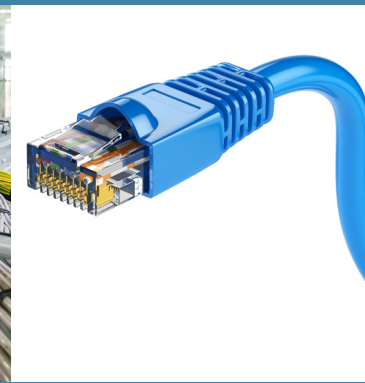
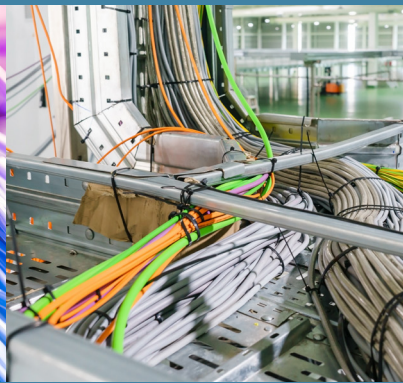


INSTRUMENTATION & CONTROL

cables



INSTRUMENTATION

OVERALL SCREENED / UNARMoured DEKARON

Construction

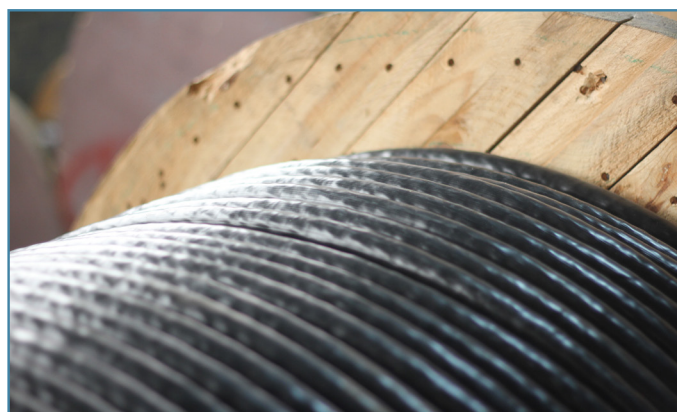
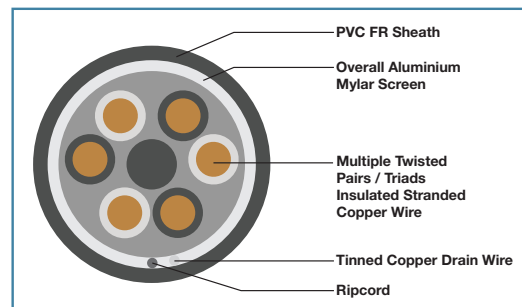
Overall screened with specially selected lay schemes in order to counter static and cross talk noises. A "clean" and accurate signal can therefore be expected to be transferred. A communication wire is standard in all multi-pair / triad cables.

Applications

For interconnections between instruments, sensors and monitors.

Packaging

Available in 500 and 1000 metre drums.
Cut lengths available on request.



Specification

Conductors	Plain annealed class 4 bunched copper
Insulation	Crosslink polyethylene - Temperature rating 105°C
Identification	White Cores, Black numbered Pairs - Black and White numbered cores Triads - Black, Red and White numbered cores
Average Lay Length	63mm
Overall Screening	Aluminium/Polyester tape with a 0.5mm ² bunched tinned copper drainwire.
Outer Sheath	Flame retardant PVC - Temperature rating 90°C

Electrical Parameters

Rated insulation voltage	300/500V		
	0.5mm ²	1.0mm ²	1.5mm ²
Max. conductor resistance @ 20°C Ω/km:	39.0	19.5	13.3
Nominal mutual capacitance nF/km:	100	120	120
Nominal ground capacitance nF/km:	200	240	240
Nominal inductance mH/km:	0.68	0.64	0.61

Electrical Characteristics

Size mm ²	Capacitance	Capacitance		Maximum Resistance Ω/km		Nominal Inductance mH/km
		Nominal pF/m	Max pF/m	Single Pair/Triad & Multicore	Multi-Pair Triad	
0.5	Core / Core Screened	84	90	39.0	39.6	0.707
0.5	Core / Screen	158	169	39.0	39.6	0.707
0.5	Core / Core No Screen	53	56	39.0	39.6	0.707
0.5	Core / Screen OS only	100	106	39.0	39.6	0.707
1.0	Core / Core Screened	104	112	19.5	19.8	0.629
1.0	Core / Screen	196	210	19.5	19.8	0.629
1.0	Core / Core No Screen	63	66	19.5	19.8	0.629
1.0	Core / Screen OS only	119	124	19.5	19.8	0.629
1.5	Core / Core Screened	101	121	13.3	13.5	0.645
1.5	Core / Screen	190	228	13.3	13.5	0.645
1.5	Core / Core No Screen	61	70	13.3	13.5	0.645
1.5	Core / Screen OS only	115	131	13.3	13.5	0.645

INSTRUMENTATION

OVERALL SCREENED / UNARMoured DEKARON

Physical Parameters (Standard Sizes)

Product Code	Size mm ²	No. of Pairs/Triads	Nominal OD mm	Min. Bending Radius mm	Gland Size	Nett Mass kg/km	Std Drum Length m	Gross Drum Mass kg
PAIRS								
MP005001	0.5	1	5.6	51	00	42	1000	91
MP005002	0.5	2	10.6	81	0	88	1000	153
MP005004	0.5	4	13.3	96	0	128	1000	203
MP005008	0.5	8	15.8	121	1	212	1000	299
MP005012	0.5	12	17.5	143	2	282	500	216
MP005016	0.5	16	20.3	158	2	350	500	250
MP005024	0.5	24	22.9	183	2	491	500	333
MP010001	1.0	1	6.4	58	00	60	1000	109
MP010002	1.0	2	10.8	98	0	131	1000	206
MP010004	1.0	4	12.4	112	1	183	1000	258
MP010008	1.0	8	16.1	146	2	315	1000	477
MP010012	1.0	12	18.7	169	2	428	500	285
MP010016	1.0	16	21.1	190	3	562	500	368
MP010024	1.0	24	24.1	217	3	772	300	394
MP015001	1.5	1	7.2	66	00	73	1000	138
MP015002	1.5	2	12.4	112	1	166	1000	241
MP015004	1.5	4	14.7	132	2	247	1000	334
MP015008	1.5	8	18.6	168	2	407	500	275
MP015012	1.5	12	22.1	199	3	582	500	453
MP015016	1.5	16	24.9	224	3	760	300	390
MP015024	1.5	24	28.4	256	4	1050	300	477
TRIADS								
MT005001	0.5	1	5.9	54	00	51	1000	100
MT005004	0.5	4	11.8	107	1	164	1000	239
MT005008	0.5	8	15.7	141	2	280	1000	367
MT005012	0.5	12	18.8	169	2	383	500	263
MT005016	0.5	16	21.2	191	3	502	500	413
MT005024	0.5	24	26.5	239	3	726	300	380
MT010001	1.0	1	6.8	61	00	72	1000	121
MT010004	1.0	4	14.3	129	1	255	1000	342
MT010008	1.0	8	18.3	167	2	428	500	385
MT010012	1.0	12	22.5	205	3	620	500	472
MT010016	1.0	16	25.4	229	3	809	300	405
MT015001	1.5	1	7.7	69	00	90	1000	155
MT015004	1.5	4	16.4	148	2	325	1000	487
MT015008	1.5	8	21.8	197	3	580	500	452
MT015012	1.5	12	26.8	241	4	841	300	414

* Multiple triads available on request.

INSTRUMENTATION

INDIVIDUAL & OVERALL SCREENED / UNARMoured DEKARON

Construction

Individual and overall screened with specially selected lay schemes in order to counter static and cross talk noises. A "clean" and accurate signal can therefore be expected to be transferred.

Applications

For interconnections between instruments, sensors and monitors.

Packaging

Available in 500 and 1000 metre drums.
Cut lengths available on request.

Specification

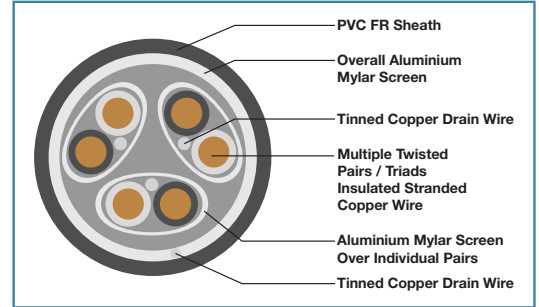
Conductors	Plain annealed class 4 bunched copper
Insulation	Crosslink polyethylene - Temperature rating 105°C
Identification	White Cores, Black numbered Pairs - Black and White numbered cores Triads - Black, Red and White numbered cores
Average Lay Length	63mm
Individual Screening	Aluminium/Polyester tape with a 0.5mm ² tinned copper drainwire. All individual screens are sealed
Overall Screening	Aluminium/Polyester tape with a 0.5mm ² bunched tinned copper drainwire
Outer Sheath	Flame retardant PVC - Temperature rating 90°C

Electrical Parameters

Rated insulation voltage	300/500V		
	0.5mm ²	1.0mm ²	1.5mm ²
Max. conductor resistance @ 20°C Ω/km:	39.0	19.5	13.3
Nominal mutual capacitance nF/km:	100	120	120
Nominal ground capacitance nF/km:	200	240	240
Nominal inductance mH/km:	0.68	0.64	0.61

Electrical Characteristics

Size mm ²	Capacitance	Capacitance		Maximum Resistance Ω/km		Nominal Inductance mH/km
		Nominal pF/m	Max pF/m	Single Pair/Triad & Multicore	Multi-Pair Triad	
0.5	Core / Core Screened	84	90	39.0	39.6	0.707
0.5	Core / Screen	158	169	39.0	39.6	0.707
0.5	Core / Core No Screen	53	56	39.0	39.6	0.707
0.5	Core / Screen OS only	100	106	39.0	39.6	0.707
1.0	Core / Core Screened	104	112	19.5	19.8	0.629
1.0	Core / Screen	196	210	19.5	19.8	0.629
1.0	Core / Core No Screen	63	66	19.5	19.8	0.629
1.0	Core / Screen OS only	119	124	19.5	19.8	0.629
1.5	Core / Core Screened	101	121	13.3	13.5	0.645
1.5	Core / Screen	190	228	13.3	13.5	0.645
1.5	Core / Core No Screen	61	70	13.3	13.5	0.645
1.5	Core / Screen OS only	115	131	13.3	13.5	0.645



INSTRUMENTATION

INDIVIDUAL & OVERALL SCREENED / UNARMoured DEKARON

Physical Parameters (Standard Sizes)

Product Code	Size mm ²	No. of Pairs/Triads	Nominal OD mm	Min. Bending Radius mm	Gland Size	Nett Mass kg/km	Std Drum Length m	Gross Drum Mass kg
PAIRS								
IP005002	0.5	2	9.7	87	0	109	1000	174
IP005004	0.5	4	11.0	99	0	159	1000	234
IP005008	0.5	8	14.3	130	1	273	1000	348
IP005012	0.5	12	16.9	152	2	347	500	249
IP005016	0.5	16	19.4	175	2	458	500	316
IP005024	0.5	24	22.9	207	3	627	500	478
IP010002	1.0	2	11.1	101	1	148	1000	223
IP010004	1.0	4	12.8	115	1	213	1000	288
IP010008	1.0	8	16.7	151	2	377	1000	539
IP010012	1.0	12	20.2	182	2	544	500	359
IP010016	1.0	16	22.9	206	3	691	500	508
IP010024	1.0	24	27.4	247	4	998	500	743
IP015002	1.5	2	12.7	115	1	183	1000	258
IP015004	1.5	4	15.0	136	2	297	1000	384
IP015008	1.5	8	19.7	178	2	494	500	334
IP015012	1.5	12	23.3	210	3	685	500	505
IP015016	1.5	16	26.8	242	4	903	300	433
IP015024	1.5	24	32.2	290	4	1305	300	554
TRIADS								
IT005004	0.5	4	12.2	110	1	189	1000	264
IT005008	0.5	8	16.2	146	2	330	1000	492
IT005012	0.5	12	19.8	179	2	479	500	327
IT005016	0.5	16	22.0	198	3	599	500	462
IT005024	0.5	24	27.5	248	4	872	300	424
IT010004	1.0	4	14.7	132	2	286	1000	373
IT010008	1.0	8	19.2	175	2	509	500	342
IT010012	1.0	12	23.3	210	3	712	500	518
IT010016	1.0	16	26.1	237	3	931	300	441
IT015004	1.5	4	16.8	152	2	348	1000	510
IT015008	1.5	8	22.3	202	3	645	500	485
IT015012	1.5	12	27.4	247	4	929	300	441

* Multiple triads available on request.

INSTRUMENTATION

OVERALL SCREENED / APL ARMoured DEKABON

Construction

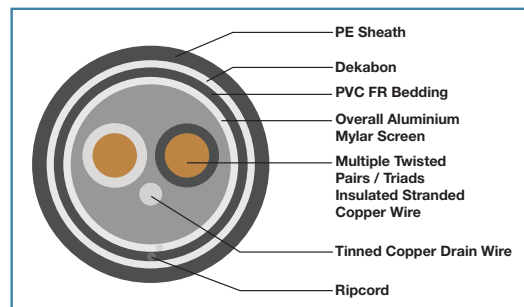
Overall screened with specially selected lay schemes in order to counter static and cross talk noises. A "clean" and accurate signal can therefore be expected to be transferred. APL Armouring is provided for increased mechanical protection. The APL/PE Sheath provides an excellent moisture barrier.

Applications

For interconnections between instruments, sensors and monitors.

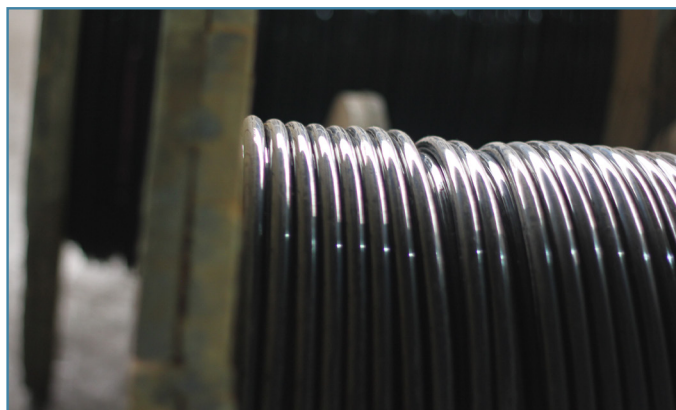
Packaging

Available in 500 and 1000 metre drums.
Cut lengths available on request.



Specification

Conductors	Plain annealed class 4 bunched copper
Insulation	Crosslink polyethylene - Temperature rating 105°C
Identification	White Cores, Black numbered Pairs - Black and White numbered cores Triads - Black, Red and White numbered cores
Average Lay Length	63mm
Individual Screening	Aluminium/Polyester tape with a 0.5mm ² tinned copper drainwire. All individual screens are sealed
Overall Screening	Aluminium/Polyester tape with a 0.5mm ² bunched tinned copper drainwire
Bedding Sheath	Flame retardant PVC - Temperature rating 90°C
Armouring	0.3mm Aluminium Polyethylene Laminated (APL) with 0.5mm ² bunched tinned copper drainwire
Outer Sheath	Polyethylene (PE)



Electrical Parameters

Rated insulation voltage	300/500V		
	0.5mm ²	1.0mm ²	1.5mm ²
Max. conductor resistance @ 20°C Ω/km:	39.0	19.5	13.3
Nominal mutual capacitance nF/km:	100	120	120
Nominal ground capacitance nF/km:	200	240	240
Nominal inductance mH/km:	0.68	0.64	0.61

Electrical Characteristics

Size mm ²	Capacitance	Capacitance		Maximum Resistance Ω/km		Nominal Inductance mH/km
		Nominal pF/m	Max pF/m	Single Pair/Triad & Multicore	Multi-Pair Triad	
0.5	Core / Core Screened	84	90	39.0	39.6	0.707
0.5	Core / Screen	158	169	39.0	39.6	0.707
0.5	Core / Core No Screen	53	56	39.0	39.6	0.707
0.5	Core / Screen OS only	100	106	39.0	39.6	0.707
1.0	Core / Core Screened	104	112	19.5	19.8	0.629
1.0	Core / Screen	196	210	19.5	19.8	0.629
1.0	Core / Core No Screen	63	66	19.5	19.8	0.629
1.0	Core / Screen OS only	119	124	19.5	19.8	0.629
1.5	Core / Core Screened	101	121	13.3	13.5	0.645
1.5	Core / Screen	190	228	13.3	13.5	0.645
1.5	Core / Core No Screen	61	70	13.3	13.5	0.645
1.5	Core / Screen OS only	115	131	13.3	13.5	0.645

INSTRUMENTATION

OVERALL SCREENED / APL ARMoured DEKABON

Physical Parameters (Standard Sizes)

Product Code	Size mm ²	No. of Pairs/Triads	Nominal OD mm	Min. Bending Radius mm	Gland Size	Nett Mass kg/km	Std Drum Length m	Gross Drum Mass kg
PAIRS								
AP005001	0.5	1	9.4	85	0	90	1000	155
AP005002	0.5	2	12.7	115	1	153	1000	228
AP005004	0.5	4	14.4	130	1	203	1000	290
AP005008	0.5	8	17.1	155	2	287	1000	449
AP005012	0.5	12	20.0	181	2	384	500	284
AP005016	0.5	16	21.7	195	3	471	500	398
AP005024	0.5	24	24.5	221	3	629	500	477
AP010001	1.0	1	10.2	92	0	111	1000	186
AP010002	1.0	2	14.6	132	2	205	1000	292
AP010004	1.0	4	16.2	146	2	265	1000	427
AP010008	1.0	8	20.3	183	2	428	1000	590
AP010012	1.0	12	22.9	206	3	557	500	441
AP010016	1.0	16	25.3	228	3	706	500	499
AP010024	1.0	24	28.6	258	4	949	300	447
AP015001	1.5	1	11.0	100	0	128	1000	203
AP015002	1.5	2	16.2	146	2	248	1000	410
AP015004	1.5	4	18.4	166	2	354	1000	500
AP015008	1.5	8	22.8	206	2	535	500	430
AP015012	1.5	12	26.3	237	3	730	500	511
AP015016	1.5	16	29.4	265	4	943	300	445
AP015024	1.5	24	33.0	297	4	1256	300	539
TRIADS								
AT005001	0.5	1	9.7	88	0	100	1000	165
AT005004	0.5	4	15.6	141	2	244	1000	331
AT005008	0.5	8	19.8	179	2	392	1000	538
AT005012	0.5	12	23.0	207	3	512	500	418
AT005016	0.5	16	25.4	229	3	646	500	469
AT005024	0.5	24	31.1	280	4	919	300	438
AT010001	1.0	1	10.5	95	0	126	1000	201
AT010004	1.0	4	18.4	166	2	357	1000	503
AT010008	1.0	8	22.5	204	3	554	500	439
AT010012	1.0	12	26.7	242	4	773	500	533
AT010016	1.0	16	30.0	270	4	990	300	459
AT015001	1.5	1	11.4	103	1	148	1000	223
AT015004	1.5	4	20.6	186	3	442	1000	588
AT015008	1.5	8	26.0	234	3	726	500	509
AT015012	1.5	12	31.4	283	4	1036	300	473

* Multiple triads available on request.

INSTRUMENTATION

INDIVIDUAL & OVERALL SCREENED / APL ARMoured DEKABON

Construction

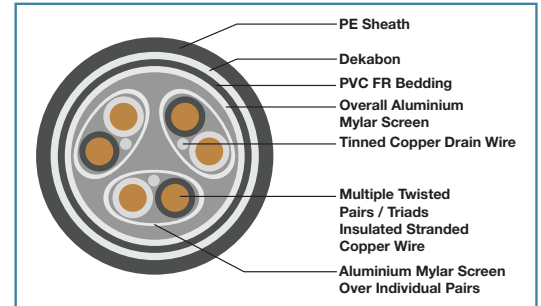
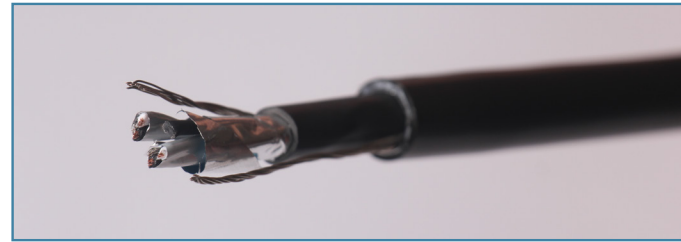
Individual and overall screened with specially selected lay schemes in order to counter static and cross talk noises. A "clean" and accurate signal can therefore be expected to be transferred. APL Armouring is provided for increased mechanical protection. The APL/PE Sheath provides an excellent moisture barrier.

Applications

For interconnections between instruments, sensors and monitors.

Packaging

Available in 500 and 1000 metre drums.
Cut lengths available on request.



Specification	
Conductors	Plain annealed class 4 bunched copper
Insulation	Crosslink polyethylene - Temperature rating 105°C
Identification	White Cores, Black numbered Pairs - Black and White numbered cores Triads - Black, Red and White numbered cores
Average Lay Length	63mm
Individual Screening	Aluminium/Polyester tape with a 0.5mm ² tinned copper drainwire. All individual screens are sealed
Overall Screening	Aluminium/Polyester tape with a 0.5mm ² bunched tinned copper drainwire
Bedding Sheath	Flame retardant PVC - Temperature rating 90°C
Armouring	0.3mm Aluminium Polyethylene Laminated (APL) with 0.5mm ² bunched tinned copper drainwire
Outer Sheath	Polyethylene (PE)



Electrical Parameters			
Rated insulation voltage	300/500V		
	0.5mm ²	1.0mm ²	1.5mm ²
Max. conductor resistance @ 20°C Ω/km:	39.0	19.5	13.3
Nominal mutual capacitance nF/km:	100	120	120
Nominal ground capacitance nF/km:	200	240	240
Nominal inductance mH/km:	0.68	0.64	0.61

Electrical Characteristics

Size mm ²	Capacitance	Capacitance		Maximum Resistance Ω/km		Nominal Inductance mH/km
		Nominal pF/m	Max pF/m	Single Pair/Triad & Multicore	Multi-Pair Triad	
0.5	Core / Core Screened	84	90	39.0	39.6	0.707
0.5	Core / Screen	158	169	39.0	39.6	0.707
0.5	Core / Core No Screen	53	56	39.0	39.6	0.707
0.5	Core / Screen OS only	100	106	39.0	39.6	0.707
1.0	Core / Core Screened	104	112	19.5	19.8	0.629
1.0	Core / Screen	196	210	19.5	19.8	0.629
1.0	Core / Core No Screen	63	66	19.5	19.8	0.629
1.0	Core / Screen OS only	119	124	19.5	19.8	0.629
1.5	Core / Core Screened	101	121	13.3	13.5	0.645
1.5	Core / Screen	190	228	13.3	13.5	0.645
1.5	Core / Core No Screen	61	70	13.3	13.5	0.645
1.5	Core / Screen OS only	115	131	13.3	13.5	0.645

INSTRUMENTATION

INDIVIDUAL & OVERALL SCREENED / APL ARMoured DEKABON

Physical Parameters (Standard Sizes)

Product Code	Size mm ²	No. of Pairs/Triads	Nominal OD mm	Min. Bending Radius mm	Gland Size	Nett Mass kg/km	Std Drum Length m	Gross Drum Mass kg
PAIRS								
AIP005002	0.5	2	13.4	121	1	177	1000	264
AIP005004	0.5	4	14.8	133	2	234	1000	321
AIP005008	0.5	8	18.5	167	2	378	1000	524
AIP005012	0.5	12	20.7	187	3	465	500	520
AIP005016	0.5	16	23.6	213	3	591	500	458
AIP005024	0.5	24	27.1	244	4	781	500	537
AIP010002	1.0	2	14.9	135	2	224	1000	311
AIP010004	1.0	4	16.5	149	2	297	1000	459
AIP010008	1.0	8	20.9	186	3	496	1000	642
AIP010012	1.0	12	24.4	220	3	682	500	503
AIP010016	1.0	16	27.0	244	4	845	500	569
AIP010024	1.0	24	32.0	289	4	1196	300	303
AIP015002	1.5	2	16.5	149	2	267	1000	429
AIP015004	1.5	4	19.2	173	2	388	1000	534
AIP015008	1.5	8	23.9	215	3	627	500	476
AIP015012	1.5	12	27.5	248	4	839	500	664
AIP015016	1.5	16	31.4	283	4	1099	300	492
AIP015024	1.5	24	36.8	332	5	1534	300	704
TRIADS								
AIT005004	0.5	4	16.0	144	2	271	1000	358
AIT005008	0.5	8	20.4	184	2	444	1000	590
AIT005012	0.5	12	24.0	217	3	614	500	469
AIT005016	0.5	16	26.1	236	3	747	500	520
AIT005024	0.5	24	32.0	289	4	1070	300	483
AIT010004	1.0	4	18.8	170	2	393	1000	539
AIT010008	1.0	8	23.4	213	3	641	500	483
AIT010012	1.0	12	27.5	248	4	868	500	678
AIT010016	1.0	16	30.7	278	4	1126	300	500
AIT015004	1.5	4	21.0	189	3	472	1000	618
AIT015008	1.5	8	26.5	239	3	787	500	540
AIT015012	1.5	12	32.0	289	4	1126	300	500

* Multiple triads available on request.

INSTRUMENTATION

OVERALL SCREENED / SWA ARMoured

Construction

Overall screened with specially selected lay schemes in order to counter static and cross talk noises. A "clean" and accurate signal can therefore be expected to be transferred. Steel Wire Armouring is provided for increased mechanical protection.

Applications

For interconnections between instruments, sensors and monitors.

Packaging

Available in 500 and 1000 metre drums.
Cut lengths available on request.

Specification

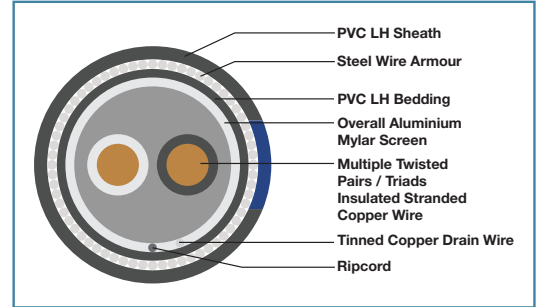
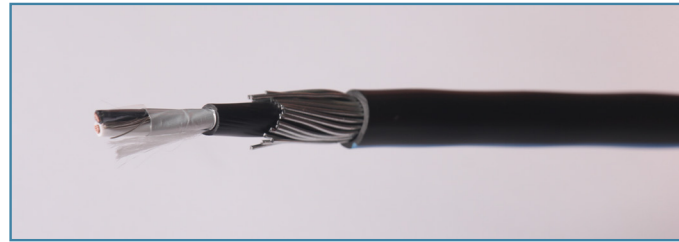
Conductors	Plain annealed class 4 bunched copper
Insulation	Crosslink polyethylene - Temperature rating 105°C
Identification	White Cores, Black numbered Pairs - Black and White numbered cores Triads - Black, Red and White numbered cores
Overall Screening	Aluminium/Polyester tape with a 0.5mm ² tinned copper drainwire.
Bedding Sheath	Flame retardant PVC - Temperature rating 90°C
Armouring	Galvanized Steel Wire
Outer Sheath	Low Halogen. Black/Blue Stripe

Electrical Parameters

Rated insulation voltage	300/500V		
	0.5mm ²	1.0mm ²	1.5mm ²
Max. conductor resistance @ 20°C Ω/km:	39.0	19.5	13.3
Nominal mutual capacitance nF/km:	100	120	120
Nominal ground capacitance nF/km:	200	240	240
Nominal inductance mH/km:	0.68	0.64	0.61

Electrical Characteristics

Size mm ²	Capacitance	Capacitance		Maximum Resistance Ω/km		Nominal Inductance mH/km
		Nominal pF/m	Max pF/m	Single Pair/Triad & Multicore	Multi-Pair Triad	
0.5	Core / Core Screened	84	90	39.0	39.6	0.707
0.5	Core / Screen	158	169	39.0	39.6	0.707
0.5	Core / Core No Screen	53	56	39.0	39.6	0.707
0.5	Core / Screen OS only	100	106	39.0	39.6	0.707
1.0	Core / Core Screened	104	112	19.5	19.8	0.629
1.0	Core / Screen	196	210	19.5	19.8	0.629
1.0	Core / Core No Screen	63	66	19.5	19.8	0.629
1.0	Core / Screen OS only	119	124	19.5	19.8	0.629
1.5	Core / Core Screened	101	121	13.3	13.5	0.645
1.5	Core / Screen	190	228	13.3	13.5	0.645
1.5	Core / Core No Screen	61	70	13.3	13.5	0.645
1.5	Core / Screen OS only	115	131	13.3	13.5	0.645



INSTRUMENTATION

OVERALL SCREENED / SWA ARMoured

Physical Parameters (Standard Sizes)

Product Code	Size mm ²	No. of Pairs/Triads	Nominal OD mm	Min. Bending Radius mm	Gland Size	Nett Mass kg/km	Std Drum Length m	Gross Drum Mass kg
PAIRS								
MPS005001LH	0.5	1	10.5	106	0	249	1000	324
MPS005002LH	0.5	2	13.8	139	0	394	1000	481
MPS005004LH	0.5	4	15.5	155	0	486	1000	573
MPS005008LH	0.5	8	18.6	187	1	651	1000	797
MPS005012LH	0.5	12	21.1	212	2	810	500	567
MPS005016LH	0.5	16	22.8	228	2	930	500	627
MPS005024LH	0.5	24	26.3	263	2	1323	500	906
MPS010001LH	1.0	1	11.3	114	0	290	1000	365
MPS010002LH	1.0	2	15.7	158	0	489	1000	576
MPS010004LH	1.0	4	17.3	174	1	589	1000	751
MPS010008LH	1.0	8	21.4	215	2	857	1000	1003
MPS010012LH	1.0	12	24.7	247	2	1199	500	762
MPS010016LH	1.0	16	27.1	271	3	1418	500	953
MPS010024LH	1.0	24	31.3	313	3	1986	300	758
MPS015001LH	1.5	1	12.1	122	0	329	1000	404
MPS015002LH	1.5	2	17.3	173	1	572	1000	734
MPS015004LH	1.5	4	20.0	200	2	738	1000	884
MPS015008LH	1.5	8	24.6	247	2	1177	500	751
MPS015012LH	1.5	12	28.5	285	3	1510	500	999
MPS015016LH	1.5	16	32.1	321	3	2009	300	765
MPS015024LH	1.5	24	35.6	357	4	2448	300	978
TRIADS								
MTS005001LH	0.5	1	10.8	109	0	269	1000	344
MTS005004LH	0.5	4	16.7	168	1	557	1000	719
MTS005008LH	0.5	8	21.0	210	2	808	1000	954
MTS005012LH	0.5	12	24.8	248	2	1150	500	737
MTS005016LH	0.5	16	27.2	272	3	1371	500	930
MTS005024LH	0.5	24	33.7	337	4	2041	300	856
MTS010001LH	1.0	1	11.7	117	0	316	1000	391
MTS010004LH	1.0	4	19.6	196	2	733	1000	820
MTS010008LH	1.0	8	24.3	245	2	1179	500	752
MTS010012LH	1.0	12	28.9	291	3	1565	500	1027
MTS010016LH	1.0	16	32.6	326	3	2086	300	788
MTS015001LH	1.5	1	12.6	126	0	358	1000	433
MTS015004LH	1.5	4	21.7	218	2	868	1000	1014
MTS015008LH	1.5	8	28.2	283	3	1505	500	997
MTS015012LH	1.5	12	34.0	340	4	2166	300	894

* Multiple triads available on request.

INSTRUMENTATION

INDIVIDUAL & OVERALL SCREENED / SWA ARMoured

Construction

Individual and overall screened with specially selected lay schemes in order to counter static and cross talk noises. A "clean" and accurate signal can therefore be expected to be transferred. Steel Wire Armouring is provided for increased mechanical protection.

Applications

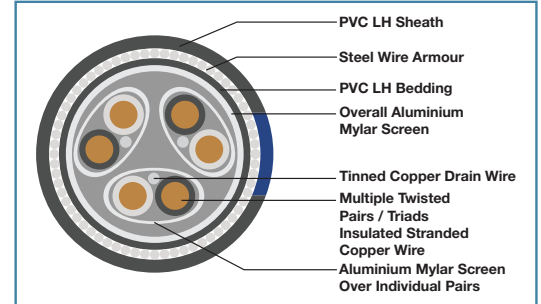
For interconnections between instruments, sensors and monitors.

Packaging

Available in 500 and 1000 metre drums.
Cut lengths available on request.

Specification

Conductors	Plain annealed class 4 bunched copper
Insulation	Crosslink polyethylene - Temperature rating 105°C
Identification	White Cores, Black numbered Pairs - Black and White numbered cores Triads - Black, Red and White numbered cores
Average Lay Length	63mm
Individual Screening	Aluminium/Polyester tape with a 0.5mm ² tinned copper drainwire. All individual screens are sealed
Overall Screening	Aluminium/Polyester tape with a 0.5mm ² bunched tinned copper drainwire
Bedding Sheath	Flame retardant PVC - Temperature rating 90°C
Armouring	Galvanised Steel Wire
Outer Sheath	Low Halogen. Black/Blue Stripe



Electrical Parameters

Rated insulation voltage	300/500V		
	0.5mm ²	1.0mm ²	1.5mm ²
Max. conductor resistance @ 20°C Ω/km:	39.0	19.5	13.3
Nominal mutual capacitance nF/km:	100	120	120
Nominal ground capacitance nF/km:	200	240	240
Nominal inductance mH/km:	0.68	0.64	0.61

Electrical Characteristics

Size mm ²	Capacitance	Capacitance		Maximum Resistance Ω/km		Nominal Inductance mH/km
		Nominal pF/m	Max pF/m	Single Pair/Triad & Multicore	Multi-Pair Triad	
0.5	Core / Core Screened	84	90	39.0	39.6	0.707
0.5	Core / Screen	158	169	39.0	39.6	0.707
0.5	Core / Core No Screen	53	56	39.0	39.6	0.707
0.5	Core / Screen OS only	100	106	39.0	39.6	0.707
1.0	Core / Core Screened	104	112	19.5	19.8	0.629
1.0	Core / Screen	196	210	19.5	19.8	0.629
1.0	Core / Core No Screen	63	66	19.5	19.8	0.629
1.0	Core / Screen OS only	119	124	19.5	19.8	0.629
1.5	Core / Core Screened	101	121	13.3	13.5	0.645
1.5	Core / Screen	190	228	13.3	13.5	0.645
1.5	Core / Core No Screen	61	70	13.3	13.5	0.645
1.5	Core / Screen OS only	115	131	13.3	13.5	0.645

INSTRUMENTATION

INDIVIDUAL & OVERALL SCREENED / SWA ARMoured

Physical Parameters (Standard Sizes)

Product Code	Size mm ²	No. of Pairs/Triads	Nominal OD mm	Min. Bending Radius mm	Gland Size	Nett Mass kg/km	Std Drum Length m	Gross Drum Mass kg
PAIRS								
IPS005002LH	0.5	2	14.6	146	0	439	1000	526
IPS005004LH	0.5	4	15.9	159	0	527	1000	614
IPS005008LH	0.5	8	19.6	197	2	761	1000	907
IPS005012LH	0.5	12	22.2	222	2	902	500	613
IPS005016LH	0.5	16	25.4	255	2	1267	500	878
IPS005024LH	0.5	24	29.3	293	3	1597	500	1043
IPS010002LH	1.0	2	16.0	161	0	517	1000	679
IPS010004LH	1.0	4	18.1	181	1	651	1000	797
IPS010008LH	1.0	8	21.4	215	2	934	1000	1080
IPS010012LH	1.0	12	26.2	262	2	1376	500	932
IPS010016LH	1.0	16	29.3	293	3	1644	500	1066
IPS010024LH	1.0	24	34.6	347	4	2356	300	951
IPS015002LH	1.5	2	18.0	180	1	620	1000	782
IPS015004LH	1.5	4	20.3	204	2	784	1000	930
IPS015008LH	1.5	8	25.7	257	2	1305	500	897
IPS015012LH	1.5	12	30.5	305	3	1863	500	1176
IPS015016LH	1.5	16	33.3	334	4	2228	300	912
IPS015024LH	1.5	24	39.8	339	4	2928	300	1170
TRIADS								
ITS005004LH	0.5	4	17.1	172	1	594	1000	669
ITS005008LH	0.5	8	21.5	215	2	870	1000	1016
ITS005012LH	0.5	12	25.8	259	2	1292	500	890
ITS005016LH	0.5	16	28.4	284	3	1526	500	1025
ITS005024LH	0.5	24	34.7	347	4	2231	300	914
ITS010004LH	1.0	4	20.0	200	2	777	1000	923
ITS010008LH	1.0	8	25.2	254	2	1301	500	894
ITS010012LH	1.0	12	30.5	306	3	1892	500	1190
ITS010016LH	1.0	16	33.5	336	4	2250	300	919
ITS015004LH	1.5	4	22.1	221	2	911	1000	1155
ITS015008LH	1.5	8	28.7	288	3	1586	500	1037
ITS015012LH	1.5	12	34.6	347	4	2288	300	930

* Multiple triads available on request.

FIBRE OPTIC CABLE

HDD / AERIAL CABLE MM

Construction

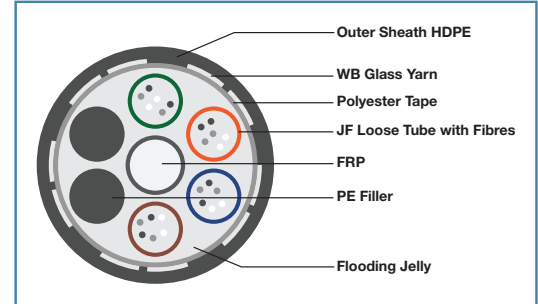
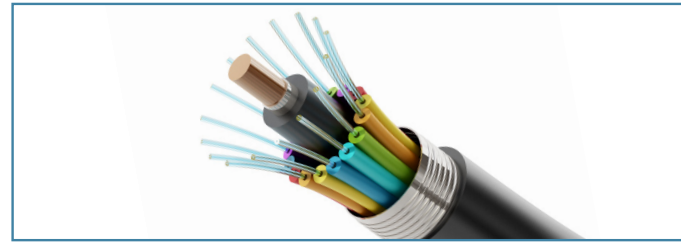
Made with high quality optical fibres suitable for operation at 850nm & 1300nm. The fibres conform to international standard ITU-T G651. The fibres have excellent geometrical properties to yield low splice loss. The fibres have dual acrylate coating and colour of the coating will not change over period of time.

Applications

Communication applications.

Packaging

Available in 500 metre drums.
Cut lengths available on request.



Specification

Max. Operating Tension (Long Term)	2000 Newton
Crush Resistance	2000 Newton / 100 mm
Minimum Bending Radius	20 x Cable Diameter
Max. Operating / Installation Temp.	-20°C to +70°C
Max. Span Length	70 - 75 Mtr.
Cladding Diameter	125.0 ± 2.0 µm
Core Diameter	50 ± 1.0 µm
Coating Diameter	245 ± 10 µm
Numerical Aperture	0.200 ± 0.015
Cladding Non-Circularity	≤ 1.0%
Core Non-Circularity	≤ 5.0%
Coated Fibre Diameter	235 to 255 µm
Core/Cladding Concentricity Error	≤ 2 µm
Coating/Cladding Concentricity Error	≤ 12 µm
Minimum Proof Strength - Strain	0.70 GPa (100 Kpsi) - 1%
Fiber Macrobend (100 turns around 75mm dia. Mandrel)	≤ 0.05 dB @ 1310 nm & ≤ 0.10 dB @ 1550 nm
Fiber Macrobend (1 turn around 32mm dia. Mandrel)	≤ 0.5 dB @ 850 nm & 1300 nm
Coating Strip Force	1.3 N ≤ F ≤ 8.9 N
Bandwidth	500/500 MHz.Km @ 850/1300 nm
Attenuation	≤ 2.7 dB/Km @ 850 nm & ≤ 0.8 dB/Km @ 1300 nm
Dynamic Tensile Strength	Unaged: > 550 Kpsi (3.8 GPa) a Aged: > 440 Kpsi (3.0 GPa)
Dynamic Fatigue	≥ 20
Static Fatigue	≥ 20



Physical and Dimensions Properties

Specification

Type of Fibre	50/125 MMF
Loose Tube Diameter	2.2mm Nominal
Strength Member	FRP & WB Glass Yarn Reinforcement
Outer Sheath Material	HDPE
Outer Sheath Thickness	1.5mm Nominal
Outer Cable Diameter	10.1 ± 0.6mm
Cable Weight	85 kg/km Nominal
Printing on Cable	As per customer requirement
Standard Length	2/4/6 km ± 10%

No. of Fibres	No. of Tubes / No. of Filler	Sequence of Tube	Colour of Fibre
4F & 6F	1/5	Blue, Filler-1, Filler-2, Filler-3, Filler-4, Filler-5	Blue, Orange, Green, Brown, / Slate & White
8F	2/4	Blue, Orange, Filler-1, Filler-2, Filler-3, Filler-4	Blue, Orange, Green & Brown
12F	2/4	Blue, Orange, Filler-1, Filler-2, Filler-3, Filler-4	Blue, Orange, Green, Brown, Slate, White
24F	4/2	Blue, Orange, Green, Brown, Filler-1, Filler-2	Blue, Orange, Green, Brown, Slate, White

* Fibre optic HDD/CST with Steel Wire Armour available on request.

FIBRE OPTIC CABLE

UNITUBE / CST / PE / MM

Construction

Made with high quality optical fibres suitable for operation at 850nm & 1300nm. The fibres conform to international standard ITU-T G651. The fibres have excellent geometrical properties to yield low splice loss. The fibres have dual acrylate coating and colour of the coating will not change over period of time.

Applications

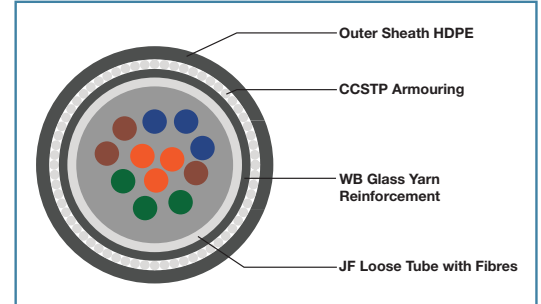
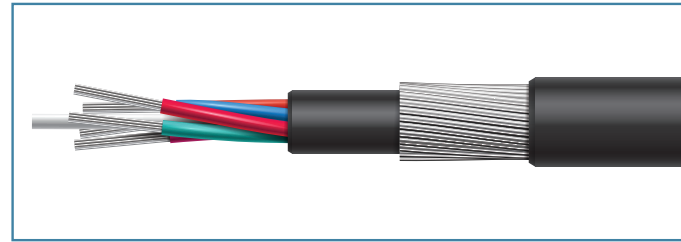
Communication applications.

Packaging

Available in 500 metre drums.
Cut lengths available on request.

Specification

Max. Permissible Tensile Force	2000 N - Short Term & 1000 N - Long Term
Crush Resistance	2000 Newton / 10 cm
Minimum Bending Radius	20 x Cable Diameter
Max. Operating / Installation Temp.	-20°C to +70°C
Max. Span Length	70 - 75 Mtr.
Cladding Diameter	125.0 ± 2.0 µm
Core Diameter	50 ± 1.0 µm
Coating Diameter	245 ± 10 µm
Numerical Aperture	0.200 ± 0.015
Cladding Non-Circularity	≤ 1.0%
Core Non-Circularity	≤ 5.0%
Coated Fibre Diameter	235 to 255 µm
Core/Cladding Concentricity Error	≤ 2 µm
Coating/Cladding Concentricity Error	≤ 12 µm
Minimum Proof Strength - Strain	0.70 GPa (100 Kpsi) - 1%
Fiber Macrobend (100 turns around 75mm dia. Mandrel)	≤ 0.05 dB @ 1310 nm & ≤ 0.10 dB @ 1550 nm
Fiber Macrobend (1 turn around 32mm dia. Mandrel)	≤ 0.5 dB @ 850 nm & 1300 nm
Coating Strip Force	1.3 N ≤ F ≤ 8.9 N
Bandwidth	500/500 MHz.Km @ 850/1300 nm
Attenuation	≤ 2.7 dB/Km @ 850 nm & ≤ 0.8 dB/Km @ 1300 nm
Dynamic Tensile Strength	Unaged: > 550 Kpsi (3.8 GPa) a Aged: > 440 Kpsi (3.0 GPa)
Dynamic Fatigue	≥ 20
Static Fatigue	≥ 20



Physical and Dimensions Properties

Specification

Type of Fibre	50/125 MMF
Loose Tube Diameter	2.8 ± 0.1mm
Strength Member	Water Blocking Glass Yarn Reinforcement
Outer Sheath Material	HDPE
Outer Sheath Thickness	Min. 1.5mm
Outer Cable Diameter	8.5 mm Nominal
Cable Weight	80 kg/km Nominal
Printing on Cable	As per customer requirement
Standard Length	2,4 ± 10% KMS

No. of Fibres	Colour of Fibre
4F	Blue, Orange, Green & Brown
6F	Blue, Orange, Green, Brown, Slate & White
8F	Blue, Orange, Green, Brown, Slate, White, Red & Black
12F	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose & Natural

* Fibre optic HDD/CST with Steel Wire Armouring available on request.

CONTROL CABLE

FLEXIBLE, NUMBER CODED, PVC PVC

Construction

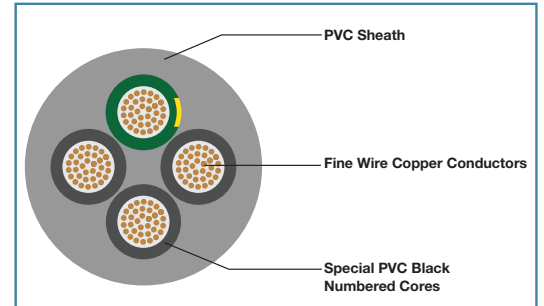
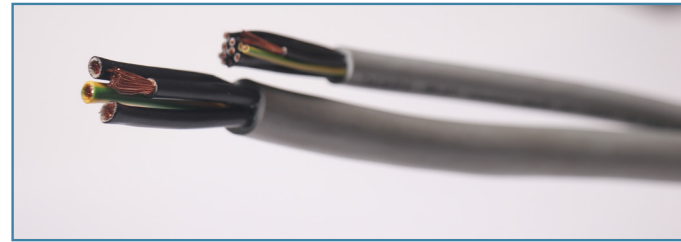
Fine wire copper conductors. Core insulation of special PVC Z 7225. Black cores with continuous white numbering. Green-yellow earth core in the outer layer (3 cores and above). Cores stranded in layers with optimal lay-length. Grey PVC outer sheath. Oil resistant and chemical resistant.

Applications

For use as a data cable in control circuits, in tool-making and machine industries as well as a signal cable in computer systems and electronics. The more usual PVC inner sheath has been replaced in these cables by a stabilising foil separator, thus reducing the total diameter of the cables considerably and thereby reducing the bending radius, total weight etc.

Packaging

Available in 500 metre drums.
Cut lengths available on request.



Specification

Nominal Voltage	300 / 500 V
Test Voltage	4000 V
Break Down Voltage	Min. 8000 V
Temperature Range	Flexing: -15°C to +80°C Fixed Installation: -40°C to +80°C
Minimum Bending Radius	Flexing: 7.5 x cable Ø Fixed Installation: 4 x cable Ø
Flexibility Class	5
Insulation Resistance	Min. 20 MOhm x km
Radiation Resistance	Up to 80 x 10 ⁶ cJ/kg (Up to 80 Mrad)
Sheath Colour	Grey



Part No.	No. Cores x Cross Section mm ²	Outer Ø Approx. mm	Cop. Weight kg/km	Weight Approx. kg/km	AWG-No.	Part No.	No. Cores x Cross Section mm ²	Outer Ø Approx. mm	Cop. Weight kg/km	Weight Approx. kg/km	AWG-No.
Y005002	2 x 0.5	4.9	9.6	40.0	20	Y005032	32 x 0.5	14.3	154.0	323.0	20
Y005003	3 x 0.5	5.2	14.4	46.0	20	Y005034	34 x 0.5	14.9	163.0	362.0	20
Y005004	4 x 0.5	5.6	19.0	56.0	20	Y005040	40 x 0.5	15.6	192.0	434.0	20
Y005005	5 x 0.5	6.3	24.0	65.0	20	Y005042	42 x 0.5	16.1	202.0	449.0	20
Y005006	6 x 0.5	6.9	29.0	75.0	20	Y005050	50 x 0.5	17.9	240.0	513.0	20
Y005007	7 x 0.5	6.9	33.6	80.0	20	Y005052	52 x 0.5	17.9	252.0	534.0	20
Y005008	8 x 0.5	7.4	38.0	97.0	20	Y005061	61 x 0.5	19.0	293.0	625.0	20
Y005010	10 x 0.5	8.3	48.0	116.0	20	Y005065	65 x 0.5	19.7	312.0	682.0	20
Y005012	12 x 0.5	8.8	58.0	135.0	20	Y005080	80 x 0.5	21.8	384.0	780.0	20
Y005015	14 x 0.5	9.7	67.0	150.0	20	Y005100	100 x 0.5	24.3	480.0	980.0	20
Y005016	16 x 0.5	10.2	76.0	175.0	20						
Y005018	18 x 0.5	11.0	86.0	196.0	20	Y007502	2 x 0.75	5.3	14.4	46.0	18
Y005020	20 x 0.5	11.5	96.0	215.0	20	Y007503	3 x 0.75	5.6	21.6	54.0	18
Y005021	21 x 0.5	11.5	101.0	240.0	20	Y007504	4 x 0.75	6.3	29.0	66.0	18
Y005025	25 x 0.5	12.9	120.0	270.0	20	Y007505	5 x 0.75	6.9	36.0	80.0	18
Y005030	30 x 0.5	13.8	144.0	310.0	20	Y007506	6 x 0.75	7.5	43.0	99.0	18

CONTROL CABLE

FLEXIBLE, NUMBER CODED, PVC PVC

Part No.	No. Cores x Cross Section mm ²	Outer Ø Approx. mm	Cop. Weight kg/km	Weight Approx. kg/km	AWG-No.	Part No.	No. Cores x Cross Section mm ²	Outer Ø Approx. mm	Cop. Weight kg/km	Weight Approx. kg/km	AWG-No.
Y007507	7 x 0.75	7.5	50.0	110.0	18	Y015008	8 x 1.5	9.9	115.0	216.0	16
Y007508	8 x 0.75	8.2	58.0	130.0	18	Y015009	9 x 1.5	10.9	129.0	259.0	16
Y007510	10 x 0.75	9.2	72.0	162.0	18	Y015010	10 x 1.5	10.9	144.0	275.0	16
Y007512	12 x 0.75	9.8	86.0	179.0	18	Y015011	11 x 1.5	12.0	158.0	300.0	16
Y007514	14 x 0.75	10.6	101.0	214.0	18	Y015012	12 x 1.5	12.0	173.0	309.0	16
Y007515	15 x 0.75	11.4	108.0	218.0	18	Y015014	14 x 1.5	13.0	202.0	345.0	16
Y007518	18 x 0.75	12.2	130.0	257.0	18	Y015016	16 x 1.5	13.9	230.0	386.0	16
Y007519	19 x 0.75	12.7	137.0	264.0	18	Y015018	18 x 1.5	14.6	259.0	440.0	16
Y007520	20 x 0.75	12.7	144.0	286.0	18	Y015019	19 x 1.5	15.2	279.0	445.0	16
Y007521	21 x 0.75	12.7	151.0	320.0	18	Y015020	20 x 1.5	15.5	288.0	490.0	16
Y007525	25 x 0.75	14.3	180.0	365.0	18	Y015021	21 x 1.5	15.5	302.0	555.0	16
Y007527	27 x 0.75	15.2	195.0	382.0	18	Y015025	25 x 1.5	17.4	360.0	620.0	16
Y007532	32 x 0.75	15.9	230.0	455.0	18	Y015027	27 x 1.5	19.0	389.0	670.0	16
Y007534	34 x 0.75	16.7	245.0	510.0	18	Y015032	32 x 1.5	19.5	461.0	790.0	16
Y007537	37 x 0.75	17.2	266.0	537.0	18	Y015034	34 x 1.5	20.2	490.0	830.0	16
Y007540	40 x 0.75	17.2	288.0	595.0	18	Y015037	37 x 1.5	20.2	533.0	892.0	16
Y007541	41 x 0.75	18.0	296.0	607.0	18	Y015041	41 x 1.5	21.8	591.0	996.0	16
Y007542	42 x 0.75	18.0	302.0	612.0	18	Y015042	42 x 1.5	21.8	605.0	1007.0	16
Y007550	50 x 0.75	19.8	360.0	735.0	18	Y015050	50 x 1.5	24.2	720.0	1250.0	16
Y007561	61 x 0.75	21.2	439.0	845.0	18	Y015056	56 x 1.5	24.9	806.0	1332.0	16
Y007565	65 x 0.75	21.7	468.0	895.0	18	Y015061	61 x 1.5	25.8	878.0	1440.0	16
Y007580	80 x 0.75	24.3	576.0	1070.0	18	Y015065	65 x 1.5	26.7	936.0	1602.0	16
Y0075100	100 x 0.75	27.0	720.0	1322.0	18	Y015080	80 x 1.5	29.8	1152.0	1871.0	16
						Y015100	100 x 1.5	33.2	1440.0	2353.0	16
Y010002	2 x 1	5.6	19.2	60.0	17	Y025002	2 x 2.5	7.8	48.0	112.0	14
Y010003	3 x 1	5.9	29.0	72.0	17	Y025003	3 x 2.5	8.3	72.0	148.0	14
Y010004	4 x 1	6.6	38.4	86.0	17	Y025004	4 x 2.5	9.2	96.0	178.0	14
Y010005	5 x 1	7.3	48.0	104.0	17	Y025005	5 x 2.5	10.1	120.0	221.0	14
Y010006	6 x 1	8.1	58.0	125.0	17	Y025007	7 x 2.5	11.2	168.0	306.0	14
Y010007	7 x 1	8.1	67.0	141.0	17	Y025008	8 x 2.5	12.3	192.0	363.0	14
Y010008	8 x 1	8.7	77.0	175.0	17	Y025012	12 x 2.5	14.8	288.0	498.0	14
Y010009	9 x 1	9.8	86.0	200.0	17	Y025014	14 x 2.5	16.0	336.0	569.0	14
Y010010	10 x 1	9.8	96.0	217.0	17	Y025018	18 x 2.5	18.2	432.0	764.0	14
Y010012	12 x 1	10.4	115.0	230.0	17	Y025021	21 x 2.5	19.1	504.0	914.0	14
Y010014	14 x 1	11.4	134.0	271.0	17	Y025025	25 x 2.5	21.6	600.0	1044.0	14
Y010016	16 x 1	12.3	154.0	300.0	17	Y025034	34 x 2.5	25.0	816.0	1470.0	14
Y010018	18 x 1	12.9	173.0	343.0	17	Y025042	42 x 2.5	27.2	1008.0	1790.0	14
Y010019	19 x 1	13.0	182.0	355.0	17	Y025050	50 x 2.5	30.0	1200.0	2095.0	14
Y010020	20 x 1	13.7	192.0	375.0	17	Y025061	61 x 2.5	32.0	1464.0	2750.0	14
Y010021	21 x 1	13.7	205.0	420.0	17	Y025100	100 x 2.5	41.4	2400.0	4450.0	14
Y010024	24 x 1	14.7	230.0	440.0	17	Y040002	2 x 4	9.3	77.0	195.0	12
Y010025	25 x 1	15.4	240.0	485.0	17	Y040003	3 x 4	9.8	115.0	230.0	12
Y010026	26 x 1	15.6	252.0	500.0	17	Y040004	4 x 4	11.0	154.0	295.0	12
Y010027	27 x 1	15.8	259.0	534.0	17	Y040005	5 x 4	12.3	192.0	361.0	12
Y010030	30 x 1	16.4	308.0	550.0	17	Y040007	7 x 4	13.6	269.0	458.0	12
Y010034	34 x 1	17.9	326.0	650.0	17	Y040008	8 x 4	14.6	307.0	590.0	12
Y010036	36 x 1	17.9	346.0	668.0	17	Y040012	12 x 4	17.8	461.0	790.0	12
Y010037	37 x 1	18.4	355.0	701.0	17	Y060003	3 x 6	11.9	173.0	355.0	10
Y010040	40 x 1	18.5	384.0	755.0	17	Y060004	4 x 6	13.0	230.0	424.0	10
Y010041	41 x 1	19.4	394.0	770.0	17	Y060005	5 x 6	14.5	288.0	525.0	10
Y010052	42 x 1	19.4	403.0	810.0	17	Y060007	7 x 6	16.2	403.0	625.0	10
Y010050	50 x 1	21.2	480.0	936.0	17	Y100003	3 x 10	14.8	288.0	540.0	8
Y010056	56 x 1	21.9	538.0	920.0	17	Y100004	4 x 10	16.4	384.0	701.0	8
Y010061	61 x 1	22.5	586.0	1100.0	17	Y100005	5 x 10	18.3	480.0	858.0	8
Y010065	65 x 1	23.5	628.0	1180.0	17	Y100007	7 x 10	20.2	672.0	1106.0	8
Y010080	80 x 1	26.0	768.0	1294.0	17	Y160003	3 x 16	18.2	461.0	827.0	6
Y010100	100 x 1	29.2	960.0	1644.0	17	Y160004	4 x 16	20.0	614.0	1035.0	6
Y015002	2 x 1.5	6.4	29.0	70.0	16	Y160005	5 x 16	22.6	768.0	1259.0	6
Y015003	3 x 1.5	6.8	43.0	90.0	16	Y160007	7 x 16	24.8	1075.0	1780.0	6
Y015004	4 x 1.5	7.4	58.0	109.0	16						
Y015005	5 x 1.5	8.3	72.0	131.0	16						
Y015006	6 x 1.5	9.2	86.0	157.0	16						
Y015007	7 x 1.5	9.2	101.0	184.0	16						

* Larger sizes available on request.

CONTROL CABLE

FLEXIBLE, PVC TINNED COPPER BRAID

Construction

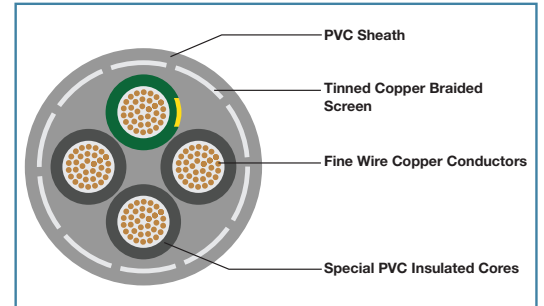
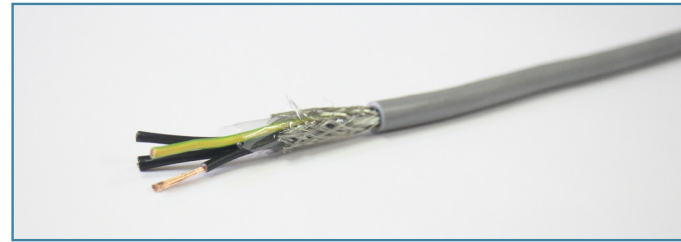
Fine wire copper conductors. Core insulation of special PVC Z 7225. Black cores with continuous white numbering. Green-yellow earth core in the outer layer (3 cores and above). Cores stranded in layers with optimal lay-length. Foil separator. Tinned copper braided screening, approx. 85% area coverage, grey PVC outer sheath.

Applications

For use as a data cable in control circuits, in tool-making and machine industries as well as a signal cable in computer systems and electronics. The more usual PVC inner sheath has been replaced in these cables by a stabilising foil separator, thus reducing the total diameter of the cables considerably and thereby reducing the bending radius, total weight etc. The high covering percentage of the copper screening offers interference-free signal transfer etc. The dense screening assures disturbance-free transmission of all signals and impulses. An ideal disturbance-free control cable for the above application.

Packaging

Available in 500 metre drums.
Cut lengths available on request.



Specification

Nominal Voltage	300 / 500 V
Test Voltage	Core/Core 4000 V and Core/Screen 2000 V
Break Down Voltage	Min. 8000 V
Temperature Range	Flexing: -5°C to +80°C Fixed Installation: -40°C to +80°C
Minimum Bending Radius	Flexing: 10 x cable Ø Fixed Installation: 5 x cable Ø
Flexibility Class	5
Insulation Resistance	Min. 20 MOhm x km
Mutual Capacitance	According to different cross-sections 0.5mm ² to 2.5mm ² : Core/Core approx. 150 nF/km and Core/Screen approx. 270 nF/km
Coupling Resistance	Max. 250 Ohm/km
Radiation Resistance	Up to 80 x 10 ⁶ cJ/kg (Up to 80 Mrad)
Sheath Colour	Grey



Part No.	No. Cores x Cross Section mm ²	Outer Ø Approx. mm	Cop. Weight kg/km	Weight Approx. kg/km	AWG-No.	Part No.	No. Cores x Cross Section mm ²	Outer Ø Approx. mm	Cop. Weight kg/km	Weight Approx. kg/km	AWG-No.
CY005002	2 x 0.5	5.7	35.0	45.0	20	CY005021	21 x 0.5	12.7	188.0	250.0	20
CY005003	3 x 0.5	5.9	42.0	55.0	20	CY005024	24 x 0.5	13.5	235.0	300.0	20
CY005004	4 x 0.5	6.4	47.0	61.0	20	CY005025	25 x 0.5	13.6	240.0	314.0	20
CY005005	5 x 0.5	6.9	56.0	74.0	20	CY005030	30 x 0.5	14.4	295.0	360.0	20
CY005006	6 x 0.5	7.6	67.0	89.0	20	CY005032	32 x 0.5	14.9	301.0	425.0	20
CY005007	7 x 0.5	7.6	69.0	98.0	20	CY005034	34 x 0.5	15.6	312.0	433.0	20
CY005008	8 x 0.5	8.7	80.0	117.0	20	CY005036	36 x 0.5	15.6	318.0	446.0	20
CY005010	10 x 0.5	9.6	94.0	135.0	20	CY005040	40 x 0.5	16.9	343.0	475.0	20
CY005012	12 x 0.5	9.7	108.0	157.0	20	CY005041	41 x 0.5	16.9	348.0	486.0	20
CY005014	14 x 0.5	10.2	116.0	190.0	20	CY005050	50 x 0.5	18.5	406.0	573.0	20
CY005016	16 x 0.5	11.0	129.0	210.0	20	CY005061	61 x 0.5	19.7	508.0	653.0	20
CY005018	18 x 0.5	11.5	145.0	217.0	20	CY005080	80 x 0.5	22.6	680.0	784.0	20
CY005020	20 x 0.5	12.2	172.0	240.0	20	CY005100	100 x 0.5	24.9	804.0	995.0	20

CONTROL CABLE

FLEXIBLE, PVC TINNED COPPER BRAID

Part No.	No. Cores x Cross Section mm ²	Outer Ø Approx. mm	Cop. Weight kg/km	Weight Approx. kg/km	AWG-No.	Part No.	No. Cores x Cross Section mm ²	Outer Ø Approx. mm	Cop. Weight kg/km	Weight Approx. kg/km	AWG-No.
CY007502	2 x 0.75	6.1	40.0	59.0	18	CY015007	7 x 1.5	9.8	147.0	208.0	16
CY007503	3 x 0.75	6.3	52.0	66.0	-	CY015008	8 x 1.5	11.4	170.0	244.0	16
CY007504	4 x 0.75	6.8	60.0	77.0	18	CY015010	10 x 1.5	12.6	193.0	315.0	16
CY007505	5 x 0.75	7.4	71.0	93.0	18	CY015012	12 x 1.5	12.8	267.0	338.0	16
CY007506	6 x 0.75	8.2	80.0	113.0	18	CY015014	14 x 1.5	13.5	283.0	383.0	16
CY007507	7 x 0.75	8.2	91.0	130.0	18	CY015016	16 x 1.5	14.4	315.0	424.0	16
CY007508	8 x 0.75	9.6	110.0	145.0	18	CY015018	18 x 1.5	15.4	374.0	479.0	16
CY007510	10 x 0.75	10.3	137.0	180.0	18	CY015019	19 x 1.5	15.4	386.0	508.0	16
CY007512	12 x 0.75	10.5	142.0	202.0	18	CY015020	20 x 1.5	16.1	396.0	545.0	16
CY007514	14 x 0.75	11.3	180.0	225.0	18	CY015021	21 x 1.5	17.0	425.0	560.0	16
CY007516	16 x 0.75	11.9	200.0	275.0	18	CY015024	24 x 1.5	18.2	458.0	690.0	16
CY007518	18 x 0.75	12.7	212.0	292.0	18	CY015025	25 x 1.5	18.4	526.0	705.0	16
CY007519	19 x 0.75	12.7	230.0	308.0	18	CY015027	27 x 1.5	18.4	531.0	774.0	16
CY007520	20 x 0.75	13.3	238.0	320.0	18	CY015028	28 x 1.5	19.1	541.0	810.0	16
CY007521	21 x 0.75	14.0	246.0	378.0	18	CY015030	30 x 1.5	19.1	555.0	830.0	16
CY007524	24 x 0.75	14.9	270.0	435.0	18	CY015035	35 x 1.5	20.8	645.0	890.0	16
CY007525	25 x 0.75	15.0	281.0	415.0	18	CY015037	37 x 1.5	20.8	674.0	945.0	16
CY007527	27 x 0.75	15.0	304.0	435.0	18	CY015040	40 x 1.5	22.6	725.0	1060.0	16
CY007530	30 x 0.75	15.8	320.0	450.0	18	CY015041	41 x 1.5	22.6	801.0	1071.0	16
CY007532	32 x 0.75	16.7	342.0	484.0	18	CY015050	50 x 1.5	24.7	885.0	1290.0	16
CY007534	34 x 0.75	17.2	345.0	502.0	18	CY015061	61 x 1.5	26.4	1100.0	1705.0	16
CY007536	36 x 0.75	17.2	350.0	535.0	18	CY015080	80 x 1.5	30.3	1324.0	2010.0	16
CY007537	37 x 0.75	17.2	361.0	592.0	18	CY0150100	100 x 1.5	33.6	1641.0	2505.0	16
CY007540	40 x 0.75	18.6	369.0	610.0	18						
CY007541	41 x 0.75	18.6	400.0	622.0	18	CY025002	2 x 2.5	8.3	96.0	130.0	14
CY007550	50 x 0.75	20.3	461.0	777.0	18	CY025003	3 x 2.5	9.0	144.0	167.0	14
CY007561	61 x 0.75	21.7	540.0	900.0	18	CY025004	4 x 2.5	9.8	148.0	195.0	14
CY007580	80 x 0.75	24.8	711.0	1210.0	18	CY025005	5 x 2.5	10.9	181.0	223.0	14
CY0075100	100 x 0.75	27.6	900.0	1445.0	18	CY025007	7 x 2.5	11.9	255.0	344.0	14
						CY025010	10 x 2.5	15.5	340.0	460.0	14
CY010002	2 x 1	6.4	50.0	65.0	17	CY025012	12 x 2.5	15.8	441.0	570.0	14
CY010003	3 x 1	6.7	60.0	80.0	17	CY025018	18 x 2.5	18.9	570.0	681.0	14
CY010004	4 x 1	7.2	71.0	98.0	17						
CY010005	5 x 1	8.0	88.0	127.0	17	CY040002	2 x 4	9.8	120.0	185.0	12
CY010006	6 x 1	8.7	97.0	144.0	17	CY040003	3 x 4	10.6	174.0	240.0	12
CY010007	7 x 1	8.7	111.0	158.0	17	CY040004	4 x 4	11.5	230.0	310.0	12
CY010008	8 x 1	10.1	127.0	197.0	17	CY040005	5 x 4	12.7	273.0	385.0	12
CY010010	10 x 1	11.2	150.0	232.0	17	CY040007	7 x 4	14.0	316.0	500.0	12
CY010012	12 x 1	11.4	184.0	260.0	17						
CY010014	14 x 1	12.0	196.0	302.0	17	CY060002	2 x 6	11.7	173.0	268.0	10
CY010016	16 x 1	12.8	209.0	346.0	17	CY060003	3 x 6	12.5	240.0	330.0	10
CY010018	18 x 1	13.5	260.0	380.0	17	CY060004	4 x 6	13.8	305.0	415.0	10
CY010019	19 x 1	13.5	280.0	412.0	17	CY060005	5 x 6	15.3	439.0	509.0	10
CY010020	20 x 1	14.3	317.0	440.0	17	CY060007	7 x 6	16.9	505.0	672.0	10
CY010024	24 x 1	16.0	320.0	493.0	17						
CY010025	25 x 1	16.2	349.0	534.0	17	CY100002	2 x 10	14.7	255.0	425.0	8
CY010027	27 x 1	16.2	400.0	562.0	17	CY100003	3 x 10	15.7	350.0	500.0	8
CY010028	28 x 1	17.0	408.0	595.0	17	CY100004	4 x 10	17.3	535.0	783.0	8
CY010030	30 x 1	17.0	441.0	616.0	17	CY100005	5 x 10	19.2	592.0	856.0	8
CY010034	34 x 1	18.5	486.0	741.0	17	CY100007	7 x 10	21.4	810.0	1305.0	8
CY010037	37 x 1	18.5	519.0	790.0	17						
CY010040	40 x 1	19.9	510.0	835.0	17	CY160004	4 x 16	20.4	740.0	880.0	6
CY010041	41 x 1	19.9	531.0	843.0	17	CY160005	5 x 16	22.6	895.0	1295.0	6
CY010050	50 x 1	21.8	625.0	1025.0	17						
CY010061	61 x 1	23.3	702.0	1205.0	17	CY250004	4 x 25	24.9	1140.0	1570.0	4
CY010080	80 x 1	26.6	920.0	1445.0	17	CY250005	5 x 25	27.8	1380.0	1965.0	4
CY0100100	100 x 1	29.7	1120.0	1613.0	17						
						CY350004	4 x 35	28.4	1576.0	2070.0	2
CY015002	2 x 1.5	7.0	63.0	88.0	16	CY350005	5 x 35	31.6	1930.0	2690.0	2
CY015003	3 x 1.5	7.5	80.0	100.0	16						
CY015004	4 x 1.5	8.1	97.0	126.0	16	CY500004	4 x 50	34.6	2155.0	3015.0	1
CY015005	5 x 1.5	9.0	119.0	160.0	16						

AS-INTERFACE EPDM

ASI-BUS

Construction

Conductor material copper strand, tinned. Conductor Class super fine wire, core insulation EPDM, core identification blue and brown. No polarity mix-up by geometrically coded. Conforms to RoHS. IEC standard.

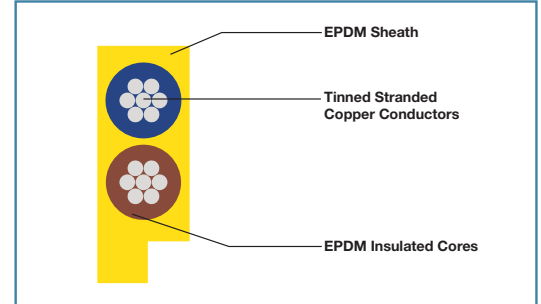
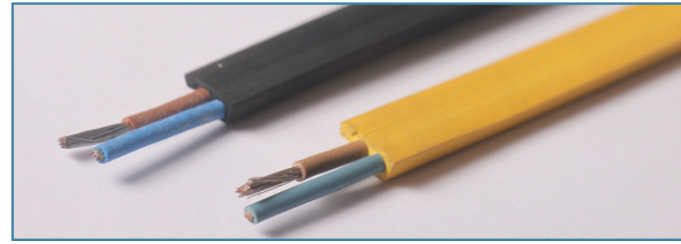
Applications

Unshielded bus cable for cross-linking of binary sensor and actuators on lowest field level.

For fixed installations as well as occasional flexing at free non-continuously recurring movement without tensile load.

Packaging

Available in 500 metre drums.
Cut lengths available on request.



Specification

Voltage	Rated: Max. 300 V Testing Core/Core: Min. 2000 V
Capacity	At 20°C appr. 80 pF/km at 1 kHz
Operating Temperature	Fixed (min/max): -40°C / +105°C Moved (min/max): -30°C / +105°C
Minimum Bending Radius	Fixed: 10 x d Moved: 15 x d
Conductor Resistance	On +20°C 13.7 Ω/km
Sheath Colour	Yellow / black
Outer Sheath	EPDM
Outer Diameter	Approx. 4.0 x 10.0 mm
Cu Index	30.0 kg/km
Weight	85.0 kg/km
Size	1.5 mm x 2 core



PROFIBUS PVC

FOR FLEXIBLE AND FIXED INSTALLATION

Construction

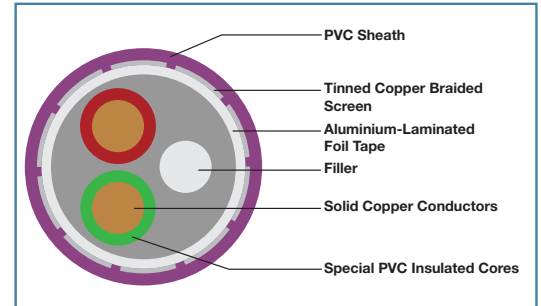
Flame retardant and self-extinguishing. Largely resistant to grease, coolant fluids and lubricants, resistant to oil. Optimal cost-value ratio. Conforms to RoHS.

Applications

PVC - Shielded field bus cable for Profibus Systems. For flexible and fixed installations.

Packaging

Available in 500 metre drums.
Cut lengths available on request.



Specification

Voltage	Rated: 0.64 - 240 V / 1mm ² - 500 V Testing: Core/Core - 1.200 V / Core/Shield - 750 V
Capacity	0.64 pairs: max. 30 nF/km
Operating Temperature	Fixed: -30°C to +80°C Moved: -5°C to +70°C
Minimum Bending Radius	Fixed: 10 x d Moved: 15 x d
Protection Against Contact	Aluminium-Laminated foil tape, single layer, overlap
Conductor Material	2458: Solid bare copper / 2460: Bare stranded copper
Conductor Class	2458: 0.64mm single wire / 2460: Copper strand 7/19 wired
Core Insulation	0.64: O2Y, foamed PE / 1mm ² : 2Y, PE
Core Identification	2458-PVC: GN, RD 2460-PVC-Hybride: GN, RD, BK, BU, GNYE
Shield	Copper braid, tinned
Resistance	Loop: Max. 115 Ω/km Insulation: on +20°C ≥ 20 MΩ x km
Sheath Colour	Violet
Outer Sheath	PVC
Characteristic Impedance	0.64 pairs: 150 +/- 15 Ω
Transfer Rate	0.64 pairs: 1.500 kBits/s
Transfer Size	0.64 pairs: 200 m
Burning Behaviour	Flame-retardant, self-extinguishing
Standard	DIN VDE 0207, 0250, 0293, 0295, 0472, 0482, IEC

* Steel Wire Armoured option available on request.



MYLAR PAIRS

PAIRS OVERALL ALUMINIUM
MYLAR SCREEN COLOUR CODED
DEF SPEC

Construction

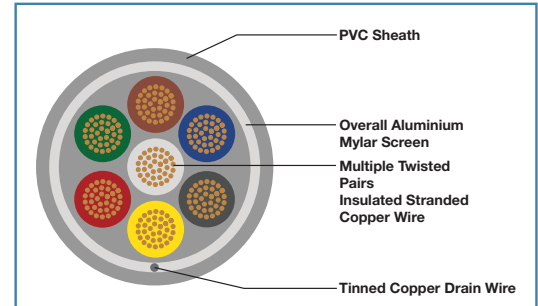
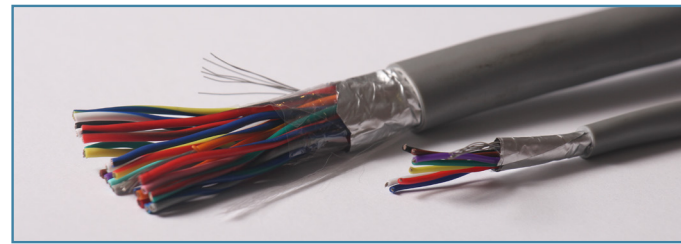
Overall screened cable, against external interference for data / signal transmission. 100% coverage screen. Tinned copper conductors. Twisted pairs. Overall aluminium mylar screen. Tinned copper drain wire. Grey outer PVC sheath.

Applications

For interconnections between instruments, sensors and monitors.

Packaging

Available in 500 metre drums.
Cut lengths available on request.



Specification

Voltage Rating	0.22 & 0.50 mm ² : 440 V Grade 1.00 & 1.50 mm ² : 500 V Grade
Conductors	0.22 & 0.50 mm ² : Tinned copper 1.00 & 1.50 mm ² : Plain copper
Insulation	PVC
Overall Screening	Aluminium mylar
Shield	Tinned Copper Drain wire with each shield
Outer Sheath	Grey PVC
Pairs	Twisted pairs, Colour coded cores to Def Standard



Part No.	No. of Pairs	Conductor Size mm ²	Outer Ø Approx. mm	Part No.	No. of Pairs	Conductor Size mm ²	Outer Ø Approx. mm
MPG002201	1	0.22	3.2	MPG005020	20	0.50	20.7
MPG002202	2	0.22	5.2	MPG005025	25	0.50	22.0
MPG002203	3	0.22	5.7	MPG005030	30	0.50	24.0
MPG002204	4	0.22	6.3	MPG005036	36	0.50	26.0
MPG002206	6	0.22	7.2	MPG005050	50	0.50	30.0
MPG002207	7	0.22	8.3				
MPG002210	10	0.22	9.1	MPG010001	1	1.00	6.6
MPG002212	12	0.22	9.9	MPG010002	2	1.00	8.4
MPG002218	18	0.22	12.3	MPG010004	4	1.00	13.2
MPG002220	20	0.22	12.7	MPG010008	8	1.00	17.1
MPG002225	25	0.22	14.3	MPG010012	12	1.00	20.1
MPG002230	30	0.22	15.2	MPG010016	16	1.00	22.2
MPG002236	36	0.22	16.9	MPG010020	20	1.00	23.6
MPG002250	50	0.22	19.1	MPG010024	24	1.00	25.8
MPG005001	1	0.50	5.0	MPG015001	1	1.50	7.1
MPG005002	2	0.50	7.4	MPG015002	2	1.50	13.5
MPG005003	3	0.50	8.2	MPG015004	4	1.50	15.9
MPG005004	4	0.50	8.6	MPG015008	8	1.50	20.6
MPG005006	6	0.50	11.0	MPG015012	12	1.50	23.8
MPG005007	7	0.50	12.0	MPG015016	16	1.50	26.8
MPG005010	10	0.50	13.5	MPG015020	20	1.50	28.5
MPG005012	12	0.50	15.0	MPG015024	24	1.50	31.0
MPG005018	18	0.50	18.4				

MYLAR PAIRS

PAIRS INDIVIDUAL AND OVERALL
ALUMINIUM MYLAR SCREEN
COLOUR CODED DEF SPEC

Construction

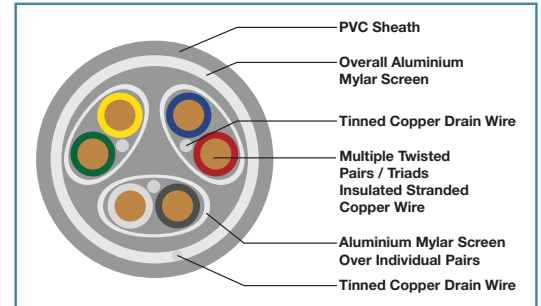
Individual and overall screened cable, against external interference for data / signal transmission. 100% coverage screen. Tinned copper conductors. Twisted pairs. Individual and overall aluminium mylar screen. Tinned copper drain wire. Grey outer PVC sheath.

Applications

For interconnections between instruments, sensors and monitors.

Packaging

Available in 500 metre drums.
Cut lengths available on request.



Specification

Voltage Rating	0.22 & 0.50 mm ² : 440 V Grade 1.00 & 1.50 mm ² : 300/500 V Grade
Conductors	0.22 & 0.50 mm ² : Tinned copper 1.00 & 1.50 mm ² : Plain copper
Insulation	PVC
Individual & Overall Screening	Aluminium mylar
Shield	Tinned Copper Drain wire with each shield
Outer Sheath	Grey PVC
Pairs	Twisted pairs, Colour coded cores to Def Standard



Part No.	No. of Pairs	Conductor Size mm ²	Outer Ø Approx. mm	Part No.	No. of Pairs	Conductor Size mm ²	Outer Ø Approx. mm
IPG002202	2	0.22	5.6	IPG005020	20	0.50	20.0
IPG002203	3	0.22	6.2	IPG005025	25	0.50	24.0
IPG002204	4	0.22	7.0	IPG005030	30	0.50	26.2
IPG002206	6	0.22	7.7	IPG005036	36	0.50	28.6
IPG002207	8	0.22	9.0	IPG005050	50	0.50	31.5
IPG002210	10	0.22	10.0				
IPG002212	12	0.22	11.2	IPG010002	2	1.00	8.7
IPG002218	18	0.22	13.3	IPG010004	4	1.00	13.7
IPG002220	20	0.22	13.9	IPG010008	8	1.00	17.9
IPG002225	25	0.22	15.0	IPG010012	12	1.00	21.0
IPG002230	30	0.22	15.9	IPG010016	16	1.00	23.4
IPG002236	36	0.22	17.5	IPG010020	20	1.00	24.8
IPG002250	50	0.22	20.0	IPG010024	24	1.00	27.0
IPG005002	2	0.50	7.6	IPG015002	2	1.50	13.5
IPG005003	3	0.50	8.5	IPG015004	4	1.50	15.9
IPG005004	4	0.50	9.0	IPG015008	8	1.50	20.6
IPG005006	6	0.50	11.4	IPG015012	12	1.50	23.8
IPG005008	8	0.50	12.7	IPG015016	16	1.50	26.8
IPG005010	10	0.50	13.5	IPG015020	20	1.50	28.5
IPG005012	12	0.50	15.7	IPG015024	24	1.50	31.0
IPG005018	18	0.50	18.4				

CAT5 UTP & CAT6 UTP

Construction

CAT5: Solid / Stranded copper conductors 1x0.51mm ± 0.01mm, insulated with PE Ø 0.9mm ± 0.02mm. 4 twisted pairs.

Solid / Stranded.

CAT6: Solid / Stranded copper conductors 4x2x0.574mm ± 0.01mm, insulated with high density low molecular weight polyethylene Ø 1.05mm ± 0.05mm.

Solid / Stranded.

Applications

Network cables.

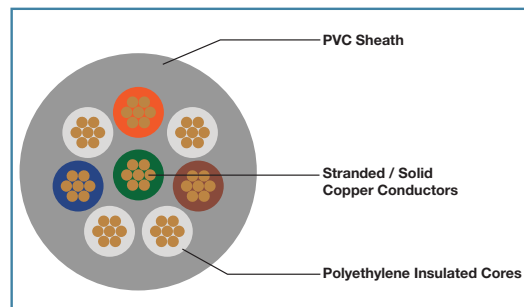
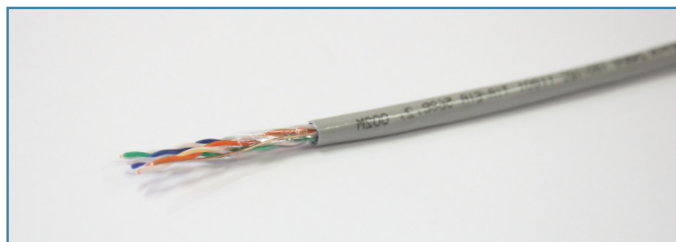
Also available in the following constructions: FTP, STP and SFTP.

Also available in a copper clad aluminium option.

Packaging

Available in 500 metre drums.

Cut lengths available on request.



Specification	CAT5	CAT6
Voltage	250 V	250 V
Test Voltage	1500 V	1500 V
Insulation Resistance	> 20 MΩ/km @ 20°C	> 20 MΩ/km @ 20°C
Electrical Resistance	< 145 Ω/km @ 20°C	< 145 Ω/km @ 20°C
Impedance	67 Ω	67 Ω
Capacitance	Cond: 120 nF/km, Shield: 160 nF/km	Cond: 120 nF/km, Shield: 160 nF/km
Operating Temperature	-20°C to +85°C	-20°C to +85°C
Minimum Bending Radius	5 x Cable Diameter	5 x Cable Diameter
Colour Code	Pair 1 - Blue / White Pair 2 - Orange / White Pair 3 - Green / White Pair 4 - Brown / White	Pair 1 - Blue / White-Blue Pair 2 - Orange / White-Orange Pair 3 - Green / White-Green Pair 4 - Brown / White-Brown
Outer Sheath	Outer Diameter: 5.4±0.2mm RoHS PVC Grey RAL 7001 Nominal Thickness: 0.55mm Perfectly round cable: 1/2 pressure extrusion 83±5 shore A nominal	Outer Diameter: 6.5±0.3mm RoHS PVC Grey RAL 7001 Thickness: 0.56mm±0.05mm Perfectly round cable: 1/2 pressure extrusion Ripcord Nylon Tensile Strength > 13.8Mpa Elongation > 150%

FIRE ALARM

PH30/120, FIRE RATED CABLE, SCREENED

Construction

Bare copper, fine wire stranded conductors. Core wrapping with special mica impregnated glass fibre tape. Core insulation of special PVC LSOH. Colour coding. Screening with alu-laminated polyester tape and stranded tinned copper drain wire. Special UL PVC Jacket. Special Halogen free; no evolution of corrosive and toxic gasses. Self-extinguishing and flame retardant.

Applications

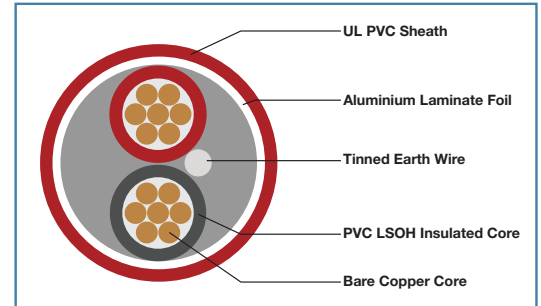
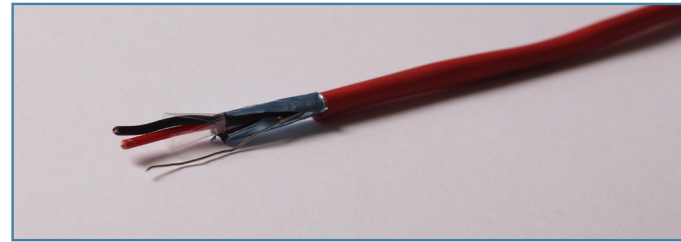
Fire Resistant cables with Halogen free compounds are mainly used for installation of fire alarm and emergency evacuation systems, where long term electrical circuits are required under fire conditions, and to prevent loss of life and property.

PH30: Assures the functional performance of emergency systems up to 30 minutes.

PH120: Assures the functional performance of emergency systems up to 120 minutes.

Packaging

Available in 500 metre drums.
Cut lengths available on request.



Specification

Voltage Rating	500 V
Test Voltage	2500 V 50 Hz
Operating Temperature	-15°C to 70°C
Minimum Bending Radius	10 x cable Ø
Conductors	Bare copper, fine wire stranded
Colour Coding	Pair 1: Red and Blue Pair 2: Grey and Yellow
Insulation	Special PVC LSOH
Insulation Resistance	min. 200 MOhm/km



Product Code	No. Cores x cross-sec mm ²	Fire Rating min. @ 850°C	Outer Ø approx. mm	AWG-No.
AC1.0X2CORES	2 x 1.0	30	6.8	18
AC1.0X2CORESPH120	2 x 1.0	120	8.3	18
AC1.5X2CORES	2 x 1.5	30	7.6	16
AC1.5X2CORESPH120	2 x 1.5	120	9.0	16
AC2.5X2CORES	2 x 2.5	30	-	14
AC2.5X2CORESPH120	2 x 2.5	120	-	14
AC1.0X4CORES	4 x 1.0	30	8.6	18
AC1.0X4CORESPH120	4 x 1.0	120	-	18
AC1.5X4CORES	4 x 1.5	30	9.8	16
AC1.5X4CORESPH120	4 x 1.5	120	-	16
AC2.5X4CORES	4 x 2.5	30	-	14
AC2.5X4CORESPH120	4 x 2.5	120	-	14