	AL-Foil + TC Braided	PVC

MODBUS Cable



Application

For data transmission to instrumentation and computer cable.

Constructions

- 1. Conductor: Stranded Tinned Copper Wire
- 2. Insulation: S-PE, S-PP
- 3. Identification: Color Coded
- 4. Cabling: Twisted Pair
- 5. Screen: Aluminium/Polyester Tape
- 6. Sheath: PVC/LSZH

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » BS EN 60228
- » BS EN 50290
- » RoHS Directives
- » IEC60332-1

Electrical Performance

Working Voltage	300V
Test Voltage	1.0KV
Velocity of Propagation	66%
Conductor DCR	57.0 Ω/km (Max. @ 20°C)
Insulation Resistance	500 MΩhms/km (Min.)

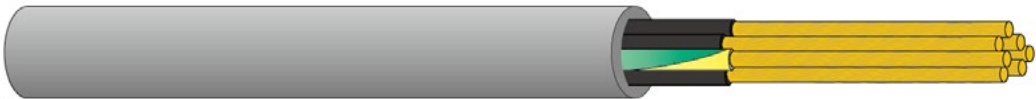
Part No.	Conductor		Insulation Material	Screen (mm)	Sheath
	Material	Size			
AP8777	TC	3x2x22AWG	S-PP	IS Al-foil	PVC
AP8777NH	TC	3x2x22AWG	S-PP	IS Al-foil	LSZH

INDUSTRIAL CABLE

» Industrial Cable is used for industrial robotics, power generation, seaport cranes, and petrochemical and natural gas production industries withstanding tough, high temperature environments, high-voltage uses and harsh treatment such as abrasion and contact with flames.

- YY Cable PVC/LSZH
- CY Cable PVC/LSZH
- LiYY Cable PVC
- LiYY TP Cable PVC
- LiHH Cable LSZH
- LiYcY Cable PVC
- LiHcH Cable LSZH
- LiYcY TP Cable PVC
- 218Y/B, 2192Y/B
- 318Y/B, 3192Y/B
- 309Y
- Single Core Non-sheathed Cable to EN50525-2-31

YY Cable PVC/LSZH



Application

For interconnecting cables within industrial process automation applications, including signal transmission, measurement, control and regulation.

Constructions

- Conductor: Class 5 Oxygen Free Copper
- Insulation: PVC/LSZH
- Identification:
 - Black Cores with White Number
 - 1pc Green/Yellow Core
- Sheath: PVC/LSZH (Grey)

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C
- » Rated Voltage: 300/300V

Reference Standards

- » BS6500
- » BS EN 60228
- » BS EN 50525-2-11
- » BS EN 50363-3
- » BS EN 50363-7
- » BS EN 50363-4-1
- » BS EN 50363-8
- » RoHS Directives
- » IEC60332-1

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR (Ω/km)
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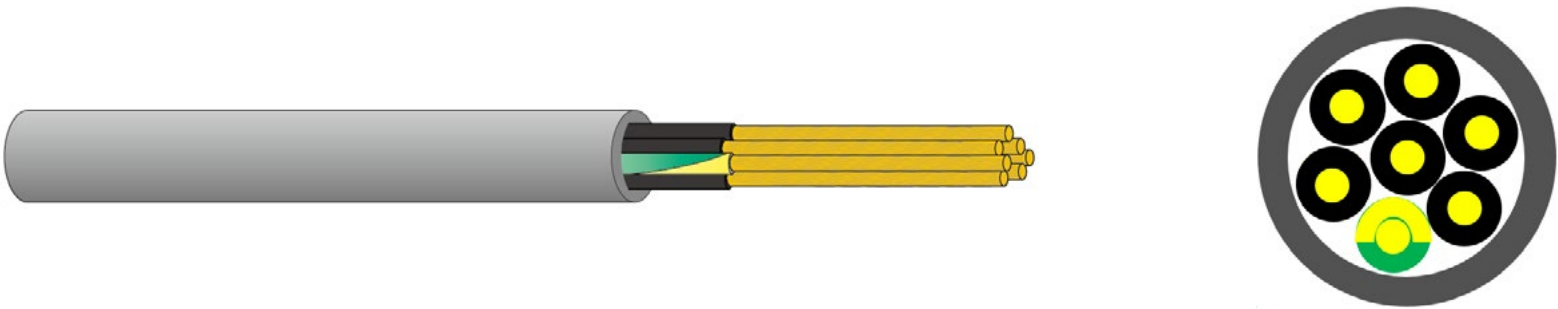
0.5mm²

2	16/0.20	0.4	0.7	4.8	39
3	16/0.20	0.4	0.7	5.1	39
4	16/0.20	0.4	0.7	5.5	39
5	16/0.20	0.4	0.8	6.2	39
7	16/0.20	0.4	0.8	6.7	39
8	16/0.20	0.4	0.8	7.2	39
10	16/0.20	0.4	0.9	8.6	39
12	16/0.20	0.4	1	9.1	39

0.75mm²

2	24/0.20	0.4	0.7	5.2	26
3	24/0.20	0.4	0.7	5.5	26
4	24/0.20	0.4	0.8	6.2	26
5	24/0.20	0.4	0.8	6.7	26
7	24/0.20	0.4	0.9	7.5	26
8	24/0.20	0.4	0.9	8.1	26
10	24/0.20	0.4	0.9	9.4	26
12	24/0.20	0.4	1	10	26
16	24/0.20	0.4	1.1	11.2	26

YY Cable PVC/LSZH



No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR (Ω/km)
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1.0mm²					
2	32/0.20	0.4	0.7	5.6	19.5
3	32/0.20	0.4	0.8	6.2	19.5
4	32/0.20	0.4	0.8	6.7	19.5
5	32/0.20	0.4	0.9	7.5	19.5
7	32/0.20	0.4	0.9	8.1	19.5
8	32/0.20	0.4	1	9	19.5
10	32/0.20	0.4	1	10.4	19.5
12	32/0.20	0.4	1.1	10.9	19.5
16	32/0.20	0.4	1.1	12.1	19.5

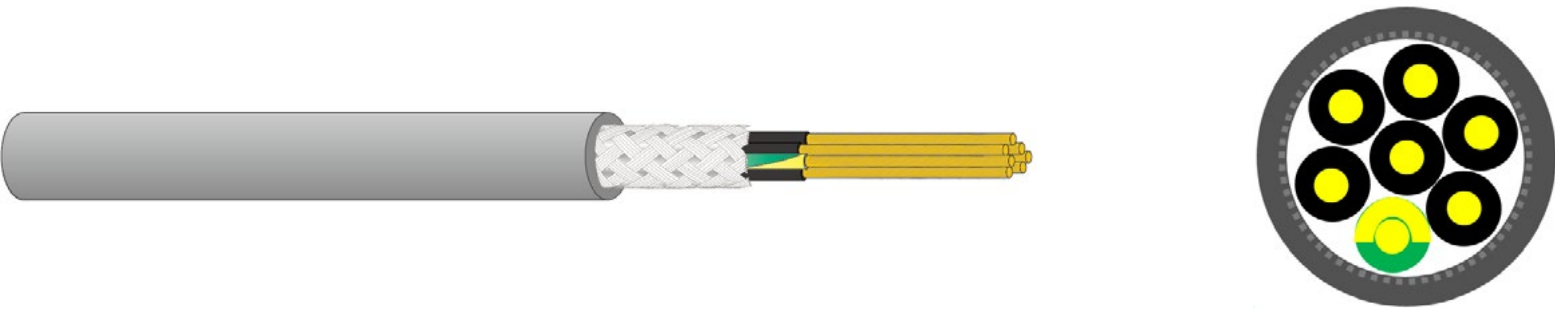
1.5mm²					
2	30/0.25	0.4	0.8	6.4	13.3
3	30/0.25	0.4	0.8	6.8	13.3
4	30/0.25	0.4	0.9	7.6	13.3
5	30/0.25	0.4	0.9	8.3	13.3
7	30/0.25	0.4	1	9.2	13.3
8	30/0.25	0.4	1	10	13.3
10	30/0.25	0.4	1.1	11.8	13.3
12	30/0.25	0.4	1.2	12.4	13.3

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR (Ω/km)
16	30/0.25	0.4	1.2	13.7	13.3
16	16/0.20	0.4	1	10	39

2.5mm²					
2	48/0.25	0.5	0.9	7.6	7.98
3	48/0.25	0.5	0.9	8.3	7.98
4	48/0.25	0.5	1	9.3	7.98
5	48/0.25	0.5	1.1	10.3	7.98
7	48/0.25	0.5	1.1	11.2	7.98
8	48/0.25	0.5	1.1	11.8	7.98
10	48/0.25	0.5	1.2	14	7.98
12	48/0.25	0.5	1.2	14.6	7.98
16	48/0.25	0.5	1.3	16.3	7.98

4.0mm²					
3	56/0.30	0.6	1.0	10.4	4.95
4	56/0.30	0.6	1.1	11.4	4.95
5	56/0.30	0.6	1.2	12.7	4.95
7	56/0.30	0.6	1.2	13.8	4.95
8	56/0.30	0.6	1.2	15.0	4.95

CY Cable PVC/LSZH



Application

For interconnecting cables within industrial process automation applications, including signal transmission, measurement, control and regulation, required interference-free transmission.

Constructions

- 1. Conductor: Class 5 Oxygen Free Copper
- 2. Insulation: PVC/LSZH
- 3. Identification:
 - Black Cores with White Number
 - 1pc Green/Yellow Core
- 4. Screen: Tinned Copper Wire Braided
- 5. Sheath: PVC/LSZH (Grey)

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C
- » Rated Voltage: 300/300V

Reference Standards

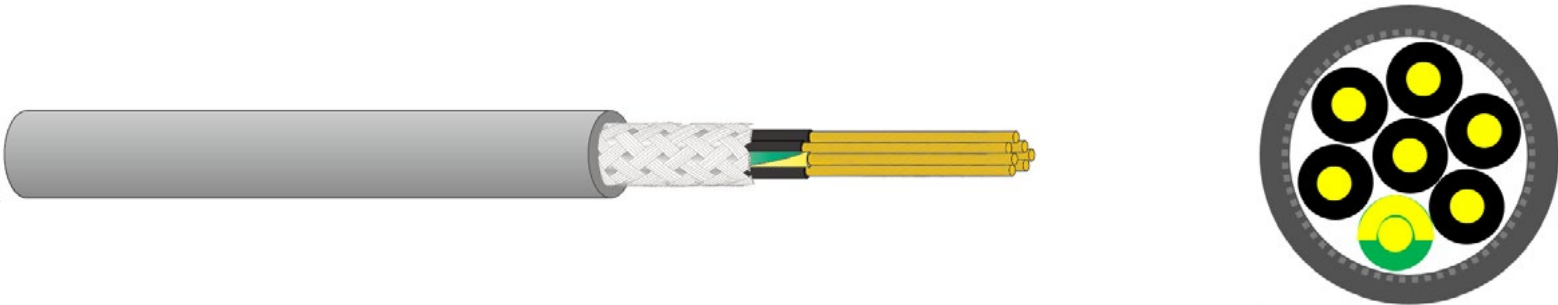
- » BS6500
- » BS EN 60228
- » BS EN 50525-2-11
- » BS EN 50363-3
- » BS EN 50363-7
- » BS EN 50363-4-1
- » BS EN 50363-8
- » RoHS Directives
- » IEC60332-1

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)	Max. DCR (Ω/km)
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0.5mm²						
2	16/0.20	0.4	0.8	TC Braided	5.6	39
3	16/0.20	0.4	0.8	TC Braided	5.9	39
4	16/0.20	0.4	0.8	TC Braided	6.3	39
5	16/0.20	0.4	0.8	TC Braided	6.8	39
7	16/0.20	0.4	0.8	TC Braided	7.3	39
8	16/0.20	0.4	0.8	TC Braided	8	39
10	16/0.20	0.4	1	TC Braided	0.6	39
12	16/0.20	0.4	1	TC Braided	9.9	39
16	16/0.20	0.4	1.1	TC Braided	11	39

0.75mm²						
2	24/0.20	0.4	0.8	TC Braided	6	26
3	24/0.20	0.4	0.8	TC Braided	6.3	26
4	24/0.20	0.4	0.8	TC Braided	6.8	26
5	24/0.20	0.4	0.8	TC Braided	7.33	26
7	24/0.20	0.4	0.9	TC Braided	8.1	26
8	24/0.20	0.4	0.9	TC Braided	8.9	26
10	24/0.20	0.4	0.9	TC Braided	10.2	26
12	24/0.20	0.4	1	TC Braided	10.8	26

CY Cable PVC/LSZH



No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)	Max. DCR (Ω/km)
16	24/0.20	0.4	1.1	TC Braided	12	26

1.0mm²

2	32/0.20	0.4	0.8	TC Braided	6.4	19.5
3	32/0.20	0.4	0.8	TC Braided	6.8	19.5
4	32/0.20	0.4	0.8	TC Braided	7.3	19.5
5	32/0.20	0.4	0.9	TC Braided	8.1	19.5
7	32/0.20	0.4	0.9	TC Braided	8.9	19.5
8	32/0.20	0.4	1	TC Braided	9.8	19.5
10	32/0.20	0.4	1	TC Braided	11.2	19.5
12	32/0.20	0.4	1.1	TC Braided	11.7	19.5
16	32/0.20	0.4	1.2	TC Braided	13.1	19.5

1.5mm²

2	30/0.25	0.4	0.8	TC Braided	7	13.3
3	30/0.25	0.4	0.8	TC Braided	7.4	13.3
4	30/0.25	0.4	0.9	TC Braided	8.2	13.3
5	30/0.25	0.4	0.9	TC Braided	9.1	13.3
7	30/0.25	0.4	1	TC Braided	10	13.3
8	30/0.25	0.4	1.1	TC Braided	11	13.3
10	30/0.25	0.4	1.2	TC Braided	12.8	13.3

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Screen (mm)	Overall Diameter (mm)	Max. DCR (Ω/km)
12	30/0.25	0.4	1.2	TC Braided	13.2	13.3
16	30/0.25	0.4	1.3	TC Braided	14.7	13.3

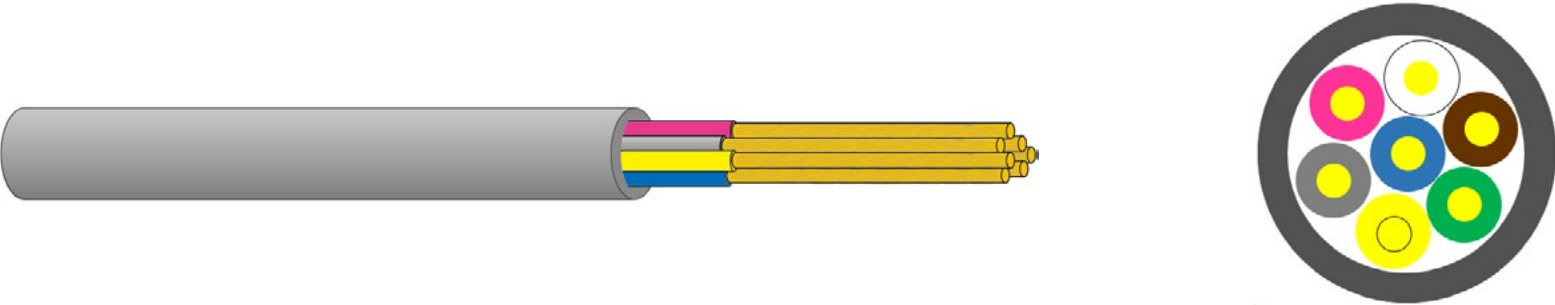
2.5mm²

2	48/0.25	0.5	0.9	TC Braided	8.2	7.98
3	48/0.25	0.5	0.9	TC Braided	9.1	7.98
4	48/0.25	0.5	1	TC Braided	10.1	7.98
5	48/0.25	0.5	1.1	TC Braided	11.1	7.98
7	48/0.25	0.5	1.2	TC Braided	12.2	7.98
8	48/0.25	0.5	1.2	TC Braided	12.8	7.98
10	48/0.25	0.5	1.3	TC Braided	15	7.98
12	48/0.25	0.5	1.3	TC Braided	15.6	7.98
16	48/0.25	0.5	1.4	TC Braided	17.3	7.98

4.0mm²

3	56/0.30	0.6	1.1	TC Braided	11.4	4.95
4	56/0.30	0.6	1.2	TC Braided	12.4	4.95
5	56/0.30	0.6	1.2	TC Braided	13.5	4.95
7	56/0.30	0.6	1.3	TC Braided	14.8	4.95
8	56/0.30	0.6	1.3	TC Braided	16.0	4.95

LIYY Cable PVC



Application

For signal and control cable in electronics of computer systems, electronic control equipment, office machine or process control units.

Constructions

1. Conductor: Class 5 Oxygen Free Copper
2. Insulation: PVC
3. Identification: Colored
4. Sheath: PVC

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » VDE 0812
- » DIN 1704
- » VDE 0207
- » RoHS Directives
- » IEC60332-1

Section Area	Rated Voltage	Test Voltage	Min. Insulation Resistance at 20°C (MΩ/km)
0.14~0.34mm²	250/250V	1200V	200
0.5~0.75mm²	300V	2000V	200
1.0~1.5mm²	300/500V	3000V	200

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
2	12/0.12	0.35	0.4	3.2	148

3	12/0.12	0.35	0.4	3.5	148
4	12/0.12	0.35	0.5	3.9	148
5	12/0.12	0.35	0.5	4.3	148
7	12/0.12	0.35	0.6	4.8	148
8	12/0.12	0.35	0.6	5.2	148
10	12/0.12	0.35	0.7	6.2	148
12	12/0.12	0.35	0.7	6.5	148
14	12/0.12	0.35	0.7	6.7	148

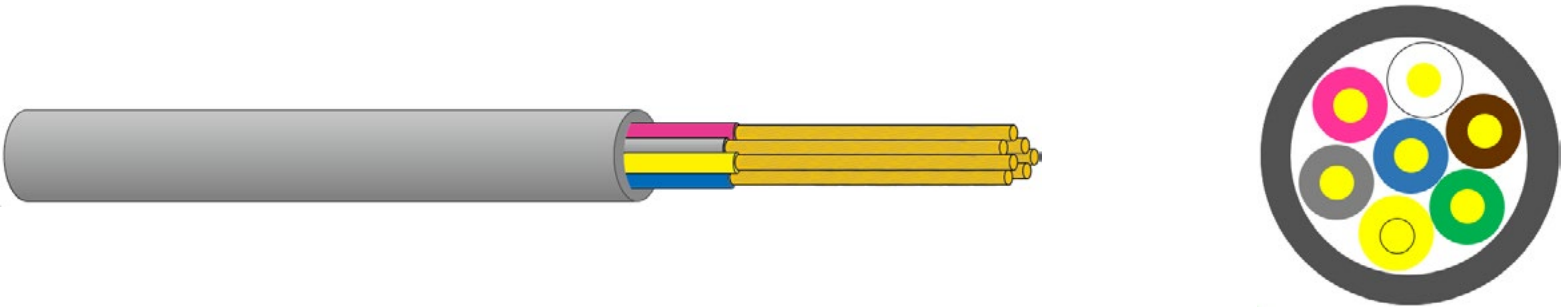
0.25mm²

2	14/0.15	0.4	0.4	3.6	79.9
3	14/0.15	0.4	0.4	3.9	79.9
4	14/0.15	0.4	0.5	4.4	79.9
5	14/0.15	0.4	0.5	4.8	79.9
7	14/0.15	0.4	0.6	5.4	79.9
8	14/0.15	0.4	0.6	5.8	79.9
10	14/0.15	0.4	0.7	7	79.9
12	14/0.15	0.4	0.7	7.3	79.9
14	14/0.15	0.4	0.7	7.6	79.9

0.34mm²

2	20/0.15	0.4	0.5	4.2	57
3	20/0.15	0.4	0.5	4.5	57

LIYY Cable PVC



No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
4	20/0.15	0.4	0.6	5.1	57
5	20/0.15	0.4	0.6	5.5	57
7	20/0.15	0.4	0.7	6.2	57
8	20/0.15	0.4	0.7	6.7	57
10	20/0.15	0.4	0.8	8	57
12	20/0.15	0.4	0.8	8.3	57
14	20/0.15	0.4	0.8	8.7	57

0.5mm ²					
2	16/0.20	0.45	0.6	4.8	39
3	16/0.20	0.45	0.6	5.2	39
4	16/0.20	0.45	0.6	5.6	39
5	16/0.20	0.45	0.6	6.1	39
7	16/0.20	0.45	0.6	6.6	39
8	16/0.20	0.45	0.7	7.4	39
10	16/0.20	0.45	0.7	8.6	39
12	16/0.20	0.45	0.8	9.2	39
14	16/0.20	0.45	0.9	9.8	39

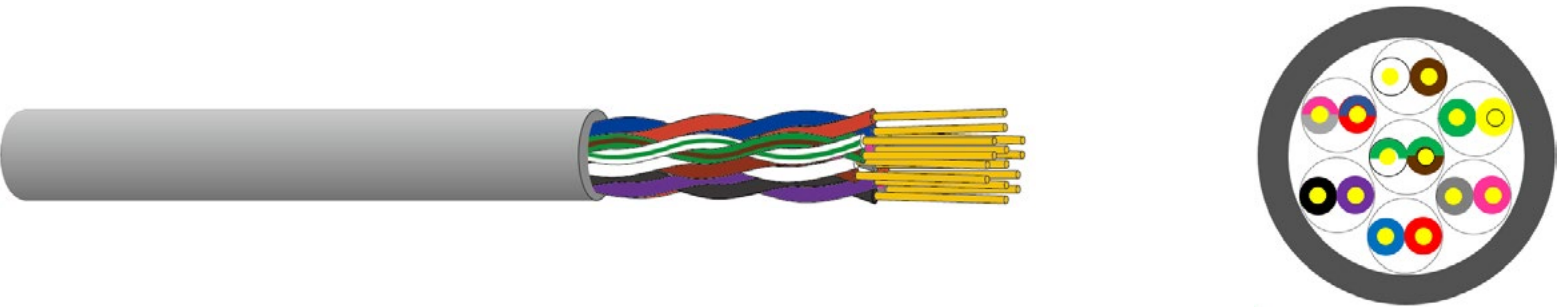
0.75mm ²					
2	24/0.20	0.5	0.6	5.4	26
3	24/0.20	0.5	0.6	5.8	26
4	24/0.20	0.5	0.6	6.3	26
5	24/0.20	0.5	0.7	7.1	26
7	24/0.20	0.5	0.7	7.7	26

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
8	24/0.20	0.5	0.8	8.6	26
10	24/0.20	0.5	0.8	10	26
12	24/0.20	0.5	0.9	10.6	26
14	24/0.20	0.5	1	11.3	26

1.0mm ²					
2	32/0.20	0.6	0.6	6.2	19.5
3	32/0.20	0.6	0.6	6.7	19.5
4	32/0.20	0.6	0.7	7.5	19.5
5	32/0.20	0.6	0.7	8.2	19.5
7	32/0.20	0.6	0.8	9.1	19.5

1.5mm ²					
2	30/0.25	0.6	0.6	6.8	13.3
3	30/0.25	0.6	0.7	7.6	13.3
4	30/0.25	0.6	0.7	8.2	13.3
5	30/0.25	0.6	0.8	9.2	13.3
7	30/0.25	0.6	0.9	10.5	13.3

LIYY TP Cable PVC



Application

For signal and control cable in electronics of computer systems, electronic control equipment, office machine or process control units.

Constructions

1. Conductor: Class 5 Oxygen Free Copper
2. Insulation: PVC
3. Identification: Colored
4. Cabling: Twisted Pair
5. Sheath: PVC

» Installation Temperature: Above 0°C

» Operating Temperature: -15°C ~ 70°C

Reference Standards

- » VDE 0812
- » DIN 1704
- » VDE 0207
- » RoHS Directives
- » IEC60332-1

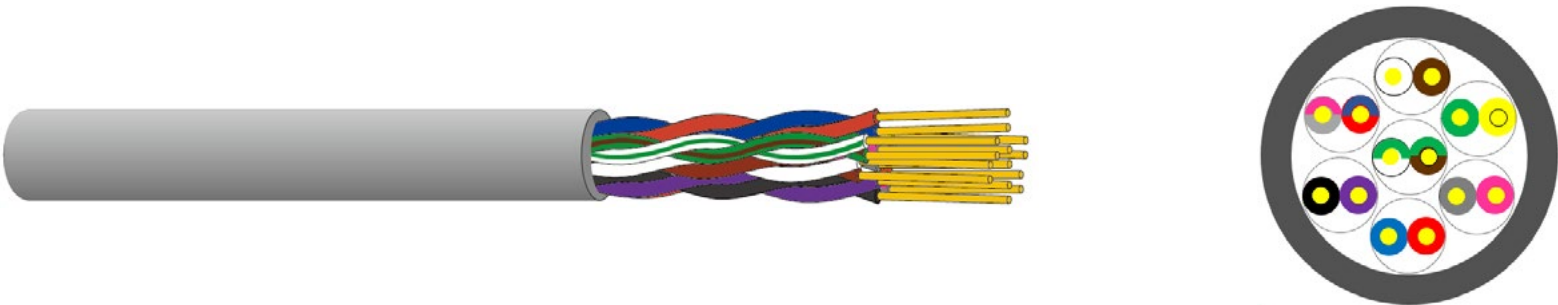
Section Area	Rated Voltage	Test Voltage	Min. Insulation Resistance at 20°C (MΩ/km)
0.14~0.34mm ²	250/250V	1200V	200
0.5~0.75mm ²	300V	2000V	200
1.0~1.5mm ²	300/500V	3000V	200

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
0.14mm ²					
1	12/0.12	0.35	0.4	3.2	148
2	12/0.12	0.35	0.6	5.3	148
3	12/0.12	0.35	0.6	5.7	148
4	12/0.12	0.35	0.7	6.4	148
6	12/0.12	0.35	0.7	7.5	148
8	12/0.12	0.35	0.8	8.6	148
10	12/0.12	0.35	0.9	10	148
12	12/0.12	0.35	1	10.4	148
15	12/0.12	0.35	1.1	11.6	148

0.25mm ²					
1	14/0.15	0.4	0.4	3.6	79.9
2	14/0.15	0.4	0.6	6	79.9
3	14/0.15	0.4	0.6	6.4	79.9
4	14/0.15	0.4	0.7	7.2	79.9
6	14/0.15	0.4	0.8	8.8	79.9
8	14/0.15	0.4	0.8	9.8	79.9
10	14/0.15	0.4	1	11.5	79.9
12	14/0.15	0.4	1	12.1	79.9
15	14/0.15	0.4	1.1	13.5	79.9

0.34mm ²					
1	20/0.15	0.4	0.5	4.2	57
2	20/0.15	0.4	0.6	6.7	57

LIYY TP Cable PVC



No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
3	20/0.15	0.4	0.6	7.2	57
4	20/0.15	0.4	0.7	8	57
6	20/0.15	0.4	0.9	10	57
8	20/0.15	0.4	1	11.4	57
10	20/0.15	0.4	1.1	13.1	57
12	20/0.15	0.4	1.1	13.4	57
15	20/0.15	0.4	1.2	14.9	57

0.5mm²

1	16/0.20	0.45	0.6	4.8	39
2	16/0.20	0.45	0.7	7.5	39
3	16/0.20	0.45	0.7	8.1	39
4	16/0.20	0.45	0.8	9	39
6	16/0.20	0.45	1	11.2	39
8	16/0.20	0.45	1.1	12.8	39
10	16/0.20	0.45	1.2	14.7	39
12	16/0.20	0.45	1.2	15	39
15	16/0.20	0.45	1.3	16.7	39

0.75mm²

1	24/0.20	0.5	0.6	5.4	26
2	24/0.20	0.5	0.7	8.6	26
3	24/0.20	0.5	0.8	9.5	26
4	24/0.20	0.5	0.9	10.4	26
6	24/0.20	0.5	1	12.7	26

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
8	24/0.20	0.5	1.1	14.5	26
10	24/0.20	0.5	1.2	16.7	26
12	24/0.20	0.5	1.3	17.6	26
15	24/0.20	0.5	1.4	19.6	26

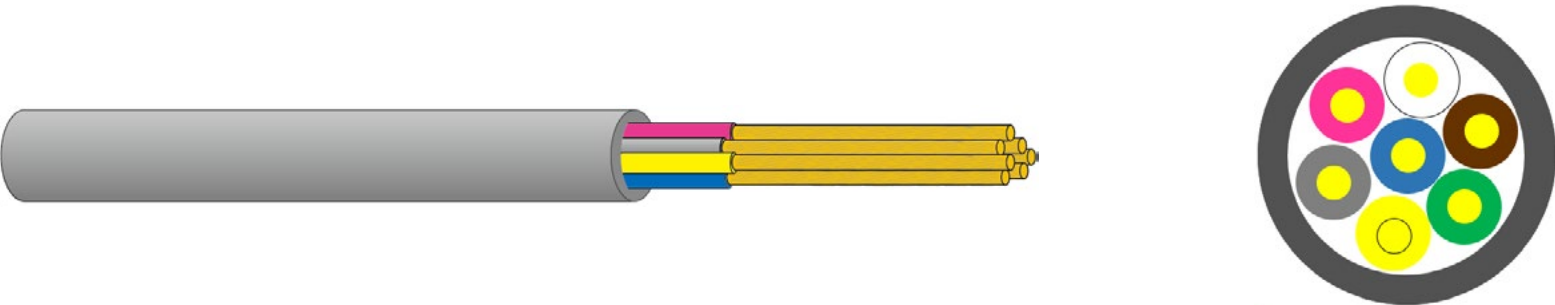
1.0mm²

1	32/0.20	0.6	0.6	6.2	19.5
2	32/0.20	0.6	0.9	10.3	19.5
3	32/0.20	0.6	1	11.4	19.5
4	32/0.20	0.6	1	12.3	19.5
6	32/0.20	0.6	1.2	15.2	19.5
8	32/0.20	0.6	1.3	16.6	19.5
10	32/0.20	0.6	1.4	19.8	19.5

1.5mm²

1	30/0.25	0.6	0.6	6.8	13.3
2	30/0.25	0.6	1	11.5	13.3
3	30/0.25	0.6	1.1	12.7	13.3
4	30/0.25	0.6	1.1	13.7	13.3
6	30/0.25	0.6	1.3	16.9	13.3
8	30/0.25	0.6	1.3	18.3	13.3

LIHH Cable LSZH



Application

For signal and control cable in electronics of computer systems, electronic control equipment, office machine or process control units with low smoke zero halogen and flame retardant requirement.

Constructions

1. Conductor: Class 5 Oxygen Free Copper
2. Insulation: PE
3. Identification: Colored
4. Sheath: LSZH

» Installation Temperature: Above 0°C

» Operating Temperature: -15°C ~ 70°C

Reference Standards

» VDE 0812

» DIN 1704

» VDE 0207

» RoHS Directives

» IEC60332-1

» IEC60754

Section Area	Rated Voltage	Test Voltage	Min. Insulation Resistance at 20°C (MΩ/km)
0.14~0.34mm²	250/250V	1200V	200
0.5~0.75mm²	300V	2000V	200
1.0~1.5mm²	300/500V	3000V	200

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
--------------	-----------------------------	---------------------------	-----------------------	-----------------------	-------------------------

0.14mm²

2	12/0.12	0.3	0.6	3.4	148
3	12/0.12	0.3	0.6	3.6	148
4	12/0.12	0.3	0.6	3.9	148
5	12/0.12	0.3	0.6	4.2	148
7	12/0.12	0.3	0.6	4.5	148
8	12/0.12	0.3	0.6	4.8	148
10	12/0.12	0.3	0.6	5.6	148
12	12/0.12	0.3	0.7	6	148
14	12/0.12	0.3	0.7	6.3	148

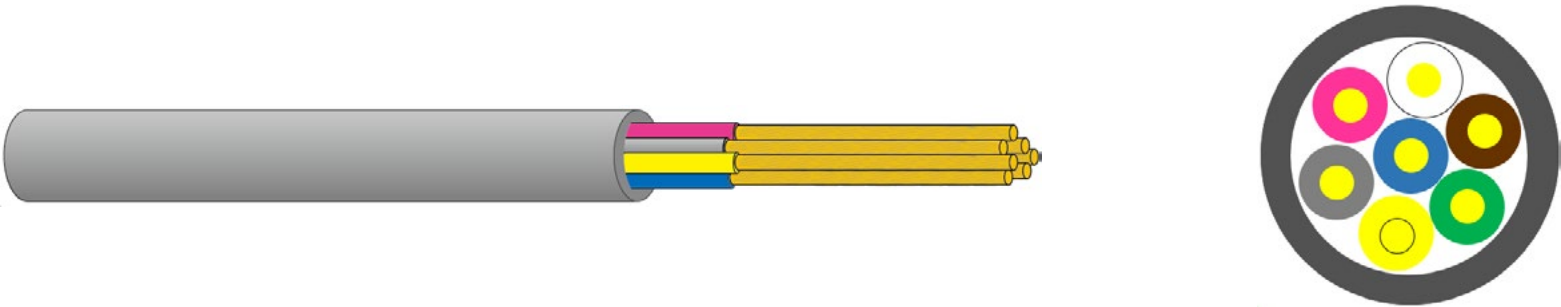
0.25mm²

2	14/0.15	0.3	0.6	3.8	79.9
3	14/0.15	0.3	0.6	4.1	79.9
4	14/0.15	0.3	0.6	4.4	79.9
5	14/0.15	0.3	0.6	4.7	79.9
7	14/0.15	0.3	0.6	5.1	79.9
8	14/0.15	0.3	0.6	5.5	79.9
10	14/0.15	0.3	0.7	6.6	79.9
12	14/0.15	0.3	0.7	6.9	79.9
14	14/0.15	0.3	0.7	7.2	79.9

0.34mm²

2	20/0.15	0.3	0.6	4	57
3	20/0.15	0.3	0.6	4.3	57

LIHH Cable LSZH



No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
4	20/0.15	0.3	0.6	4.6	57
5	20/0.15	0.3	0.6	5	57
7	20/0.15	0.3	0.6	5.4	57
8	20/0.15	0.3	0.6	5.8	57
10	20/0.15	0.3	0.7	7	57
12	20/0.15	0.3	0.7	7.3	57
14	20/0.15	0.3	0.7	7.6	57

0.5mm ²					
2	16/0.20	0.3	0.6	4.3	39
3	16/0.20	0.3	0.6	4.6	39
4	16/0.20	0.3	0.6	5	39
5	16/0.20	0.3	0.6	5.4	39
7	16/0.20	0.3	0.6	5.9	39
8	16/0.20	0.3	0.7	6.5	39
10	16/0.20	0.3	0.7	7.6	39
12	16/0.20	0.3	0.7	7.9	39
14	16/0.20	0.3	0.7	8.3	39

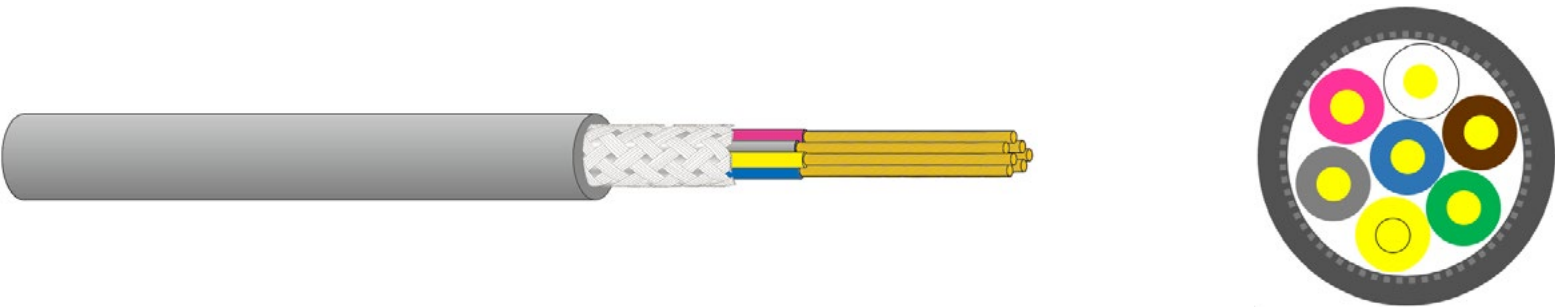
0.75mm ²					
2	24/0.20	0.4	0.6	5.2	26
3	24/0.20	0.4	0.6	5.6	26
4	24/0.20	0.4	0.6	6.1	26
5	24/0.20	0.4	0.7	6.6	26
7	24/0.20	0.4	0.7	7.2	26

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
8	24/0.20	0.4	0.7	8	26
10	24/0.20	0.4	0.8	9.6	26
12	24/0.20	0.4	0.8	10	26
14	24/0.20	0.4	0.9	10.7	26

1.0mm ²					
2	32/0.20	0.5	0.6	5.8	19.5
3	32/0.20	0.5	0.6	6.3	19.5
4	32/0.20	0.5	0.7	7	19.5
5	32/0.20	0.5	0.7	7.6	19.5
7	32/0.20	0.5	0.8	8.5	19.5

1.5mm ²					
2	30/0.25	0.5	0.6	6.4	13.3
3	30/0.25	0.5	0.7	7.1	13.3
4	30/0.25	0.5	0.7	7.7	13.3
5	30/0.25	0.5	0.8	8.6	13.3
7	30/0.25	0.5	0.9	9.6	13.3

LIYcY Cable PVC



Application

For signal and control cable in electronics of computer systems, electronic control equipment, office machine or process control units, which requires protection from electromagnetic interference (EMI) and electromagnetic radiation (EMR).

Constructions

1. Conductor: Class 5 Oxygen Free Copper
2. Insulation: PVC
3. Identification: Colored
4. Screen: Tinned Copper Wire Braided
5. Sheath: PVC

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C

Reference Standards

- » VDE 0812
- » DIN 1704
- » VDE 0207
- » RoHS Directives
- » IEC60332-1

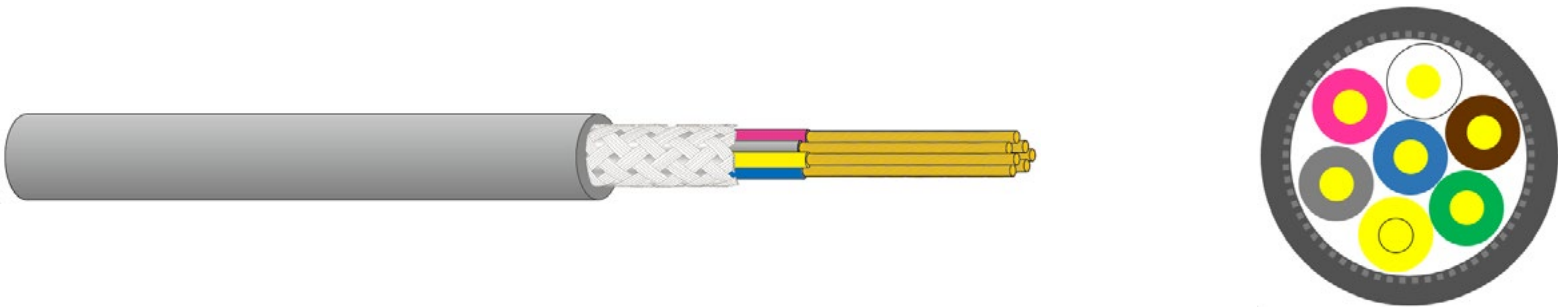
Section Area	Rated Voltage	Test Voltage	Min. Insulation Resistance at 20°C (MΩ/km)
0.14~0.34mm ²	250/250V	1200V	200
0.5~0.75mm ²	300V	2000V	200
1.0~1.5mm ²	300/500V	3000V	200

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
0.14mm ²					
2	12/0.12	0.35	0.7	4.4	148
3	12/0.12	0.35	0.7	4.7	148
4	12/0.12	0.35	0.7	4.9	148
5	12/0.12	0.35	0.7	5.3	148
7	12/0.12	0.35	0.7	5.6	148
8	12/0.12	0.35	0.8	6.2	148
10	12/0.12	0.35	0.8	7	148
12	12/0.12	0.35	0.8	7.3	148
14	12/0.12	0.35	0.8	7.5	148

0.25mm ²					
2	14/0.15	0.4	0.7	4.8	79.9
3	14/0.15	0.4	0.7	5.1	79.9
4	14/0.15	0.4	0.7	5.4	79.9
5	14/0.15	0.4	0.7	5.8	79.9
7	14/0.15	0.4	0.8	6.4	79.9
8	14/0.15	0.4	0.8	6.8	79.9
10	14/0.15	0.4	0.8	7.8	79.9
12	14/0.15	0.4	0.8	8.1	79.9
14	14/0.15	0.4	0.8	8.2	79.9

0.34mm ²					
2	20/0.15	0.4	0.7	5.2	57
3	20/0.15	0.4	0.7	5.5	57

LiYcY Cable PVC



No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
4	20/0.15	0.4	0.7	5.9	57
5	20/0.15	0.4	0.7	6.3	57
7	20/0.15	0.4	0.7	6.8	57
8	20/0.15	0.4	0.8	7.5	57
10	20/0.15	0.4	0.8	8.6	57
12	20/0.15	0.4	0.8	9.1	57
14	20/0.15	0.4	0.8	9.5	57

0.5mm ²					
2	16/0.20	0.45	0.7	5.6	39
3	16/0.20	0.45	0.7	6	39
4	16/0.20	0.45	0.7	6.4	39
5	16/0.20	0.45	0.7	6.9	39
7	16/0.20	0.45	0.8	7.6	39
8	16/0.20	0.45	0.8	8.2	39
10	16/0.20	0.45	0.8	9.8	39
12	16/0.20	0.45	0.8	10.2	39
14	16/0.20	0.45	0.9	10.6	39

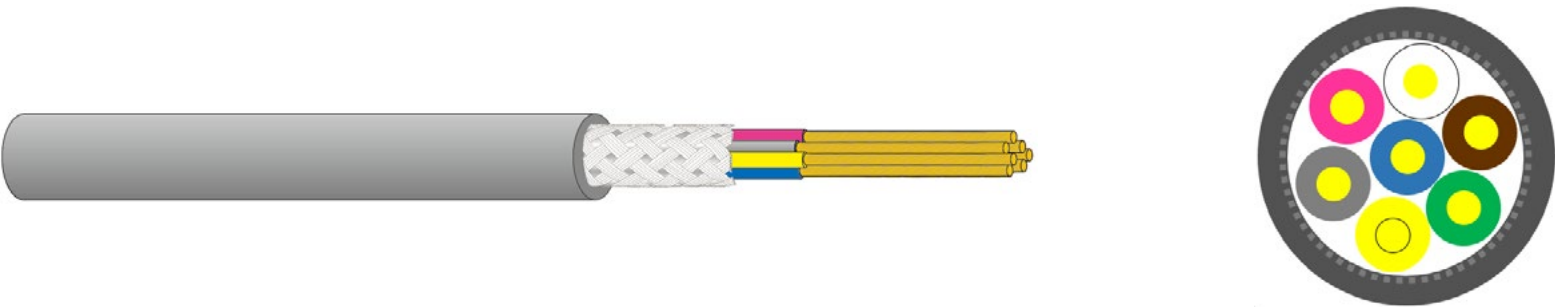
0.75mm ²					
2	24/0.20	0.5	0.8	6.4	26
3	24/0.20	0.5	0.8	6.8	26
4	24/0.20	0.5	0.8	7.3	26
5	24/0.20	0.5	0.8	7.9	26
7	24/0.20	0.5	0.8	8.5	26

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
8	24/0.20	0.5	0.9	9.4	26
10	24/0.20	0.5	0.9	11	26
12	24/0.20	0.5	0.9	11.4	26
14	24/0.20	0.5	1	12.1	26

1.0mm ²					
2	32/0.20	0.6	0.8	7.2	19.5
3	32/0.20	0.6	0.8	7.7	19.5
4	32/0.20	0.6	0.8	8.3	19.5
5	32/0.20	0.6	0.8	9.2	19.5
7	32/0.20	0.6	0.9	10.3	19.5

1.5mm ²					
2	30/0.25	0.6	0.8	7.8	13.3
3	30/0.25	0.6	0.8	8.4	13.3
4	30/0.25	0.6	0.8	9.2	13.3
5	30/0.25	0.6	0.9	10.2	13.3
7	30/0.25	0.6	1	11	13.3

LiHcH Cable LSZH



Application

For signal and control cable in electronics of computer systems, electronic control equipment, office machine or process control units, which requires protection from electromagnetic interference (EMI) and electromagnetic radiation (EMR) with low smoke zero halogen and flame retardant requirement.

Constructions

1. Conductor: Class 5 Oxygen Free Copper
2. Insulation: PE
3. Identification: Colored
4. Screen: Tinned Copper Wire Braided
5. Sheath: LSZH

» Installation Temperature: Above 0°C

» Operating Temperature: -15°C ~ 70°C

Reference Standards

- » VDE 0812
- » VDE 0207
- » IEC60332-1
- » DIN 1704
- » RoHS Directives
- » IEC60754

Section Area	Rated Voltage	Test Voltage	Min. Insulation Resistance at 20°C (MΩ/km)
0.14~0.34mm ²	250/250V	1200V	200
0.5~0.75mm ²	300V	2000V	200
1.0~1.5mm ²	300/500V	3000V	200

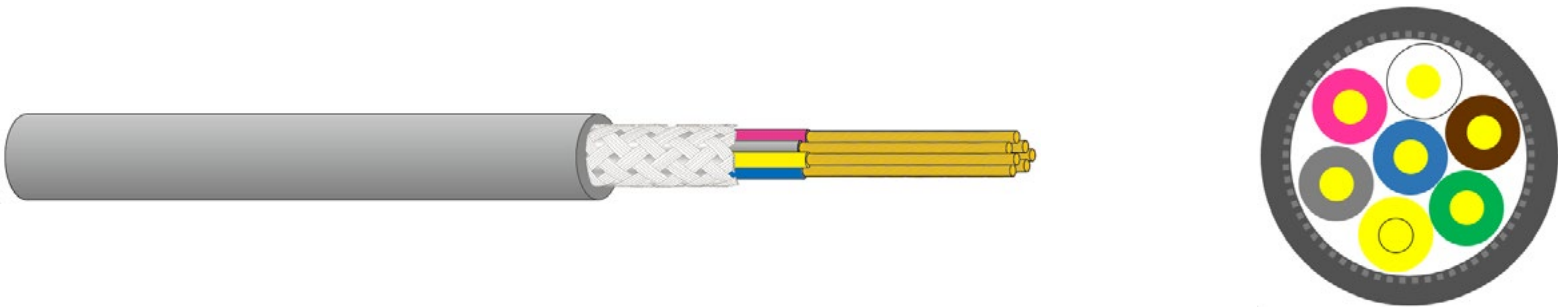
No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
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0.14mm ²					
2	12/0.12	0.3	0.6	4	148
3	12/0.12	0.3	0.6	4.2	148
4	12/0.12	0.3	0.6	4.5	148
5	12/0.12	0.3	0.6	4.8	148
7	12/0.12	0.3	0.6	5.1	148
8	12/0.12	0.3	0.6	5.4	148
10	12/0.12	0.3	0.6	6.2	148
12	12/0.12	0.3	0.7	6.6	148
14	12/0.12	0.3	0.7	6.9	148

0.25mm ²					
2	14/0.15	0.3	0.6	4.4	79.9
3	14/0.15	0.3	0.6	4.7	79.9
4	14/0.15	0.3	0.6	5	79.9
5	14/0.15	0.3	0.6	5.3	79.9
7	14/0.15	0.3	0.6	5.7	79.9
8	14/0.15	0.3	0.6	6.1	79.9
10	14/0.15	0.3	0.7	7.2	79.9
12	14/0.15	0.3	0.7	7.5	79.9
14	14/0.15	0.3	0.7	7.8	79.9

0.34mm ²					
2	20/0.15	0.3	0.6	4.6	57
3	20/0.15	0.3	0.6	4.9	57

LiHcH Cable LSZH



No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
4	20/0.15	0.3	0.6	5.2	57
5	20/0.15	0.3	0.6	5.6	57
7	20/0.15	0.3	0.6	6	57
8	20/0.15	0.3	0.6	6.4	57
10	20/0.15	0.3	0.7	7.6	57
12	20/0.15	0.3	0.7	7.9	57
14	20/0.15	0.3	0.7	8.2	57

0.5mm ²					
2	16/0.20	0.3	0.6	4.9	39
3	16/0.20	0.3	0.6	5.2	39
4	16/0.20	0.3	0.6	5.6	39
5	16/0.20	0.3	0.6	6	39
7	16/0.20	0.3	0.6	6.5	39
8	16/0.20	0.3	0.7	7.1	39
10	16/0.20	0.3	0.7	8.2	39
12	16/0.20	0.3	0.7	8.7	39
14	16/0.20	0.3	0.7	9.1	39

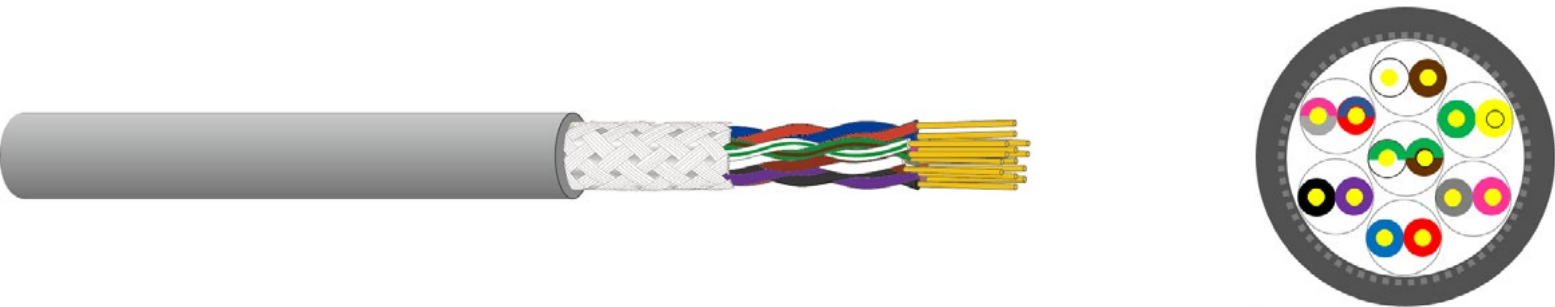
0.75mm ²					
2	24/0.20	0.4	0.6	5.8	26
3	24/0.20	0.4	0.6	6.2	26
4	24/0.20	0.4	0.6	6.7	26
5	24/0.20	0.4	0.7	7.2	26
7	24/0.20	0.4	0.7	7.8	26

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
8	24/0.20	0.4	0.7	8.8	26
10	24/0.20	0.4	0.8	10.4	26
12	24/0.20	0.4	0.8	10.8	26
14	24/0.20	0.4	0.9	11.5	26

1.0mm ²					
2	32/0.20	0.5	0.6	6.4	19.5
3	32/0.20	0.5	0.6	6.9	19.5
4	32/0.20	0.5	0.7	7.6	19.5
5	32/0.20	0.5	0.7	8.2	19.5
7	32/0.20	0.5	0.9	9.5	19.5

1.5mm ²					
2	30/0.25	0.5	0.6	7	13.3
3	30/0.25	0.5	0.7	7.7	13.3
4	30/0.25	0.5	0.7	8.3	13.3
5	30/0.25	0.5	0.8	9.4	13.3
7	30/0.25	0.5	1.0	10.6	13.3

LiYcY TP Cable PVC



Application

For signal and control cable in electronics of computer systems, electronic control equipment, office machine or process control units, which requires protection from electromagnetic interference (EMI) and electromagnetic radiation (EMR).

Constructions

1. Conductor: Class 5 Tinned Copper
2. Insulation: PVC
3. Identification: Colored
4. Cabling: Twisted Pair
5. Screen: Tinned Copper Wire Braided
6. Sheath: PVC

» Installation Temperature: Above 0°C

» Operating Temperature: -15°C ~ 70°C

Reference Standards

- » VDE 0812
- » VDE 0207
- » IEC60332-1
- » DIN 1704
- » RoHS Directives

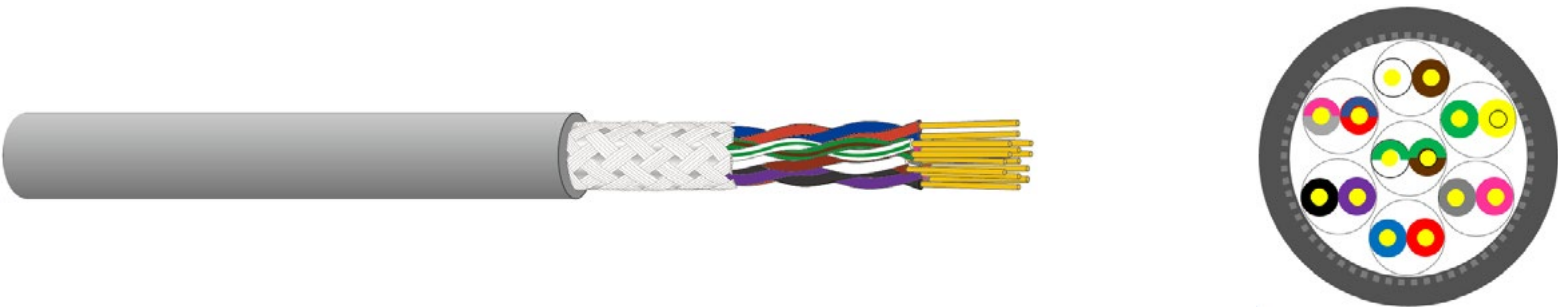
Section Area	Rated Voltage	Test Voltage	Min. Insulation Resistance at 20°C (MΩ/km)
0.14~0.34mm ²	250/250V	1200V	200
0.5~0.75mm ²	300V	2000V	200
1.0~1.5mm ²	300/500V	3000V	200

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
0.14mm ²					
1	12/0.12	0.35	0.7	4.4	148
2	12/0.12	0.35	0.7	6.1	148
3	12/0.12	0.35	0.8	6.7	148
4	12/0.12	0.35	0.8	7.2	148
6	12/0.12	0.35	0.8	8.3	148
8	12/0.12	0.35	0.8	9.4	148
10	12/0.12	0.35	0.9	10.8	148
12	12/0.12	0.35	1	11.4	148

0.25mm ²					
1	14/0.15	0.4	0.7	4.8	79.9
2	14/0.15	0.4	0.8	7	79.9
3	14/0.15	0.4	0.8	7.4	79.9
4	14/0.15	0.4	0.8	8	79.9
6	14/0.15	0.4	0.8	9.6	79.9
8	14/0.15	0.4	0.9	10.8	79.9
10	14/0.15	0.4	1	12.3	79.9
12	14/0.15	0.4	1.1	12.6	79.9

0.34mm ²					
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LIYcY TP Cable PVC



No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
1	20/0.15	0.4	0.7	5.2	57
2	20/0.15	0.4	0.8	7.7	57
3	20/0.15	0.4	0.8	8.2	57
4	20/0.15	0.4	0.8	9	57
6	20/0.15	0.4	0.9	10.8	57
8	20/0.15	0.4	1	12.2	57
10	20/0.15	0.4	1.1	13.1	57
12	20/0.15	0.4	1.2	14.7	57

0.5mm²

1	16/0.20	0.45	0.7	5.6	39
2	16/0.20	0.45	0.8	8.3	39
3	16/0.20	0.45	0.8	9.1	39
4	16/0.20	0.45	0.9	10	39
6	16/0.20	0.45	1	12	39
8	16/0.20	0.45	1.1	13.1	39
10	16/0.20	0.45	1.2	15.5	39

0.75mm²

1	24/0.20	0.5	0.8	6.4	26
2	24/0.20	0.5	0.8	9.6	26

No. of Cores	Conductor Construction (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)	Max. DCR at 20°C (Ω/km)
3	24/0.20	0.5	0.9	10.5	26
4	24/0.20	0.5	1	11.4	26
6	24/0.20	0.5	1.1	13.7	26
8	24/0.20	0.5	1.2	15	26
10	24/0.20	0.5	1.3	17.7	26

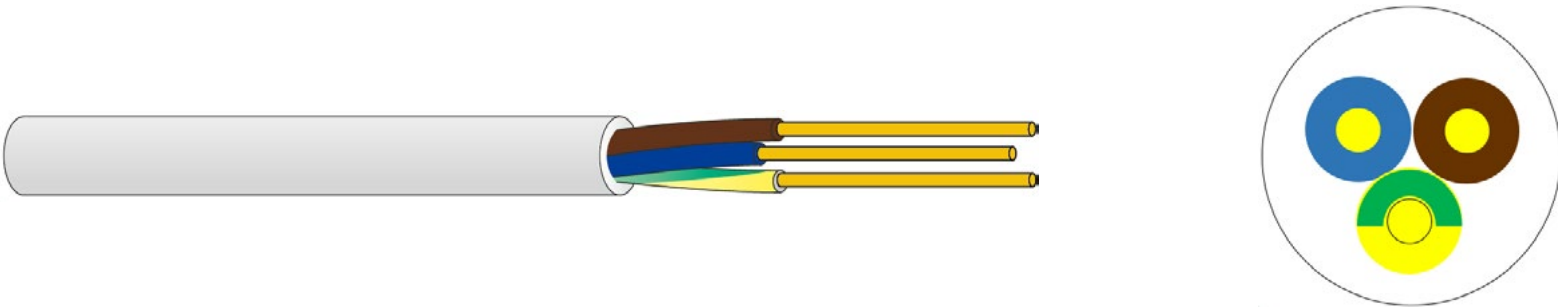
1.0mm²

1	32/0.20	0.6	0.8	7.2	19.5
2	32/0.20	0.6	0.9	11.1	19.5
3	32/0.20	0.6	1	12.2	19.5
4	32/0.20	0.6	1	13.1	19.5
6	32/0.20	0.6	1.2	15	19.5
8	32/0.20	0.6	1.3	17.4	19.5

1.5mm²

1	30/0.25	0.6	0.8	7.8	13.3
2	30/0.25	0.6	1	12.3	13.3
3	30/0.25	0.6	1.1	13.5	13.3
4	30/0.25	0.6	1.2	14.7	13.3

218Y/B to BS6500



Application

For use on small appliances with low mechanical stress and for connection for light household appliances.

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C
- » Rated Voltage: 300/300V
- » Test Voltage: 2000V

Constructions

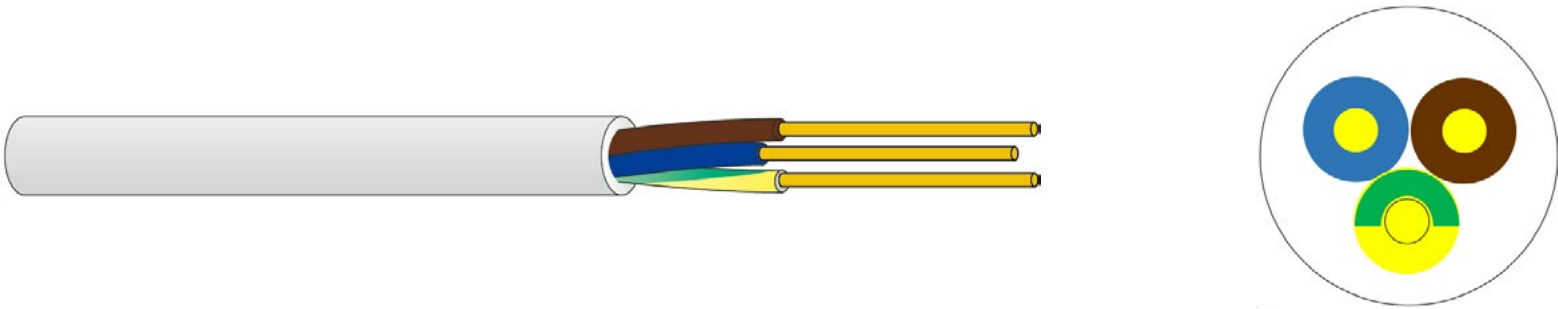
- Conductor: Class 5 Oxygen Free Copper
- Insulation: PVC, LSZH
- Identification:
 - 2 Cores: Blue & Brown
 - 3 Core: Green/Yellow, Blue & Brown
 - 4 Core: Green/Yellow, Brown, Black & Grey
 - 5 Core: Green/Yellow, Blue & Brown & Black
- Sheath: PVC, LSZH

Reference Standards

- » BS6500
- » BS EN 50525-2-11
- » BS EN 60228
- » BS EN 50363
- » RoHS Directives
- » IEC60332-1

Part No.	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Cable Diameter (mm)		Max. Resistance at 20°C(Ω/km)	Min. Insulation DCR at 70°C (MΩ/km)
	mm²	No./mm			Lower Limit	Upper Limit		
H03VVH2-F / 2192Y (H03Z1Z1H2-F / 2192B)								
H03VVH2-F 2x0.5	0.5	16/0.20	0.5	0.6	3.0x4.9	3.7x5.9	39.0	0.011
H03VVH2-F 2x0.75	0.75	24/0.20	0.5	0.6	3.2x5.2	3.8x6.3	26.0	0.010
H03VV-F / 2182Y (H03Z1Z1-F / 2182B)								
H03VV-F 2x0.5	0.50	16/0.20	0.5	0.6	4.6	5.9	39.0	0.011
H03VV-F 2x0.75	0.75	24/0.20	0.5	0.6	4.9	6.3	26.0	0.010
H03VV-F / 2183Y (H03Z1Z1-F / 2183B)								
H03VV-F 3x0.5	0.5	16/0.20	0.5	0.6	4.9	6.3	39.0	0.011
H03VV-F 3x0.75	0.8	24/0.20	0.5	0.6	5.2	6.7	26.0	0.010
H03VV-F / 2184Y (H03Z1Z1-F / 2184B)								
H03VV-F 4x0.5	0.5	16/0.20	0.5	0.6	5.4	6.9	39.00	0.011
H03VV-F 4x0.75	0.75	24/0.20	0.5	0.6	5.7	7.3	26.0	0.010

318Y/B to BS6500



Application

For use on small appliances with low mechanical stress and for connection for light household appliances.

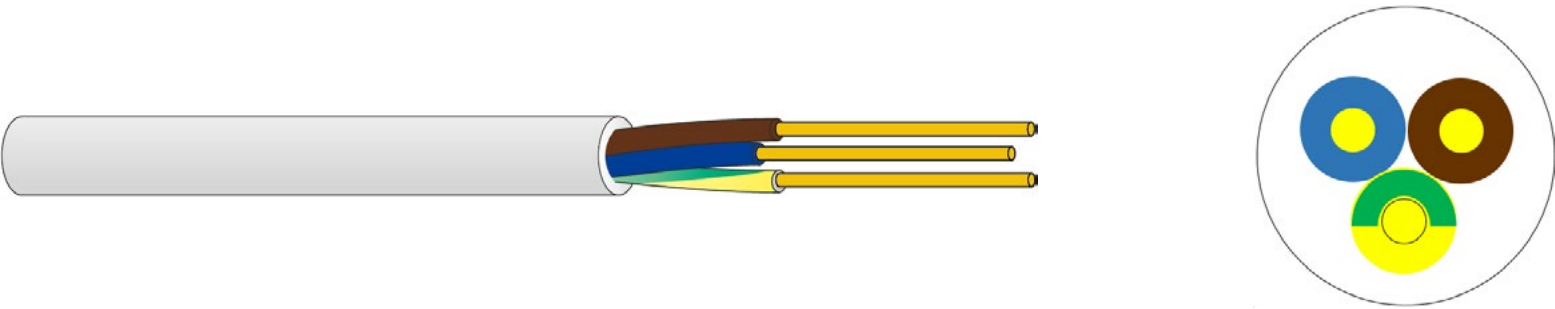
- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 70°C
- » Rated Voltage: 300/500V
- » Test Voltage: 2000V

Constructions

- Conductor: Class 5 Oxygen Free Copper
- Insulation: PVC, LSZH
- Identification:
 - 2 Cores: Blue & Brown
 - 3 Core: Green/Yellow, Blue & Brown
 - 4 Core: Green/Yellow, Brown, Black & Grey
 - 5 Core: Green/Yellow, Brown, Black Grey & Blue
- Sheath: PVC, LSZH

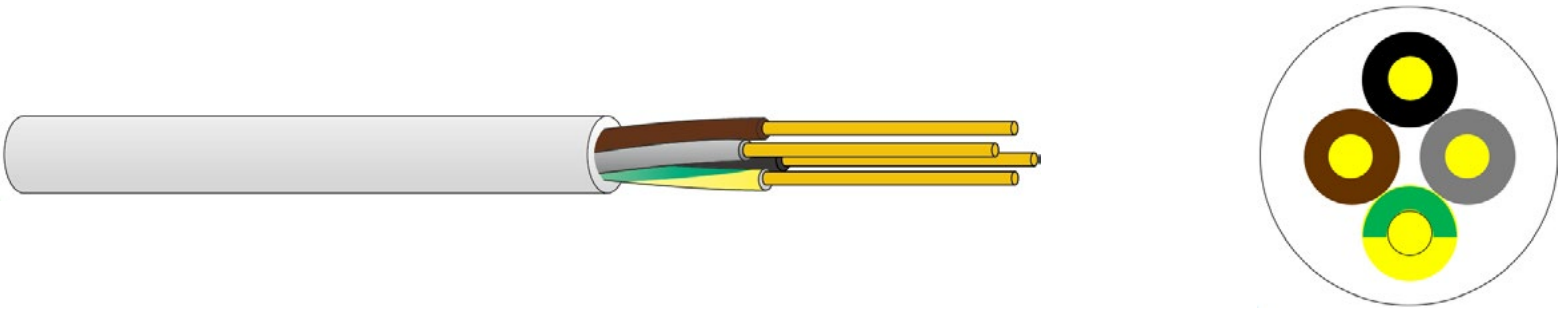
Part No.	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Cable Diameter (mm)		Max. Resistance at 20°C(Ω/km)	Min. Insulation DCR at 70°C (MΩ/km)
	mm²	No./mm			Lower Limit	Upper Limit		
H05VVH2-F / 3192Y (H05Z1Z1-H2-F / 3192B)								
H05VVH2-F 2x0.75	0.75	24/0.20	0.6	0.8	3.7x6.0	4.5x7.2	26.0	0.011
H05VVH2-F 2x1.0	1.0	32/0.20	0.6	0.8	3.9x6.2	4.7x7.5	19.5	0.010
H05VVH2-F 2x1.5	1.5	30/0.25	0.7	0.8	4.2x7.0	5.2x8.6	13.3	0.010
H05VV-F / 3182Y (H05Z1Z1-F / 3182B)								
H05VV-F 2x0.75	0.75	24/0.20	0.6	0.8	5.7	7.2	26.0	0.011
H05VV-F 2x1.0	1.0	32/0.20	0.6	0.8	5.9	7.5	19.5	0.010
H05VV-F 2x1.5	1.5	30/0.25	0.7	0.8	6.8	8.6	13.3	0.010

318Y/B to BS6500



Part No.	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Cable Diameter (mm)		Max. Resistance at 20°C(Ω/km)	Min. Insulation DCR at 70°C (MΩ/km)
	mm²	No./mm			Lower Limit	Upper Limit		
H05VV-F 2x2.5	2.5	49/0.25	0.8	1.0	8.4	10.6	7.98	0.009
H05VV-F 2x4.0	4.0	81/0.25	0.8	1.1	9.7	12.1	4.95	0.008
H05VV-F / 3183Y (H05Z1Z1-F / 3183B)								
H05VV-F 3x0.75	0.75	24/0.20	0.6	0.8	6.0	7.6	26.0	0.011
H05VV-F 3x1.0	1.0	32/0.20	0.6	0.8	6.3	8.0	19.5	0.010
H05VV-F 3x1.5	1.5	30/0.25	0.7	0.9	7.4	9.4	13.3	0.010
H05VV-F 3x2.5	2.5	49/0.25	0.8	1.0	9.2	11.4	7.98	0.009
H05VV-F 3x4.0	4.0	81/0.25	0.8	1.2	10.5	13.1	4.95	0.008
H05VV-F / 3184Y (H05Z1Z1-F / 3184B)								
H05VV-F 4x0.75	0.75	24/0.20	0.6	0.8	6.6	8.3	26.0	0.011
H05VV-F 4x1.0	1.0	32/0.20	0.6	0.9	7.1	9.0	19.5	0.010
H05VV-F 4x1.5	1.5	30/0.25	0.7	1.0	8.4	10.5	13.3	0.010
H05VV-F 4x2.5	2.5	49/0.25	0.8	1.1	10.1	12.5	7.98	0.009
H05VV-F 4x4.0	4.0	81/0.25	0.8	1.2	11.5	14.3	4.95	0.008
H05VV-F / 3185Y (H05Z1Z1-F / 3185B)								
H05VV-F 5x0.75	0.75	24/0.20	0.6	0.9	7.4	9.3	26.0	0.011
H05VV-F 5x1.0	1.0	32/0.20	0.6	0.9	7.8	9.8	19.5	0.010
H05VV-F 5x1.5	1.5	30/0.25	0.7	1.1	9.3	11.6	13.3	0.010
H05VV-F 5x2.5	2.5	49/0.25	0.8	1.2	11.2	13.9	7.98	0.009
H05VV-F 5x4.0	4.0	81/0.25	0.8	1.4	13.0	16.1	4.95	0.008

309Y to BS6500



Application

For use on small appliances with low mechanical stress and for connection for light household appliances to 90°C.

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 90°C
- » Rated Voltage: 300/500V
- » Test Voltage: 2000V

Constructions

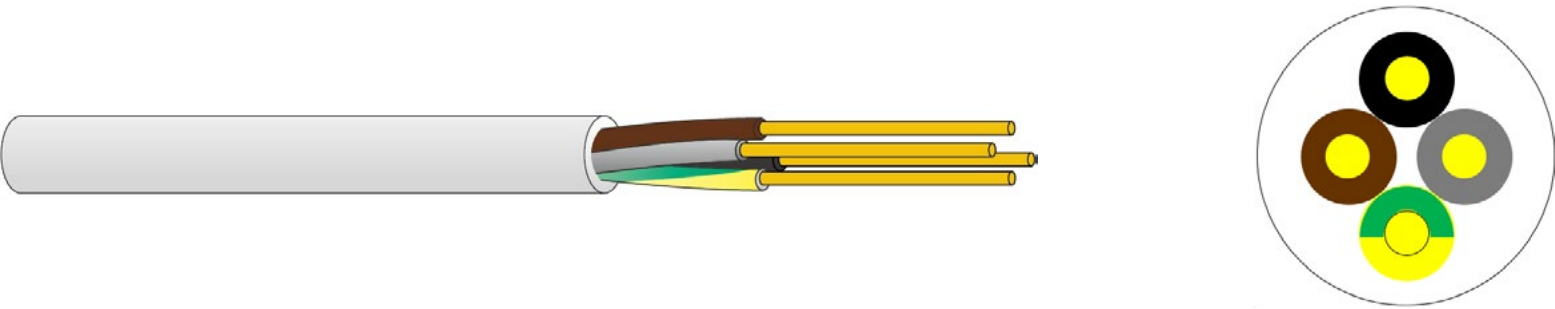
- Conductor: Class 5 Oxygen Free Copper
- Insulation: PVC
- Identification:
 - 2 Cores: Blue & Brown
 - 3 Core: Green/Yellow, Blue & Brown
 - 4 Core: Green/Yellow, Brown, Black & Grey
 - 5 Core: Green/Yellow, Brown, Black Grey & Blue
- Sheath: PVC

Reference Standards

- » BS6500
- » BS EN 50525-2-11
- » BS EN 60228
- » BS EN 50363
- » RoHS Directives
- » IEC60332-1

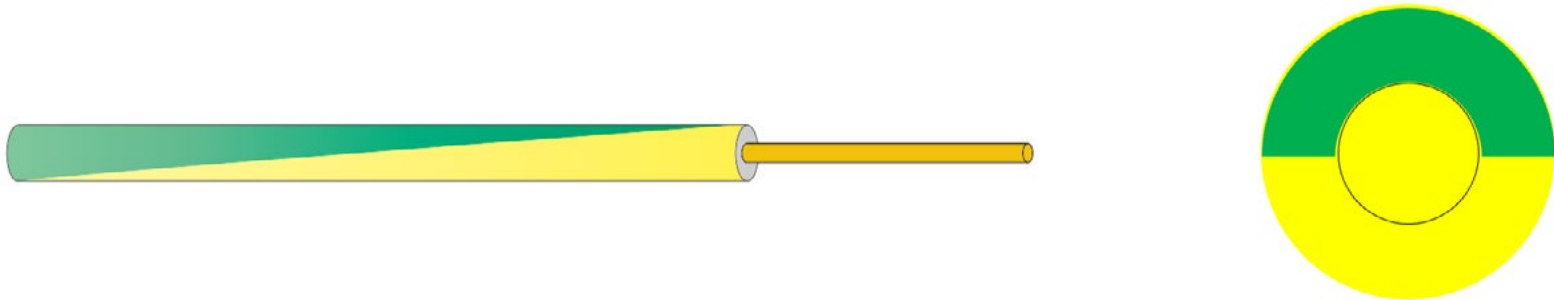
Part No.	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Cable Diameter (mm)		Max. Resistance at 20°C(Ω/km)	Min. Insulation DCR at 70°C (MΩ/km)
	mm²	No./mm			Lower Limit	Upper Limit		
H05V2V2-F / 3092Y								
H05V2V2-F 2x0.75	0.75	24/0.20	0.6	0.8	5.7	7.2	26.0	0.011
H05V2V2-F 2x1.0	1.0	32/0.20	0.6	0.8	5.9	7.5	19.5	0.010
H05V2V2-F 2x1.5	1.5	30/0.25	0.7	0.8	6.8	8.6	13.3	0.010
H05V2V2-F 2x2.5	2.5	49/0.25	0.8	1.0	8.4	10.6	7.98	0.009
H05V2V2-F 2x4.0	4.0	81/0.25	0.8	1.1	9.7	12.1	4.95	0.008
H05V2V2-F 2x6.0	6.0	84/0.30	0.8	1.1	10.6	12.6	3.30	0.007
H05V2V2-F / 3093Y								

309Y to BS6500



Part No.	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Cable Diameter (mm)		Max. Resistance at 20°C(Ω/km)	Min. Insulation DCR at 70°C (MΩ/km)
	mm²	No./mm			Lower Limit	Upper Limit		
H05V2V2-F 3x0.75	0.75	24/0.20	0.6	0.8	6.0	7.6	26.0	0.011
H05V2V2-F 3x1.0	1.0	32/0.20	0.6	0.8	6.3	8.0	19.5	0.010
H05V2V2-F 3x1.5	1.5	30/0.25	0.7	0.9	7.4	9.4	13.3	0.010
H05V2V2-F 3x2.5	2.5	49/0.25	0.8	1.0	9.2	11.4	7.98	0.009
H05V2V2-F 3x4.0	4.0	81/0.25	0.8	1.2	10.5	13.1	4.95	0.008
H05V2V2-F 3x6.0	6.0	84/0.30	0.8	1.2	12.0	14.0	3.30	0.007
H05V2V2-F / 3094Y								
H05V2V2-F 4x0.75	0.75	24/0.20	0.6	0.8	6.6	8.3	26.0	0.011
H05V2V2-F 4x1.0	1.0	32/0.20	0.6	0.9	7.1	9.0	19.5	0.010
H05V2V2-F 4x1.5	1.5	30/0.25	0.7	1.0	8.4	10.5	13.3	0.010
H05V2V2-F 4x2.5	2.5	49/0.25	0.8	1.1	10.1	12.5	7.98	0.009
H05V2V2-F 4x4.0	4.0	81/0.25	0.8	1.2	11.5	14.3	4.95	0.008
H05V2V2-F 4x6.0	6.0	84/0.30	0.8	1.2	13.0	15.0	3.30	0.007
H05V2V2-F / 3095Y								
H05V2V2-F 5x0.75	0.75	24/0.20	0.6	0.9	7.4	9.3	26.0	0.011
H05V2V2-F 5x1.0	1.0	32/0.20	0.6	0.9	7.8	9.8	19.5	0.010
H05V2V2-F 5x1.5	1.5	30/0.25	0.7	1.1	9.3	11.6	13.3	0.010
H05V2V2-F 5x2.5	2.5	49/0.25	0.8	1.2	11.2	13.9	7.98	0.009
H05V2V2-F 5x4.0	4.0	81/0.25	0.8	1.4	13.0	16.1	4.95	0.008
H05V2V2-F 5x6.0	6.0	84/0.30	0.8	1.4	14.5	17.0	3.30	0.007

Single Core Non-sheathed Cable to EN50525-2-31



Application

For fixed wiring in domestic, Industrial power and lighting applications.

- » Installation Temperature: Above 0°C
- » Operating Temperature: 70°C, 90°C
- » Rated Voltage: 300/500V, 450/750V
- » Test Voltage: 2000V, 2500V

Constructions

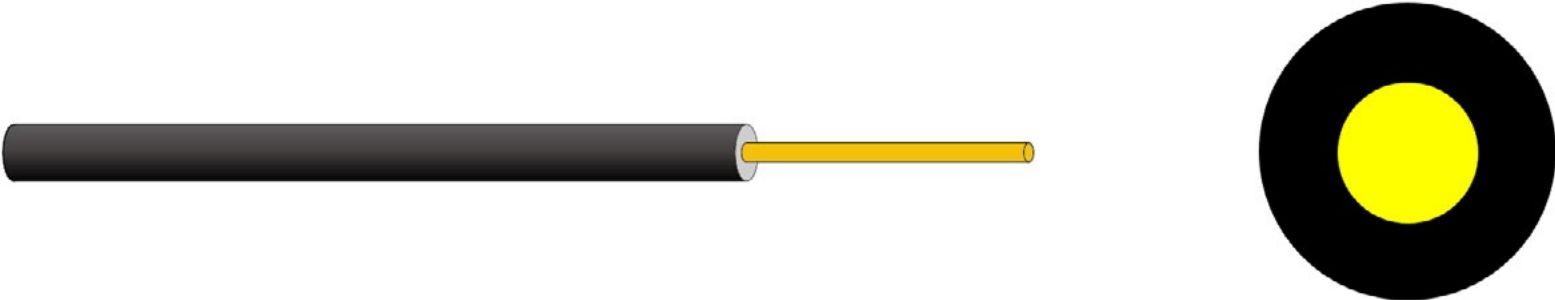
- Conductor: Class 1/2/5 Oxygen Free Copper
- Insulation: PVC
- Identification: Green/Yellow, Black, Blue, Brown, Red, White, Yellow, Grey, Violet, Grey, Orange, Pink

Reference Standards

- » BS EN 50525-2-31
- » BS EN 60228
- » BS EN 50363
- » RoHS Directives
- » IEC60332-1

Part No.	Conductor		Insulation Thickness (mm)	Diameter (mm)		Max. Resistance at 20°C(Ω/km)	Min. Insulation DCR at 70°C(MΩ/km)
	mm²	No./mm		Lower Limit	Upper Limit		
H05V-U / 2491X (H05Z-U for LSZH) 300/500V							
H05V-U 0.5	0.5	1/0.80	0.6	1.9	2.3	36.0	0.014
H05V-U 0.75	0.75	1/0.97	0.6	2.1	2.5	24.5	0.013
H05V-U 1.0	1.0	1/1.13	0.6	2.2	2.7	18.1	0.011
H05V2-U 300/500V 90°C							
H05V2-U 0.5	0.5	1/0.80	0.6	1.9	2.3	36.0	0.014
H05V2-U 0.75	0.75	1/0.97	0.6	2.1	2.5	24.5	0.013
H05V2-U 1.0	1.0	1/1.13	0.6	2.2	2.7	18.1	0.011
H05V-R (H05Z-R for LSZH) 300/500V							
H05V-R 0.5	0.5	7/0.30	0.6	2.0	2.4	36.0	0.014
H05V-R 0.75	0.75	7/0.37	0.6	2.2	2.6	24.5	0.012
H05V-R 1.0	1.0	7/0.43	0.6	2.3	2.8	18.1	0.011
H05V2-R 300/500V 90°C							
H05V2-R 0.5	0.5	7/0.30	0.6	2.0	2.4	36.0	0.014

Single Core Non-sheathed Cable to EN50525-2-31



Part No.	Conductor		Insulation Thickness (mm)	Diameter (mm)		Max. Resistance at 20°C(Ω/km)	Min. Insulation DCR at 70°C(MΩ/km)
	mm²	No./mm		Lower Limit	Upper Limit		
H05V2-R 0.75	0.75	7/0.37	0.6	2.2	2.6	24.5	0.012
H05V2-R 1.0	1.0	7/0.43	0.6	2.3	2.8	18.1	0.011
H05V-K / 2491X (H05Z-K for LSZH) 300/500V							
H05V-K 0.5	0.5	16/0.20	0.6	2.1	2.5	36.0	0.013
H05V-K 0.75	0.75	24/0.20	0.6	2.2	2.7	24.5	0.011
H05V-K 1.0	1.0	32/0.20	0.6	2.4	2.8	18.1	0.010
H05V2-K 300/500V 90°C							
H05V2-K 0.5	0.5	16/0.20	0.6	2.1	2.5	36.0	0.013
H05V2-K 0.75	0.75	24/0.20	0.6	2.2	2.7	24.5	0.011
H05V2-K 1.0	1.0	32/0.20	0.6	2.4	2.8	18.1	0.010
H07V-U / 6491X (H07Z-U for LSZH) 450/750V							
H07V-U 1.5	1.5	1/1.38	0.7	2.6	3.2	12.1	0.011
H07V-U 2.5	2.5	1/1.78	0.8	3.2	3.9	7.41	0.01
H07V-U 4.0	4.0	1/2.25	0.8	3.6	4.4	4.61	0.0085
H07V-U 6.0	6.0	1/2.76	0.8	4.1	5.0	3.08	0.007
H07V-U 10.0	10.0	1/3.57	1.0	5.3	6.4	1.83	0.007
H07V2-U 450/750V 90°C							
H07V2-U 1.5	1.5	1/1.38	0.7	2.6	3.2	12.1	0.011
H07V2-U 2.5	2.5	1/1.78	0.8	3.2	3.9	7.41	0.01
H07V2-U 4.0	4.0	1/2.25	0.8	3.6	4.4	4.61	0.0085
H07V2-U 6.0	6.0	1/2.76	0.8	4.1	5.0	3.08	0.007
H07V2-U 10.0	10.0	1/3.57	1.0	5.3	6.4	1.83	0.007
H07V-R / 6491X (H07Z-R for LSZH) 450/750V							
H07V-R 1.5	1.5	7/0.52	0.7	2.7	3.3	12.1	0.010
H07V-R 2.5	2.5	7/0.67	0.8	3.3	4.0	7.41	0.009

Single Core Non-sheathed Cable to EN50525-2-31



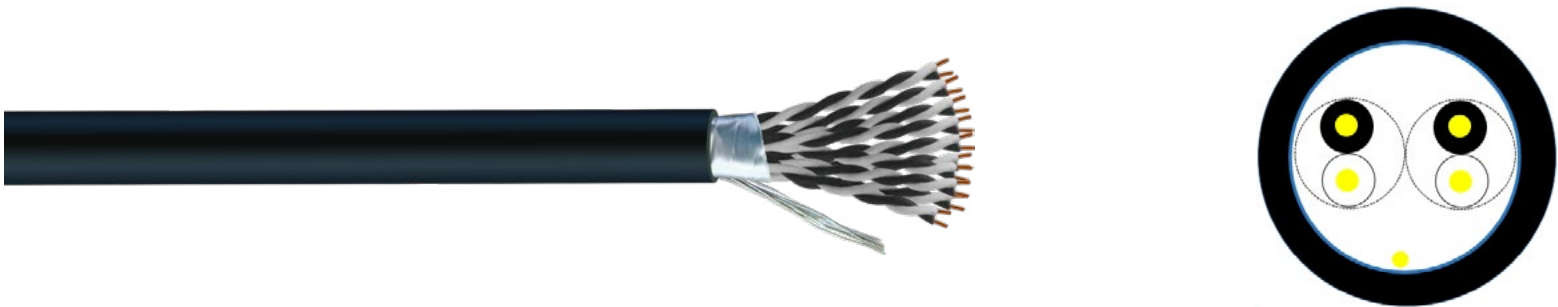
Part No.	Conductor		Insulation Thickness (mm)	Diameter (mm)		Max. Resistance at 20°C(Ω/km)	Min. Insulation DCR at 70°C(MΩ/km)
	mm²	No./mm		Lower Limit	Upper Limit		
H07V-R 4.0	4.0	7/0.85	0.8	3.8	4.6	4.61	0.0077
H07V-R 6.0	6.0	7/1.04	0.8	4.3	5.2	3.08	0.0065
H07V-R 10.0	10.0	7/1.35	1.0	5.6	6.7	1.83	0.0065
H07V-R 16.0	16.0	7/1.70	1.0	6.4	7.8	1.15	0.005
H07V2-R 450/750V 90°C							
H07V2-R 1.5	1.5	7/0.52	0.7	2.7	3.3	12.1	0.010
H07V2-R 2.5	2.5	7/0.67	0.8	3.3	4.0	7.41	0.009
H07V2-R 4.0	4.0	7/0.85	0.8	3.8	4.6	4.61	0.0077
H07V2-R 6.0	6.0	7/1.04	0.8	4.3	5.2	3.08	0.0065
H07V2-R 10.0	10.0	7/1.35	1.0	5.6	6.7	1.83	0.0065
H07V2-R 16.0	16.0	7/1.70	1.0	6.4	7.8	1.15	0.005
H07V-K / 6491X (H07Z-K for LSZH) 450/750V							
H07V-K 1.5	1.5	30/0.25	0.7	2.8	3.4	12.1	0.010
H07V-K 2.5	2.5	50/0.25	0.8	3.4	4.1	7.41	0.0095
H07V-K 4.0	4.0	56/0.30	0.8	3.9	4.8	4.61	0.0078
H07V-K 6.0	6.0	84/0.30	0.8	4.4	5.3	3.08	0.0068
H07V-K 10.0	10.0	80/0.40	1.0	5.7	6.8	1.83	0.0065
H07V-K 16.0	16.0	126/0.40	1.0	6.7	8.1	1.15	0.0053
H07V2-K 450/750V 90°C							
H07V2-K 1.5	1.5	30/0.25	0.7	2.8	3.4	12.1	0.010
H07V2-K 2.5	2.5	50/0.25	0.8	3.4	4.1	7.41	0.0095
H07V2-K 4.0	4.0	56/0.30	0.8	3.9	4.8	4.61	0.0078
H07V2-K 6.0	6.0	84/0.30	0.8	4.4	5.3	3.08	0.0068
H07V2-K 10.0	10.0	80/0.40	1.0	5.7	6.8	1.83	0.0065
H07V2-K 16.0	16.0	126/0.40	1.0	6.7	8.1	1.15	0.0053

INSTRUMENTATION CABLE

» Instrumentation Cable is designed for process control, transmission of signal, computer, control system, monitor network and intrinsically safe system in hazardous areas like petrochemical plants, thermal power plants, oil exploration, cement, paper, steel and power generation.

PAS/BS5308 Part 1 Type 1 & 2
PAS/BS5308 Part 2 Type 1 & 2
BS EN50288-7

PAS/BS5308 Part 1 Type 1 & 2



Application

Process control, equipment interconnection, typically in chemical and petrochemical locations. The unarmoured cables are generally use for indoor installation and suitable for wet and damp areas.

Constructions

- 1. Conductor: Class 1 / 2 / 5 Oxygen Free Copper
- 2. Insulation: Polyethylene (PE)
- 3. Cabling: Twisted Pairs
- 4. Screened: Al-PET tape with Tinned Copper Drain Wire for Individually Screened (Where Applicable) Collectively Screened
- 5. Bedding for armoured cable: Polyethylene (PE) PVC

- 6. Armour (Where Applicable): Galvanized Steel Wire
- 7. Oversheath: PVC
- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C
- » Rated Voltage: 300/500V
- » Test Voltage (DC): 2000V Between Conductors; 2000V Between Each Conductor and Armour

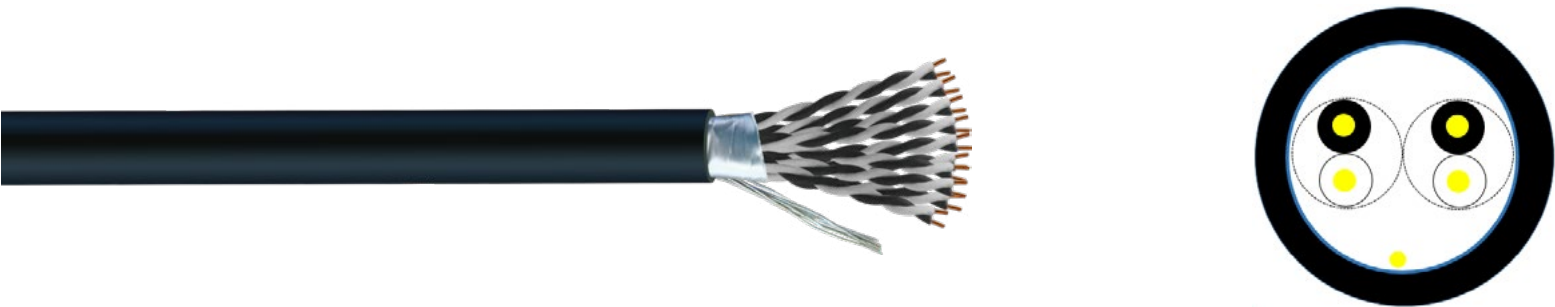
Reference Standards

- » PAS/BS 5308
- » BS EN 60228
- » BS EN 50290-2-22
- » BS EN 50290-2-23
- » RoHS Directives

General Characteristics

Conductor Size (mm ²)	Conductor Class	Max. DCR (Ω/km)	Max. Mutual Capacitance Values pF/m		Max. Capacitance Unbalance at 1KHz (pF/250m)	Max.L/R Ratio (μH/Ω)
			Cables with Collective Screens (except 1pair & 2pairs)	1Pair & 2Pairs Cables Collectively Screened & All Cables with Individual Pair Screens		
0.5	1	36.8	75	115	250	25
1.0	1	18.4	75	115	250	25
0.5	5	39.7	75	115	250	25
1.5	2	12.3	85	120	250	40

PAS/BS5308 Part 1 Type 1 & 2



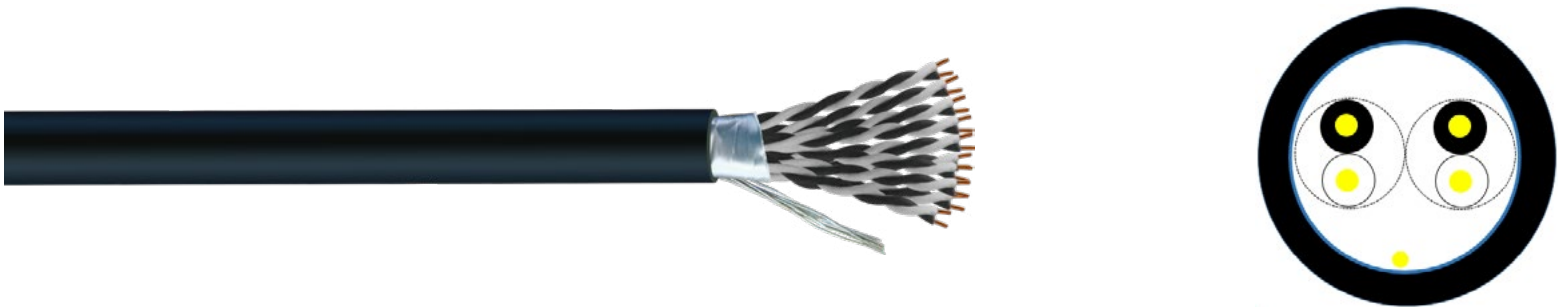
Identification of Cable Pairs

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

PAS/BS5308 Part 1 Type 1: Collectively Screened Unarmoured

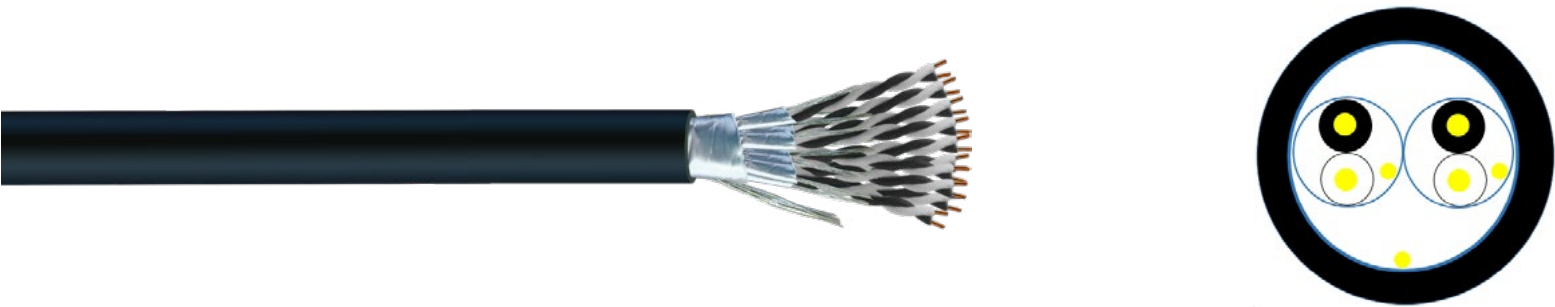
No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm ²)	Class			
1	0.5	1	0.5	0.8	5.3
2	0.5	1	0.5	0.8	6.1
5	0.5	1	0.5	1.1	10.6
10	0.5	1	0.5	1.2	14.0
15	0.5	1	0.5	1.2	16.1

PAS/BS5308 Part 1 Type 1 & 2



No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
20	0.5	1	0.5	1.3	18.4
1	1	1	0.6	0.8	6.4
2	1	1	0.6	0.8	7.4
5	1	1	0.6	1.1	13.2
10	1	1	0.6	1.2	17.4
15	1	1	0.6	1.3	20.3
20	1	1	0.6	1.5	23.4
1	0.5	5	0.6	0.8	6.0
2	0.5	5	0.6	0.8	6.9
5	0.5	5	0.6	1.1	12.1
10	0.5	5	0.6	1.2	16.2
15	0.5	5	0.6	1.3	18.8
20	0.5	5	0.6	1.3	21.3
1	1.5	2	0.6	0.8	7.3
2	1.5	2	0.6	0.9	8.7
5	1.5	2	0.6	1.2	15.4
10	1.5	2	0.6	1.3	20.6
15	1.5	2	0.6	1.5	24.2
20	1.5	2	0.6	1.5	27.5

PAS/BS5308 Part 1 Type 1 & 2



PAS/BS5308 Part 1 Type 1: Individually & Collectively Screened Unarmoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
2	0.5	1	0.5	0.9	8.5
5	0.5	1	0.5	0.9	10.9
10	0.5	1	0.5	1.1	15.6
15	0.5	1	0.5	1.2	18.1
20	0.5	1	0.5	1.3	20.4
2	1	1	0.6	0.9	10.3
5	1	1	0.6	1.0	13.5
10	1	1	0.6	1.2	19.4
15	1	1	0.6	1.4	22.7
20	1	1	0.6	1.5	25.7
2	0.5	5	0.6	0.9	9.7
5	0.5	5	0.6	1.0	12.6
10	0.5	5	0.6	1.2	18.0
15	0.5	5	0.6	1.3	20.9
20	0.5	5	0.6	1.4	23.6
2	1.5	2	0.6	1.0	12.1
5	1.5	2	0.6	1.1	15.8
10	1.5	2	0.6	1.4	22.9
15	1.5	2	0.6	1.5	26.6
20	1.5	2	0.6	1.6	30.1

PAS/BS5308 Part 1 Type 1 & 2



PAS/BS5308 Part 1 Type 2: Collectively Screened Armoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
1	0.5	1	0.5	1.3	9.7
2	0.5	1	0.5	1.3	10.5
5	0.5	1	0.5	1.4	15.2
10	0.5	1	0.5	1.6	19.7
15	0.5	1	0.5	1.6	21.8
20	0.5	1	0.5	1.7	25.0
1	1	1	0.6	1.3	10.8
2	1	1	0.6	1.4	12.0
5	1	1	0.6	1.5	18.7
10	1	1	0.6	1.7	23.3
15	1	1	0.6	1.8	27.1
20	1	1	0.6	1.8	30.2
1	0.5	5	0.6	1.3	10.4
2	0.5	5	0.6	1.3	11.3
5	0.5	5	0.6	1.5	16.9
10	0.5	5	0.6	1.6	21.9
15	0.5	5	0.6	1.7	25.4
20	0.5	5	0.6	1.8	28.1
1	1.5	2	0.6	1.4	11.9
2	1.5	2	0.6	1.4	13.3
5	1.5	2	0.6	1.6	21.1
10	1.5	2	0.6	1.8	27.4
15	1.5	2	0.6	1.9	31.2
20	1.5	2	0.6	2	34.7

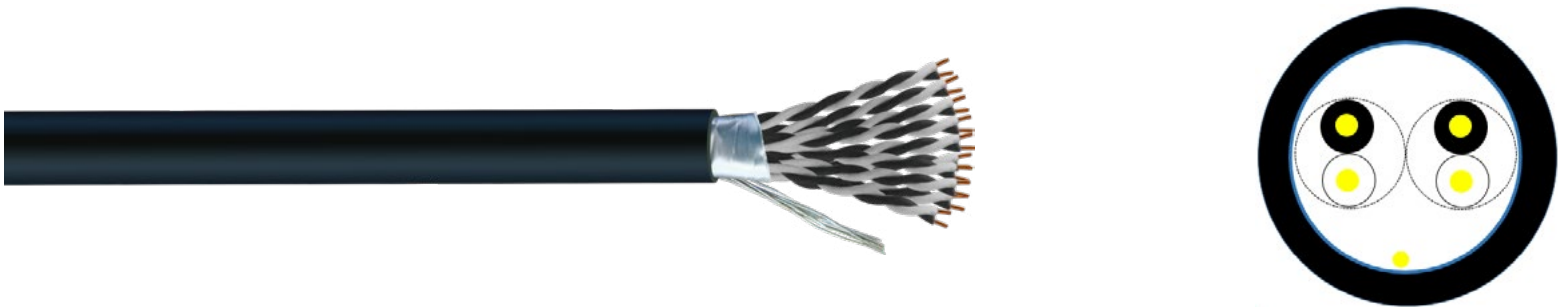
PAS/BS5308 Part 1 Type 1 & 2



PAS/BS5308 Part 1 Type 2: Individually & Collectively Screened Armoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
2	0.5	1	0.5	1.4	13.1
5	0.5	1	0.5	1.5	15.7
10	0.5	1	0.5	1.6	21.3
15	0.5	1	0.5	1.7	24.7
20	0.5	1	0.5	1.8	27.2
2	1	1	0.6	1.4	14.9
5	1	1	0.6	1.5	19.0
10	1	1	0.6	1.7	26.0
15	1	1	0.6	1.8	29.5
20	1	1	0.6	1.9	32.7
2	0.5	5	0.6	1.4	14.3
5	0.5	5	0.6	1.5	18.1
10	0.5	5	0.6	1.7	24.6
15	0.5	5	0.6	1.8	27.7
20	0.5	5	0.6	1.9	30.6
2	1.5	2	0.6	1.5	17.6
5	1.5	2	0.6	1.6	21.5
10	1.5	2	0.6	1.8	29.7
15	1.5	2	0.6	1.9	33.6
20	1.5	2	0.6	2.1	38.3

PAS/BS5308 Part 2 Type 1 & 2



Application

Process control, equipment interconnection, typically in chemical and petrochemical locations. The unarmoured cables are generally use for indoor installation and suitable for wet and damp areas.

- » Installation Temperature: Above 0°C
- » Operating Temperature: -15°C ~ 65°C
- » Rated Voltage: 300/500V
- » Test Voltage (DC): 2000V Between Conductors;
2000V Between Each Conductor and Armour

Constructions

1. Conductor: Class 2 / 5 Oxygen Free Copper
2. Insulation: PVC
3. Cabling: Cores, Pairs
4. Screened: Al-PET tape with Tinned Copper Drain Wire for
Individually Screened (Where Applicable)
Collectively Screened
5. Bedding for armoured cable:
PVC
6. Armour (Where Applicable): Galvanized Steel Wire
7. Oversheath: PVC

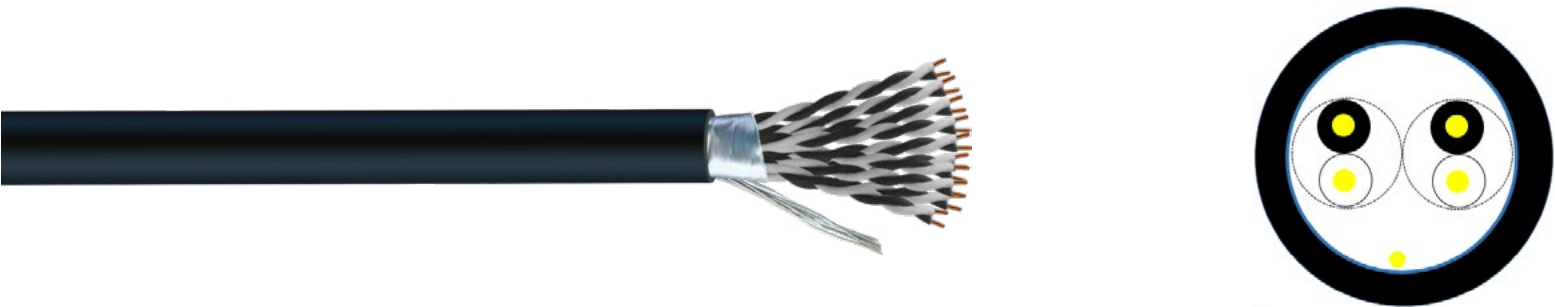
Reference Standards

- » PAS/BS 5308
- » BS EN 60228
- » BS EN 50290-2-21
- » BS EN 50290-2-22
- » RoHS Directives

General Characteristics

Conductor Size (mm²)	Conductor Class	Max. DCR (Ω/km)	Capacitance		Max.L/R Ratio (μH/Ω)
			Max. Mutual Capacitance pF/m	Core to Screen	
0.5	5	39.7	250	450	25
0.75	5	26.5	250	450	25
1.5	2	12.3	250	450	40

PAS/BS5308 Part 2 Type 1 & 2



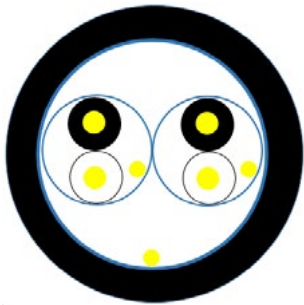
Identification of Cable Pairs

Pair No.	Colour		Pair No.	Colour	
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

PAS/BS5308 Part 2 Type 1: Collectively Screened Unarmoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
1	0.5	5	0.6	0.8	6.0
2	0.5	5	0.6	0.8	6.9
5	0.5	5	0.6	1.0	11.9
10	0.5	5	0.6	1.1	16.4
15	0.5	5	0.6	1.2	19.0

PAS/BS5308 Part 2 Type 1 & 2

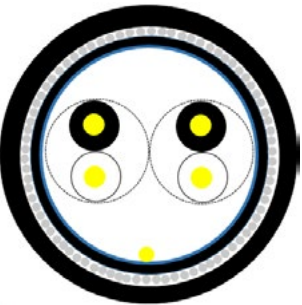


No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
20	0.5	5	0.6	1.3	21.5
1	0.75	5	0.6	0.8	6.4
2	0.75	5	0.6	0.8	7.4
5	0.75	5	0.6	1.0	12.8
10	0.75	5	0.6	1.2	17.9
15	0.75	5	0.6	1.3	20.9
20	0.75	5	0.6	1.4	23.6
1	1.5	2	0.6	0.8	7.3
2	1.5	2	0.6	0.9	8.7
5	1.5	2	0.6	1.1	15.1
10	1.5	2	0.6	1.3	21.1
15	1.5	2	0.6	1.4	24.6
20	1.5	2	0.6	1.5	27.7

PAS/BS5308 Part 2 Type 1: Individually & Collectively Screened Unarmoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
2	0.5	5	0.6	0.9	9.7
5	0.5	5	0.6	1	12.6

PAS/BS5308 Part 2 Type 1 & 2



No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
10	0.5	5	0.6	1.2	18.0
15	0.5	5	0.6	1.3	20.9
20	0.5	5	0.6	1.4	23.6
2	0.75	5	0.6	0.9	10.4
5	0.75	5	0.6	1	13.5
10	0.75	5	0.6	1.2	19.4
15	0.75	5	0.6	1.4	22.8
20	0.75	5	0.6	1.5	25.8
2	1.5	2	0.6	1	12.1
5	1.5	2	0.6	1.1	15.8
10	1.5	2	0.6	1.4	22.9
15	1.5	2	0.6	1.5	26.6
20	1.5	2	0.6	1.6	30.1

PAS/BS5308 Part 2 Type 2: Collectively Screened Armoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
1	0.5	5	0.6	1.3	10.4
2	0.5	5	0.6	1.3	11.3

PAS/BS5308 Part 2 Type 1 & 2



No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
5	0.5	5	0.6	1.5	16.7
10	0.5	5	0.6	1.6	22.1
15	0.5	5	0.6	1.7	25.6
20	0.5	5	0.6	1.8	28.3
1	0.75	5	0.6	1.3	10.8
2	0.75	5	0.6	1.4	12.0
5	0.75	5	0.6	1.5	18.3
10	0.75	5	0.6	1.7	24.5
15	0.75	5	0.6	1.8	27.7
20	0.75	5	0.6	1.9	30.6
1	1.5	2	0.6	1.4	11.9
2	1.5	2	0.6	1.4	13.3
5	1.5	2	0.6	1.6	20.8
10	1.5	2	0.6	1.8	27.9
15	1.5	2	0.6	1.9	31.6
20	1.5	2	0.6	2	34.9

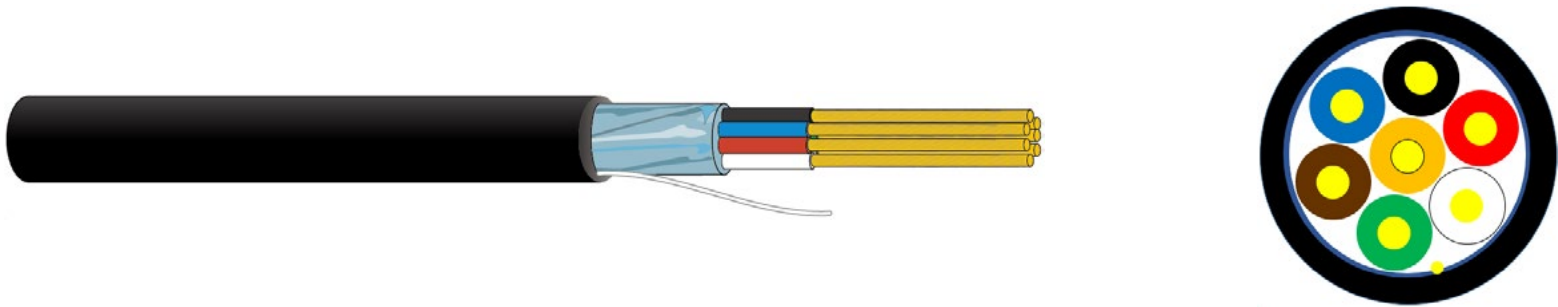
PAS/BS5308 Part 2 Type 1 & 2



PAS/BS5308 Part 2 Type 2: Individually & Collectively Screened Armoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
2	0.5	5	0.6	1.4	14.3
5	0.5	5	0.6	1.5	18.1
10	0.5	5	0.6	1.7	24.6
15	0.5	5	0.6	1.8	27.7
20	0.5	5	0.6	1.9	30.6
2	0.75	5	0.6	1.4	15.0
5	0.75	5	0.6	1.5	19.0
10	0.75	5	0.6	1.7	26.0
15	0.75	5	0.6	1.8	29.6
20	0.75	5	0.6	1.9	32.8
2	1.5	2	0.6	1.5	17.6
5	1.5	2	0.6	1.6	21.5
10	1.5	2	0.6	1.8	29.7
15	1.5	2	0.6	1.9	33.6
20	1.5	2	0.6	2.1	38.3

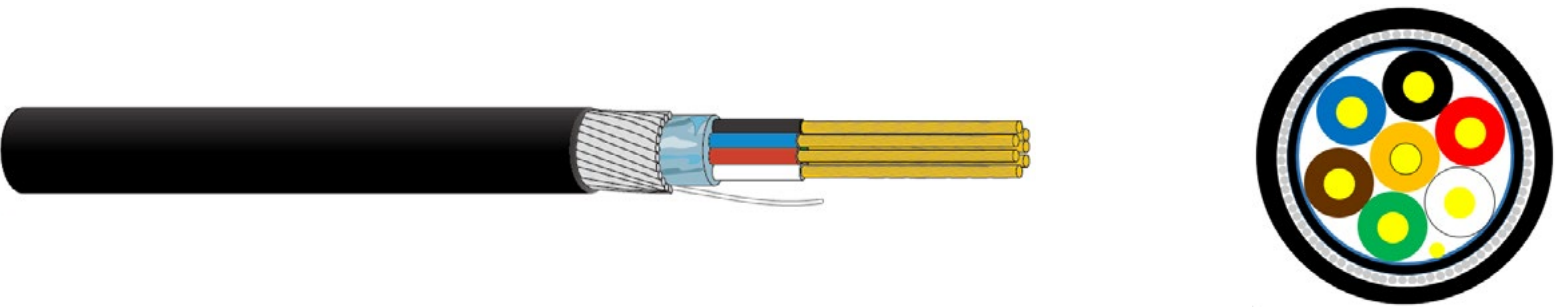
PAS/BS5308 Part 2 Type 1 & 2



PAS/BS5308 Part 2 Type 1: Multicore Collectively Screened Unarmoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
2	0.5	5	0.6	0.8	6.0
3	0.5	5	0.6	0.8	6.3
4	0.5	5	0.6	0.8	6.9
6	0.5	5	0.6	0.8	8.1
10	0.5	5	0.6	0.9	10.4
20	0.5	5	0.6	1.0	13.5
2	0.75	5	0.6	0.8	6.4
3	0.75	5	0.6	0.8	6.8
4	0.75	5	0.6	0.8	7.4
6	0.75	5	0.6	0.9	8.9
10	0.75	5	0.6	1.0	11.5
20	0.75	5	0.6	1.1	14.8
2	1.5	2	0.6	0.8	7.3
3	1.5	2	0.6	0.8	7.7
4	1.5	2	0.6	0.9	8.7
6	1.5	2	0.6	0.9	10.3
10	1.5	2	0.6	1.0	13.3
20	1.5	2	0.6	1.2	17.4

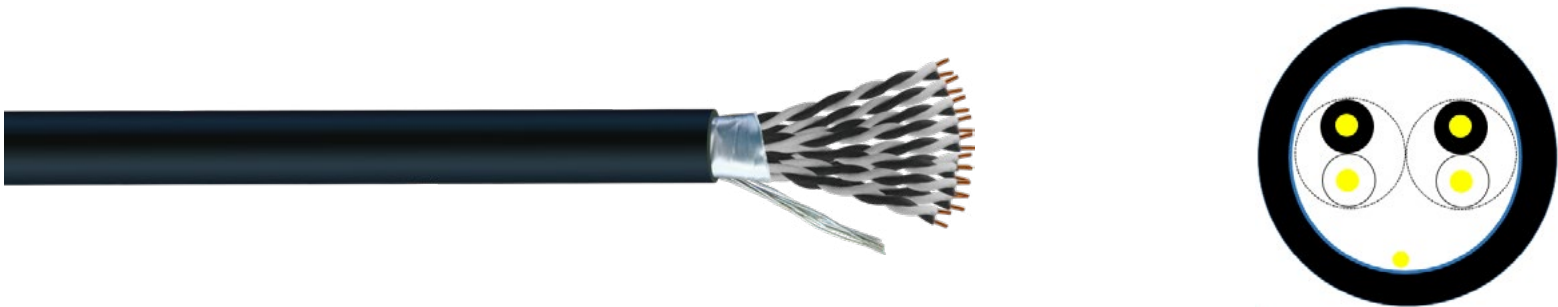
PAS/BS5308 Part 2 Type 1 & 2



PAS/BS5308 Part 2 Type 2: Multicore Collectively Screened Armoured

No. of Pairs	Conductor		Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class			
2	0.5	5	0.6	1.3	10.4
3	0.5	5	0.6	1.3	10.7
4	0.5	5	0.6	1.3	11.3
6	0.5	5	0.6	1.4	12.7
10	0.5	5	0.6	1.5	15.9
20	0.5	5	0.6	1.5	19.0
2	0.75	5	0.6	1.3	10.8
3	0.75	5	0.6	1.3	11.2
4	0.75	5	0.6	1.4	12.0
6	0.75	5	0.6	1.4	13.5
10	0.75	5	0.6	1.5	17.0
20	0.75	5	0.6	1.6	20.5
2	1.5	2	0.6	1.4	11.9
3	1.5	2	0.6	1.4	12.3
4	1.5	2	0.6	1.4	13.3
6	1.5	2	0.6	1.5	15.8
10	1.5	2	0.6	1.5	18.8
20	1.5	2	0.6	1.7	24.0

BS EN50288-7



Application

Connecting instruments and control systems for analogue or digital signal transmission.

Constructions

- 1. Conductor: Class 1 / 2 / 5 Oxygen Free Copper
- 2. Insulation: Polyethylene (PE)
- 3. Cabling: Cores, Pairs, Triples, Quads
- 4. Screened: Individually Screened (Optional)
 - Al-PET tape with Tinned Copper Drain Wire
 - Tinned Copper Wire Braided Screen
 - Al-PET Tape & Tinned Copper Braided
- 5. Bedding for armoured cable:
 - Polyethylene (PE)
 - PVC

- 6. Armour (Where Applicable): Galvanized Steel Wire
- 7. Oversheath: PVC
 - » Installation Temperature: Above 0°C
 - » Operating Temperature: -15°C ~ 65°C
 - » Rated Voltage: 90V, 300V, 500V
 - » Test Voltage (DC): 2000V Between Conductors;
2000V Between Each Conductor and Armour

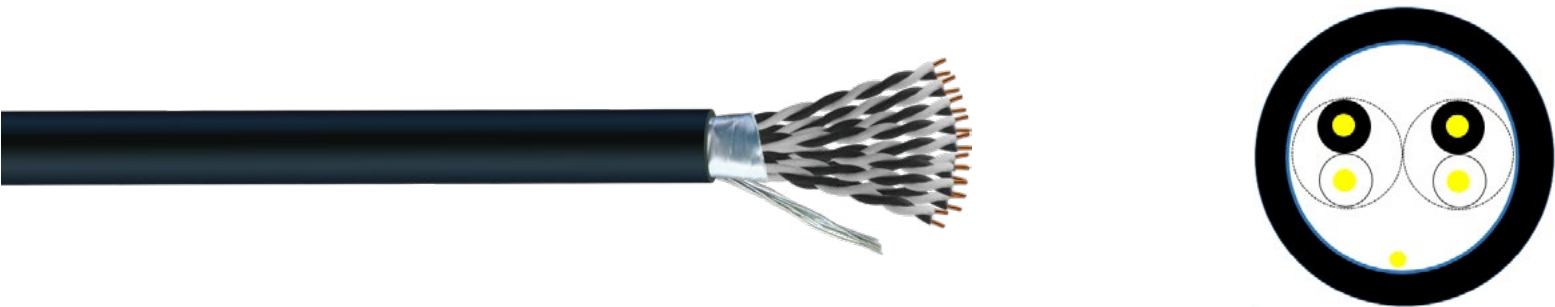
Reference Standards

- » BS EN 50288-7
- » BS EN 60228
- » BS EN 50290
- » RoHS Directives

Min. Insulation Thickness

Conductor Size (mm²)	Mini. Thickness (mm)					
	Rated Voltage					
	90V	Dielectric Strength	300V	Dielectric Strength	500V	Dielectric Strength
0.5	0.2	≥0.75KVac or ≥1.5KVdc	0.26	≥1.0KVac or ≥2.0KVdc	0.44	≥2.0KVac or ≥3.0KVdc
0.75	0.2		0.26		0.44	
1.0	0.26		0.26		0.44	
1.5	0.3		0.35		0.44	

BS EN50288-7



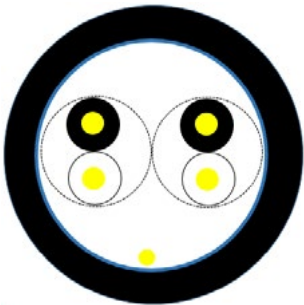
General Characteristics

Conductor Size (mm²)	Conductor Class	Max. DCR (Ω/km)	Max. Mutual Capacitance Values pF/m		Max. Capacitance Unbalance Pairs/Quads Polyolefin (pF/500m)	Max.L/R Ratio (μH/Ω)
			Polyolefin (nf/km)	PVC (nf/km)		
0.5	5	39.7	150	250	500	25
0.75	5	26.5	150	250	500	25
1.0	5	19.8	150	250	500	25
1.5	2	13.5	150	250	500	40

90V, Multi-pair, PE Insulated, Overall Screened

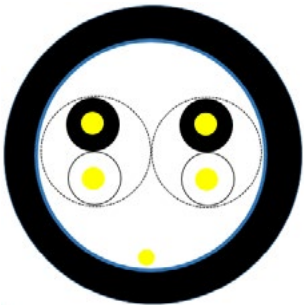
No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
1	0.5	2, 5	0.35	Al-foil	0.6	4.5
2	0.5	2, 5	0.35	Al-foil	0.7	6.9
3	0.5	2, 5	0.35	Al-foil	0.7	7.5
4	0.5	2, 5	0.35	Al-foil	0.8	8.3
5	0.5	2, 5	0.35	Al-foil	0.8	9.1
6	0.5	2, 5	0.35	Al-foil	0.9	10.1
8	0.5	2, 5	0.35	Al-foil	1	11.5
10	0.5	2, 5	0.35	Al-foil	1.1	13.2
1	0.5	2, 5	0.35	Al-foil + TC Braided	0.7	5.3
2	0.5	2, 5	0.35	Al-foil + TC Braided	0.8	7.8

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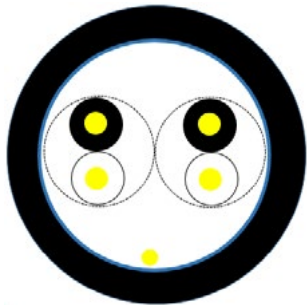
No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
3	0.5	2, 5	0.35	Al-foil + TC Braided	0.8	8.3
4	0.5	2, 5	0.35	Al-foil + TC Braided	0.9	9.3
5	0.5	2, 5	0.35	Al-foil + TC Braided	0.9	10
6	0.5	2, 5	0.35	Al-foil + TC Braided	1	11.1
8	0.5	2, 5	0.35	Al-foil + TC Braided	1	12.3
10	0.5	2, 5	0.35	Al-foil + TC Braided	1.1	14
1	0.75	2, 5	0.35	Al-foil	0.6	4.9
2	0.75	2, 5	0.35	Al-foil	0.7	7.6
3	0.75	2, 5	0.35	Al-foil	0.7	8.2
4	0.75	2, 5	0.35	Al-foil	0.8	9.1
5	0.75	2, 5	0.35	Al-foil	0.9	10.2
6	0.75	2, 5	0.35	Al-foil	1	11.3
8	0.75	2, 5	0.35	Al-foil	1.1	12.4
10	0.75	2, 5	0.35	Al-foil	1.2	14.8
1	0.75	2, 5	0.35	Al-foil + TC Braided	0.7	5.7
2	0.75	2, 5	0.35	Al-foil + TC Braided	0.8	8.4
3	0.75	2, 5	0.35	Al-foil + TC Braided	0.9	9.4
4	0.75	2, 5	0.35	Al-foil + TC Braided	0.9	10.1
5	0.75	2, 5	0.35	Al-foil + TC Braided	1	11.2
6	0.75	2, 5	0.35	Al-foil + TC Braided	1	12.1

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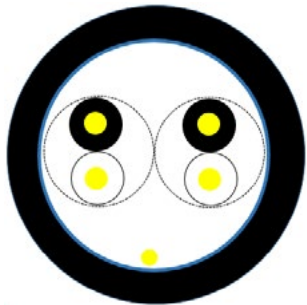
No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
8	0.75	2, 5	0.35	Al-foil + TC Braided	1.1	13.7
10	0.75	2, 5	0.35	Al-foil + TC Braided	1.2	15.5
1	1	2, 5	0.4	Al-foil	0.6	5.5
2	1	2, 5	0.4	Al-foil	0.8	8.9
3	1	2, 5	0.4	Al-foil	0.9	9.8
4	1	2, 5	0.4	Al-foil	1	10.7
5	1	2, 5	0.4	Al-foil	1	11.7
6	1	2, 5	0.4	Al-foil	1.1	13
8	1	2, 5	0.4	Al-foil	1.2	14.8
10	1	2, 5	0.4	Al-foil	1.3	17
1	1	2, 5	0.4	Al-foil + TC Braided	0.8	6.5
2	1	2, 5	0.4	Al-foil + TC Braided	0.9	9.8
3	1	2, 5	0.4	Al-foil + TC Braided	0.9	10.6
4	1	2, 5	0.4	Al-foil + TC Braided	1	11.5
5	1	2, 5	0.4	Al-foil + TC Braided	1.1	12.7
6	1	2, 5	0.4	Al-foil + TC Braided	1.2	14
8	1	2, 5	0.4	Al-foil + TC Braided	1.3	15.8
10	1	2, 5	0.4	Al-foil + TC Braided	1.3	17.8
1	1.5	2, 5	0.45	Al-foil	0.7	6.5

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No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
2	1.5	2, 5	0.45	Al-foil	0.9	10.4
3	1.5	2, 5	0.45	Al-foil	1	11.5
4	1.5	2, 5	0.45	Al-foil	1	12.4
5	1.5	2, 5	0.45	Al-foil	1.1	13.8
6	1.5	2, 5	0.45	Al-foil	1.2	15.3
8	1.5	2, 5	0.45	Al-foil	1.3	17.4
10	1.5	2, 5	0.45	Al-foil	1.4	19.9
1	1.5	2, 5	0.45	Al-foil + TC Braided	0.8	7.3
2	1.5	2, 5	0.45	Al-foil + TC Braided	1	11.4
3	1.5	2, 5	0.45	Al-foil + TC Braided	1	12.3
4	1.5	2, 5	0.45	Al-foil + TC Braided	1.1	13.4
5	1.5	2, 5	0.45	Al-foil + TC Braided	1.2	14.8
6	1.5	2, 5	0.45	Al-foil + TC Braided	1.3	16.3
8	1.5	2, 5	0.45	Al-foil + TC Braided	1.4	18.4
10	1.5	2, 5	0.45	Al-foil + TC Braided	1.4	20.7

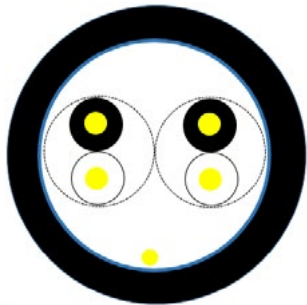
BS EN50288-7



300V, Multi-pair, PE Insulated, Overall Screened

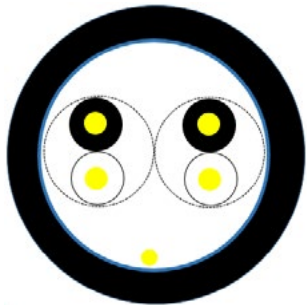
No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
1	0.5	2, 5	0.4	Al-foil	0.6	4.7
2	0.5	2, 5	0.4	Al-foil	0.7	7.3
3	0.5	2, 5	0.4	Al-foil	0.8	8.1
4	0.5	2, 5	0.4	Al-foil	0.8	8.7
5	0.5	2, 5	0.4	Al-foil	0.9	9.7
6	0.5	2, 5	0.4	Al-foil	1	10.8
8	0.5	2, 5	0.4	Al-foil	1	12.1
10	0.5	2, 5	0.4	Al-foil	1.1	13.9
1	0.5	2, 5	0.4	Al-foil + TC Braided	0.7	5.5
2	0.5	2, 5	0.4	Al-foil + TC Braided	0.8	8.1
3	0.5	2, 5	0.4	Al-foil + TC Braided	0.8	8.7
4	0.5	2, 5	0.4	Al-foil + TC Braided	0.9	9.7
5	0.5	2, 5	0.4	Al-foil + TC Braided	1	10.7
6	0.5	2, 5	0.4	Al-foil + TC Braided	1	11.6
8	0.5	2, 5	0.4	Al-foil + TC Braided	1.1	13.1
10	0.5	2, 5	0.4	Al-foil + TC Braided	1.2	14.9
1	0.75	2, 5	0.4	Al-foil	0.6	5.3
2	0.75	2, 5	0.4	Al-foil	0.7	8.3
3	0.75	2, 5	0.4	Al-foil	0.8	9.2

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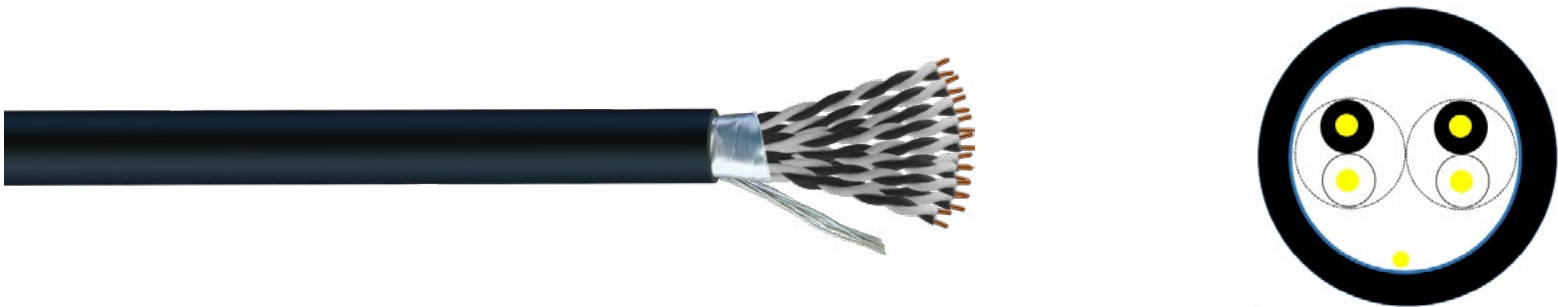
No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
4	0.75	2, 5	0.4	Al-foil	0.9	10.1
5	0.75	2, 5	0.4	Al-foil	1	11.3
6	0.75	2, 5	0.4	Al-foil	1	12.3
8	0.75	2, 5	0.4	Al-foil	1.1	14
10	0.75	2, 5	0.4	Al-foil	1.2	16.1
1	0.75	2, 5	0.4	Al-foil + TC Braided	0.8	7.5
2	0.75	2, 5	0.4	Al-foil + TC Braided	0.8	9.3
3	0.75	2, 5	0.4	Al-foil + TC Braided	0.9	10.2
4	0.75	2, 5	0.4	Al-foil + TC Braided	0.9	11.1
5	0.75	2, 5	0.4	Al-foil + TC Braided	1	12.1
6	0.75	2, 5	0.4	Al-foil + TC Braided	1.1	13.3
8	0.75	2, 5	0.4	Al-foil + TC Braided	1.2	15
10	0.75	2, 5	0.4	Al-foil + TC Braided	1.3	17.1
1	1	2, 5	0.4	Al-foil	0.6	5.5
2	1	2, 5	0.4	Al-foil	0.8	8.9
3	1	2, 5	0.4	Al-foil	0.9	9.8
4	1	2, 5	0.4	Al-foil	1	10.7
5	1	2, 5	0.4	Al-foil	1	11.7
6	1	2, 5	0.4	Al-foil	1.1	13

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No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
8	1	2, 5	0.4	Al-foil	1.2	14.8
10	1	2, 5	0.4	Al-foil	1.3	17
1	1	2, 5	0.4	Al-foil + TC Braided	0.8	6.5
2	1	2, 5	0.4	Al-foil + TC Braided	0.9	9.8
3	1	2, 5	0.4	Al-foil + TC Braided	0.9	10.6
4	1	2, 5	0.4	Al-foil + TC Braided	1	11.5
5	1	2, 5	0.4	Al-foil + TC Braided	1.1	12.7
6	1	2, 5	0.4	Al-foil + TC Braided	1.2	14
8	1	2, 5	0.4	Al-foil + TC Braided	1.3	15.8
10	1	2, 5	0.4	Al-foil + TC Braided	1.3	17.8
1	1.5	2, 5	0.5	Al-foil	0.7	6.7
2	1.5	2, 5	0.5	Al-foil	1	11
3	1.5	2, 5	0.5	Al-foil	1	11.8
4	1.5	2, 5	0.5	Al-foil	1.1	13
5	1.5	2, 5	0.5	Al-foil	1.2	14.4
6	1.5	2, 5	0.5	Al-foil	1.3	16
8	1.5	2, 5	0.5	Al-foil	1.4	18.2
10	1.5	2, 5	0.5	Al-foil	1.4	20.6
1	1.5	2, 5	0.5	Al-foil + TC Braided	0.8	7.5
2	1.5	2, 5	0.5	Al-foil + TC Braided	1	11.8

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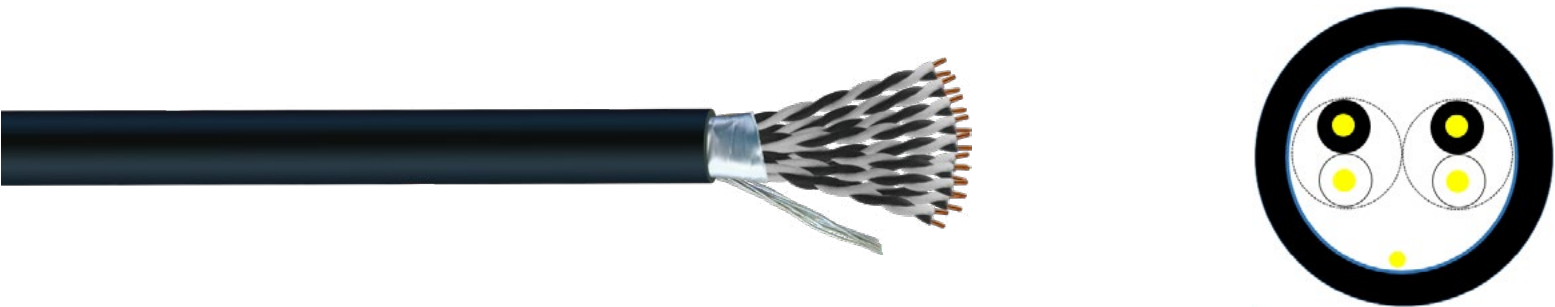


No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
3	1.5	2, 5	0.5	Al-foil + TC Braided	1.1	12.8
4	1.5	2, 5	0.5	Al-foil + TC Braided	1.2	14
5	1.5	2, 5	0.5	Al-foil + TC Braided	1.2	15.2
6	1.5	2, 5	0.5	Al-foil + TC Braided	1.3	16.8
8	1.5	2, 5	0.5	Al-foil + TC Braided	1.4	19
10	1.5	2, 5	0.5	Al-foil + TC Braided	1.4	21.4

500V, Multi-pair, PE Insulated, Overall Screened

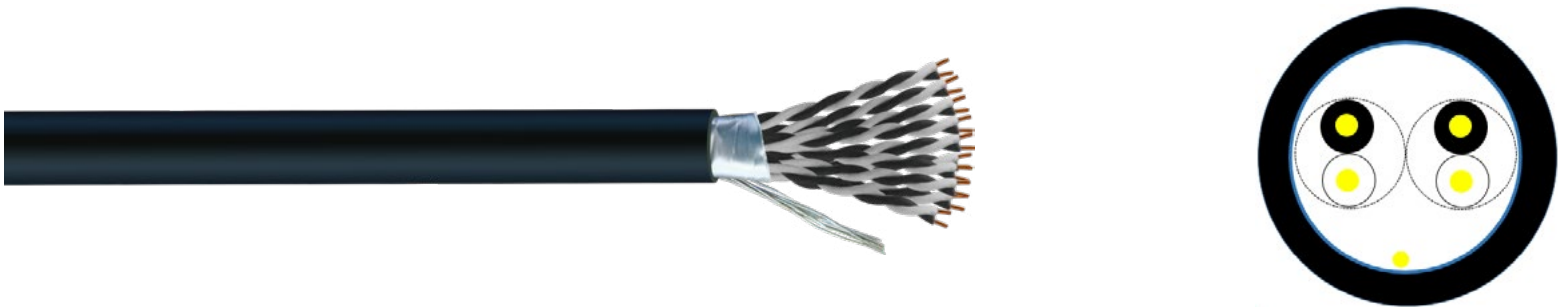
No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
1	0.5	2, 5	0.6	Al-foil	0.6	5.5
2	0.5	2, 5	0.6	Al-foil	0.8	8.9
3	0.5	2, 5	0.6	Al-foil	0.9	9.8
4	0.5	2, 5	0.6	Al-foil	1	10.7
5	0.5	2, 5	0.6	Al-foil	1	11.7
6	0.5	2, 5	0.6	Al-foil	1.1	13
8	0.5	2, 5	0.6	Al-foil	1.2	14.8
10	0.5	2, 5	0.6	Al-foil	1.3	17
1	0.5	2, 5	0.6	Al-foil + TC Braided	0.8	6.5

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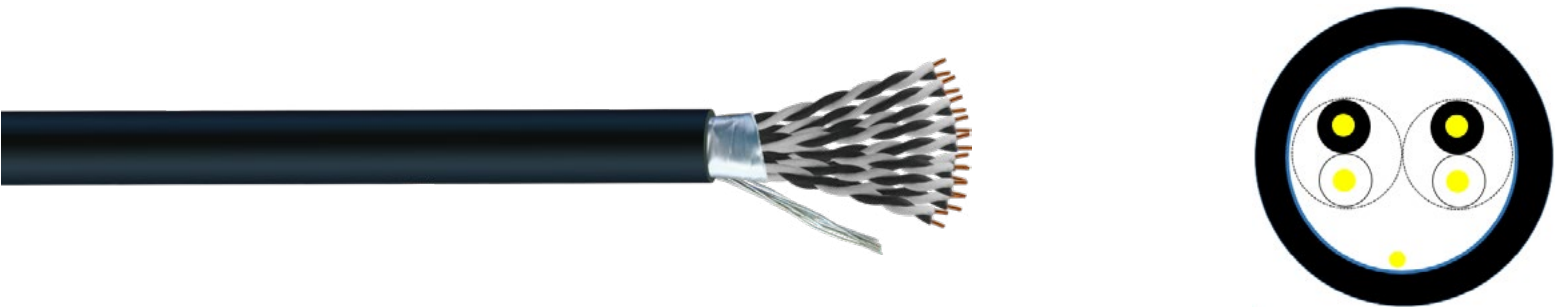
No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
2	0.5	2, 5	0.6	Al-foil + TC Braided	0.9	9.8
3	0.5	2, 5	0.6	Al-foil + TC Braided	0.9	10.6
4	0.5	2, 5	0.6	Al-foil + TC Braided	1	11.5
5	0.5	2, 5	0.6	Al-foil + TC Braided	1.1	12.7
6	0.5	2, 5	0.6	Al-foil + TC Braided	1.2	14
8	0.5	2, 5	0.6	Al-foil + TC Braided	1.3	15.8
10	0.5	2, 5	0.6	Al-foil + TC Braided	1.3	17.8
1	0.75	2, 5	0.6	Al-foil	0.7	6.1
2	0.75	2, 5	0.6	Al-foil	0.9	9.7
3	0.75	2, 5	0.6	Al-foil	0.9	10.5
4	0.75	2, 5	0.6	Al-foil	1	11.6
5	0.75	2, 5	0.6	Al-foil	1.1	12.9
6	0.75	2, 5	0.6	Al-foil	1.2	14.2
8	0.75	2, 5	0.6	Al-foil	1.3	16.2
10	0.75	2, 5	0.6	Al-foil	1.3	18.4
1	0.75	2, 5	0.6	Al-foil + TC Braided	0.8	6.9
2	0.75	2, 5	0.6	Al-foil + TC Braided	1	10.7
3	0.75	2, 5	0.6	Al-foil + TC Braided	1	11.5
4	0.75	2, 5	0.6	Al-foil + TC Braided	1	12.4

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No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
5	0.75	2, 5	0.6	Al-foil + TC Braided	1.1	13.7
6	0.75	2, 5	0.6	Al-foil + TC Braided	1.2	15
8	0.75	2, 5	0.6	Al-foil + TC Braided	1.3	17
10	0.75	2, 5	0.6	Al-foil + TC Braided	1.4	19.4
1	1	2, 5	0.6	Al-foil	0.7	6.5
2	1	2, 5	0.6	Al-foil	0.9	10.4
3	1	2, 5	0.6	Al-foil	1	11.5
4	1	2, 5	0.6	Al-foil	1	12.4
5	1	2, 5	0.6	Al-foil	1.1	13.8
6	1	2, 5	0.6	Al-foil	1.2	15.3
8	1	2, 5	0.6	Al-foil	1.3	17.4
10	1	2, 5	0.6	Al-foil	1.4	19.9
1	1	2, 5	0.6	Al-foil + TC Braided	0.8	7.3
2	1	2, 5	0.6	Al-foil + TC Braided	1	11.4
3	1	2, 5	0.6	Al-foil + TC Braided	1	12.3
4	1	2, 5	0.6	Al-foil + TC Braided	1.1	13.4
5	1	2, 5	0.6	Al-foil + TC Braided	1.2	14.8
6	1	2, 5	0.6	Al-foil + TC Braided	1.3	16.3
8	1	2, 5	0.6	Al-foil + TC Braided	1.4	18.4

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No. of Pairs	Conductor		Insulation Thickness (mm)	Screened	Sheath Thickness (mm)	Overall Diameter (mm)
	Size (mm²)	Class				
10	1	2, 5	0.6	Al-foil + TC Braided	1.4	20.7
1	1.5	2, 5	0.6	Al-foil	0.8	7.3
2	1.5	2, 5	0.6	Al-foil	1	11.6
3	1.5	2, 5	0.6	Al-foil	1	12.6
4	1.5	2, 5	0.6	Al-foil	1.1	13.8
5	1.5	2, 5	0.6	Al-foil	1.2	15.4
6	1.5	2, 5	0.6	Al-foil	1.3	17
8	1.5	2, 5	0.6	Al-foil	1.4	19.3
10	1.5	2, 5	0.6	Al-foil	1.4	22
1	1.5	2, 5	0.6	Al-foil + TC Braided	0.8	7.9
2	1.5	2, 5	0.6	Al-foil + TC Braided	1	12.6
3	1.5	2, 5	0.6	Al-foil + TC Braided	1.1	13.6
4	1.5	2, 5	0.6	Al-foil + TC Braided	1.2	14.8
5	1.5	2, 5	0.6	Al-foil + TC Braided	1.2	16.4
6	1.5	2, 5	0.6	Al-foil + TC Braided	1.3	17.8
8	1.5	2, 5	0.6	Al-foil + TC Braided	1.4	20.1
10	1.5	2, 5	0.6	Al-foil + TC Braided	1.4	22.7