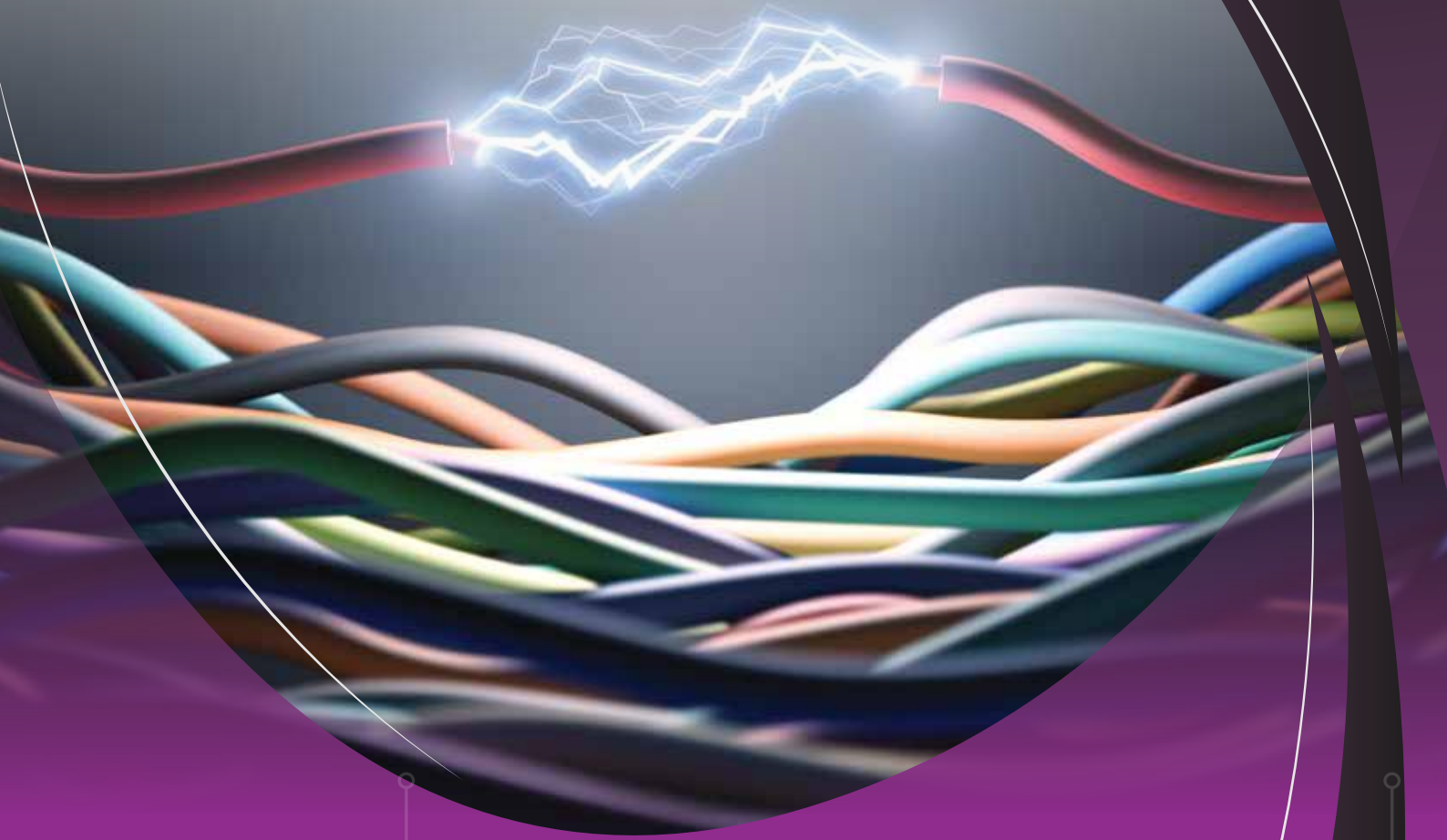




**Ecomms**  
AFRICA PTY LIMITED



# Cable Catalogue **2021** DIGITAL

[www.ecommsafrica.com](http://www.ecommsafrica.com)

# INTRODUCTION

With a solid reputation in the cable industry, as well as an impressive combined 47 years experience amongst its key personnel, Ecomms Africa is a dynamic and progressive service-orientated company, with offices in Gauteng and Service Managers in KwaZulu-Natal.

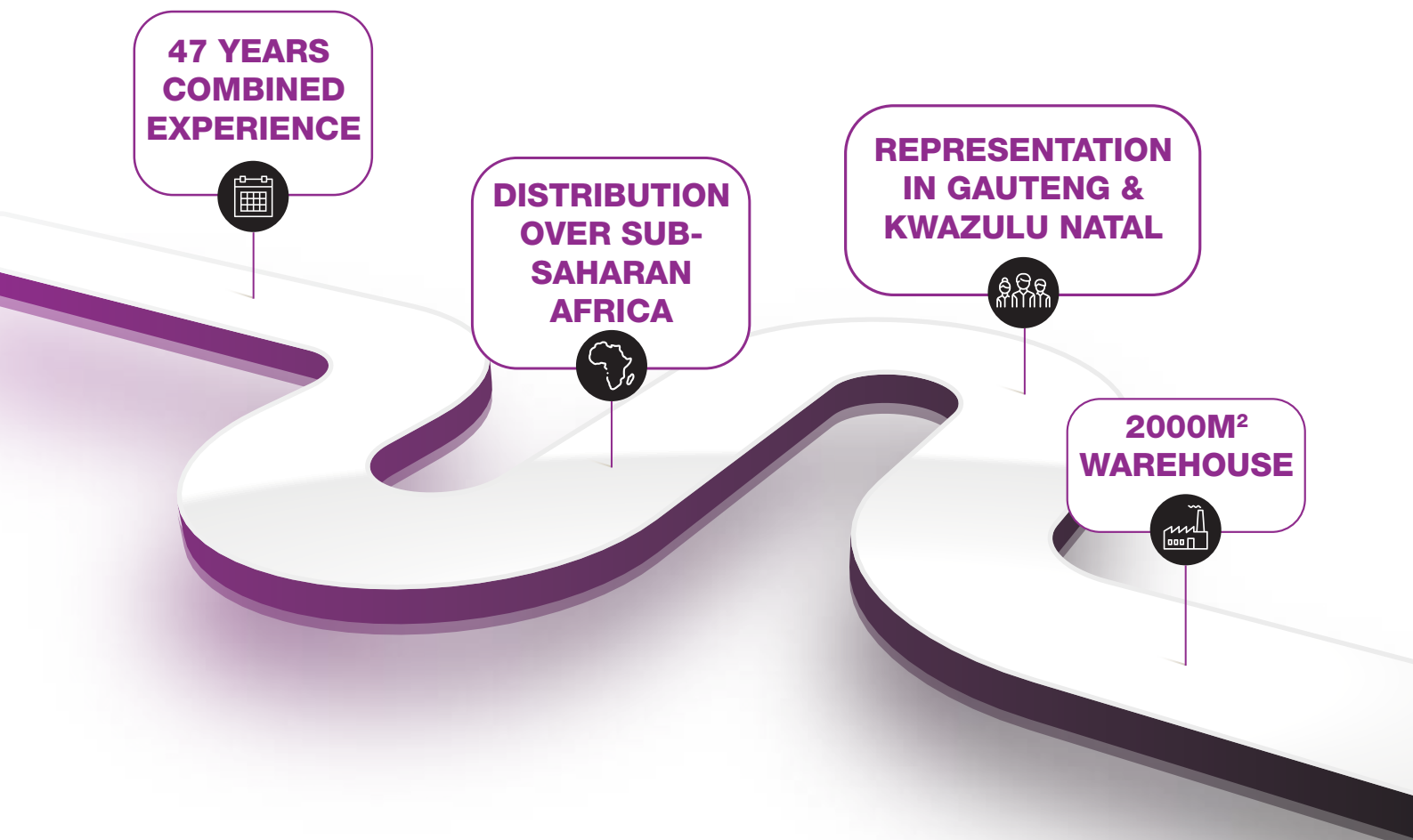
Established in 2018, the company has seen an amazing growth rate, with a strong client-base and distribution network. Within a short space of time, Ecomms Africa has set up distribution services with a footprint that spans Sub-Saharan Africa and includes a 2000m<sup>2</sup> warehouse in Gauteng.

We focus on delivering quality products and services with the right specifications, at the right time and at the right price.

We supply various industries, including but not limited to, the automation industry, industrial, fire detection, mining, building, building management systems (BMS) and telecommunications industries.

We strongly believe that open, effective communication is critical to building long term working relationships and our strong team ethos drives an energetic, dynamic and highly motivated team. We consistently strive to provide the highest level of service and professionalism and as such, availability to our clients coupled with a rapid response rate is our top priority. This is evident by our quick turnaround time as we carry many items in stock, and we also offer air-freight options on request.

We take great pride in the personalised approach that we offer our clients- not only providing a service but becoming your trusted partner for professional advice and thus, an invaluable asset to your business.





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# FIRE-TECH

Fire Detection  
Fire Resistant Cable - PH30 / PH120

FIRE-TECH 2 X 1.00 100/100V PH30



## Technical Data

Fire rated cable conforms to IEC/EN 60332.3-24; EN 60332-3-25, Flame retardant as per IEC/EN 60332.1-2



**TEMPERATURES**  
Operating: 0°C to 80°C  
Conductor Max: 180°C  
Short Circuit: 350°C

**VOLTAGE RATING**  
300/500V

**MIN. BENDING RADIUS**  
10 x OD

**HALOGEN FREE**  
< 0.5mg/g  
(EN 50267-2-1; IEC 60754.1;  
IEC 60754.2)

**LOW SMOKE EMISSION**  
Transmittance >  
60% (IEC 61034-2)

## Application

Fire rated cables are designed to ensure circuit continuity in the event of a fire. Primarily intended for use in fire detection and fire alarm systems, emergency lighting circuits or if cables need to properly operate when fire resistance improvement is required. Suitable for indoor installation for platforms, pipe, conduits etc. Cable available shielded with Aluminium/Polyester and unshielded.

## Construction

Annealed Copper conductors as per EN 60228 Class 5.  
Core insulation ceramifiable silicone rubber. Twisted pairs with Polyester foil tape.  
Annealed stranded tinned Copper drain wire. Shielded with Aluminium/PET foil  
Outer sheath thermoplastic Halogen free compound (T17) as per EN 50363-3; EN 50267-2-1. Outer sheath colour Red (RAL 3000)

## Fire Resistance

**PH30:** 120 Minutes at 830°C in accordance with EN 50200  
30 Minutes at 950°C in accordance with BS 6387 cat. CWZ

**PH120:** 120 Minutes at 950°C per BS 6387 cat. CWZ

## Variations

Outer sheath Red or White. Additional colours on request. Alternatively, available in mineral fibre (Mica) construction per EN50200  
x = PH30 / PH120

## Additional

**Cable Print:** FIRE-TECH 2 x 1.00 100/100V PH30/(120) CEI 20-105 UNI  
9795 CEI UNEL 36762 C-4 (U<sub>0</sub> =400 V) EN 50200 CEI EN  
60332-3-25 (Production Batch) CE (Meter marking)

**Marking Colour:** Blue

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	DESCRIPTION	PH30 OD	PH120 OD
E37/102PHxx-x	2 x 1	FIRE-TECH FIRE RESISTANT CABLE	6.2	6.8
E37/104PHxx-x	4 x 1	FIRE-TECH FIRE RESISTANT CABLE	8.2	8.5
E37/106PHxx-x	6 x 1	FIRE-TECH FIRE RESISTANT CABLE	11.4	12.0
E37/1502PHxx-x	2 x 1.5	FIRE-TECH FIRE RESISTANT CABLE	7.5	7.8
E37/1504PHxx-x	4 x 1.5	FIRE-TECH FIRE RESISTANT CABLE	9.5	9.8
E37/2502PHxx--x	2 x 2.5	FIRE-TECH FIRE RESISTANT CABLE	9.0	9.2
E37/2504PHxx--x	4 x 2.5	FIRE-TECH FIRE RESISTANT CABLE	11.2	11.5
E37/402PHxx--x	2 x 4	FIRE-TECH FIRE RESISTANT CABLE	10.4	11.0
E37/404PHxx--x	4 x 4	FIRE-TECH FIRE RESISTANT CABLE	12.5	13.0
E37/602PHxx--x	2 x 6	FIRE-TECH FIRE RESISTANT CABLE	12.9	13.4

Stock and availability upon request. Additional sizes available on request.

# OAM DEF SPEC Mylar

## Overall Aluminium-Mylar screened pairs





0.5mm x 2PR FOIL SCRNM OAM



### Technical Data

Aluminium-Mylar screened instrumentation cable in accordance with DEF STAN 61-12



 <b>TEMPERATURE RANGE</b> -15°C / +70°C	 <b>VOLTAGE RATING</b> 300/500V	 <b>TEST VOLTAGE</b> 1.5kV	 <b>MIN. BENDING RADIUS</b> 10 x OD
<b>COLOURS AVAILABLE</b> Violet / Orange / Yellow / Black / Green / Red / Blue Other colours to be made as per customer requirements			

### Application

These multicore flexible cables are designed for high density wiring between components and within instruments and electronic equipment. They are extensively used in aircraft, process control systems, computers, data processors, military vehicles and military equipment.

### Construction

Annealed tinned Copper conductors (Class 5 Stranded)  
Core insulation of special PVC (T12) (Y12). Cores, twisted pairs, cabled in concentric layers.  
Def spec colour coding (Refer to Technical). Stranded tinned Copper drain wire. 100% Shield coverage with Aluminium/PET foil  
Outer sheath of special PVC (TM2) (YM2)

### Properties & Identification

Outer sheath colour Grey (RAL 7001) (FR)  
Flame retardant as per IEC 60332-1-2; EN 60332-1-2  
Colour coding as per DEF STAN 61-12 Part 4

### Additional

This cable is also available in IOAM (Individually and Overall Aluminium-Mylar). Large pair sizes are only available by special manufacture

**Marking:** 0.22MM X 2 PR FOIL SCRNM OAM (Meter.)

PART NO.	CORE SIZE (MM <sup>2</sup> )	PAIRS	NOMINAL OD	CABLE WEIGHT (KG/KM) ±5%
E31/02201P-GY	0.22	1	3.5	15.4
E31/02202P-GY	0.22	2	4.8	24.6
E31/02203P-GY	0.22	3	5.1	30.4
E31/02204P-GY	0.22	4	5.5	37.0
E31/02206P-GY	0.22	6	6.7	53.1
E31/02208P-GY	0.22	8	7.5	68.8
E31/022012P-GY	0.22	12	9.2	98.6
E31/0501P-GY	0.5	1	4.6	26.5
E31/0502P-GY	0.5	2	6.4	44.6
E31/0503P-GY	0.5	3	6.8	57.1
E31/0504P-GY	0.5	4	7.6	74.3
E31/0506P-GY	0.5	6	9.3	107.0
E31/0508P-GY	0.5	8	10.3	137.5
E31/05012P-GY	0.5	12	12.5	198.5
E31/0751P-GY	0.75	1	5.3	34.1
E31/0752P-GY	0.75	2	7.5	58.6
E31/0753P-GY	0.75	3	8.3	80.3
E31/0754P-GY	0.75	4	12.0	87.9
E31/101P-GY	1.0	1	6.1	44.2
E31/102P-GY	1.0	2	7.4	78.0
E31/104P-GY	1.0	4	10.7	139.0
E31/151P-GY	1.5	1	6.7	58.4
E31/152P-GY	1.5	2	8.6	106.0

Stock and availability upon request. Additional sizes available on request.

# PVC DEF SPEC Screened / Unscreened

PVC multicore, colour coded, braided screen (CY) or unscreened



## Technical Data

Flexible, colour coded multicore cable with optional braided screen, per Defence Specification (Standard) DEF STAN 61-12 Part 4



 <p><b>TEMPERATURE RANGE</b> Fixed: -30°C to 70°C Flexing: -15°C to 70°C</p>	 <p><b>VOLTAGE RATING</b> 300/500V</p>	 <p><b>TEST VOLTAGE</b> 1.5kV</p>	 <p><b>MIN. BENDING RADIUS</b> Fixed: 7.5 x OD</p>
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## Application

Used by the Military and other industries in applications requiring compact cables for instruments and electronic equipment. Used in aircraft, process control systems, computers, data processors, vehicles and equipment. The optional braided screen provides protection against electromagnetic interference as well as added mechanical strength.

## Construction

Stranded annealed tinned Copper conductor (Class 5)  
Core insulation with Polyvinyl Chloride (PVC)  
Polyester tape  
**(CY) Optional:** Tinned Copper wire braided screen  
Grey outer sheath with Polyvinyl Chloride (PVC)

## Properties & Identification

Colour coding as per DEF STAN 61-12 Part 4.  
Outer sheath colour Grey (RAL 7001) (FR)  
Flame retardant as per IEC 60332-1-2 EN 60332-1-2

## Additional

PVC DEF SPEC / PVC CY DEF SPEC  
Available in 500m Drums and Cut Lengths

## PVC/PVC (Unscreened)

PART NO.	SIZE (MM <sup>2</sup> )	CORES	NOMINAL OD (MM)	WEIGHT (KG/KM)
PVC222C-GY	0.22	2	3.5	20
PVC223C-GY	0.22	3	4	24
PVC224C-GY	0.22	4	4.3	27
PVC228C-GY	0.22	8	5.8	58
PVC2212C-GY	0.22	12	6.5	63
PVC502C-GY	0.5	2	5.3	37
PVC503C-GY	0.5	3	5.8	45
PVC504C-GY	0.5	4	6.8	56
PVC506C-GY	0.5	6	7.8	66
PVC507C-GY	0.5	7	8.3	78
PVC508C-GY	0.5	8	9.4	94
PVC5012C-GY	0.5	12	10.4	125

Stock and availability upon request. Additional sizes available on request.

# PVC DEF SPEC Continued

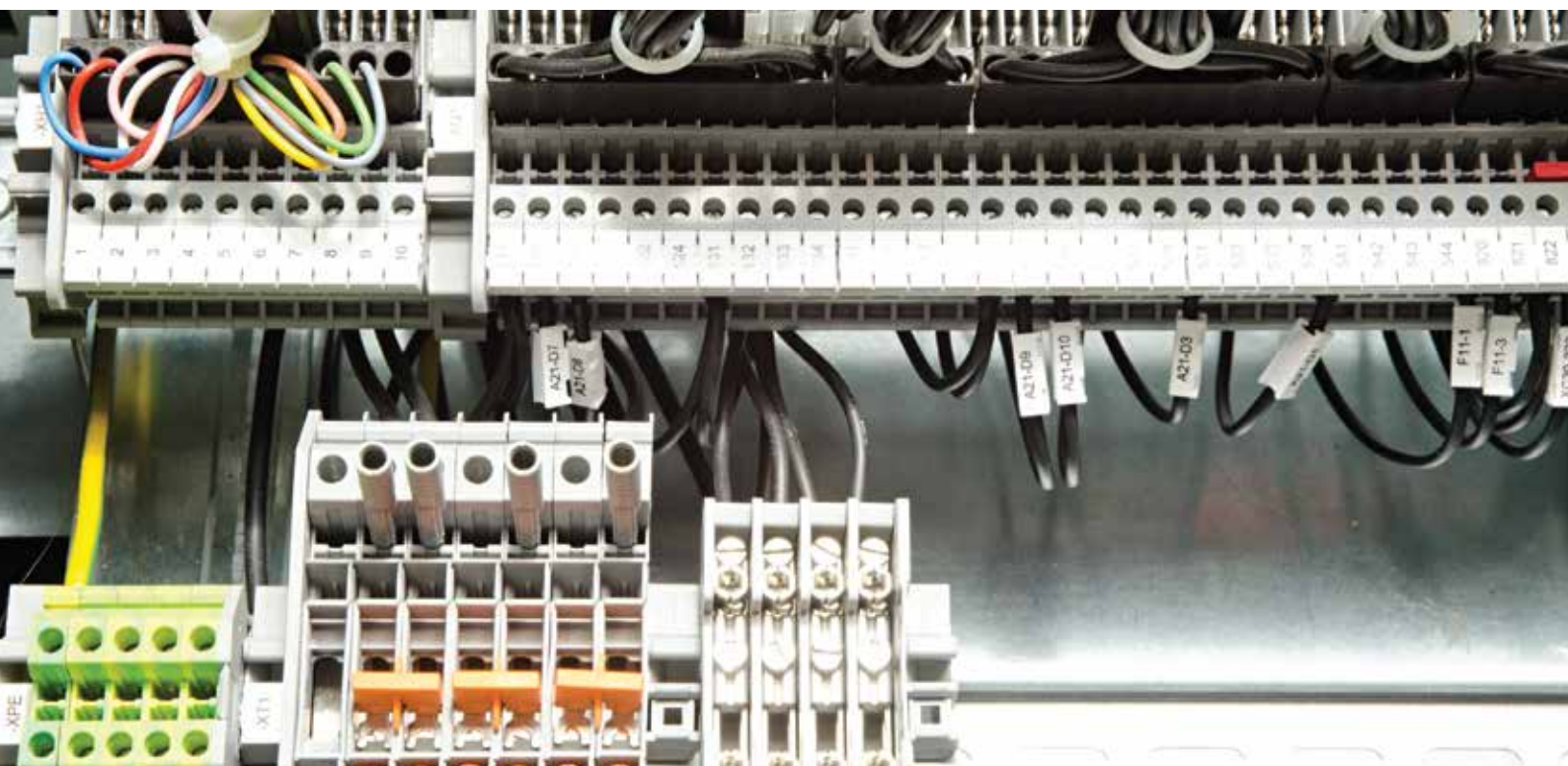
## PVC/PVC CY (TCB)

PART NO.	SIZE (MM <sup>2</sup> )	CORES	NOMINAL OD (MM)	WEIGHT (KG/KM)
TCB222C-GY	0.22	2	4.1	30
TCB223C-GY	0.22	3	4.6	36
TCB224C-GY	0.22	4	4.9	40
TCB227C-GY	0.22	7	6.1	63
TCB228C-GY	0.22	8	6.4	81
TCB2212C-GY	0.22	12	7.3	88
TCB502C-GY	0.5	2	6.1	53
TCB503C-GY	0.5	3	6.6	64
TCB504C-GY	0.5	4	7.6	78
TCB506C-GY	0.5	6	8.6	91
TCB507C-GY	0.5	7	9.1	108
TCB508C-GY	0.5	8	10.2	130
TCB5012C-GY	0.5	12	11.2	171

## PVC/PVC CY (TCB) - Pairs

PART NO.	SIZE (MM <sup>2</sup> )	PAIRS	NOMINAL OD (MM)	WEIGHT (KG/KM)
TCB222P-GY	0.22	2	4.1	30
TCB223P-GY	0.22	3	4.6	36
TCB224P-GY	0.22	4	4.9	40
TCB226P-GY	0.22	6	6.1	63
TCB228P-GY	0.22	8	6.4	81

Stock and availability upon request. Additional sizes available on request.



# INSTRUMENTATION Screened

Multi-Pair or Triad XLPE, overall / individual and overall screened

Instrumentation Individual Screened



## Technical Data

Screened instrumentation cable



**VOLTAGE RATING**  
300/500V



**TEST VOLTAGE**  
1.5kV



## ELECTRICAL PARAMETERS

Conductor (mm <sup>2</sup> )	Resistance (Ω/Km)	Capacitance (pF/m)		Inductance (mH/Km)
		Mutual	Ground	
0.5	39.00	100	200	0.70
1.0	19.50	120	240	0.63
1.5	13.30	130	260	0.65

## Application

Used for transmission of analogue and digital signals in process control systems. It will be used for indoor and outdoor installation, in dry and wet locations, on racks, and in conduits. Not allowed for direct connection to low impedance source. It is not recommended for direct burial.

## Construction

- Stranded annealed Copper (SANS 1411, Part 1, Class 4)
- Core insulation with cross-linked Polyethylene compound in accordance with SANS 1411, Part 4
- Core identification black and white pairs, numbered alpha and numerically at regular intervals
- IOAM: Each pair / triad is individually screened with Aluminium/Polyester tape and drain wire and/or
- OAM: Screen with overall Aluminium/Polyester tape with annealed tinned Copper drain wire. Wrapping with Polyester tape. Outer sheath with Polyvinyl chloride (PVC) compound in accordance with SANS 1411, Part 2, type 5S. Available in a core construction on request

## Properties & Identification

Outer sheath colour Black. Armouring available in APL or SWA  
Outer sheath available in flame retardant PVC, low Halogen or Halogen free compound

## Additional

Supplied in 500m, 1000m drums and Cut Lengths

## IOAM PAIRS

PART NO.	SIZE (MM <sup>2</sup> )	PAIRS	NOMINAL OD (MM)	MIN. BENDING RADIUS (MM)	WEIGHT (KG/KM)
INSI502P-BK	0.5	2	9.7	87	109
INSI504P-BK	0.5	4	11	99	159
INSI508P-BK	0.5	8	14.3	130	273
INSI5012P-BK	0.5	12	16.9	152	347
INSI5016P-BK	0.5	16	19.4	175	458
INSI5024P-BK	0.5	24	22.9	207	627
INSI5036P-BK	0.5	36	27.6	249	907
INSI1002P-BK	1	2	11.1	101	148
INSI1004P-BK	1	4	12.8	115	213
INSI1008P-BK	1	8	16.7	151	377
INSI10012P-BK	1	12	20.2	182	544
INSI10016P-BK	1	16	22.9	206	691
INSI10024P-BK	1	24	27.4	247	998
INSI1502P-BK	1.5	2	12.7	115	183
INSI1504P-BK	1.5	4	15	136	297
INSI1508P-BK	1.5	8	19.7	178	494
INSI15012P-BK	1.5	12	23.3	210	685
INSI15016P-BK	1.5	16	26.8	242	903
INSI15024P-BK	1.5	24	32.2	290	1305

Stock and availability upon request. Additional sizes available on request.



# INSTRUMENTATION Continued



Instrumentation Overall Screened

## OAM PAIRS

PART NO.	SIZE (MM <sup>2</sup> )	PAIRS	NOMINAL OD (MM)	MIN. BENDING RADIUS (MM)	WEIGHT (KG/KM)
INS501P-BK	0.5	1	5.6	51	42
INS502P-BK	0.5	2	8.9	81	88
INS504P-BK	0.5	4	10.6	96	128
INS508P-BK	0.5	8	13.3	121	212
INS5012P-BK	0.5	12	15.8	143	282
INS5016P-BK	0.5	16	17.5	158	350
INS5024P-BK	0.5	24	20.3	183	491
INS5036P-BK	0.5	36	24.8	224	710
INS1001P-BK	1	1	6.4	58	60
INS1002P-BK	1	2	10.8	98	131
INS1004P-BK	1	4	12.4	112	183
INS1008P-BK	1	8	16.1	146	315
INS10012P-BK	1	12	18.7	169	428
INS10016P-BK	1	16	21.1	190	562
INS10024P-BK	1	24	24.1	217	772
INS1501P-BK	1.5	1	7.2	66	73
INS1502P-BK	1.5	2	12.4	112	166
INS1504P-BK	1.5	4	14.7	132	247
INS1508P-BK	1.5	8	18.6	168	407
INS15012P-BK	1.5	12	22.1	199	582
INS15016P-BK	1.5	16	24.9	224	760
INS15024P-BK	1.5	24	28.4	256	1050

Stock and availability upon request. Additional sizes available on request.

## OAM TRIADS

PART NO.	SIZE (MM <sup>2</sup> )	TRIADS	NOMINAL OD (MM)	MIN. BENDING RADIUS (MM)	WEIGHT (KG/KM)
INS501T-BK	0.5	1	5.9	54	51
INS1001T-BK	1	1	6.8	61	72
INS1501T-BK	1.5	1	7.7	69	90

Stock and availability upon request. Additional sizes available on request.

# INSTRUMENTATION Armoured

Multi-Pair XLPE, OAM / IOAM screened, armoured (APL / SWA)



0.5mm x 8PR IOAM SWA LH

## Technical Data

Screened instrumentation cable



**TEMPERATURE RANGE**  
Up to 90°C (Flame retardant outer sheath)



**VOLTAGE RATING**  
300/500V



**TEST VOLTAGE**  
1.5kV

### ELECTRICAL PARAMETERS

Conductor (mm <sup>2</sup> )	Resistance (Ω/Km)	Capacitance (pF/m)		Inductance (mH/Km)
		Mutual	Ground	
0.5	39.00	100	200	0.70
1.0	19.50	120	240	0.63
1.5	13.30	130	260	0.65

## Application

Used for transmission of analogue and digital signals in process control systems. It will be used for indoor and outdoor installation, in dry and wet locations, on racks, and in conduits. The FR sheath provides an excellent water barrier and high chemical and abrasion resistant qualities.

## Construction

Stranded annealed Copper (SANS 1411, Part 1, Class 4)  
Core insulation with cross-linked Polyethylene compound in accordance with SANS 1411, Part 4  
Core identification black and white twisted pairs, numbered alpha and numerically at regular intervals

**IOAM:** Each pair / triad is individually screened with Aluminium/Polyester tape and drain wire or

**OAM:** Screen with overall Aluminium/Polyester tape with annealed tinned Copper drain wire. Available in a core construction on request.

**APL:** Bedding sheath and flame-retardant UV Aluminium Polyethylene laminate for protection. Tinned Copper drain wire or

**SWA:** Bedding sheath and armoured with galvanised steel wire for protection.

X = BK (Black) X = LH X = HF

## Properties & Identification

**APL:** Outer sheath colour Black in PEFR & HFFR

**SWA:** Outer sheath available in flame retardant PVC, low Halogen or Halogen free compound

## Additional

Minimum order quantities may apply.

## XLPE / IND / OAM / SWA

PART NO.	SIZE (MM <sup>2</sup> )	PAIRS	NOMINAL OD (MM)	MIN. BENDING RADIUS (MM)	WEIGHT (KG/KM)
INSSI502P-X	0.5	2	14.6	146	439
INSSI504P-X	0.5	4	15.9	159	527
INSSI508P-X	0.5	8	19.6	197	761
INSSI5012P-X	0.5	12	22.2	222	902
INSSI5016P-X	0.5	16	25.4	255	1267
INSSI5024P-X	0.5	24	29.3	293	1597
INSSI5032P-X	0.5	32	33.3	334	2114
INSSI5036P-X	0.5	36	34.8	349	2268
INSSH1002P-X	1.0	2	16.0	161	517
INSSH1004P-X	1.0	4	18.1	181	651
INSSH1008P-X	1.0	8	21.4	215	934
INSSH10012P-X	1.0	12	26.2	262	1376
INSSH10016P-X	1.0	16	29.3	293	1644
INSSH10024P-X	1.0	24	34.6	347	2356
INSSH1502P-X	1.5	2	18.0	180	620
INSSH1504P-X	1.5	4	20.3	204	784
INSSH1508P-X	1.5	8	25.7	257	1305
INSSH15012P-X	1.5	12	30.5	305	1863
INSSH15016P-X	1.5	16	33.3	334	2228
INSSH15024P-X	1.5	24	39.8	339	2928

# INSTRUMENTATION Continued

## XLPE / OAM / SWA

PART NO.	SIZE (MM <sup>2</sup> )	PAIRS	NOMINAL OD (MM)	MIN. BENDING RADIUS (MM)	WEIGHT (KG/KM)
INSS501P-X	0.5	1	10.5	106	249
INSS502P-X	0.5	2	13.8	139	394
INSS504P-X	0.5	4	15.5	155	486
INSS508P-X	0.5	8	18.6	187	651
INSS5012P-X	0.5	12	21.1	212	810
INSS5016P-X	0.5	16	22.8	228	930
INSS5024P-X	0.5	24	26.3	263	1323
INSS5032P-X	0.5	32	29.3	294	1589
INSS5036P-X	0.5	36	32.0	320	1903
INSS1001P-X	1.0	1	11.3	114	290
INSS1002P-X	1.0	2	15.7	158	489
INSS1004P-X	1.0	4	17.3	174	589
INSS1008P-X	1.0	8	21.4	215	857
INSS10012P-X	1.0	12	24.7	247	1199
INSS10016P-X	1.0	16	27.1	271	1418
INSS10024P-X	1.0	24	31.3	313	1986
INSS1501P-X	1.5	1	12.1	122	329
INSS1502P-X	1.5	2	17.3	173	572
INSS1504P-X	1.5	4	20.0	200	738
INSS1508P-X	1.5	8	24.6	247	1177
INSS15012P-X	1.5	12	28.5	285	1510
INSS15016P-X	1.5	16	32.1	321	2009
INSS15024P-X	1.5	24	35.6	357	2448

## OAM / APL

PART NO.	SIZE (MM <sup>2</sup> )	PAIRS	NOMINAL OD (MM)	MIN. BENDING RADIUS (MM)	WEIGHT (KG/KM)
APL1P50-BK	0.5	1	9.4	85	90
APL2P50-BK	0.5	2	12.7	115	153
APL4P50-BK	0.5	4	14.4	130	203
APL8P50-BK	0.5	8	17.1	155	287
APL12P50-BK	0.5	12	20.0	181	394
APL16P50-BK	0.5	16	21.7	195	471
APL24P50-BK	0.5	24	24.5	221	629
APL36P50-BK	0.5	36	29.4	265	772
APL1P100-BK	1.0	1	10.2	92	111
APL2P100-BK	1.0	2	14.6	132	205
APL4P100-BK	1.0	4	16.2	146	265
APL8P100-BK	1.0	8	20.3	183	428
APL12P100-BK	1.0	12	22.9	206	557
APL16P100-BK	1.0	16	25.3	228	706
APL24P100-BK	1.0	24	28.5	258	949
APL1P150-BK	1.5	1	11.0	100	128
APL2P150-BK	1.5	2	16.2	146	248
APL4P150-BK	1.5	4	18.4	166	354
APL8P150-BK	1.5	8	22.8	206	535
APL12P150-BK	1.5	12	26.3	237	730
APL16P150-BK	1.5	16	29.4	265	943
APL24P150-BK	1.5	24	33.0	297	1256

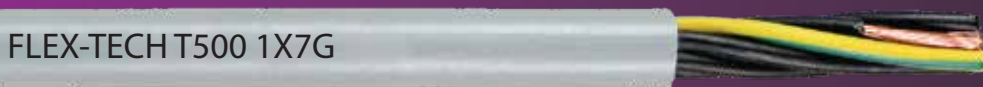
## IND / OAM / APL

PART NO.	SIZE (MM <sup>2</sup> )	PAIRS	NOMINAL OD (MM)	MIN. BENDING RADIUS (MM)	WEIGHT (KG/KM)
APLI2P50-BK	0.5	2	13.4	121	177
APLI4P50-BK	0.5	4	14.8	133	234
APLI8P50-BK	0.5	8	18.5	167	378
APLI12P50-BK	0.5	12	20.7	187	465
APLI16P50-BK	0.5	16	23.6	213	591
APLI24P50-BK	0.5	24	27.1	244	781
APLI32P50-BK	0.5	32	30.7	277	1016
APLI36P50-BK	0.5	36	32.2	290	1070
APLI2P100-BK	1.0	2	14.9	135	224
APLI4P100-BK	1.0	4	16.5	149	297
APLI8P100-BK	1.0	8	20.9	189	496
APLI12P100-BK	1.0	12	24.4	220	682
APLI16P100-BK	1.0	16	27.0	244	845
APLI24P100-BK	1.0	24	32.0	289	1196
APLI2P150-BK	1.5	2	16.5	149	267
APLI4P150-BK	1.5	4	19.2	173	388
APLI8P150-BK	1.5	8	23.9	215	627
APLI12P150-BK	1.5	12	27.5	248	839
APLI16P150-BK	1.5	16	31.4	283	1099
APLI24P150-BK	1.5	24	36.8	332	1534

# FLEX-TECH T500

Flexible multicore, special PVC, 300/500V

FLEX-TECH T500 1X7G



## Technical Data

Multicore control cable with special PVC insulation and jacket



### TEMPERATURE RANGE

Fixed: -40°C to 80°C  
Flexing: -5°C to 70°C



### VOLTAGE RATING

300/500V



### TEST VOLTAGE

3kV



### MIN. BENDING RADIUS

Fixed: 3 x OD  
Occasional Flexing: 10 x OD  
Flexing Application: 15 x OD

## Application

Control cable is suitable for measuring and monitoring in machine tool manufacturing, plant engineering, power stations, heating and air conditioning systems, refrigeration plants, office equipment machines and installations for data processing. The cable is used in dry, damp and wet environments at medium mechanical stress. Outdoor applications with only UV-protection and in observation of the temperature range. It is suitable for flexible, but not continuously moving applications, without tensile load or compulsory guidance, as well as for fixed laying.

## Construction

Flexible bare Copper conductors per CEI 20-29 Class 5 and DIN VDE 0295 K5

PVC Insulation compound type T11 per CEI 20-11 and VDE 0207 with special mechanical resistance.

Black numbered cores with green yellow core

Outer jacket in PVC TM2 per CEI 20-11 and VDE 0207

## Properties & Identification

QA and testing as per ISO 9001 – 2000 CSQ-IMQ (EQ-NET)  
Flame retardant, Test method B per DIN VDE 0472 part 804 and IEC 60332-1 per our VDE Reg. No. 7097  
Oil resistant per DIN EN 50290-2-22 resp. VDE 0819-102, TM54.

The cable conforms to Low Voltage Directive (LVD) 2006/95/EC CE

## Additional

Available in drums, coils or cut to size (conditions apply)

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)
JZ0502C-GY	2 x 0.50	4.8	32
JZ0503G-GY	3G 0.50	5.1	39
JZ0504G-GY	4G 0.50	5.5	47
JZ0505G-GY	5G 0.50	6.0	55
JZ0507G-GY	7G 0.50	6.5	71
JZ05012G-GY	12G 0.50	8.7	115
JZ05016G-GY	16G 0.50	10.3	151
JZ05021G-GY	21G 0.50	11.7	197
JZ05025G-GY	25G 0.50	12.5	228
JZ05034G-GY	34G 0.50	13.9	296
JZ05042G-GY	42G 0.50	15.0	355
JZ0752C-GY	2 x 0.75	5.2	40
JZ0753G-GY	3G 0.75	5.5	48
JZ0754G-GY	4G 0.75	6.0	59
JZ0755G-GY	5G 0.75	6.5	70
JZ0757G-GY	7G 0.75	7.3	94
JZ07512G-GY	12G 0.75	9.7	153
JZ07516G-GY	16G 0.75	10.7	195
JZ07518G-GY	18G 0.75	11.5	221
JZ07521G-GY	21G 0.75	12.4	256
JZ07525G-GY	25G 0.75	13.7	297
JZ07534G-GY	34G 0.75	15.3	388

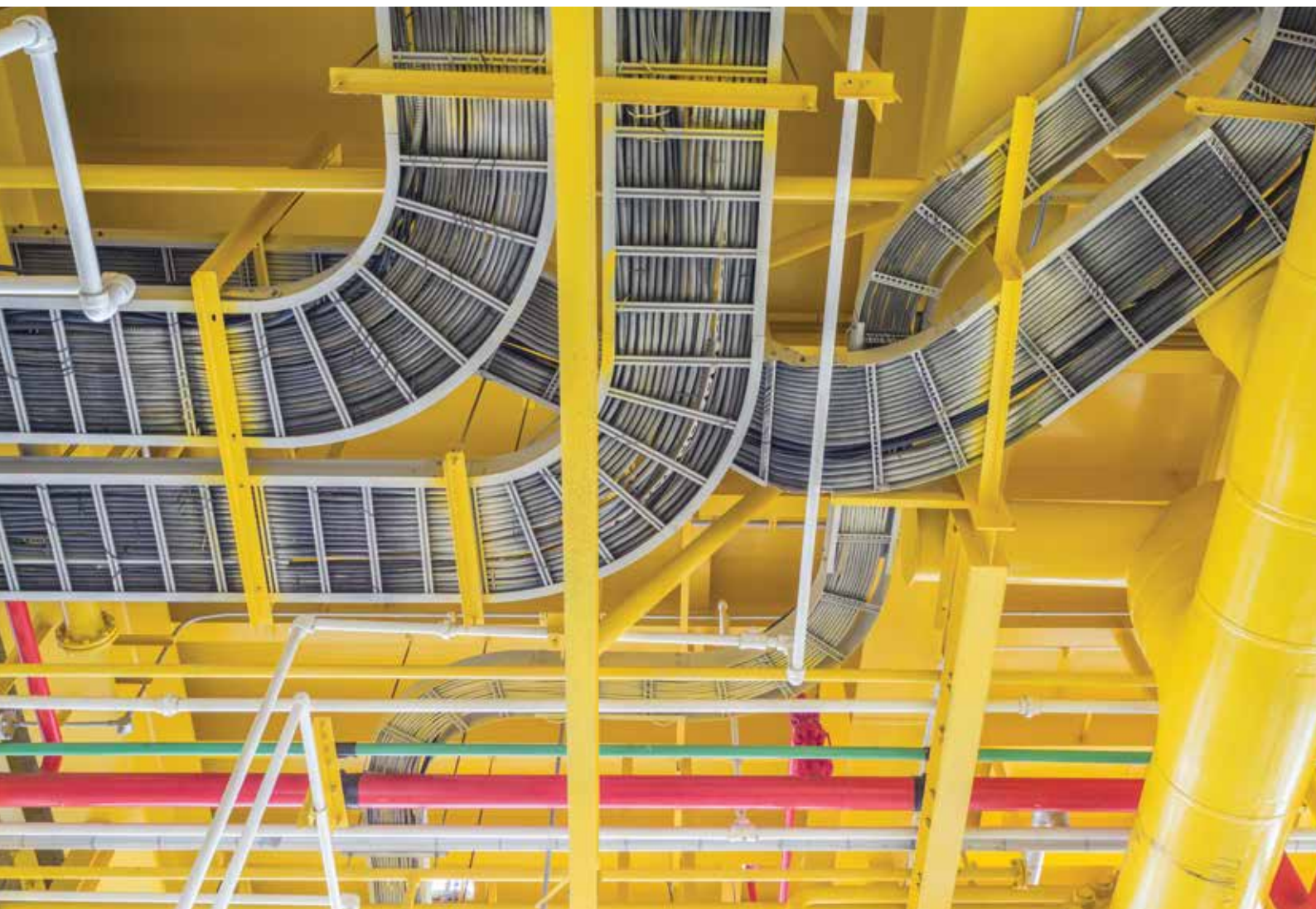
PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)
JZ1002C-GY	2 x 1	5.6	47
JZ1003G-GY	3G 1	5.9	58
JZ1004G-GY	4G 1	6.5	71
JZ1005G-GY	5G 1	7.3	88
JZ1007G-GY	7G 1	7.9	113
JZ10012G-GY	12G 1	10.5	185
JZ10016G-GY	16G 1	11.9	242
JZ10018G-GY	18G 1	12.5	268
JZ10021G-GY	21G 1	14.0	310
JZ10025G-GY	25G 1	14.9	361
JZ10034G-GY	34G 1	16.7	473
JZ10041G-GY	41G 1	19.4	394
JZ10050G-GY	50G 1	21.2	480
JZ1502C-GY	2 x 1.5	6.0	58
JZ1503G-GY	3G 1.5	6.4	72
JZ1504G-GY	4G 1.5	7.2	93
JZ1505G-GY	5G 1.5	7.8	111
JZ1507G-GY	7G 1.5	8.5	144
JZ15012G-GY	12G 1.5	11.6	243
JZ15016G-GY	16G 1.5	12.8	312
JZ15018G-GY	18G 1.5	13.5	346

Stock and availability upon request.

# FLEX-TECH Continued

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)
JZ15021G-GY	21G 1.5	15.1	400
JZ15025G-GY	25G 1.5	16.2	467
JZ15034G-GY	34G 1.5	20.2	490
JZ15042G-GY	42G 1.5	21.8	605
JZ2503G-GY	3G 2.5	7.5	108
JZ2504G-GY	4G 2.5	8.3	135
JZ2505G-GY	5G 2.5	9.0	162
JZ2507G-GY	7G 2.5	10.1	219
JZ25012G-GY	12G 2.5	13.4	361
JZ4003G-GY	3G 4	9.4	167
JZ4004G-GY	4G 4	10.3	209
JZ4005G-GY	5G 4	11.3	252
JZ6004G-GY	4G 6	11.9	298
JZ10004G-GY	4G 10	15.8	514
JZ16004G-GY	4G 16	18.7	769
JZ25004G-GY	4G 25	22.5	1165
JZ35004G-GY	4G 35	24.9	1549
JZ50004G-GY	4G 50	29.3	2151

Stock and availability upon request.



# FLEX-TECH<sup>CY</sup>







Flexible multicore, braided screen, special PVC, 300/500V

FLEX-TECH T500 CY1X7G

## Technical Data

EMC compliant control cable with numbered cores. Low space requirement due to compact design



 <p><b>TEMPERATURE RANGE</b> Fixed: -40°C to 80°C Flexing: -5°C to 70°C</p>	 <p><b>VOLTAGE RATING</b> 300/500V</p>	 <p><b>TEST VOLTAGE</b> 3kV</p>	 <p><b>MIN. BENDING RADIUS</b> Fixed: 3 x OD Occasional Flexing: 10 x OD Flexing Application: 15 x OD</p>
 <p><b>CAPACITANCE</b> A/A ca. 120nF/km A/S ca. 160nF/km</p>	 <p><b>INDUCTANCE</b> Ca. 0.65mH/km</p>		

## Application

The application for control cable with braided screen includes all electrical systems in dry, damp or wet environments, especially in industrial and/or in EMC-critical installations. The cable can be installed outdoors with UV protection only and in observance of the temperature range. It is suitable for fixed installation, but also for flexible applications under conditions of sporadic, not continuously returning movement on or in machinery, appliances, rail vehicles, ventilation, air-conditioning systems, office machines and industrial plants. Applications with low mechanical stress.

## Construction

Flexible bare Copper conductors per CEI 20-29 Class 5 and DIN-VDE 0295 K5

PVC Insulation compound type T11 per CEI 20-11 and VDE 0207 with special mechanical resistance. Black numbered cores with or without green yellow core

Polyester tape. Tinned Copper braided screen.

Outer jacket in PVC TM2 per CEI 20-11 and VDE 0207

## Properties & Identification

Flame retardant, Test method B per IEC 60332-1  
Adapted to DIN VDE 0245 and 0281  
Conforms to Low Voltage Directive (LVD) 2006/95/EC CE  
Per our VDE Reg. 8154

## Additional

Available in drums, coils or cut to size (conditions may apply)

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)
JZCY0502C-GY	2 x 0.50	5.4	41
JZCY0503G-GY	3G 0.50	5.7	50
JZCY0504G-GY	4G 0.50	6.1	59
JZCY0507G-GY	7G 0.50	7.1	85
JZCY0512G-GY	12G 0.50	9.4	138
JZCY0516G-GY	16G 0.50	10.5	175
JZCY0518G-GY	18G 0.50	11.0	198
JZCY0521G-GY	21G 0.50	12.5	230
JZCY0525G-GY	25G 0.50	13.2	260
JZCY0752C-GY	2 x 0.75	5.8	49
JZCY0753G-GY	3G 0.75	6.1	60
JZCY0754G-GY	4G 0.75	6.6	73
JZCY0755G-GY	5G 0.75	7.2	87
JZCY0757G-GY	7G 0.75	7.9	110
JZCY07512G-GY	12G 0.75	10.3	175
JZCY07516G-GY	16G 0.75	11.5	220

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)
JZCY07518G-GY	18G 0.75	12.2	255
JZCY07521G-GY	21G 0.75	13.6	290
JZCY07525G-GY	25G 0.75	14.4	325
JZCY1002C-GY	2 x 1	6.3	56
JZCY1003G-GY	3G 1	6.6	70
JZCY1004G-GY	4G 1	7.2	85
JZCY1005G-GY	5G 1	8.0	105
JZCY1007G-GY	7G 1	8.7	130
JZCY10012G-GY	12G 1	11.3	215
JZCY10016G-GY	16G 1	12.8	280
JZCY10018G-GY	18G 1	13.5	315
JZCY10021G-GY	21G 1	15.0	360
JZCY10025G-GY	25G 1	16.0	410
JZCY1502C-GY	2 x 1.5	6.7	67
JZCY1503G-GY	3G 1.5	7.0	85
JZCY1504G-GY	4G 1.5	7.9	106

Stock and availability upon request.  
Available in Dual Screened (Foil & Braided)

# FLEX-TECH Continued

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)
JZCY1505G-GY	5G 1.5	8.6	130
JZCY1507G-GY	7G 1.5	9.2	165
JZCY15012G-GY	12G 1.5	12.5	280
JZCY15016G-GY	16G 1.5	13.8	350
JZCY15018G-GY	18G 1.5	14.5	395
JZCY15021G-GY	21G 1.5	15.6	440
JZCY15025G-GY	25G 1.5	16.7	510
JZCY2502C-GY	2 x 2.5	7.9	95
JZCY2503G-GY	3G 2.5	8.4	125
JZCY2504G-GY	4G 2.5	9.1	155

Stock and availability upon request.  
Available in Dual Screened (Foil & Braided)

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)
JZCY2505G-GY	5G 2.5	10.1	190
JZCY2507G-GY	7G 2.5	11.0	245
JZCY25012G-GY	12G 2.5	14.6	405
JZCY4004G-GY	4G 4	10.8	220
JZCY6004G-GY	4G 6	12.5	310
JZCY10004G-GY	4G 10	16.3	523
JZCY16004G-GY	4G 16	19.2	769
JZCY25004G-GY	4G 25	23.0	1128
JZCY35004G-GY	4G 35	24.9	1530



# PROFIBUS DP L2

Process field bus, 22AWG (0.64mm), indoor, fixed installation

PROFIBUS L2



## Technical Data



**TEMPERATURES**  
Operating: -20°C to 85°C



**TEST VOLTAGE**  
1.5kV



**MIN. BENDING RADIUS**  
Minimum 120mm



**CHARACTERISTIC IMPEDANCE**  
150 Ω/KM ±10%



**CONDUCTOR RESISTANCE**  
Max. 55 Ω/KM  
Min. 1 GΩ x KM



**CALORIC LOAD**  
Max. 110 Ω/KM



**LOOP RESISTANCE**  
Max. 110 Ω/KM

## ATTENUATION

kHz	9.6	38.4	4	16
dB/km	< 2.5	< 4.0	< 22.0	< 42.0

## Application

This system cable is used to interconnect L2-BUS components. This cable is an economical solution for the cell and field area. Serial field bus systems are used for the information exchange between different automation systems as well as for communication with the connected decentralized field unit. The types mentioned here are suitable for indoor laying and are equipped with a special PVC sheath.

## Construction

Solid bare Copper conductors (1/22AWG; 0.64mm<sup>2</sup>)  
or Stranded bare Copper conductors (19/24AWG; 0.64mm<sup>2</sup>)  
Foam skin PE insulation (Red, Green)  
Polyester foil over bundle (2 cores, 2 fillers)  
Aluminium/Polyester foil screen  
Tinned Copper braided screen  
Outer sheath with PVC (OD 7.9mm ±0.3)  
Outer sheath colour Violet

## Properties & Identification

**Weight:** Total: ± 69.0 kg/km; Copper: 24.0 kg/km

For indoor, fixed installations

## Additional

Cable Marking: VCC BUS-TRON L2 INDOOR 1 x 2 x 0.64 SOLID STRANDED

PART NO.	NO. CORES X SIZE (AWG)	DESCRIPTION	CABLE OD	CABLE WEIGHT (KG/KM)
PROFIBUSDP-VI	1 x 2 x 0.64	PROFIBUS DP Solid	7.8	69.0
PROFIBUSDP-VI-STR	1 x 2 x 0.64	PROFIBUS DP Stranded	7.8	75.0



# SOLAR-TECH H1Z2Z2-K

Flexible single core, photovoltaic systems, Halogen free

SOLAR-TECH H1Z2Z2-K 1.8KV max TÜV RHEINLAND



## Technical Data

Single core flexible cable for photovoltaic or solar systems in accordance with EN 50618; IEC 60228; EN 50395; EN50396; EN 60332-1-2; EN 61034-1: -2; EN 50525-1; EN 60216-1: -2



**TEMPERATURE RANGE**  
Operating: -40°C to 80°C  
Max Core: 120°C (for 20,000 hrs)



**VOLTAGE RATING**  
AC: 1.0/1.0kV  
DC: 1.8kV max



**TEST VOLTAGE**  
6.5kV AC



**MIN. BENDING RADIUS**  
5 x OD



**TENSILE STRENGTH**  
15N/mm<sup>2</sup>

## Application

Solar cable is suitable for the interconnection of the various elements of photovoltaic systems such as between photovoltaic (PV) panels and from panels to the inverter. Suitable for fixed installations outside and inside unprotected pipes, within sight or cased out, or similar closed systems.

The cable is manufactured to the latest requirements for PV systems, in accordance to the following Reference standards: EN50618 – EN60216-1-2 – EN 610345. The special insulation has qualities of high abrasion resistance to high temperature. Moreover, the insulation is flame retardant and ozone resistant. The cable is UV-resistant and the external sheath can be removed from the inner layer or bedding.

## Construction

Annealed tinned Copper conductors (Class 5)  
Double insulated  
Bedding of flexible cross-linked polymer  
Outer sheath of special Halogen free compound  
Outer sheath colour Black / Red / Blue

## Properties & Identification

Ozone and UV Resistant  
TÜV approved  
Estimated service lifespan of 25 years or more

## Additional

**Cable Print:** SOLAR-TECHH1Z2Z2-K (size) 1.8kV max  
TÜV RHEINLAND TYPE APPROVED R601  
(reg. no.) CE

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX. OD (MM)	WEIGHT (KG/KM)	MAX. RESISTANCE (Ω/KM)	AMPACITY (A) ACCORDING TO INSTALLATION		
					SINGLE CABLE IN AIR	SINGLE CABLE ON SURFACE	MULTIPLE CABLES ON SURFACE
2.5MMSOLAR-TECH	1 x 2.5	5.4	42.2	8.21	41	39	33
4MMSOLAR-TECH	1 x 4	5.9	58.2	5.09	55	52	44
6MMSOLAR-TECH	1 x 6	6.8	79.4	3.39	70	67	57
10MMSOLAR-TECH	1 x 10	7.9	128.4	1.95	98	93	79
16MMSOLAR-TECH	1 x 16	9.0	184.5	1.24	41	39	33

Stock and availability upon request. Additional sizes available on request.

# PANEL WIRE H05 / H07 V-K

Flexible PVC single core, fine wire stranded, indoor wiring

H05 / 07 V-K

## Technical Data



Flexible single core wire in accordance with BT 2014/35/UE – 2011/65/EU (RoHS 2); CEI EN 50525-2-31; CEI 20-20/3 (CENELECHD 21.3 S3); BS 50525-2-31; NF C 32-201-3 VDE 0281-3; CEI EN 60332-1-2 (CEI 20-35/1-2); BS EN 60332-1-2; NF EN 60332-1-2; DIN EN 60332-1-2 (IEC 60227-3)



**TEMPERATURE RANGE**  
Up to 90°C (Flame retardant outer sheath)



**VOLTAGE RATING**  
300/500V



**TEST VOLTAGE**  
1.5kV

### MIN. BENDING RADIUS

OD (MM)	< 8	< 12	> 12
Fixed Lay	3 x OD	3 x OD	4 x OD
Near Terminal	2 x OD	3 x OD	4 x OD

## Application

For fixed and protected installations, inside or into electrical and lighting circuits, switch- and distributor boards, in tubes, under and surface plaster mounting. (As per the usage guide for low voltage cables CEI 20-40).

## Construction

Annealed Copper conductor (Class 5 stranded)  
Insulated with special PCV compound (T11)

## Properties & Identification

Flame retardant and self-extinguishing  
Oil and chemical resistant

Available in various single or bi-colour combinations as per CEI EN 50525\*1 5.44

Available in tinned Copper conductor and available in solid conductor (H05/H07 V-U)

### Sheath Colour (x)

BK - Black      G/Y - Green / Yellow      PI - Pink  
RD - Red      GY - Grey      VI - Violet  
BL - Blue      WH - White      YE - Yellow  
BRN - Brown      OR - Orange

## Additional

Packaging in 100m coils, packaged in thermoplastic film or cardboard box.

Cable print: IEMMEQU <HAR>

## H05 (500V)

PART NO.	NO. CORES X SIZE (MM²)	CONDUCTOR OD (MM)	INSULATION OD (MM)	CABLE OD		RESISTANCE (Ω/KM)	CABLE WEIGHT (KG/KM)	AMPACITY 30°C (Ω)
				MIN	MAX			
H05VK1C050-x	1 x 0.5	0.77	0.6	2.1	2.5	39.0	9.0	3
H05VK1C075-x	1 x 0.75	0.95	0.6	2.2	2.7	26.0	12.0	6
H05VK1C100-x	1 x 1	1.3	0.6	2.4	2.8	19.5	14.0	10

## H07 (750V)

PART NO.	NO. CORES X SIZE (MM²)	CONDUCTOR OD (MM)	INSULATION OD (MM)	CABLE OD		RESISTANCE (Ω/KM)	INSULATION RESIST. 70°C(MΩ/KM)	AMPACITY 30°C (Ω)
				MIN	MAX			
H07VK1C150-x	1 x 1.5	1.6	0.7	-	3.1	13.3	0.01	15.5
H07VK1C250-x	1 x 2.5	2	0.8	-	3.75	7.98	0.0095	21
H07VK1C400-x	1 x 4	2.6	0.8	-	4.4	4.95	0.0078	28
H07VK1C600-x	1 x 6	3.4	0.8	-	4.9	3.3	0.0068	36
H07VK1C1000-x	1 x 10	4.4	1	-	6.4	1.91	0.0065	50
H07VK1C1600-x	1 x 16	5.7	1	-	7.4	1.21	0.0053	68
H07VK1C2500-x	1 x 25	6.9	1.2	-	9.1	0.78	0.0050	89

Stock and availability upon request. Additional sizes available on request.

# RIPCORD

Flexible Copper conductor



## Technical Data

Conductor IEC EN 60228 Class 5 DIN VDE 0250-15



**TEMPERATURE RANGE**  
Operating: -10°C to 80°C



**VOLTAGE RATING**  
300V



**TEST VOLTAGE**  
2kV



**MIN. BENDING RADIUS**  
5 x OD

## Application

For battery chargers, loudspeakers, car radios and many other applications.

## Construction

High conductivity bunched plain annealed flexible Copper conductors, insulated in a parallel configuration with a flexible grade PVC.

## Properties & Identification

Flexible PVC sheath.  
Colour Options:  
Red/Black  
Transparent/Blue  
Transparent Blue/White  
White/Black  
White

## Additional

Packaging available in 100 metre reels.

SIZE MM <sup>2</sup>	STRANDING NO X DIA	NOMINAL BREADTH & HEIGHT	MASS KG/100M
0.5	14 x 0.21	2.6 x 5.5	2.26
1.0	28 x 0.21	3.5 x 7.3	3.15
1.5	28 x 0.26	3.3 x 6.8	4.50
2.5	44 x 0.26	3.8 x 7.9	6.64
3.0	87 x 0.21	5.8 x 12.0	11.11
4.0	70 x 0.26	4.5 x 9.4	10.14
6.0	72 x 0.31	5.1 x 10.5	14.54

Stock and availability upon request.

# CABTYRE<sup>H03/05 VV-F</sup>

Flexible multicore, flame retardant



H03 / 05 VV-F

## Technical Data

PVC control cable to DIN VDE 0281 (part 5); IEC 60227-5, HD 21.5 S3



### TEMPERATURE RANGE

Operating on the conductor:  
-5°C to 60°C  
Short circuit (5sec.): 150°C



### VOLTAGE RATING

H03: 300/300V  
H05: 500/750V



### MIN. BENDING RADIUS

Flexing: 4 x OD  
Fixed: 2 x OD

## Application

Flexible electric cables suitable for light industrial or household appliances with low mechanical strength and normal ambient temperature. Not for appliances with heating elements.

## Construction

Stranded annealed Copper (Class 5 per CEI EN 60228)  
PVC core insulation (T12)  
Cores colour coded per CEI UNEL 00722 / HD 308

Green/yellow earth, 3 cores and above  
Cores stranded in layers with optimal lay length  
PVC outer sheath (TM2)

## Properties & Identification

Flame retardant, self-extinguishing  
G = with green/yellow earth core  
X = without green/yellow earth core

## Additional

H03 / H05 VV-F

## H03 (300V)

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	CONDUCTOR OD (MM)	CABLE OD (MM)	RESISTANCE (Ω/KM)	CABLE WEIGHT (KG/KM)
H05VK2C050-x	2 x 0.5	0.9	5.9	39.0	34
H05VK3C050-x	3G 0.5	0.9	6.3	39.0	41
H05VK4C050-x	4G 0.5	0.9	6.9	39.0	49

## H05 (500/750V)

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	CONDUCTOR OD (MM)	CABLE OD (MM)	RESISTANCE (Ω/KM)	CABLE WEIGHT (KG/KM)
H07VK2C075-x	2 x 0.75	1.1	7.2	26.0	53
H07VK3C075-x	3G 0.75	1.1	7.6	26.0	63
H07VK4C075-x	4G 0.75	1.1	8.3	26.0	76
H07VK5C075-x	5G 0.75	1.1	9.3	26.0	96
H07VK2C100-x	2 x 1.0	1.3	7.3	19.5	61
H07VK3C100-x	3G 1.0	1.3	7.8	19.5	73
H07VK4C100-x	4G 1.0	1.3	9.0	19.5	91
H07VK5C100-x	5G 1.0	1.3	9.8	19.5	110
H07VK2C150-x	2 x 1.5	1.6	7.8	13.3	81
H07VK3C150-x	3G 1.5	1.6	8.5	13.3	100
H07VK4C150-x	4G 1.5	1.6	9.6	13.3	127
H07VK5C150-x	5G 1.5	1.6	10.7	13.3	160
H07VK3C250-x	3G 2.5	2.0	9.6	7.98	157
H07VK4C250-x	4G 2.5	2.0	11.58	7.98	191
H07VK5C250-x	5G 2.5	2.0	12.80	7.98	238
H07VK3C400-x	3G 4.0	2.6	11.7	4.95	216
H07VK4C400-x	4G 4.0	2.6	13.0	4.95	265
H07VK5C400-x	5G 4.0	2.6	14.9	4.95	330

Stock and availability upon request. Additional sizes available on request.

# SIL-TECH SIAF

Single Core  
Flexible single core, silicone rubber insulated, heat resistant



## Technical Data

Conductor IEC EN 60228 Class 5 DIN VDE 0250-15



### TEMPERATURE RANGE

Operating: -60°C to 180°C  
Flash: up to 220°C  
Short Circuit: 350°C



### VOLTAGE RATING

300/500V (0.50mm - 4.00mm)  
600/1000V (6.0mm - 120mm)



### TEST VOLTAGE

2kV



### MIN. BENDING RADIUS

6 x OD

## Application

Silicone insulated cables are suited to applications in high or low temperatures. When exposed to an open flame or fire they produce minimal smoke or fumes and can be used to wire public buildings. Used in industries such as moulding, packaging, food processing, refrigeration, furnaces, lighting and the boating industries.

## Construction

Annealed tinned Copper conductor (Stranded Class 5 as per CEI EN 60228)  
Core insulation with silicone rubber (E12)  
Colour coding as per CEI UNEL 00722 / HD 308  
Outer sheath silicone rubber (EM9)

## Properties & Identification

Halogen Free per IEC 60754-2  
Resistance to high and low temperatures  
Weather proof. RohS Compliant

## Additional

Cable marking: SIL-TRON

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	OUTER DIAMETER (MM)	MAX. RESISTANCE (Ω/KM) TINNED COPPER
SIF1C050-x	1 x 0.50	2.10	40.10
SIF1C075-x	1 x 0.75	2.40	26.70
SIF1C100-x	1 x 1.00	2.50	20.00
SIF1C150-x	1 x 1.50	2.80	13.70
SIF1C250-x	1 x 2.50	3.40	8.21
SIF1C400-x	1 x 4.00	4.20	5.09
SIF1C600-x	1 x 6.00	5.20	3.39
SIF1C1000-x	1 x 10	6.40	1.95
SIF1C1600-x	1 x 16	8.00	1.24
SIF1C2500-x	1 x 25	10.00	0.795
SIF1C3500-x	1 x 35	11.20	0.565
SIF1C5000-x	1 x 50	13.20	0.393
SIF1C7000-x	1 x 70	15.00	0.277
SIF1C9500-x	1 x 95	18.20	0.210
SIF1C12000-x	1 x 120	19.20	0.164
SIF1C15000-x	1 x 150	21.40	0.132
SIF1C18500-x	1 x 185	23.60	0.108
SIF1C24000-x	1 x 240	26.50	0.0817
SIF1C30000-x	1 x 300	29.00	0.0654

Stock and availability upon request.

# SIL-TECH SIHF Multicore

Flexible multicore, silicone rubber insulated, heat resistant

SIL-TECH VDE

## Technical Data

Silicone multicore cable with heat resistance



### TEMPERATURE RANGE

Operating: -60°C to 180°C  
Flash: up to 220°C  
Short Circuit: 350°C



### VOLTAGE RATING

300/500V (0.5mm - 1mm)  
450/750V (1.5mm - 6mm)



### TEST VOLTAGE

2kV



### MIN. BENDING RADIUS

Fixed: 4 x OD  
Flexible: 7.5 x OD

## Application

Silicone insulated multicore cables are suited to applications in high or low temperatures. When exposed to an open flame or fire they produce minimal smoke or fumes and can be used to wire public buildings. Options include galvanised steel wire braid for mechanical protection or a tinned Copper wire braid for screening against EMI. Used in industries such as moulding, packaging, food processing, refrigeration, furnaces, lighting and the boating industries.

## Construction

Annealed tinned Copper conductor (Stranded Class 5 as per CEI EN 60228)

Core insulation with silicone rubber (EI2)

Colour coding as per CEI UNEL 00722 / HD 308

Outer sheath silicone rubber (EM9)

Outer sheath colour red-brown

Halogen free – IEC 60754 – 1/2

## Properties & Identification

Halogen free. RohS Compliant.

Heat, chemical, oil and ozone resistant

Available in black outer sheath

x: RD = Red-brown / BK = Black

## Additional

Cable marking: SIL-TRON SIHF

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	OUTER DIAMETER (MM)	MAX. RESISTANCE (Ω/KM) TINNED COPPER
SIHF2C050-x	2 x 0.5	5.40	40.10
SIHF3C050-x	3G 0.5	5.90	40.10
SIHF4C050-x	4G 0.5	6.40	40.10
SIHF5C050-x	5G 0.5	7.30	40.10
SIHF2C075-x	2 x 0.75	6.40	26.70
SIHF3C075-x	3G 0.75	6.80	26.70
SIHF4C075-x	4G 0.75	7.80	26.70
SIHF2C100-x	2 x 1	6.60	20.00
SIHF3C100-x	3G 1	7.40	20.00
SIHF4C100-x	4G 1	8.00	20.00
SIHF5C100-x	5G 1	8.80	20.00
SIHF2C150-x	2 x 1.5	7.60	13.70
SIHF3C150-x	3G 1.5	8.00	13.70
SIHF4C150-x	4G 1.5	8.80	13.70
SIHF5C150-x	5G 1.5	9.60	13.70
SIHF7C150-x	7G 1.5	10.40	13.70
SIHF2C250-x	2 x 2.5	9.20	8.21
SIHF3C250-x	3G 2.5	9.70	8.21
SIHF4C250-x	4G 2.5	10.60	8.21
SIHF5C250-x	5G 2.5	11.60	8.21
SIHF7C250-x	7G 2.5	12.60	8.21
SIHF3C400-x	3G 4	11.40	5.09
SIHF4C400-x	4G 4	13.10	5.09
SIHF5C400-x	5G 4	14.40	5.09
SIHF4C600-x	4G 6	16.20	3.39

Stock and availability upon request. Additional sizes available on request.

# RUBBER TRAILING

H07 RN-F

Rubber power cable, 450/750V

IEMMEQU <HAR> - H07RN-F

## Technical Data



### TEMPERATURE RANGE

Operating:  
-25°C to 60°C (85°C in fixed, protected installations)  
Min (without mechanical shocks):  
-40°C  
Max short circuit: 200°C



### VOLTAGE RATING

450/750V



### TEST VOLTAGE

2.5kV



### TENSILE STRENGTH

Fixed: 50 N/mm<sup>2</sup>  
Flexing: 15 N/mm<sup>2</sup>



### MIN. BENDING RADIUS

OD (MM)	< 8	< 12	> 12	> 20
Fixed	3 x OD	3 x OD	4 x OD	4 x OD
Flexing	4 x OD	4 x OD	5 x OD	6 x OD

## Application

Suitable for applications in dry, damp or wet environments (AD6), in open air, in workshops with an explosive atmosphere. Resistant to medium mechanical stress like equipment in industrial and agricultural workshops, boilers, heating plates, portable lamps, electric tools like drills, circular saws, electric home-tools, motors or transportable generators in construction sites or agricultural plants etc. It can be used in fixed installations such as floors and temporary construction sites.

## Construction

Annealed stranded Copper conductor, class 5.  
Core insulation with Elastomeric compound, EI4.  
Black outer sheath (Polychloroprene, EM2)

## Properties & Identification

Ozone and oil resistant per EN 60811-2-1 (Test method A) and CEI EN 50396 (Test method B).  
Water, chemical and abrasion resistant

## Additional

**Ink marking:** IEMMEQU <HAR> - H07RN-F  
Packed in drums, 100m coils or cut to length (conditions may apply).

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)	AMPACITY (FLEXIBLE) @ 60°C (A)	AMPACITY (FIXED) @ 85°C (A)
H0716001C-BK	1 x 16	11.62	259	71	102
H0725001C-BK	1 x 25	13.74	375	94	136
H0735001C-BK	1 x 35	15.35	492	117	168
H0750001C-BK	1 x 50	17.68	675	148	203
H0770001C-BK	1 x 70	20	908	185	254
H0795001C-BK	1 x 95	22.12	1,171	222	299
H07120001C-BK	1 x 120	24.54	1,445	260	363
H07150001C-BK	1 x 150	26.87	1,783	300	416
H07185001C-BK	1 x 185	28.89	2,125	341	475
H07240001C-BK	1 x 240	32.62	2,733	407	559
H07300001C-BK	1 x 300	36.46	3,348	468	637
H07400001C-BK	1 x 400	39.6	4,800	553	722
H07500001C-BK	1 x 500	45.5	5,800	620	833
H07630001C-BK	1 x 630	49.5	6,800	742	888

Stock and availability upon request.

# RUBBER TRAILING Continued

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)	AMPACITY (FLEXIBLE) @ 60°C (A)	AMPACITY (FIXED) @ 85°C (A)
H071002C-BK	2 x 1	8.4	90	10	18
H071502C-BK	2 x 1.5	9.1	109	18	23
H072502C-BK	2 x 2.5	10.8	158	27	32
H071003G-BK	3G1	9.07	110	10	18
H071503G-BK	3G1.5	10.18	134	16	23
H072503G-BK	3G2.5	11.58	196	25	32
H074003G-BK	3G 4	13.3	271	29	43
H076003G-BK	3G 6	14.78	355	36	56
H0710003G-BK	3G 10	20.73	674	51	77
H0716003G-BK	3G 16	23.26	913	67	102
H0725003G-BK	3G 25	27.69	1,324	89	136
H0735003G-BK	3G 35	30.95	1,754	110	168
H0750003G-BK	3G 50	35.8	2,409	138	203
H0770003G-BK	3G 70	40.45	3,211	172	254
H0795003G-BK	3G 95	45.08	4,210	204	299
H071004G-BK	4G 1	10	136	10	16
H071504G-BK	4G1.5	10.76	166	16	21
H072504G-BK	4G2.5	12.73	241	20	29
H074004G-BK	4G4	14.63	336	30	38
H076004G-BK	4G 6	16.44	449	37	50
H0710004G-BK	4G 10	22.57	833	52	68
H0716004G-BK	4G 16	25.36	1138	69	92
H0725004G-BK	4G 25	30.75	1714	92	122
H0735004G-BK	4G 35	34.23	2204	114	150
H0750004G-BK	4G 50	39.56	3029	143	182
H0770004G-BK	4G 70	44.89	4121	178	232
H0795004G-BK	4G 95	50.36	5361	210	281
H07120004G-BK	4G120	55.33	6546	246	325
H07150004G-BK	4G150	60.87	8095	282	373
H07185004G-BK	4G185	65.7	9652	319	425
H07240004G-BK	4G240	75.7	12614	377	500
H07300004G-BK	4G300	86.33	13890	460	588
H071005G-BK	5G 1	11	168	10	16
H071505G-BK	5G 1.5	11.8	206	16	21
H072505G-BK	5G 2.5	13.96	297	20	29
H074005G-BK	5G 4	16.25	422	30	38
H076005G-BK	5G 6	18.07	567	38	50
H0710005G-BK	5G 10	24.75	1010	54	68
H0716005G-BK	5G 16	28.01	1400	71	92
H0725005G-BK	5G 25	33.57	2096	94	122
H0735005G-BK	5G 35	39.2	2697	114	150
H071507G-BK	7G 1.5	15.3	315	16	21
H072507G-BK	7G 2.5	17.9	445	20	29
H074007G-BK	7G 4	19.64	618	25	38

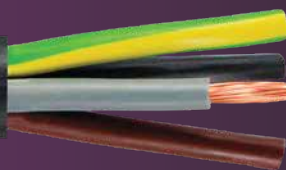
Stock and availability upon request.



# XLPE TRAILING<sub>RV-K</sub>

Flexible, double insulated, XLPE/PVC

RV-K Trailing Cable



## Technical Data

Flexible power cable per IEC 60502; UNE 21123



**TEMPERATURE RANGE**  
Operating: -15°C to 90°C



**VOLTAGE RATING**  
600/1000V



**MIN. BENDING RADIUS**  
5 x OD

## Application

This cable is for power distribution and is suitable for all types of low voltage industrial-type connections, in urban grids, building installations, etc. Its high flexibility makes the installation process substantially easier and thus is particularly suitable for use in difficult layouts. It can be buried or installed in a tube as well as outdoors without requiring additional protection. Lastly, RV-K cable can withstand damp conditions, including total immersion in water.

## Construction

Flexible electrolytic annealed Copper conductors, class 5 per IEC 60228.

XLPE core insulation, type DIX3 per HRN HD 603. Colour coding as per HRN HD 308.

Bedding and outer sheath with flexible, fire retardant PVC

## Properties & Identification

The special PVC compound provides excellent resistance to chemical corrosion and water absorption.

Standard outer sheath colours: Black.

Alternative colours available upon request.

## Additional

**Excellent flexibility:** The use of flexible Copper conductors and special PVC compounds make this cable highly flexible.

**Great power:** The cross-linked Polyethylene insulation (XLPE) allows greater power transmission as well as a higher resistance to overloads. Additionally, it raises the maximum conductor temperature to 90°C (vs. 70°C in type NYY or W cables)

**Lower installation costs:** The use of flexible cable noticeably speeds up the installation which in many cases means lower installation cost.

**Fire proof properties:** The NO flame propagation properties of the cable contribute towards improving the overall safety of the installation.

**Protection:** The special PVC mix outer sheath provides a high level of protection against hydrocarbon and mineral oils.

**Versatility:** The RV-K's design permits it to be installed in almost all types of environments: Outdoors, buried, in humid environments and even immersed in water.

PART NO.	NO. CORES X SIZE (MM²)	MAX OD (MM)	WEIGHT (KG/KM)	AMPACITY (OPEN AIR @ 30°C) (A)	AMPACITY (BURIED @ 20°C) (A)
RVK1C1600-BK	1 x 16	9.3	193	101	79
RVK1C2500-BK	1 x 25	10.9	284	135	101
RVK1C3500-BK	1 x 35	12.1	377	169	122
RVK1C5000-BK	1 x 50	13.8	522	207	144
RVK1C7000-BK	1 x 70	15.9	721	268	178
RVK1C9500-BK	1 x 95	17.6	913	328	211
RVK1C12000-BK	1 x 120	19.5	1.156	383	240
RVK1C15000-BK	1 x 150	21.7	1.450	444	271
RVK1C18500-BK	1 x 185	23.9	1.745	510	304
RVK1C24000-BK	1 x 240	26.9	2.285	607	351
RVK1C30000-BK	1 x 300	29.6	2.844	703	396
RVK1C40000-BK	1 x 400	33.8	3.726	823	464
RVK1C50000-BK	1 x 500	37.4	4.728	946	525
RVK1C63000-BK	1 x 630	42.7	6.088	1088	596

Stock and availability upon request.

# XLPE TRAILING Continued

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	MAX OD (MM)	WEIGHT (KG/KM)	AMPACITY (OPEN AIR @ 30°C) (A)	AMPACITY (BURIED @ 20°C) (A)
RVK2C0150-BK	2 x 1.5	8.4	91	26	26
RVK2C0250-BK	2 x 2.5	9.5	121	36	34
RVK3C0150-BK	3G 1.5	9	108	26	26
RVK3C0250-BK	3G 2.5	10	145	36	34
RVK3C0400-BK	3G 4	11.1	196	49	44
RVK3C0600-BK	3G 6	12.3	262	63	56
RVK3C1000-BK	3G 10	15.2	434	86	73
RVK3C1600-BK	3G 16	17.6	645	100	79
RVK3C2500-BK	3G 25	21.1	972	127	101
RVK3C3500-BK	3G 35	24.1	1.306	158	122
RVK3C5000-BK	3G 50	27.8	1.822	192	144
RVK4C0150-BK	4G 1.5	9.6	128	23	22
RVK4C0250-BK	4G 2.5	10.8	174	32	29
RVK4C0400-BK	4G 4	12.1	241	42	37
RVK4C0600-BK	4G 6	13.3	322	54	46
RVK4C1000-BK	4G 10	16.5	537	75	61
RVK4C1600-BK	4G 16	19.6	817	100	79
RVK4C2500-BK	4G 25	23.1	1.201	127	101
RVK4C3500-BK	4G 35	26.1	1.642	158	122
RVK4C5000-BK	4G 50	31.3	2.327	192	144
RVK4C7000-BK	4G 70	36.1	3.206	246	178
RVK4C9500-BK	4G 95	40.4	4.092	298	211
RVK4C12000-BK	4G 120	45.4	5.227	346	240
RVK4C15000-BK	4G 150	50.4	6.600	399	271
RVK4C18500-BK	4G 185	56.1	8.026	456	304
RVK4C24000-BK	4G 240	63.1	10.491	538	351
RVK5C0150-BK	5G 1.5	10.7	153	23	22
RVK5C0250-BK	5G 2.5	11.9	210	32	29
RVK5C0400-BK	5G 4	13.3	291	42	37
RVK5C0600-BK	5G 6	14.7	393	54	46
RVK5C1000-BK	5G 10	18.0	654	75	61
RVK5C1600-BK	5G 16	21.6	1.013	100	79
RVK5C2500-BK	5G 25	25.6	1.506	127	101
RVK5C3500-BK	5G 35	29.1	2.040	158	122
RVK5C5000-BK	5G 50	34.5	2.895	192	144

Stock and availability upon request.



# ECO-TRAIL Orange

Flexible, double insulated, PVC/PVC



ORANGE TRAILING CABLE

## Technical Data

Flexible power cable with ampacity rating per SANS 1574/2004. Manufactured in accordance with SANS and other National and International standards



### TEMPERATURE RANGE

Operating: -10°C to 70°C  
Short circuit (5 sec.): 150°C



### VOLTAGE RATING

600/1000V



### MIN. BENDING RADIUS

5 x OD

## Application

This cable is used for power to mobile and stationary industrial machinery or applications that require medium duty cables that are abrasion resistant. Can be used in dry or damp areas. The selection and installation of these products must be carried out in accordance with SANS 10142 Part 1, code of practise, "The Wiring of Premises"

## Construction

Flexible electrolytic annealed Copper conductors, class 5 per IEC 60228 (SANS 1411 Part 1).

Core insulation and bedding with flexible PVC.

Outer sheath with special, flame retardant PVC.

## Properties & Identification

The special PVC compound provide excellent resistance to chemical corrosion and water absorption. Flame retardant, self-extinguishing, high abrasion resistant.

## Additional

Available in 500m drums or cut to length (conditions may apply)

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	OD (MM)	CURRENT RATING * @ 30°C (A)	VOLT DROP * (MV/A/M)	CABLE WEIGHT (KG/KM)
ORG4C0150-OR	4 x 1.5	12	16	27.0	22
ORG4C0250-OR	4 x 2.5	13.5	25	16.0	27
ORG4C0400-OR	4 x 4	15.5	32	10.0	38
ORG4C1000-OR	4 x 10	18	37	6.5	52
ORG4C1600-OR	4 x 16	20	50	3.8	72
ORG4C2500-OR	4 x 25	24	65	2.4	104
ORG4C3500-OR	4 x 35	28	89	1.5	149

\*Based on max. ambient temperature of 30°C and conductor temperature of 70°C  
Stock and availability upon request. Additional sizes available on request.

# ECO-SUB

## CABLE

Submersible Pump - SANS 1574

Submersible Pump - SANS 1574

### Technical Data

Specification: SANS 1574



	<b>TEMPERATURE RANGE</b> -10°C to 70°C		<b>VOLTAGE RATING</b> 600/1000V
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### Application

Submersible Pumps, Boreholes , Farms

### Construction

Flexible plain Copper conductors.  
PVC insulated.  
PVC Nitrile overall.

### Additional

Packaging in 100m shrink-wrapped coils, also available in 500m wooden drums.

### Properties & Identification

#### Colours Available

Sheath Colours:  
3 Core - Blue  
4 Core - Green

#### Core Colours:

3 Core - Red, Yellow, Blue  
4 Core - Red, Yellow, Blue, Black

### Technical Information

CABLE SIZE (MM²)	NOM. STRANDING NO. DIAMETER	APPROX. OVERALL DIAMETER (MM)	CURRENT RATING * (A)	VOLT DROP * (MV/A/M)	APPROX. CABLE WEIGHT PER 100m (KG)
1.5 x 3	28w x 0.25	9.0	15	26.00	12
2.5 x 3	46w x 0.25	10.0	20	16.00	17
4.0 x 3	52w x 0.30	11.9	30	10.00	23
6.0 x 3	84w x 0.30	14.5	35	6.40	42
10.0 x 3	140w x 0.30	17.0	50	3.80	52
16.0 x 3	210w x 0.30	19.0	65	2.40	70
1.5 x 4	28w x 0.25	10.5	15	26.00	20
2.5 x 4	46w x 0.25	11.0	20	16.00	25
4.0 x 4	52w x 0.30	13.5	30	10.00	32
6.0 x 4	84w x 0.30	16.0	35	6.40	48
10.0 x 4	140w x 0.30	18.3	50	3.80	68
16.0 x 4	210w x 0.30	21.0	65	2.40	90

\* Based on a max ambient temperature of 30°C and conductor temperature of 70°C

# ECO-WELD

Plain annealed flexible Copper conductor, flexible PVC bedded, with a Nitrile PVC sheath

Eco-Weld Red

Eco-Weld Black

## Technical Data

Specification: SANS 1574-3



**TEMPERATURE RANGE**  
-10°C to 70°C



**VOLTAGE RATING**  
600/1000V

## Application

Plain annealed flexible Copper conductor, flexible PVC bedding, with a Nitrile PVC sheath.

## Properties & Identification

### Colours Available

Sheath Colours:  
Red, Black, Green/Yellow, Blue  
(other colours available on request)

## Technical Characteristics

PART NAME	CABLE SIZE	NOM. STRANDING NO. DIAMETER	APPROX. OVERALL DIAMETER (MM)	CURRENT RATING * (A)	VOLT DROP * (MV/A/M)	APPROX. CABLE WEIGHT PER 100m (KG)
WELD16MM-X	16	240 x 0.3	10.3	80	2.420	21.2
WELD25MM-X	25	329w x 0.3	11.9	114	1.560	29.4
WELD35MM-X	35	455w x 0.3	13.6	141	1.108	38.7
WELD50MM-X	50	670w x 0.3	15.7	182	0.772	55.7
WELD70MM-X	70	904w x 0.3	17.0	234	0.544	73.6
WELD95MM-X	95	1190w x 0.3	19.1	284	0.412	95.3
WELD120MM-X	120	1530w x 0.3	22.9	330	0.161	131.0
WELD150MM-X	150	1917w x 0.3	25.8	376	0.258	155.3

\* Based on a max ambient temperature of 30°C and a max conductor temperature of 70°C

# RG CABLES MIL-C-17

RG coaxial cables, RG58, RG59, RG213

RG59 + POWER MIL-C-17



## Technical Data

Coaxial cable per MIL-C-17



**TEMPERATURE RANGE**  
Operating: -20°C to 85°C



**INSULATION RESISTANCE**  
1,000 MΩ/KM



**FREQUENCY RANGE**  
3 GHz f (max.)



**PROPAGATION VELOCITY**  
0.66 v/c

## Application

Used with transmitters, receivers, computers, radio, video and in high frequency transmission.

## Construction

Inner conductor as per specification below  
PE insulation  
Braided screen with 95% coverage  
Black outer jacket with PVC

## Properties & Identification

R=Radio, G=Guide, U=Utility  
Fire retardant as per IEC 60332-1  
Conforms to RoHS directive

## Additional

Available in 500m wooden drums and 100m coils

TYPE RG... /U	58	59	+ POWER	213
Part No.	RG58MILC17	COARG59	-	COARG213
<b>Cable Structure</b>				
Inner Conductor ø (mm)	19 x 0.8	1 x 0.6	-	7 x 0.75
Insulation ø (mm)	2.95	3.7	-	7.24
Outer Conductor	Braid, Tinned Copper	Braid, Copper	-	Braid, Copper
No. of Power Cores	-	-	2 x 0.75	-
Min. Bending Radius (mm)	25	30	-	50
Outer ø (mm)	21.0	26.0	-	10.3
<b>Electrical Characteristics</b>				
Impedance (Ω)	50 ± 2	75 ± 3	-	50 ± 2
Attenuation at 20°C	(db/100m)	(db/100m)	-	(db/100m)
100 MHz	17	11.5	-	7
200 MHz	24	16.4	-	10.2
500 MHz	39	27	-	17
800 MHz	51	35	-	23
1000 MHz	56	41	-	-
Capacitance pF/m	101	67	-	101

## Accessories

**Connectors:** RG59 6mm  
Male or Female  
Crimp or Soldier Versions



**Barrel Connectors:** RG59 Barrel Connector  
Female to Female



**Glue Stick:** 40 x 11mm Clear  
Part No. GLUESTICK



# KAMNET LAN CAT5e UTP

Category 5 enhanced, unshielded twisted pairs



KAMNET CAT5E UTP

## Technical Data

Ethernet LAN cable per ISO/IEC 11801 TIA/EIA 5688.2



### TEMPERATURES

Operating: -20°C to 85°C



### TEST VOLTAGE

Operating: 250V  
Test: 1.5kV



### MIN. BENDING RADIUS

5 x OD



### IMPEDANCE

67 Ω



### CAPACITANCE

Conductor: 120 nF/km  
Shield: 160 nF/km



### RESISTANCE

Insulation: > 20 MΩ/km  
Electrical: < 145 Ω/km

## Application

Used in the secondary and tertiary network level for the implementation of services such as Gigabit Ethernet, Fast Ethernet, Ethernet etc.

## Construction

UTP 4 x 2 x 24AWG

Annealed bare Copper conductors (0.51mm ø)

or Copper clad Aluminium conductors (0.55mm ø)

Core insulation with Polyethylene compound

Outer sheath with special PVC (RoHS compliant)

## Properties & Identification

Flame retardant as per IEC 60332-41

Available in solid or stranded bare Copper or Copper clad Aluminium conductors.

Standard outer sheath colour Grey RAL 7001

Additional colours available on request: x = Grey (GY), Blue (BU), Green (GN), Yellow (YE), Red (RD), White (WH).

Also available in Black outer sheath with UV Protection

## Additional

Cable marking: KAMNET DATA CABLE UTP CAT5E 4PAIR 24AWG ISO/IEC 11801 TIA/EIA 5688.2 (Meter marked)

PART NO.	NO. CORES X SIZE (AWG)	DESCRIPTION	CABLE OD	DRUM WEIGHT (KG/KM)
CAT5EUTPCU-x	4 x 2 x 24AWG	Cat5e UTP SOLID COPPER	5.2	27.0
CAT5UTP-x	4 x 2 x 24AWG	Cat5e UTP SOLID CCA	5.5	19.0
CAT5EUTPS-x	4 x 2 x 24AWG	Cat5e UTP STRANDED COPPER	5.4	28.0
CAT5UTPS-x	4 x 2 x 24AWG	Cat5e UTP STRANDED CCA	5.6	20.0

## Accessories

### Connectors:

RJ45 Cat5 Unshielded  
Part No. RJ455EUTP-CL



### Surface Mount:

RJ45 Cat5 UTP  
Part No. SMBD5EUTP-x



### Boots:

RJ45 Colour Coded  
Part No. RJ456EBT-x



### Patch Cords:

Cat5 UTP  
Pure Copper or CCA



### Inline Connectors:

RJ45 Unshielded  
Part No. RJ455INLINE-x



### Glue Stick:

40 x 11mm Clear  
Part No. GLUESTICK



# KAMNET LAN CAT5e FTP

Category 5 enhanced, shielded twisted pairs

KAMNET CAT5E FTP

## Technical Data

Ethernet LAN cable per ISO/IEC 11801 TIA/EIA 5688.2



### TEMPERATURES

Operating: -20°C to 85°C



### TEST VOLTAGE

Operating: 250V  
Test: 1.5kV



### MIN. BENDING RADIUS

5 x OD



### IMPEDANCE

67 Ω



### CAPACITANCE

Conductor: 120 nF/km  
Shield: 160 nF/km



### RESISTANCE

Insulation: > 20 MΩ/km  
Electrical: < 145 Ω/km

## Application

Used in the secondary and tertiary network level for the implementation of services such as Gigabit Ethernet, Fast Ethernet, Ethernet etc.

## Construction

FTP 4 x 2 x 24AWG

Annealed bare Copper conductors (0.51mm ø)

or Copper clad Aluminium conductors (0.55mm ø)

Core insulation with high density Polyethylene compound

Solid tinned Copper drain wire (Cu version) or tinned Copper clad Aluminium (CCA version).

Screened with Aluminium/Polyester foil tape (100% coverage with 25% overlap)

Outer sheath with special PVC (RoHS compliant)

## Properties & Identification

Flame retardant as per IEC 60332-41

Available in solid or stranded bare Copper or Copper clad Aluminium conductors.

Standard outer sheath colour Grey RAL 7001

Additional colours available on request: x = Grey (GY), Blue (BU), Green (GN), Yellow (YE), Red (RD), White (WH).

Also available in Black outer sheath with UV Protection

## Additional

Cable marking: KAMNET DATA CABLE UTP CAT5E 4PAIR 24AWG ISO/IEC 11801 TIA/EIA 5688.2 (Meter marked)

PART NO.	NO. CORES X SIZE (AWG)	DESCRIPTION	CABLE OD	DRUM WEIGHT (KG/KM)
CAT5EFTPCU-x	4 x 2 x 24AWG	Cat5e FTP SOLID COPPER	5.8	34.0
CAT5FTP-x	4 x 2 x 24AWG	Cat5e FTP SOLID CCA	5.9	27.0
CAT5EFTPS-x	4 x 2 x 24AWG	Cat5e FTP STRANDED COPPER	5.9	37.0
CAT5FTPS-x	4 x 2 x 24AWG	Cat5e FTP STRANDED CCA	5.7	28.0

## Accessories

### Connectors:

RJ45 Cat5 Shielded  
Part No. RJ455EFTP-CL



### Surface Mount:

RJ45 Cat5 FTP  
Part No. SMBD5EFTP-x



### Boots:

RJ45 Colour Coded  
Part No. RJ456EBT-x



### Patch Cords:

Cat5 FTP  
Pure Copper or CCA



### Inline Connectors:

RJ45 Shielded  
Part No. RJ456INLINE



### Glue Stick:

40 x 11mm Clear  
Part No. GLUESTICK





# KAMNET LAN CAT6e UTP

Category 6 enhanced, unshielded twisted pairs



KAMNET CAT6E UTP

## Technical Data

Ethernet LAN cable per ISO/IEC 11801 TIA/EIA 5688.2



<b>TEMPERATURES</b> Operating: -20°C to 70°C	<b>TEST VOLTAGE</b> Operating: 250V Test: 1.5V	<b>MIN. BENDING RADIUS</b> 8 x OD	<b>IMPEDANCE</b> 100 (±15) Ω
<b>CAPACITANCE</b> 56 nF/km	<b>TENSILE STRENGTH</b> 13.8 Mpa	<b>RESISTANCE</b> Insulation: > 50 MΩ/km Electrical: < 74 Ω/km	

## Application

Used in the secondary and tertiary network level for the implementation of services such as Gigabit Ethernet, Fast Ethernet, Ethernet etc.

## Construction

UTP 4 x 2 x 24AWG  
 Annealed bare Copper conductors (0.51mm ø)  
 or Copper clad Aluminium conductors (0.55mm ø)  
 Core insulation with high density, low molecular weight, Polyethylene compound (LDPE) (OD: 1.05mm (±0.05mm))  
 Outer sheath with special PVC (RoHS compliant) (OD: 6.3mm (±0.3mm)) Nylon rip cord

## Properties & Identification

Flame retardant as per IEC 60332-41  
 Available in solid or stranded bare Copper as well as solid or stranded Copper clad Aluminium conductors.  
 Standard outer sheath colour Grey RAL 7001  
 Additional colours available on request: x = Grey (GY), Blue (BU), Green (GN), Yellow (YE), Red (RD), White (WH).  
 Also available in Black outer sheath with UV Protection

## Additional

Cable marking: KAMNET DATA CABLE UTP CAT6E  
 4PAIR 24AWG ISO/IEC 11801 TIA/EIA 5688.2 (Meter marked)

PART NO.	NO. CORES X SIZE (AWG)	DESCRIPTION	CABLE OD	DRUM WEIGHT (KG/KM)
CAT6EUTP-GY	4 x 2 x 24AWG	Cat6e UTP SOLID PURE COPPER	6.0	40.0
CAT6UTP-GY	4 x 2 x 24AWG	Cat6e UTP SOLID CCA	5.3	28.0
CAT6EUTPS-GY	4 x 2 x 24AWG	Cat6e UTP STRANDED PURE COPPER	6.3	37.0
CAT6UTPS-GY	4 x 2 x 24AWG	Cat6e UTP STRANDED CCA	5.7	30.0

## Accessories

<b>Connectors:</b> RJ45 Cat6 Unshielded Part no. RJ456EUTP-CL		<b>Surface Mount:</b> RJ45 Cat6 UTP Part no. SMBD6EUTP-x	
<b>Boots:</b> RJ45 Colour Coded Part no. RJ456EBT-x		<b>Patch Cords:</b> Cat6 UTP Pure Copper or CCA	
<b>Inline Connectors:</b> RJ45 Cat6 Shielded Part no. RJ456INLINE		<b>Glue Stick:</b> 40 x 11mm Clear Part no. GLUESTICK	

# KAMNET LAN CAT6e FTP

Category 6 enhanced, overall foil screened twisted pairs



## Technical Data

Ethernet LAN cable per ISO/IEC 11801 TIA/EIA 5688.2



<b>TEMPERATURES</b> Operating: -20°C to 70°C	<b>TEST VOLTAGE</b> Operating: 250V Test: 1.5V	<b>MIN. BENDING RADIUS</b> 8 x OD	<b>IMPEDANCE</b> 100 (±15) Ω
<b>CAPACITANCE</b> 56 nF/km	<b>TENSILE STRENGTH</b> 13.8 Mpa	<b>RESISTANCE</b> Insulation: > 20 MΩ/km Electrical: < 74 Ω/km	

## Application

Used in the secondary and tertiary network level for the implementation of services such as Gigabit Ethernet, Fast Ethernet, Ethernet etc. The foils screen shields the cable from EMI, the cable is therefore suitable for use in tight cable channels and near power cables or machinery.

## Construction

FTP 4 x 2 x 24AWG  
 Annealed bare Copper conductors (0.51mm ø) or Copper clad Aluminium conductors (0.55mm ø)  
 Core insulation with high density, low molecular weight, Polyethylene compound (LDPE) (OD: 0.9mm (±0.05mm))  
 Twisted pairs assembled around a cross-filler  
 Solid tinned Copper drain wire (Cu version) or Copper clad Aluminium (CCA version). Screened with Aluminium/Polyester foil tape (100% coverage with 25% overlap)

Outer sheath with special 90oC PVC (RoHS compliant) (OD: 5.8mm (±0.2mm)) Nylon rip cord

## Properties & Identification

Flame retardant as per IEC 60332-41  
 Available in solid or stranded bare Copper as well as solid or stranded Copper clad Aluminium conductors.  
 Standard outer sheath colour Grey RAL 7001  
 Additional colours available on request: x = Grey (GY), Blue (BU), Green (GN), Yellow (YE), Red (RD), White (WH).  
 Also available in Black outer sheath with UV Protection

## Additional

Cable marking: KAMNET DATA CABLE FTP CAT6E 4PAIR 24AWG ISO/IEC 11801 TIA/EIA 5688.2 (Meter marked)

PART NO.	NO. CORES X SIZE (AWG)	DESCRIPTION	CABLE OD	DRUM WEIGHT (KG/KM)
CAT6EFTP-x	4 x 2 x 24AWG	Cat6e FTP SOLID PURE COPPER	5.8	49.0
CAT6FTP-x	4 x 2 x 24AWG	Cat6e FTP SOLID CCA	5.5	38.0
CAT6EFTPS-x	4 x 2 x 24AWG	Cat6e FTP STRANDED PURE COPPER	6.2	44.0
CAT6FTPS-x	4 x 2 x 24AWG	Cat6e FTP STRANDED CCA	6.0	35.0

## Accessories

<b>Connectors:</b> RJ45 Cat6 Shielded Part no. RJ456EFTP-CL		<b>Surface Mount:</b> RJ45 Cat6 FTP Part no. SMBD6EFTP-x	
<b>Boots:</b> RJ45 Colour Coded Part no. RJ456EBT-x		<b>Patch Cords:</b> Cat6 STP Pure Copper or CCA	
<b>Inline Connectors:</b> RJ45 Shielded Part no. RJ456INLINE		<b>Glue Stick:</b> 40 x 11mm Clear Part no. GLUESTICK	

# KAMNET LAN CAT6a F/UTP

Category 6, individual foil screened / overall screened, twisted pairs, Copper



## Technical Data

Ethernet LAN cable per ISO/IEC 11801 TIA/EIA 5688.2



**TEMPERATURES**  
Rated: 75°C



**MIN. BENDING RADIUS**  
8 x OD



**IMPEDANCE**  
100 (±15) Ω



**CAPACITANCE**  
330 pF/100m



**TENSILE STRENGTH**  
13.5 Mpa



**RESISTANCE**  
Insulation: > 50 MΩ/km  
Electrical: < 93.8 Ω/km

## Application

Used in the secondary and tertiary network level for the implementation of services such as 10 Gigabit Ethernet, Gigabit Ethernet, Fast Ethernet, Ethernet etc. The individual foils screen shields the cable from EMI and crosstalk, the cable is therefore suitable for use in tight cable channels and near power cables or machinery.

## Construction

F/UTP 4 x 2 x 24AWG  
Annealed bare Copper conductors (0.51mm ø)  
Core insulation with high density, low molecular weight, Polyethylene compound (LDPE) (OD: 1.35mm (±0.05mm))  
Twisted pairs c/w a polyethelene bedding. Overall Aluminium/Polyester tape screened with solid tinned Copper drain

Outer sheath with special PVC (RoHS compliant) (OD: 7.8mm (±0.3mm)). Nylon rip cord

S/FTP 4 x 2 x 24AWG will be individually and overall Aluminium/Polyester tape screened.

## Properties & Identification

Flame retardant as per IEC 60332-41  
Grey RAL 7001 (Additional colours available on request)

## Additional

Cable marking: KAMNET F/UTP CAT6A 4PAIR 24AWG  
ISO/IEC 11801 TIA/EIA 5688.2 (Meter marked)

PART NO.	NO. CORES X SIZE (AWG)	DESCRIPTION	CABLE OD	DRUM WEIGHT (KG/KM)
CAT6AFTP-GY	4 x 2 x 24AWG	Cat6a F/UTP SOLID PURE COPPER	7.8	59
CAT6ASFTPS-GY	4 x 2 x 24AWG	Cat6a S/FTP SOLID PURE COPPER	8.2	83

## Accessories

### Connectors:

RJ45 Cat6a Shielded  
Part no. RJ456ASTP-CL



### Surface Mount:

RJ45 Cat6 FTP  
Part no. SMBD5EUTP-x



### Boots:

RJ45 Colour Coded  
Part no. RJ456EBT-x



### Patch Cords:

Cat6 STP  
Pure Copper or CCA



### Inline Connectors:

RJ45 Shielded  
Part no. RJ456INLINE



### Glue Stick:

40 x 11mm Clear  
Part no. GLUESTICK



# TELEPHONE Indoor

Multipair PVC, unscreened

KAMNET Telephone Indoor



## Technical Data

Ethernet LAN cable per ISO/IEC 11801 TIA/EIA 5688.2



**CONDUCTOR SIZE**  
0.5mm<sup>2</sup>



**CONDUCTOR RESISTANCE**  
95.25 Ω/Km (@ 20°C)

## Application

Indoor telephone cable is used in PABX's, panels and switch gear connections

## Construction

Solid annealed bare Copper conductor.  
Core insulation with PVC.  
Twisted pairs minimise interference and crosstalk.  
Outer sheath white polyvinyl chloride (PVC).

## Properties & Identification

Alternative sheath colours are available on request

## Additional

Available in 100m coils and 500m drums

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	NOMINAL OD	TOTAL WEIGHT (KG/KM)	MAX. LOOP RESISTANCE (Ω/KM)	MIN. INSULATION RESISTANCE (MΩ/KM)
TEL502P-WH	2 x 0.5	3.8	49	186.4	37.5
TEL504P-WH	4 x 0.5	5.6	67	186.4	37.5
TEL506P-WH	6 x 0.5	6.8	117	186.4	37.5
TEL5010P-WH	10 x 0.5	8.4	146	186.4	37.5
TEL5015P-WH	15 x 0.5	9.7	178	186.4	37.5
TEL5020P-WH	20 x 0.5	10.7	213	186.4	37.5
TEL5025P-WH	25 x 0.5	11.4	243	186.4	37.5
TEL5030P-WH	30 x 0.5	11.7	291	186.4	37.5

## Accessories

### Connectors:

RJ9 Clear  
Part No. RJ9



### Glue Stick:

40 x 11mm Clear  
Part No. GLUESTICK



### Surface Mount:

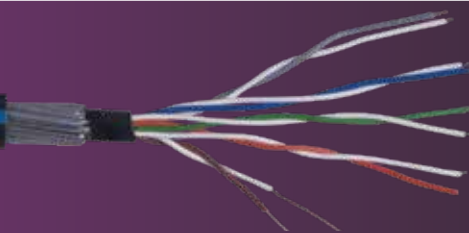
RJ11 Mini Western Jack  
Part No. SMBSRJ11-CR



# TELEPHONE Outdoor (Armoured)

Multipair PVC, steel wire armoured

KAMNET Telephone Outdoor



## Technical Data

Steel wire armoured telecommunication

### ELECTRICAL CHARACTERISTICS

Conductor Size (mm)	0.6	0.9
Conductor Resistance (max. average @ 20°C) Ω/km	38.5	38.5
Mutual Capacitance (max. average @ 800Hz) nF/km	90	90
Capacity Unbalance p-p (800Hz Ind max.) pF/200m	195	195
Insulation Resistance @ 500V DC (individual minimum) MΩ.km	80	80
High Voltage kV DC for 1 Minute without breakdown	1	1

## Application

Multi-pair armoured telecommunications cables are intended for use in telecommunication links over relatively short runs in a robust environment that requires added mechanical protection (e.g. Mining environment)

## Additional

Available in 500m drums

## Construction



### Conductor:

Plain annealed Copper conductors (Tinned annealed Copper conductors also available).

### Insulation:

Polyvinyl Chloride (PVC) insulation.

### Twining:

Pair twisting – Two insulated conductors are twisted together to form a pair, identification being effected by colour of the insulation.

### Cable Core Assembly:

Twisted pairs are stranded into concentric layers starting with pair number 1 in the centre of the cable.

### Bedding Sheath:

Low Halogen Polyvinyl Chloride (LH PVC).

### Armouring:

Galvanized steel wire armouring (also available in double steel wire armouring with a Bituminize rayon tape in between the two steel wire layers).

### Sheath:

Low Halogen Polyvinyl Chloride (LH PVC).

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	NOMINAL OD	TOTAL WEIGHT (KG/KM)	MAX. LOOP RESISTANCE (Ω/KM)	MIN. INSULATION RESISTANCE (MΩ/KM)
TELS602P-LH	2 x 2 x 0.6	9.5	278.0	129.4	37.5
TELS604P-LH	4 x 2 x 0.6	11.4	353.0	129.4	37.5
TELS605P-LH	5 x 2 x 0.6	11.6	380.0	129.4	37.5
TELS606P-LH	6 x 2 x 0.6	12.0	414.0	129.4	37.5
TELS6010P-LH	10 x 2 x 0.6	13.3	476.0	129.4	37.5
TELS6015P-LH	15 x 2x 0.6	14.5	635.0	129.4	37.5
TELS6020P-LH	20 x 2 x 0.6	15.6	662.0	129.4	37.5
TELS6030P-LH	30 x 2 x 0.6	18.3	730.0	129.4	37.5
TELS6040P-LH	40 x 2 x 0.6	19.8	553.0	129.4	37.5
TELS6051P-LH	51 x 2 x 0.6	24.0	852.0	129.4	37.5
TELS904P-LH	4 x 2 x 0.9	13.8	450.0	55.8	37.5
TELS905P-LH	5 x 2 x 0.9	14.2	485.0	55.8	37.5
TELS906P-LH	6 x 2 x 0.9	14.5	543.0	55.8	37.5
TELS9010P-LH	10 x 2 x 0.9	18.0	661.0	55.8	37.5
TELS9015P-LH	15 x 2 x 0.9	20.0	453.0	55.8	37.5
TELS9020PLH	20 x 2 x 0.9	22.4	514.0	55.8	37.5
TELS9030P-LH	30 x 2 x 0.9	26.3	805.0	55.8	37.5
TELS9040P-LH	40 x 2 x 0.9	29.9	970.0	55.8	37.5
TELS9051P-LH	51 x 2 x 0.9	32.3	1194.0	55.8	37.5

Stock and availability upon request. Additional sizes available on request.

# SECURITY COMMS

Multicore, PVC insulated, colour coded, low voltage



KAMNET Security COMMS



## Technical Data

Colour coded multicore for low voltage applications



	<b>TEMPERATURE RANGE</b> Operating: -20°C to 70°C		<b>VOLTAGE RATING</b> 300V
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## Application

Used in the security industry for intercoms, access control and alarm systems. Suitable for low voltage industrial, domestic or commercial applications.

## Construction

24 AWG Multicore  
Stranded or solid Copper conductors  
Colour coded cores, insulated with polyvinyl chloride (PVC)  
Outer sheath with rip cord and PVC

## Properties & Identification

Standard outer sheath colour: White  
Available in solid Copper 0.5mm<sup>2</sup> and stranded Copper 0.22mm<sup>2</sup>

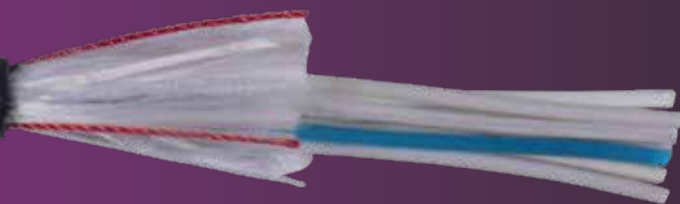
- |                 |                         |
|-----------------|-------------------------|
| <b>1</b> Black  | <b>6</b> Green          |
| <b>2</b> Red    | <b>7</b> Brown          |
| <b>3</b> Yellow | <b>8</b> Orange         |
| <b>4</b> Blue   | <b>9</b> Grey           |
| <b>5</b> White  | <b>10</b> Black / White |

PART NO.	NO. CORES X SIZE (MM <sup>2</sup> )	DESCRIPTION	CABLE OD (MM)
COMMSO4-WH	4 x 0.5	SOLID COMMS CABLE	3.4
COMMSO6-WH	6 x 0.5	SOLID COMMS CABLE	3.9
COMMSO8-WH	8 x 0.5	SOLID COMMS CABLE	4.5
COMMSO10-WH	10 x 0.5	SOLID COMMS CABLE	4.9
COMMSO12-WH	12 x 0.5	SOLID COMMS CABLE	5.3
COMM04-WH	4 x 0.22	STRANDED COMMS CABLE	3.4
COMM06-WH	6 x 0.22	STRANDED COMMS CABLE	3.9
COMM08-WH	8 x 0.22	STRANDED COMMS CABLE	4.5
COMM10-WH	10 x 0.22	STRANDED COMMS CABLE	4.9
COMM12-WH	12 x 0.22	STRANDED COMMS CABLE	5.3

# FIBRE-COM CABLE

Heavy Duty Duct, Single, Multi-Mode and Composite

## FIBRE-COM CABLE



## Technical Data



Fibre fully comply with:

ITU-T Specifications for the relevant fibre type used in these cables.

The blown or hauled duct cable is designed for blown duct applications.

The cable's non-metallic construction makes it immune to lightning.

Excellent optical reliability is ensured by the Thixotropic gel filling in the tubes which provide protection against vibration.

IBIDA, PLP or Powertel to be consulted for accessories for this type of cable.

## Construction

GRP, water blocking binding yarns, fibre optics in PBT tubes filled with Thixotropic gel, water blocking glass yarn, Polyethylene / LSZH outer sheath

NUMBER OF FIBRES	8	12	18	24	48	72	96	144
FIBRE PER TUBE	8	6/12	6	6/12	12	12	12	12
NUMBER OF ELEMENTS	4	4	4	4	4	6	8	12
NUMBER OF TUBES	1	2/1	3	4/2	4	6	8	12
NUMBER OF FILLERS	3	2/3	1	0/2	0	0	0	0
MATERIAL OF TUBES	PBT (POLYBUTYLENE TEREPHTHALATE)							
RADIAL THICKNESS	NOMINAL 0.35mm							

## Cable

CENTRAL STRENGTH MEMBER	CLASS REINFORCED PLASTIC
PERIPHERAL STRENGTH MEMBER	WATER BLOCKING GLASS YARN
FILLER MATERIAL	NATURAL POLYETHYLENE

## Polyethylene Sheath

DIAMETER (mm) NOMINAL	9.4	9.4	9.4	9.4	9.4	10.8	12.4	15.4
WEIGHT (kg/km) NOMINAL	66	66	66	66	66	91	118	189
OUTER SHEATH	(BLACK, UV STABILIZED) OR COLOURED (NO STRIPE)							
MATERIAL	POLYETHYLENE							
RADIAL THICKNESS	NOMINAL 1.6mm							

## Physical Properties

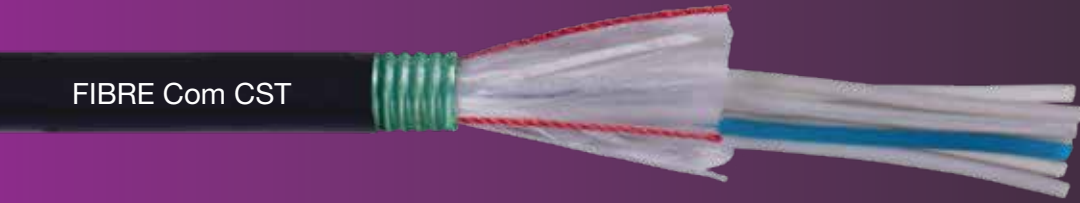
ALLOWABLE TENSION DURING INSTALLATION (N)	1200	1200	1200	1200	1200	1200	1393	2220
AFTER INSTALLATION BENDING RADIUS	600	600	600	600	600	600	600	600
BENDING RADIUS AFTER INSTALLATION	10 X CABLE DIAMETER							
BENDING RADIUS DURING INSTALLATION	20 X CABLE DIAMETER							
CRUSH RESISTANCE (50mm x 50mm PLATES FOR 1 min)	2 500 N							
IMPACT TES (2Nm/25mm ANVIL)	2 X 3 IMPACTS 100mm APART							
WATER PENETRATION (24 HOURS)	3 METER							
TEMPERATURE RANGE	-20 / +70°C							

## Fibre Identification

FIBRE IDENTIFICATION	1.BLUE 2.ORANGE 3.GREEN 4.BROWN 5.GREY 6.WHITE 7.RED 8.BLACK 9.YELLOW 10.VIOLET 11.PINK 12.TURQUOISE/AQUA
LOOSE TUBE IDENTIFICATION	1.BLUE 2.ORANGE 3.GREEN 4.BROWN 5.GREY 6.WHITE 7.RED 8.BLACK 9.YELLOW 10.VIOLET 11.PINK 12.TURQUOISE/AQUA
SHIPPING LENGTH	(SINGLE MODE) 4000M TO 6000M

# FIBRE OPTIC CABLE

CST Double Jacket Rodent Proof – Single, Multi -mode or Composite



FIBRE Com CST

## Technical Data



fibre fully comply with:

ITU-T Specifications for the relevant fibre type used in these cables.

The blown or hauled duct cable is designed for blown duct applications.

The corrugated plastic clad steel tape armoured cable is suitably protected against rodent attacks and will provide protection for alternative applications where the cable is exposed to abnormal crushing or impact forces during installation or service.

## Construction

GRP, water blocking binding yarns, fibre optics in PBT tubes filled with Thixotropic gel, water blocking glass yarn, Polyethylene / LSZH sheath. CST Provides excellent moisture barrier and the cable is further protected against moisture ingress by a water blocking tape under the CST.

CST Provides Rodent attack resistance. Longitudinal CST tape prevents cable spiralling, twisting and kinking during installation. IBIDA, PLP, or Powertel to be consulted for accessories for this type of cable.

NUMBER OF FIBRES	8	12	24	48	72	96	144
FIBRE PER TUBE	4/8	6	6	12	12	12	12
NUMBER OF ELEMENTS	4	4	4	4	6	8	12
NUMBER OF TUBES	2	2	4	4	6	8	12
NUMBER OF FILLERS	2	2	0	0	0	0	0
MATERIAL OF TUBES	PBT (POLYBUTYLENE TEREPHTHALATE)						

## Armouring (Corrugated Copolymer Steel Tape)

RADIAL THICKNESS	NOMINAL 0.25 mm
CABLE	
CENTRAL STRENGTH MEMBER	CLASS REINFORCED PLASTIC
PERIPHERAL STRENGTH MEMBER	WATER BLOCKING GLASS/ARAMID YARN
FILLER MATERIAL	NATURAL POLYETHYLENE

## Polyethylene Sheath

DIAMETER (mm) NOMINAL	14.8	14.8	14.8	14.8	16.2	17.8	20.8
WEIGHT (kg/km) NOMINAL	184	184	184	185	222	265	363
OUTER SHEATH	BLACK OR COLOURED (NO STRIPE)						
MATERIAL	POLYETHYLENE						
RADIAL THICKNESS	NOMINAL 1.6mm						

## Low Smoke Zero Halogen (LSZH) Sheath

DIAMETER (mm) NOMINAL	16.0	16.0	16.0	16.0	17.4	19.0	22.0
WEIGHT	254	254	254	255	299	350	462
OUTER SHEATH	BLACK OR COLOURED (NO STRIPE)						
MATERIAL	LOW SMOKE ZERO HALOGEN (LSZH)						
RADIAL THICKNESS	NOMINAL 2.0mm						

## Physical Properties

ALLOWABLE TENSION DURING INSTALLATION (N)	2171	2171	2171	2172	2611	3123	4000
ALLOWABLE TENSION AFTER INSTALLATION (N)	599	600	600	600	600	600	600
BENDING RADIUS (4 TURNS X 10 CYCLES)	12 X CABLE DIAMETER						
CRUSH RESISTANCE (100mm X 100mm PLATES FOR 1 MIN)	4000 N						
IMPACT TEST (4Nm/25mm ANVL)	2 X 3 IMPACTS 100mm APART						
WATER PENETRATION (24 HOURS)	3 METER						
TEMPERATURE RANGE	-20 / +70°C						

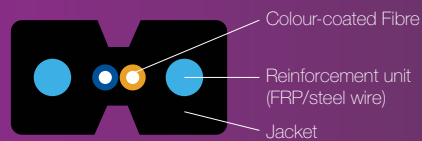
## Fibre Identification

FIBRE IDENTIFICATION	1.BLUE 2.ORANGE 3.GREEN 4.BROWN 5.GREY 6.WHITE
LOOSE TUBE IDENTIFICATION	1.BLUE 2.ORANGE 3.GREEN 4.BROWN 5.GREY 6.WHITE
SHIPPING LENGTH	(SINGLE MODE) 2000M TO 6000M (MULTI MODE) 2000M TO 4000M

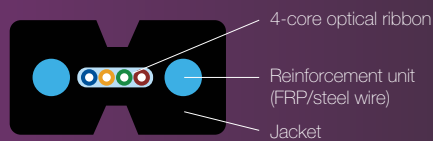


# DROP FIBRE

## Rubber Insulated



2-core rubber insulated fibre cable



4-core rubber insulated fibre cable

### Technical Data



#### TEMPERATURE RANGE

-20°C to 60°C



#### MIN. BENDING RADIUS

Dynamic 20H  
Static 10H



#### AVAILABLE COLOURS

Black and White.



### Application

Lead-in cable for buildings  
For indoor wiring, direct use for terminal client

### Construction

- Great mechanical and environmental performance;
- Flame resistance, conform to relevant standards;
- Mechanical physical performance of jacket, conform to relevant standards;
- Soft, flexible and easy-operating, supportable for the transmission of massive data;
- Conform to the various demands of the market and customers.

### Properties & Identification

- Type of fibre cable : single-mode G.652 OR G.657 fibre; multi-mode A1A or A1B fibre.etc ;
- Jacket material : Flame-resistant PVC,LSZH,TPU,PE. OR ELSE;
- Jacket colour: standard or custom-made colours (including the colours of the fibre in the cable) ;
- Size of the fibre cable: standard or custom-made size;
- Delivery length: 1 km or 2 km, or Other custom-made lengths
- Other demands: other special demands from clients

Core number	Size (mm)	Weight (kg/km)	Tensile Force (N)		Tensile Flattening Force (N/100mm)		Minimum Bending Semi Diameter (mm)		Operating temperature (°C)
			Long-term	Short	Long-term	Short	Dynamic	Static	
1-2	3.1x2.0	8.2	60/100	100/200	500/1000	1000/2200	20H	10H	-20°C to 60°C
4	4.0x2.0	8.8	60/100	100/200	500/1000	1000/2200	20H	10H	-20°C to 60°C

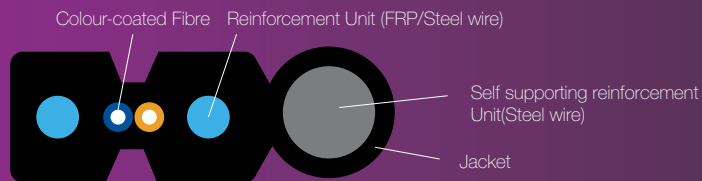
#### Notes :

1. The numbers in the above form are just references.
2. D refers to the outer diameter of round fibre cable.
3. When it comes to G.657 fibre cable, the static bending semi-diameter is 5D.

Stock and availability upon request. Additional sizes available on request.

# DROP FIBRE

## Self Supporting Rubber Insulated



### Technical Data



**TEMPERATURE RANGE**  
-20°C to 60°C



**MIN. BENDING RADIUS**  
Dynamic 20H  
Static 10H



**AVAILABLE COLOURS**  
Black and White.



### Application

Lead-in cable for access network or CPN from outdoor to indoor  
Lead-in cable for comprehensive wiring, especially for indoor or outdoor overhead.

### Construction

- Great mechanical and environmental performance;
- Flame resistance, conform to relevant standards;
- Mechanical physical performance of jacket, conform to relevant standards;
- Soft, flexible and easy-operating, supportable for the transmission of massive data;
- Conform to the various demands of the market and customers.

### Properties & Identification

- Type of fibre cable : single-mode G.652 OR G.657 fibre; multi-mode A1A or A1B fibre;
- Jacket material : Flame-resistant PVC,LSZH,TPU,PE. OR ELSE;
- Jacket colour: standard or custom-made colours (including the colours of the fibre in the cable) ;
- Size of the fibre cable: standard or custom-made size;
- Delivery length: 1 km or 2 km, or other custom-made lengths
- Other demands: other special demands from clients

Core number	Size (mm)	Weight (kg/km)	Tensile Force (N)		Tensile Flattening Force (N/100mm)		Minimum Bending Semi Diameter (mm)		Operatating temperature (°C)
			Long-term	Short	Long-term	Short	Dynamic	Static	
1-2	5.0x2.0	17.7	300	600	1100	2200	20H	10H	-20°C to 60°C

Notes :

1. The numbers in the above form are just references.
2. The Fibre core adopts 250µm coloured Fibre
3. H refers to the height of flat Fibre.
4. When it comes to G.657 fibre cable, the static bending semi-diameter is 5H.

Stock and availability upon request. Additional sizes available on request.

# UVGXXACM

## CONDUCTOR

UVGxxACM



### Technical Data

ESKOM SPEC. NWS-1525



### Construction

#### Conductor

7 strands of 0.30mm (0.50mm<sup>2</sup>) Bare annealed Copper. In accordance with SANS 1411-1

#### Insulation

General purpose PVC insulated Nominal Wall Thickness 0.35mm & Nominal overall Diameter 1.60mm Compound in accordance with SANS 1411-2

#### Pair Twist

Two conductors are twisted together to form a pair. Lay length of pairs is staggered to reduce cross-talk. Maximum Lay Length not exceeding 75mm.

#### Overall Screen

Overall aluminum/Polyester foil tape with a tinned annealed Copper drain wire providing 100% coverage. Screen thickness 23 Microns.

#### Outer Sheath

Black with Blue Stripe low Halogen fire retardant (LHCL) outer sheath. In accordance to SANS 1411-2.

### Properties & Identification

#### Core Identification

Colour coded conductors to VDE as per colour chart

#### Sheath Marking

Printed on cable sheath Brand Name – Description – Batch No. and Meter Marking eg. 'CAB TECH - UVG04ACM – Batch No. – Meter Mark'

### Additional

**Packing:** 1000m D rums as standard packing

Cable sizes not listed here available on request

Overall diameters quoted here are an indication and may vary by +/- 5%

DESCRIPTION & ESKOM CODE	NOMINAL OUTER CABLE DIAMETER mm	NOMINAL CABLE NET WEIGHT kg/km
*1 Pair - UVG01ACM	4.90	35
*2 Pair - UVG02ACM	7.20	64
*4 Pair - UVG04ACM	8.40	98
8 Pair - UVG08ACM	11.30	176
12 Pair - UVG12ACM	13.30	254
16 Pair - UVG16ACM	17.60	354
20 Pair - UVG20ACM	18.50	410
24 Pair - UVG24ACM	21.50	510
32 Pair - UVG32ACM	22.30	630
40 Pair - UVG40ACM	24.10	770
48 Pair - UVG48ACM	24.80	890

\*FOR THESE TYPES NO RING MARKING ON CORES

Stock and availability upon request. Additional sizes available on request.

# UVGXXACM Continued

## ELECTRICAL CHARACTERISTICS

Conductor size (mm)	0.50mm <sup>2</sup>
Conductor resistance (max average @ 20° C) Ω/km (SANS 1411-1)	36.00
Voltage Rating	300/500Volt
Mutual Capacitance @ 800Hz Nominal nF/km	140nF/km(1Pair 205nF/Km)
Ground Capacitance @800Hz Nominal nF/km	280nF/km(1Pair 410nF/Km)
Maximum Operating Temperature	70°C

## COLOUR CODING SCHEME

Pair No	Colour of Insulation		Ring Marking	Pair No	Colour of Insulation		Ring Marking
	A-wire	B-wire			A-wire	B-wire	
1	Blue	Red	One Ring Orange	25	Blue	Red	Two Rings Violet
2	Grey	Yellow		26	Grey	Yellow	
3	Green	Brown		27	Green	Brown	
4	White	Black		28	White	Black	
5	Blue	Red	Two Rings Orange	29	Blue	Red	Three Rings Violet
6	Grey	Yellow		30	Grey	Yellow	
7	Green	Brown		31	Green	Brown	
8	White	Black		32	White	Black	
9	Blue	Red	Three Rings Orange	33	Blue	Red	Four Rings Violet
10	Grey	Yellow		34	Grey	Yellow	
11	Green	Brown		35	Green	Brown	
12	White	Black		36	White	Black	
13	Blue	Red	Four Rings Orange	37	Blue	Red	Five Rings Violet
14	Grey	Yellow		38	Grey	Yellow	
15	Green	Brown		39	Green	Brown	
16	White	Black		40	White	Black	
17	Blue	Red	Five Rings Orange	41	Blue	Red	One Ring Turquoise
18	Grey	Yellow		42	Grey	Yellow	
19	Green	Brown		43	Green	Brown	
20	White	Black		44	White	Black	
21	Blue	Red	One Ring Violet	45	Blue	Red	Two Rings Turquoise
22	Grey	Yellow		46	Grey	Yellow	
23	Green	Brown		47	Green	Brown	
24	White	Black		48	White	Black	

# ALUMINIUM Conductor

## Steel Reinforced

Aluminium Conductor Steel Reinforced

### Technical Data

SANS1418-1, SANS1418-2, NFC33-209



### Application

Used for overhead transmission lines.

### Construction

Aluminum 1350 wires and the steel cores are concentrically stranded and wrapped helically around a central wire.

### ACSR

### ASTM B232

Code Name	Calculated Area				Stranding and Wire Diameter		Approx. Overall Diameter	Weight			Nominal Breaking Load	Max. DC Resistance at 20	Standard Length
	Nominal	Alum.	Steel	Total	Alum.	Steel		Alum.	Steel	Total			
	AWG or MCM	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	mm	mm		kg/km	kg/km	kg/km			
Turkey	6	13.29	2.19	15.48	6/1.68	1/1.68	5.04	37	17	54	5.24	2.1586	3000
Swan	4	21.16	3.55	24.71	6/2.12	1/2.12	6.36	58	27	85	8.32	1.3557	3000
Swanate	4	21.16	5.35	26.51	7/1.96	1/2.61	6.53	58	42	100	10.53	1.3557	3000
Sparrow	2	33.61	5.61	39.22	6/2.67	1/2.67	8.01	92	44	136	12.70	0.8535	3000
Sparate	2	33.61	8.52	42.13	7/2.47	1/3.30	8.24	92	67	159	16.11	0.8535	2500
Robin	1	42.39	7.10	49.49	6/3.00	1/3.00	9.00	116	55	171	15.85	0.6767	2500
Raven	1/0	53.48	8.90	62.38	6/3.37	1/3.37	10.11	147	69	216	19.32	0.5364	2000
Quail	2/0	67.42	11.23	78.65	6/3.78	1/3.78	11.34	185	88	273	23.62	0.4255	3000
Pigeon	3/0	85.03	14.19	99.22	6/4.25	1/4.25	12.75	233	110	343	29.41	0.3373	2500
Penguin	4/0	107.23	17.87	125.10	6/4.77	1/4.77	14.31	294	139	433	37.06	0.2675	2000
Waxwing	266.8	135.16	7.48	142.64	18/3.09	1/3.09	15.45	373	58	431	30.27	0.2133	3500
Partridge	266.8	135.16	22.00	157.16	26/2.57	7/2.00	16.28	374	172	546	50.29	0.2143	2500
Ostrich	300	152.00	24.71	176.71	26/2.73	7/2.12	17.28	421	193	614	56.52	0.1906	3000
Merlin	336.4	170.45	9.48	179.93	18/3.47	1/3.47	17.5	470	74	544	38.23	0.1691	2000
Linnet	336.4	170.45	27.81	198.26	26/2.89	7/2.25	18.31	472	217	689	62.71	0.1699	2500
Oriole	336.4	170.45	39.81	210.26	30/2.69	7/2.69	18.83	743	311	784	77.27	0.1704	3000
Chickadee	397.5	201.42	1116	212.58	18/3.77	1/3.77	18.85	555	87	642	43.99	0.1431	2500
Brant	397.5	201.42	26.13	227.55	24/3.27	7/2.18	19.61	558	204	762	64.69	0.1438	2000
Ibis	397.5	201.42	32.77	234.19	26/3.14	7/2.44	19.88	558	256	814	72.11	0.1438	2500
Lark	397.5	201.42	46.97	248.39	30/2.92	7/2.92	20.44	560	367	927	88.69	0.1442	2500
Pelican	477	241.68	13.42	255.10	18/4.14	1/4.14	20.70	666	105	771	52.16	0.1193	2000
Flicker	477	241.68	31.29	272.97	24/3.58	7/2.39	21.49	670	245	915	76.66	0.1199	3000
Hawk	477	241.68	39.42	281.10	26/3.44	7/2.67	21.79	670	308	978	86.65	0.1199	2000

Stock and availability upon request. Additional sizes available on request.

# ALUMINIUM Continued

ACSR

ASTM B232

Code Name	Calculated Area				Stranding and Wire Diameter		Approx. Overall Diameter mm	Weight			Nominal Breaking Load kN	Max. DC Resistance at 20 /km	Standard Length m±5%
	Nominal	Alum.	Steel	Total	Alum.	Steel		Alum.	Steel	Total			
	AWG or MCM	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	mm	mm		kg/km	kg/km	kg/km			
Mole	10	10.62	1.77	12.39	6/1.50	1/1.50	4.50	29	14	43	4.14	2.076	
Squirrel	20	20.94	3.49	24.43	6/2.11	1/2.11	6.33	58	27	85	7.88	1.368	
Gopher	25	26.25	4.37	30.62	6/2.36	1/2.36	7.08	72	34	106	9.61	1.093	
Weasel	30	31.61	5.27	36.88	6/2.59	1/2.59	7.77	87	41	128	11.45	0.9077	
Fox	35	36.66	6.11	42.77	6/2.79	1/2.79	8.37	101	48	149	13.20	0.7822	
Ferret	40	42.41	7.07	49.48	6/3.00	1/3.00	9.00	117	55	172	15.20	0.6766	
Rabbit	50	52.88	8.28	61.70	6/3.35	1/3.35	10.05	145	69	214	18.35	0.5426	
Mink	60	63.18	10.53	73.71	6/3.66	1/3.66	10.98	173	82	255	21.80	0.4545	
Skunk	60	63.27	36.93	100.30	12/2.59	7/2.59	12.95	175	290	465	53.00	0.4567	
Beaver	70	74.82	12.47	87.29	6/3.99	1/3.99	11.97	205	97	302	25.70	0.3825	
Horse	70	73.37	42.80	116.17	12/2.79	7/2.79	13.95	203	335	538	61.20	0.3936	
Raccoon	75	79.20	13.20	92.40	6/4.10	1/4.10	12.30	217	103	320	27.20	0.3622	
Otter	80	83.88	13.98	97.86	6/4.22	1/4.22	12.66	230	109	339	28.80	0.3419	
Cat	90	95.40	15.90	111.30	6/4.50	1/4.50	13.50	262	124	386	32.70	0.3007	
Hare	100	105.00	17.50	122.50	6/4.72	1/4.72	14.16	288	137	425	36.00	0.2733	
Dog	100	105.00	13.50	118.50	6/4.72	7/1.57	14.15	288	106	394	32.70	0.2733	
Hyena	100	105.80	20.44	126.20	7/4.39	7/1.93	14.57	290	160	450	40.90	0.2712	
Leopard	125	131.30	16.80	148.10	6/5.28	7/1.75	15.81	360	132	492	40.70	0.2184	
Coyote	125	132.10	20.10	152.20	26/2.54	7/1.91	15.89	365	157	522	46.40	0.2187	
Cougar	125	130.30	7.25	137.50	18/3.05	1/3.05	15.25	362	57	419	29.80	0.2189	
Tiger	125	131.10	30.60	161.70	30/2.36	7/2.36	16.52	362	240	602	58.00	0.2202	
Wolf	150	158.00	36.90	194.90	30/2.59	7/2.59	18.13	437	289	726	69.20	0.1828	
Dingo	150	158.70	8.80	167.50	18/3.35	1/3.35	16.75	437	69	506	35.70	0.1815	
Lynx	175	183.40	42.80	226.20	30/2.79	7/2.79	19.53	507	335	842	79.80	0.1576	
Caracal	175	184.20	10.30	194.50	18/3.61	1/3.61	18.05	507	80	587	41.10	0.1563	
Panther	200	212.00	49.50	261.50	30/3.00	7/3.00	21.00	586	388	974	92.25	0.1363	
Lion	255	238.50	55.60	294.20	30/3.18	7/3.18	22.26	659	436	1095	109.60	0.1212	
Bear	250	264.00	61.60	325.60	30/3.35	7/3.35	23.45	730	483	1213	111.10	0.1093	
Goat	300	324.30	75.70	400.00	30/3.71	7/3.71	25.97	896	593	1489	135.70	0.0891	
Sheep	350	374.10	87.30	461.40	30/3.99	7/3.99	27.93	1034	684	1718	155.90	0.07704	
Antelope	350	373.10	48.40	421.50	54/2.97	7/2.97	26.73	1032	379	1411	118.20	0.07727	
Bison	350	381.80	49.50	431.30	54/3.00	7/3.00	27.00	1056	388	1444	120.90	0.07573	
Jaguar	200	210.60	11.70	222.30	18/3.86	1/3.86	19.3	580	91	671	46.55	0.13670	
Deer	400	429.30	100.20	529.50	30/4.27	7/4.27	29.89	1186	785	1971	178.50	0.06726	
Zebra	400	428.90	55.60	484.50	54/3.18	7/3.18	28.62	1186	435	1621	131.90	0.06740	
Elk	450	477.00	111.30	588.30	30/4.50	7/4.50	31.50	1318	872	2190	198.20	0.06056	
Camel	450	475.20	61.60	536.80	54/3.35	7/3.35	30.15	1314	483	1797	145.70	0.06073	
Moose	500	528.70	68.50	597.20	54/3.53	7/3.53	31.77	1462	537	1999	161.10	0.05470	

# PULLKEY CABLE Conductor

## PULLKEY / PULL CORD CABLE

0.75mm<sup>2</sup> PULLKEY / PULL CORD CABLE



### Technical Data

SANS 1411-1- Class 5



### Construction

#### Conductor

Flexible high conductivity bunched bare or tinned annealed Copper wire. In accordance with SANS 1411-1- Class 5  
 For Tinned Copper conductors Max. Resistance @20°C – 26.70Ω/Km  
 For Bare Copper conductors Max. Resistance @20°C – 26.00Ω/Km

#### Insulation

Flexible high conductivity bunched bare or tinned annealed Copper wire. In accordance with SANS 1411-1- Class 5  
 For Tinned Copper conductors Max. Resistance @20°C – 26.70Ω/Km  
 For Bare Copper conductors Max. Resistance @20°C – 26.00Ω/Km

#### Protection Barrier

An overall Polyester tape wrapped around acting as a protection barrier. 100% coverage with a minimum of a 25% overlap

#### Bedding

Fire Retardant PVC outer bedding as standard. Low Halogen, Halogen Free Fire Retardant options are available on request

#### Braid

High tensile brass plated steel wire braid

#### Outer sheath

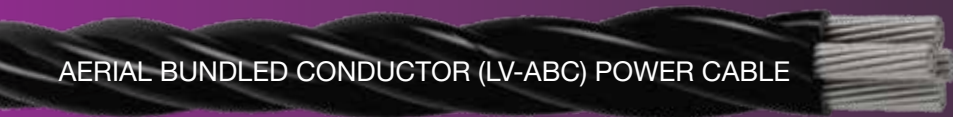
Fire Retardant PVC outer sheath as standard. Low Halogen, Halogen Free Fire Retardant options are available on request. Different sheath colours on request.  
 Nominal Cable O/D 13.00mm

Size (mm <sup>2</sup> ) + cr/pr	Construction
0.75X6c	Tin Copper , Tape Bedding ,BPSW Braid , PVC Sheath
0.75mm2x4cr+3.10mm2x2cr	Plain Copper , PVC Bedding, BPSW Braid , PVC Sheath
1.5mm2x2cr+0.75mm2x2p	Plain Copper , PVC Bedding, BPSW Braid , PVC Sheath
1.5mm2x2cr+0.75mm2x3p	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+0.75mm2x4c	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+0.75mm2x6c	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+1.0mm2x4c	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
2.5mm2x3cr+1.5mm2x3c	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
4.0mm2x2cr+0.75mm2x4c	Plain Copper , PVC Bedding, BPSW Braid , PVC Sheath
2.5mm2x4cr+0.75mm2x2p	Plain Copper , PVC Bedding, BPSW Braid , PVC Sheath
1.5mm2x2cr+0.75mm2x3cr	Tin Copper , Tape Bedding ,BPSW Braid , PVC Sheath
1.5mm2x2pr+0.75mm2x2pr	Tin Copper , Tape Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+1.0mm2x4cr	Tin Copper , Tape Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+1.5mm2x4cr	Tin Copper , Tape Bedding ,BPSW Braid , PVC Sheath
0.75mm2x3cr + 1cr PCB	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
0.75mm2x4cr + 2cr PCB	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+0.75mm2x2cr+1cr PCB	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+0.75mm2x3cr+1cr PCB	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+0.75mm2x4cr+1cr PCB	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath
2.5mm2x2cr+0.75mm2x6cr+1cr PCB	Tin Copper , PVC Bedding ,BPSW Braid , PVC Sheath

Cable sizes not listed here available on request.  
 Overall diameters quoted here are an indication and may vary by +/- 5%

# AERIAL BUNDLED Conductor

## (LV-ABC) Power Cable



AERIAL BUNDLED CONDUCTOR (LV-ABC) POWER CABLE

### Technical Data

SANS1418-1, SANS1418-2, NFC33-209



### Application

LV-ABC Cable is used in place of bare conductor overhead distribution systems. It provides a higher level of safety and reliability and economy with reduced maintenance and operative costs and reduced risks of vandalism and theft. It is ideal for difficult terrains and urban areas and is a flexible system that is easier to reroute than the conventional overhead line methods.

### Construction

The phase conductors are concentrically stranded compressed 1350-H19 Aluminium and insulated Polyethylene or crosslinked Polyethylene (XLPE).

The neutral messengers are concentrically stranded 6201 Aluminium alloy.

Phase AAC+UV -XLPE	Supporting AAAC+UV -XLPE	Service Connection AAC+UV -XLPE	Phase			Supporting		Service Connection			Approx. Overall Diameter of Bundled Cable
			Compact Conductor	Conductor	UV -XLPE	Compact Conductor	UV -XLPE	Compact Conductor	UV -XLPE		
No. X Normal Cross Section of Cores	No. X Normal Cross Section of Cores	No. X Normal Cross Section of Cores	No./Dia. of Al. Wire	Overall Diameter	Normal Thickness	No./Dia. of Al. Wire	Normal Thickness	No. of Al. Wire	Overall Diameter	Normal Thickness	mm
No. X mm <sup>2</sup>	No. X mm <sup>2</sup>	No. X mm <sup>2</sup>	-	mm	mm	No. /mm	mm	-	mm	mm	mm
3 X 16	1 X 54.6	1 X 25	7	4.8	1.2	7/3.15	1.6	7	6.0	1.4	27.05
3 X 25	1 X 54.6	1 X 25	7	6.0	1.4	7/3.15	1.6	7	6.0	1.4	30.25
3 X 35	1 X 54.6	1 X 25	7	7.0	1.6	7/3.15	1.6	7	6.0	1.4	33.05
3 X 50	1 X 54.6	1 X 25	7	8.3	1.6	7/3.15	1.6	7	6.0	1.4	35.65
3 X 70	1 X 54.6	1 X 25	19	10.0	1.8	7/3.15	1.6	7	6.0	1.4	39.85
3 X 95	1 X 54.6	1 X 25	19	11.6	1.8	7/3.15	1.6	7	6.0	1.4	43.05
3 X 120	1 X 54.6	1 X 25	19	13.0	1.8	7/3.15	1.6	7	6.0	1.4	45.85
3 X 150	1 X 54.6	1 X 25	19	14.6	1.8	7/3.15	1.6	7	6.0	1.4	49.05
3 X 16	1 X 54.6	2 X 25	7	4.8	1.2	7/3.15	1.6	7	6.0	1.4	27.05
3 X 25	1 X 54.6	2 X 25	7	6.0	1.4	7/3.15	1.6	7	6.0	1.4	30.25
3 X 35	1 X 54.6	2 X 25	7	7.0	1.6	7/3.15	1.6	7	6.0	1.4	33.05
3 X 50	1 X 54.6	2 X 25	7	8.3	1.6	7/3.15	1.6	7	6.0	1.4	35.65
3 X 70	1 X 54.6	2 X 25	19	10.0	1.8	7/3.15	1.6	7	6.0	1.4	39.85
3 X 95	1 X 54.6	2 X 25	19	11.6	1.8	7/3.15	1.6	7	6.0	1.4	43.05
3 X 120	1 X 54.6	2 X 25	19	13.0	1.8	7/3.15	1.6	7	6.0	1.4	45.85
3 X 150	1 X 54.6	2 X 25	19	14.6	1.8	7/3.15	1.6	7	6.0	1.4	49.05
3 X 16	1 X 70	1 X 25	7	4.8	1.2	7/3.15	1.6	7	6	1.4	28.1
3 X 25	1 X 70	1 X 25	7	6.0	1.4	7/3.15	1.6	7	6	1.4	31.3
3 X 35	1 X 70	1 X 25	7	7.0	1.6	7/3.15	1.6	7	6	1.4	34.1



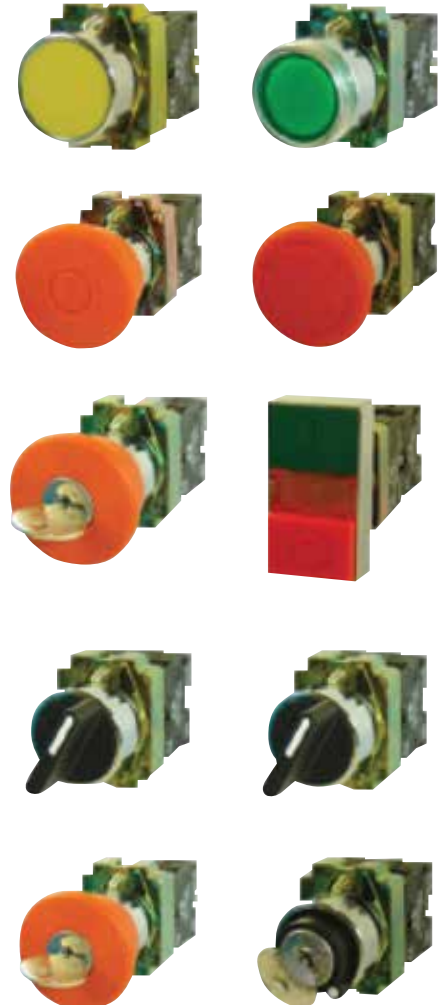
# AERIAL BUNDLED Continued

Phase			Supporting			Service Connection			Phase			Supporting			Service Connection			Approx. Overall Diameter of Bundled Cable
AAC+UV -XLPE			AAAC+UV -XLPE			AAC+UV -XLPE			Compact Conductor		UV -XLPE	Conductor		UV -XLPE	Compact Conductor		UV-XLPE	
No.X Normal Cross Section of Cores			No.X Normal Cross Section of Cores			No.X Normal Cross Section of Cores			No./Dia. of Al. Wire	Overall Diameter	Normal Thickness	No./Dia. of Al. Wire	Normal Thickness	No.of Al.Wire	Overall Diameter	Normal Thickness		
No. X mm <sup>2</sup>			No. X mm <sup>2</sup>			No. X mm <sup>2</sup>			-	mm	mm	No./mm	mm	-	mm	mm		
3 X 50	1 X 70	1 X 25	7	8.3	1.6	7/3.15	1.6	7	6	1.4	36.7							
3 X 70	1 X 70	1 X 25	19	10.0	1.8	7/3.15	1.6	7	6	1.4	40.9							
3 X 95	1 X 70	1 X 25	19	11.6	1.8	7/3.15	1.6	7	6	1.4	44.1							
3 X 120	1 X 70	1 X 25	19	130	1.8	7/3.15	1.6	7	6	1.4	46.9							
3 X 150	1 X 70	1 X 25	19	14.6	1.8	7/3.15	1.6	7	6	1.4	50.1							
3 X 16	1 X 70	2 X 25	7	4.8	1.2	7/3.15	1.6	7	6	1.4	28.1							
3 X 25	1 X 70	2 X 25	7	6.0	1.4	7/3.15	1.6	7	6	1.4	31.3							
3 X 35	1 X 70	2 X 25	7	7.0	1.6	7/3.15	1.6	7	6	1.4	34.1							
3 X 50	1 X 70	2 X 25	7	8.3	1.6	7/3.15	1.6	7	6	1.4	36.7							
3 X 70	1 X 70	2 X 25	19	10.0	1.8	7/3.15	1.6	7	6	1.4	40.9							
3 X 95	1 X 70	2 X 25	19	11.6	1.8	7/3.15	1.6	7	6	1.4	44.1							
3 X 120	1 X 70	2 X 25	19	130	1.8	7/3.15	1.6	7	6	1.4	46.9							
3 X 150	1 X 70	2 X 25	19	14.6	1.8	7/3.15	1.6	7	6	1.4	50.1							
3 X 16	1 X 54.6	1 X 16	7	4.8	1.2	7/3.15	1.6	7	4.8	1.2	27.05							
3 X 25	1 X 54.6	1 X 16	7	6.0	1.4	7/3.15	1.6	7	4.8	1.2	30.25							
3 X 35	1 X 54.6	1 X 16	7	7.0	1.6	7/3.15	1.6	7	4.8	1.2	33.05							
3 X 50	1 X 54.6	1 X 16	7	8.3	1.6	7/3.15	1.6	7	4.8	1.2	35.65							
3 X 70	1 X 54.6	1 X 16	19	10.0	1.8	7/3.15	1.6	7	4.8	1.2	39.85							
3 X 95	1 X 54.6	1 X 16	19	11.6	1.8	7/3.15	1.6	7	4.8	1.2	43.05							
3 X 120	1 X 54.6	1 X 16	19	130	1.8	7/3.15	1.6	7	4.8	1.2	45.85							
3 X 150	1 X 54.6	1 X 16	19	14.6	1.8	7/3.15	1.6	7	4.8	1.2	49.05							
3 X 16	1 X 54.6	2 X 16	7	4.8	1.2	7/3.15	1.6	7	4.8	1.2	27.05							
3 X 25	1 X 54.6	2 X 16	7	6.0	1.4	7/3.15	1.6	7	4.8	1.2	30.25							
3 X 35	1 X 54.6	2 X 16	7	7.0	1.6	7/3.15	1.6	7	4.8	1.2	33.05							
3 X 50	1 X 54.6	2 X 16	7	8.3	1.6	7/3.15	1.6	7	4.8	1.2	35.65							
3 X 70	1 X 54.6	2 X 16	19	10.0	1.8	7/3.15	1.6	7	4.8	1.2	39.85							
3 X 95	1 X 54.6	2 X 16	19	11.6	1.8	7/3.15	1.6	7	4.8	1.2	43.05							
3 X 120	1 X 54.6	2 X 16	19	130	1.8	7/3.15	1.6	7	4.8	1.2	45.85							
3 X 150	1 X 54.6	2 X 16	19	14.6	1.8	7/3.15	1.6	7	4.8	1.2	49.05							
3 X 16	1 X 54.6	1 X 16	7	4.8	1.2	7/3.15	1.5	7	4.8	1.2	27.9							
3 X 25	1 X 70	1 X 16	7	6.0	1.4	7/3.15	1.5	7	4.8	1.2	31.1							
3 X 35	1 X 70	1 X 16	7	7.0	1.6	7/3.15	1.5	7	4.8	1.2	33.9							
3 X 50	1 X 70	1 X 16	7	8.3	1.6	7/3.15	1.5	7	4.8	1.2	36.5							
3 X 70	1 X 70	1 X 16	19	10.0	1.8	7/3.15	1.5	7	4.8	1.2	40.7							
3 X 95	1 X 70	1 X 16	19	11.6	1.8	7/3.15	1.5	7	4.8	1.2	43.9							
3 X 120	1 X 70	1 X 16	19	130	1.8	7/3.15	1.5	7	4.8	1.2	46.7							
3 X 150	1 X 70	1 X 16	19	14.6	1.8	7/3.15	1.5	7	4.8	1.2	49.9							
3 X 16	1 X 70	2 X 16	7	4.8	1.2	7/3.15	1.5	7	4.8	1.2	27.9							
3 X 25	1 X 70	2 X 16	7	6.0	1.4	7/3.15	1.5	7	4.8	1.2	31.1							
3 X 35	1 X 70	2 X 16	7	7.0	1.6	7/3.15	1.5	7	4.8	1.2	33.9							
3 X 50	1 X 70	2 X 16	7	8.3	1.6	7/3.15	1.5	7	4.8	1.2	36.5							
3 X 70	1 X 70	2 X 16	19	10.0	1.8	7/3.15	1.5	7	4.8	1.2	40.7							
3 X 95	1 X 70	2 X 16	19	11.6	1.8	7/3.15	1.5	7	4.8	1.2	43.9							
3 X 120	1 X 70	2 X 16	19	130	1.8	7/3.15	1.5	7	4.8	1.2	46.7							
3 X 150	1 X 70	2 X 16	19	14.6	1.8	7/3.15	1.5	7	4.8	1.2	49.9							

# SWITCHES

## 22mm Ø Metal Control Devices - Xb2 Range

Part Number	Description	Contact Block	Colour
<b>PUSHBUTTONS</b>			
XB2-BA21	22mm Flush Pushbutton	1 NO	Black
XB2-BA31	22mm Flush Pushbutton	1 NO	Green
XB2-BA42	22mm Flush Pushbutton	1 NO	Red
XB2-BA51	22mm Flush Pushbutton	1 NO	Yellow
XB2-BA61	22mm Flush Pushbutton	1 NO	Blue
XB2-BS542	40mm Latching Mushroom Head E/Stop	1 NC	Red
XB2-BW8465	Double Pushbutton + 230V Lamp	1NO/1NC	Red / Green
<b>SELECTOR SWITCHES</b>			
XB2-BD25	Selector - 2 Position (Short Handle)	1NO & 1NC	Black
XB2-BD33	Selector - 3 Position (Short Handle)	2NO	Black
<b>KEY SWITCHES</b>			
XB2-BG25	Key Switch 2 Pos - Key removable in OFF Position	1NO & 1NC	
XB2-BG33	Key Switch 3 Pos - Key removable in OFF Position	2NC	
XB2-BS142	40mm Mushroom Head with Key	1NC	Red
<b>PILOT LIGHTS - 230 VOLT NEON BULBS TYPE BA9</b>			
XB2-BV63	22mm Pilot Light	230	Green
XB2-BV64	22mm Pilot Light	230V	Red
XB2-BV65	22mm Pilot Light	230V	Yellow
XB2-BV66	22mm Pilot Light	230V	Blue



# SWITCHES

## 22mm Metal Control Devices

Part Number	Description			
<b>PADLOCKABLE COVER AND AUXILIARY FOR PUSHBUTTONS</b>				
AE/LOCK	Padlockable Device	Hinged cover - Provision for 2 locks		
XB2-BE101	Contact Block			1 NO
XB2-BE102	Contact Block			1 NC
XB2-BOOT	Clear latex Boot for Pushbutton			Clear
<b>LATCHING 3P METAL PUSHBUTTON STATION</b>				
XB2-BD25	Selector - 2 Position (Short Handle)	10 Amp	3 Pole	Grey
XB2-BD33	Selector - 3 Position (Short Handle)	30 Amp	3 Pole	Grey
<b>LED PILOT LIGHTS</b>				
AD22-22DS-B	22mm LED Pilot Light	24V / 110V / 230V / 400V		Blue
AD22-22DS-G	22mm LED Pilot Light	24V / 110V / 230V / 400V		Green
AD22-22DS-R	22mm LED Pilot Light	24V / 110V / 230V / 400V		Red
AD22-22DS-Y	22mm LED Pilot Light	24V / 110V / 230V / 400V		Yellow
AD127-24V	Red Flashing LED + Buzzer	24V		
AD127-230V	Red Flashing LED + Buzzer	230V		
<b>EMPTY CONTROL STATIONS</b>				
XAL-1-Y	Empty Pushbutton Station	1 Hole		Yellow Cover
XAL-1	Empty Pushbutton Station	1 Hole		White Cover
XAL-2	Empty Pushbutton Station	2 Hole		White Cover
XAL-3	Empty Pushbutton Station	3 Hole		White Cover
XAL - 4	Empty Pushbutton Station	4 Hole		White Cover
XAL - 5	Empty Pushbutton Station	5 Hole		White Cover
<b>BLANK LABELS AND 22MM BLANKING PLUGS</b>				
ALABEL	Black plastic label for XB2 range			Black
HP-22-G	22mm Blanking Plug			Light Grey
HP-22-B	22mm Blanking Plug			Black

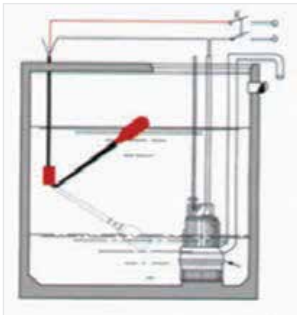


# SWITCHES

## Float Switches

5 METER FLOAT SWITCH K63/EHT-M515-2/5

10 METER FLOAT SWITCH K63/EHT-5M515/2/10

<b>Part Number</b>	LP F-A1.15
<b>Switch Type</b>	Micro Switch
<b>Current</b>	15 Amp
<b>Max Temp</b>	70°C
<b>Cable Length</b>	10 Meters, 5 Meters
<b>Resistant to</b>	Sewage Water, Oil, Mild Acids
<b>Description</b>	For Regulation of liquid levels in tanks and cisterns. Commutator Micro Switch ball actuated. Suited for the control of high and low levels of liquid with one switch.
<b>Voltages</b>	320 VAC
<b>Diagram</b>	



# ENCLOSURES

## Electric Orange Only



XJBS-A wall mounting steel enclosures is made from sheet steel, designed to be assembled with various electrical components according to different control function requirements.

## Construction

### Material

- Body: 1.2mm sheet steel till size XJBS-A 8060/20 then 1.5mm
- Mounting plate: 1.5mm sheet steel till size XJBS-A 8060/20 then 2.0mm
- Door: 1.2mm sheet steel till size XJBS-A 8060/20 then 1.5mm

### Surface finish

- Body and door: Epoxy Polyester powder coating textured
- Mounting plate: Epoxy Polyester powder coating flat finish

### Color

- Body and door: RAL7032 RAL7035
- Mounting plate: RAL2000 OR galvanized steel
- Protection degree: IP 65
- Against mechanical impacts: IK10



## Feature

- Dust and Water proof: Using PU foam Sealing gasket inside to prevent dust and water.
- Door opening angle: 120° by plugging hinges (reinforcing profile is available height from 600mm). 4 hanging walls in the back of the enclosures, installed by the wall mounting brackets which needs to be ordered separately.

METAL ENCLOSURE ELECTRIC ORANGE IP66	
PART NUMBER	DESCRIPTION
K63/STE302015	250X100X150 ELECTRIC ORANGE ENCLOSURE
K63/STE403020	400X300X250 ORANGE ENCLOSURE
K63/STE504025	500X400X250 ORANGE ENCLOSURE
K63/STE 604025	600X400X250 ORANGE ENCLOSURE
K63/STE 705025	700X500X250 ORANGE ENCLOSURE
K63/STE806030	800X600X300 ORANGE ENCLOSURE
K63/STE 10008030	1000X800X300 ORANGE ENCLOSURE
K63/STE 1208030	1200X800X300 ORANGE ENCLOSURE
K63/WALL BRACKET	WALL BRACKET SET
K63/70X50X20	DB Steel ENCLOSURE 2/11 WAY (600*400*200)
K63/403020	DB Steel ENCLOSURE 2/16 WAY (400*300*200)

OTHER SIZES AVAILABLE ON REQUEST.

# ENCLOSURES

## Distribution Boards (Tinted Window)

DISTRIBUTION BOARDS (TINTED WINDOW)	
PLASTIC FLUSH	PVC TRAY
K41/DB-8W-P-F	DB 8 WAY PLASTIC FLUSH
K41/DB-12W-P-F	DB 12 WAY PLASTIC FLUSH
K41/DB-15W-P-F	DB 15 WAY PLASTIC FLUSH
PLASTIC SURFACE	PVC TRAY
K41/DB-8W-P-S	BD 8 WAY PLASTIC SURFACE
K41/DB-12W-P-S	BD 12 WAY PLASTIC SURFACE
K41/DB-15W-P-S	BD 15 WAY PLASTIC SURFACE



Rated Voltage/Rated Current: 690V/50Hz  
 Material: Cover-PC  
 Body-ABS  
 Color of cover plate: Brown / white  
 Protection grade: IP32  
 Tested and approved to EN60947-1  
 CE Certified  
 Din rail connection according to En50022  
 Supplied with removable earth/neutral bar

## Pvc Shrouds Din Breakers

PVC SHROUDS DIN BREAKERS	
K63/XJRD-SHROU	SHROUD 1 WAY
K63/XJRD-SHROU	SHROUD 2 WAY
K63/XJRD-SHROU	SHROUD 4 WAY
K63/XJRD-SHROU	SHROUD 6 WAY

## XJRD MCB Box

Dimension L*W*H(MM)	Code
34*130*60	XJDR-1 WAYS
52*130*60	XJDR-2 WAYS
87*130*60	XJDR-4 WAYS
125*160*60	XJDR-6 WAYS
160*160*60	XJDR-8 WAYS



# ENCLOSURES

## Busbar Din Rail

SINGLE PHASE 1METER K63 / SP63A-SP  
THREE PHASE 1METER K63 / TP63A-3P



## Changeover Switches Enclosed

SINGLE PHASE ENCLOSED WITH PILOT LIGHT INDICATION  
K63/LW26-63/1P&N-EP 2POLE  
K63/LW26-63/4-EP 4 POLE



## Pvc Enclosure Ip65 Grey

PVC ENCLOSURE IP65 GREY	
K63/XJDA1108045	110X80X45 PVC ENCLOSURE GREY
K63/XJDA125125100	125X125X100 PVC ENCLOSURE GREY
K63/XJDA17014095	170X140X95 PVC ENCLOSURE GREY
K63/XJDA175175100	175X175X100 PVC ENCLOSURE GREY
K63/XJDA200150130	200X150X130 PVC ENCLOSURE GREY
K63/XJDA250150130	250X150X130 PVC ENCLOSURE GREY
K63/XJDA280190130	280X190X130 PVC ENCLOSURE GREY

PVC ENCLOSURE IP65 GREY	
K63/XJDB10010050	100X100X50 PVC ENCLOSURE GREY
K63/XJDB15011070	150X110X70 PVC ENCLOSURE GREY
K63/XJDB15011080	150X110X80 PVC ENCLOSURE GREY
K63/XJDB24019090	240X190X90 PVC ENCLOSURE GREY
K63/XJDB250200140	250X200X140 PVC ENCLOSURE GREY
K63/XJDB300220170	300X220X170 PVC ENCLOSURE GREY
K63/XJDB380300120	380X300X120 PVC ENCLOSURE GREY
K63/XJDB380300170	380X300X170 PVC ENCLOSURE GREY



# ENCLOSURES

## Xjdb Waterproof Junction Box

PVC ENCLOSURE IP55 GREY	
K63/XJDB10010050	100X100X50 PVC ENCLOSURE GREY
K63/XJDB15011070	150X110X70 PVC ENCLOSURE GREY
K63/XJDB15011080	150X110X80 PVC ENCLOSURE GREY
K63/XJDB24019090	240X190X90 PVC ENCLOSURE GREY
K63/XJDB250200140	250X200X140 PVC ENCLOSURE GREY
K63/XJDB300220170	300X220X170 PVC ENCLOSURE GREY
K63/XJDB380300120	380X300X120 PVC ENCLOSURE GREY
K63/XJDB380300170	380X300X170 PVC ENCLOSURE GREY

Material: ABS  
 Screw: PC  
 Temperature Range: -40°C - 80°C  
 Protection Level: IP 55  
 Standard: EN60309



## Xjdb Waterproof Electric Box

PVC ENCLOSURE IP65 GREY	
K63/XJDA1108045	110X80X45 PVC ENCLOSURE GREY
K63/XJDA125125100	125X125X100 PVC ENCLOSURE GREY
K63/XJDA17014095	170X140X95 PVC ENCLOSURE GREY
K63/XJDA175175100	175X175X100 PVC ENCLOSURE GREY
K63/XJDA200150130	200X150X130 PVC ENCLOSURE GREY
K63/XJDA250150130	250X150X130 PVC ENCLOSURE GREY
K63/XJDA280190130	280X190X130 PVC ENCLOSURE GREY

Material: ABS/PC  
 Screw: PC  
 Temperature Range: -40°C - 80°C  
 Protection Level: IP 65  
 Standard: EN60309





# SWITCHES

## Steel Limit Switches (Tz Range 5a) Ip65

STEEL LIMIT SWITCHES (TZ RANGE 5A) IP65	
K41/TZ-8104	NON ADJUSTABLE ROLLER LEVER
K41/TZ-8107	ADJUSTABLE ROD LEVER (WIRE TYPE)
K41/TZ-8108	ADJUSTABLE ROLLER LEVER
K41/TZ-8111	BUTTON PLUNGER
K41/TZ-8112	ROLLER BUTTON PLUNGER
K41/TZ-8122	CROSS BUTTON PLUNGER
K41/TZ-8166	PLASTIC ROD LEVER
K41/TZ-8167	SPRING WIRE LEVER
K41/TZ-8169	CAT WHISKER LEVER



TZ-8104



TZ-8107



TZ-8108



TZ-8111



TZ-8112



TZ-8122



TZ-8166



TZ-8167



TZ-8169

## Steel Limit Switches (Yxck Range 10a) Ip65

STEEL LIMIT SWITCH (YXCK RANGE 10A) IP65	
K41/XCKJ	ADJUSTABLE ROLLER LEVER
K41/XCKJ108	CAT WHISKER STEEL
K41/XCKJ10511	ROLLER LEVER NYLON HEAD
K41/XCKJ1161	PLUNGER
K41/XCKJ167	ROLLER PLUNGER
K41/XCKJ10541M	METAL ADJUSTABLE ROLLER LEVER
K41/XCKJ108M	CAT WHISKER STEEL
K41/XCKJ10531M	METAL ROLLER LEVER
K41/XCKJ121M	ROLLER PLUNGER LEVER
K41/XCKJ10511M	ROLLER LEVER STEEL
K41/ZCK MIZCKD15	LEFT/RIGHT ROLLER LEVER



XCK-J10511



XCK-J10531



XCK-J10541



XCK-J10559



XCK-J108



XCK-J121



XCK-J139



XCK-J161



XCK-J167

# SWITCHES

## Micro Switch (Lxws5 Range)

MICRO SWITCH (LXWS5 RANGE)	
K41/LXW5-11D	SHORT SPRING PLUNGER
K41/LXW5-11G1	LONG HINDGE ROLLER LEVER
K41/LXW5-11G2	SHORT HINDGE ROLLER LEVER
K41/LXW5-11G3	MIDDLE HINDGE ROLLER LEVER
K41/LXW5-11M	PANEL MOUNT PLUNGER
K41/LXW5-11N1	HINDGE LEVER
K41/LXW5-11N220	SHORT HINDGE LEVER
K41/LXW5-11Q1	PANEL MOUNT ROLLER PLUNGER
K41/LXW5-11Q2	PANEL MOUNT CROSS ROLLER PLUNGER
K41/LXW5-1Z	PIN PLUNGER



LXW5-11D



LXW5-11G1



LXW5-11G2



LXW5-11G3



LXW5-11M



LXW5-11N1



LXW5-11N2



LXW5-11Q1



LXW5-11Q2



LXW5-11Z

## Terminal Blocks

TERMINAL BLOCKS H, U(W), V(F) TYPE



Material: made from PA, PE or PP

Item No	L	W	H	A	B	mm <sup>2</sup>	VOLT	AMP	Packing
TBS-3A	93	16	12	6	8	4	400V	3A	
TBS-6A	115	15.7	13	6.5	9.5	6	400V	6A	
TBS-10A	126	20.2	15.5	8.4	10.5	10	400V	10A	
TBS-16A	139	23	17.7	10.3	12	12	400V	16A	
TBS-20A	155	25	19.2	11.5	13.5	14	400V	20A	10PCS
TBS-30A	171	26	20.5	12	14.5	16	400V	30A	
TBS-60A	192	30	26	13.5	16.5	25	400V	60A	
TBS-80A	205	33	27	15	17	35	400V	80A	
TBS-100A	250	46	31	22	21	40	400V	100A	

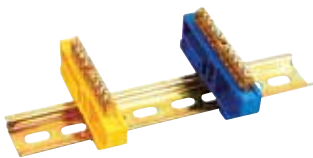
# SWITCHES

## Strip Connectors Black 12way

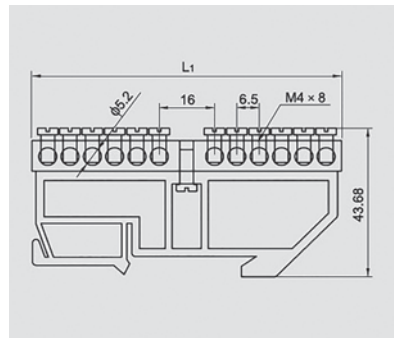
STRIP CONNECTORS BLACK 12WAY	
K63/TB-H06-6A	BLACK 6AMP STRIP CONNECTOR
K63/TB-H10-10A	BLACK S10AMP TRIP CONNECTOR
K63/TB-H15-15A	BLACK 15AMP STRIP CONNECTOR
K63/TB-H15-20A	BLACK 20AMP STRIP CONNECTOR
K63/TB-H15-30A	BLACK 30AMP STRIP CONNECTOR

## Brass Terminal Block

S010-0609



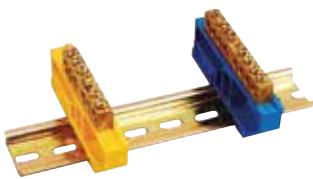
Dimensional Drawing



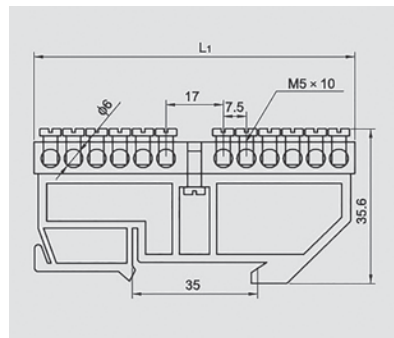
Specification

Way	Mounting Dimensions (L) mm	Overall Dimensions (L <sub>1</sub> )mm	Section cross of brass
4	35 x 7.5	88.5 x 12.1	6 x 9
6	35 x 7.5	88.5 x 12.1	6 x 9
8	35 x 7.5	88.5 x 12.1	6 x 9
10	35 x 7.5	88.5 x 12.1	6 x 9
12	35 x 7.5	90.5 x 12.1	6 x 9
14	35 x 7.5	103.5 x 12.1	6 x 9
16	35 x 7.5	116.5 x 12.1	6 x 9

S010-0812



Dimensional Drawing



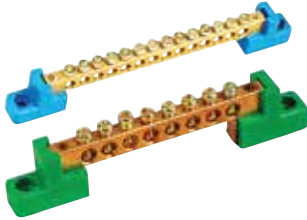
Specification

Way	Mounting Dimensions (L) mm	Overall Dimensions (L <sub>1</sub> )mm	Section cross of brass
4	35 x 7.5	88.5 x 12.1	8 x 12
6	35 x 7.5	88.5 x 12.1	8 x 12
8	35 x 7.5	88.5 x 12.1	8 x 12
10	35 x 7.5	88.5 x 12.1	8 x 12
12	35 x 7.5	102 x 12.1	8 x 12
14	35 x 7.5	117 x 12.1	8 x 12
16	35 x 7.5	132 x 12.1	8 x 12

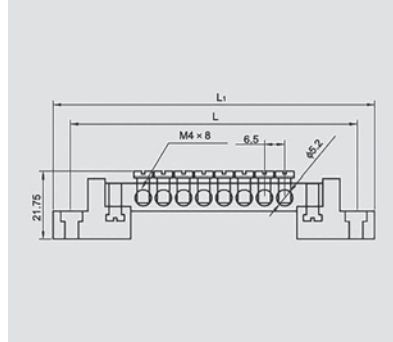
# SWITCHES

## Brass Terminal Block

S019-0609



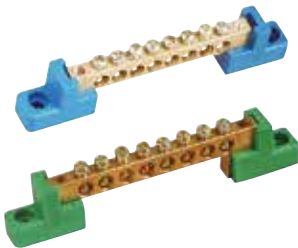
Dimensional Drawing



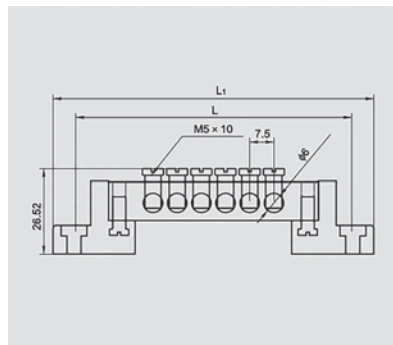
Specification

Way	Mounting Dimensions (L) mm	Overall Dimensions (L <sub>1</sub> ) mm	Section cross of brass
4	64.5	76.5 x 12.5	6 x 9
6	77.5	89.5 x 12.5	6 x 9
8	90.5	102.5 x 12.5	6 x 9
10	103.5	115.5 x 12.5	6 x 9
12	116.5	128.5 x 12.5	6 x 9
14	129.5	141.5 x 12.5	6 x 9
16	142.5	154.5 x 12.5	6 x 9

S019-0812



Dimensional Drawing



Specification

Way	Mounting Dimensions (L) mm	Overall Dimensions (L <sub>1</sub> ) mm	Section cross of brass
4	71.5	94.5 x 12.5	8 x 12
6	86.5	99.5 x 12.5	8 x 12
8	101.5	114.5 x 12.5	8 x 12
10	116.5	129.5 x 12.5	8 x 12
12	131.5	114.5 x 12.5	8 x 12
14	146.5	159.5 x 12.5	8 x 12
16	161.5	174.5 x 12.5	8 x 12

K63/XP0812A 8+2	BRASS TERMINAL BLOCK DIN RAIL
K63/XP0812A 12+2	BRASS TERMINAL BLOCK DIN RAIL
K63/XP0812A 18+2	BRASS TERMINAL BLOCK DIN RAIL

K63/XP0609E 4+2	BRASS TERMINAL BLOCK DIN RAIL
K63/XP0609E 6+2	BRASS TERMINAL BLOCK DIN RAIL
K63/XP0609E 8+2	BRASS TERMINAL BLOCKW DIN RAIL
K63/XP0609E 10+2	BRASS TERMINAL BLOCK DIN RAIL
K63/XP0609E 12+2	BRASS TERMINAL BLOCK DIN RAIL
K63/XP0609E 14+2	BRASS TERMINAL BLOCK DIN RAIL

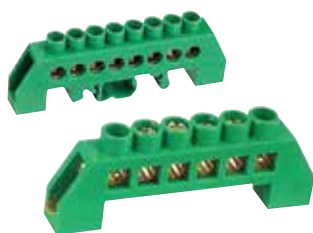
K63/XP06091-6P	6 POLE BRASS TERMINAL BLOCK FOOT MOUNT
K63/XP06091-8P	8 POLE BRASS TERMINAL BLOCK FOOT MOUNT
K63/XP06091-10P	10 POLE BRASS TERMINAL BLOCK FOOT MOUNT
K63/XP06091-12P	12 POLE BRASS TERMINAL BLOCK FOOT MOUNT
K63/XP06091-14P	14 POLE BRASS TERMINAL BLOCK FOOT MOUNT
K63/XP06091-16P	16 POLE BRASS TERMINAL BLOCK FOOT MOUNT

# SWITCHES

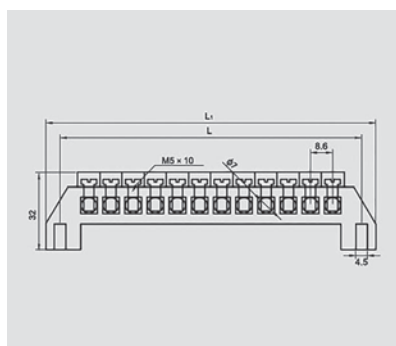
## Brass Terminal Blocks

K63/XP0609F-7P	7 POLE BRASS TERMINAL BLOCK
K63/XP0609F-10P	10 POLE BRASS TERMINAL BLOCK
K63/XP0609F-12P	12 POLE BRASS TERMINAL BLOCK
K63/XP0609F-15P	15 POLE BRASS TERMINAL BLOCK

### S001-0812



### Dimensional Drawing



### Specification

Way	Mounting Dimensions (L) mm	Overall Dimensions (L <sub>1</sub> )mm	Section cross of brass
7	35 X 7.5	50 X 21	6 x 9
9	35 X 7.5	57 X 21	6 x 9
10	35 X 7.5	71.5 X 21	6 x 9
12	35 X 7.5	84.5 X 21	6 x 9
13	35 X 7.5	91 X 21	6 x 9
15	35 X 7.5	104 X 21	6 x 9

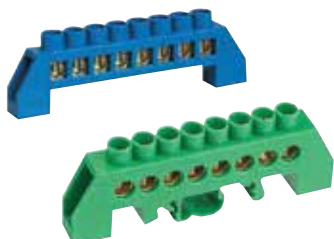
## Earth / Neutral Brass Bar Din

EARTH / NEUTRAL BRASS BAR DIN	
K63/XP0609A-4P-G	4 POLE GREEN EARTH BAR
K63/XP0609A-6P-G	6 POLE GREEN EARTH BAR
K63/XP0609A-8P-G	8 POLE GREEN EARTH BAR
K63/XP0609A-10P-H	10 POLE GREEN EARTH BAR
K63/XP0609A-12P-G	12 POLE GREEN EARTH BAR
K63/XP0609A-4P-BL	4 POLE BLUE EARTH BAR
K63/XP0609A-6P-BL	6 POLE BLUE EARTH BAR
K63/XP0609A-8P-BL	8 POLE BLUE EARTH BAR
K63/XP0609A-10P-BL	10 POLE BLUE EARTH BAR
K63/XP0609A-12P-BL	12 POLE BLUE EARTH BAR
K63/XP0812B--4P-G	4 POLE GREEN EARTH BAR
K63/XP0812B-6P-G	6 POLE GREEN EARTH BAR
K63/XP0812B-8P-G	8 POLE GREEN EARTH BAR
K63/XP0812B-10P-G	10 POLE GREEN EARTH BAR
K63/XP0812B-12P-G	12 POLE GREEN EARTH BAR

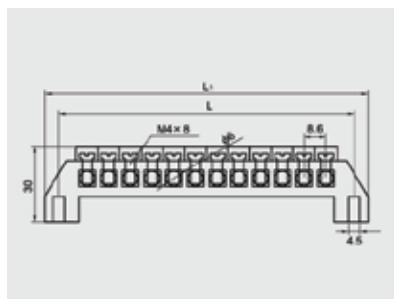
# SWITCHES

## Brass Terminal Block

S001-0609



Dimensional Drawing



Specification

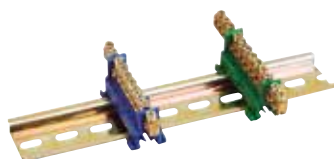
Way	Mounting Dimensions (L) mm	Overall Dimensions (L <sub>1</sub> )mm	Section cross of brass
4	48.2	59.2 x 11.2	6 x 9
6	65.4	76.4 x 11.2	6 x 9
8	82.6	93.6 x 11.2	6 x 9
10	99.8	110.8 x 11.2	6 x 9
12	117	128 x 11.2	6 x 9

## Brass Terminal Block Neutral Bar

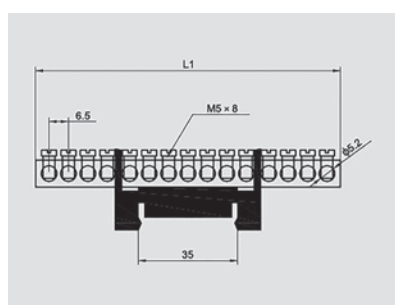
BRASS TERMINAL BLOCK NEUTRAL BAR

K63/XP0812B-4P-BL	4 POLE BLUE NEUTRAL BAR
K63/XP0812B-6P-BL	6 POLE BLUE NEUTRAL BAR
K63/XP0812B-8P-BL	8 POLE BLUE NEUTRAL BAR
K63/XP0812B-10P-BL	10 POLE BLUE NEUTRAL BAR
K63/XP0812B-12P-BL	12 POLE BLUE NEUTRAL BAR

S000-0609



Dimensional Drawing



Specification

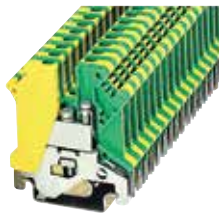
Way	Mounting Dimensions (L) mm	Overall Dimensions (L <sub>1</sub> )mm	Section cross of brass
4	48.2	59.2 x 12.5	8 X 12
6	65.4	76.4 x 12.5	8 X 12
8	82.6	93.6 x 12.5	8 X 12
10	99.8	110.8 x 12.5	8 X 12
12	117	128 x 12.5	8 X 12

# SWITCHES

## Uk Terminal Block



USLKG 4N



USLKG 6N



USLKG 10N



USLKG 16N



UK 2.5N



UK 3N



UK 5N



UK 10N



UK 16N

Model	Hard Wire (mm <sup>2</sup> )	Soft Wire (mm <sup>2</sup> )	Rated Current (A)	Rated Voltage (V)	Dimension (mm)
UK2.5B	0.2-4	0.2-2.5	32	690	6.2 X 42.5 X 42
UK3N	0.2-4	0.2-2.5	32	800	6.2 X 42.5 X 42
UK5N	0.2-6	0.2-4	41	800	6.2 X 42.5 X 47
UK6N	0.2-10	0.2-2.5	57	800	6.2 X 42.5 X 47
UK10N	0.5-16	0.5-10	76	800	10.2 X 42.5 X 47
UK16N	2.5-25	4-16	101	800	12.2 X 42.5 X 54
UK35N	0.75-50	0.75-35	150	1000	15.2 X 50.0 X 62
UKH50	16-50	25-50	150	1000	20 X 70.5 X 83.5
UKH95	25-95	35-95	232	1000	25 X 83 X 97.5
UKH150	35-150	50-150	309	1000	31 X 100 X 118.5

Model	Hard Wire (mm <sup>2</sup> )	Soft Wire (mm <sup>2</sup> )	Rated Current (A)	Rated Voltage (V)	Dimension (mm)
USLKG2.5	0.2-4	0.2-2.5	32	690	6.2 X 42.5 X 42
USLKG3	0.2-4	0.2-2.5	32	800	6.2 X 42.5 X 47
USLKG5	0.2-6	0.2-4	41	800	6.2 X 42.5 X 47
USLKG6N	0.2-10	0.2-6	57	800	8.2 X 42.5 X 47
USLKG10N	0.5-16	0.5-10	76	800	10.2 X 42.5 X 47
USLKG16N	2.5-25	4-16	101	800	12.2 X 42.5 X 54
USLKG35N	0.75-50	0.75-35	150	1000	15.2 X 50.0 X 62
USLKG50	16-50	25-50	150	1000	20 X 70.5 X 81.5

# SWITCHES

## Terminal Din Rail Mount

TERMINAL DIN RAIL MOUNT	
K63/UK2.5B	2.5B TERMINAL BLOCK DIN MOUNT 35MM
K63/UK3A	3A TERMINAL BLOCK DIN MOUNT 35MM
K63/UK5A	5A TERMINAL BLOCK DIN MOUNT 35MM
K63/UK6A	6A TERMINAL BLOCK DIN MOUNT 35MM
K63/UK10A	10A TERMINAL BLOCK DIN MOUNT 35MM
K63/UK16A	16A TERMINAL BLOCK DIN MOUNT 35MM
K63/UK25A	25A TERMINAL BLOCK DIN MOUNT 35MM
K63/UK35A	35A TERMINAL BLOCK DIN MOUNT 35MM

TERMINAL DIN RAIL MOUNT (GREEN/YELLOW)	
K63/USLKG 2.5A	2.5A GREEN YELLOW TERMINAL DIN MOUNT
K63/USLKG3A	3A GREEN YELLOW TERMINAL DIN MOUNT
K63/USLKG5A	5A GREEN YELLOW TERMINAL DIN MOUNT
K63/USLKG6A	6A GREEN YELLOW TERMINAL DIN MOUNT
K63/USLKG10A	10A GREEN YELLOW TERMINAL DIN MOUNT
K63/USLKG16A	16A GREEN YELLOW TERMINAL DIN MOUNT
K63/D-UK2.5	2.5 TERMINAL COVER PLATE
K63/D-UK4/10	4/10 TERMINAL COVER PLATE
K63/D-UKK3/5	3/5 TERMINAL STOPPER
K63/D-DUK4	4 TERMINAL
K63/D-URTK/S	STOPPER DIN RAIL

## Ammeter / Voltmeter / Frequency Meters

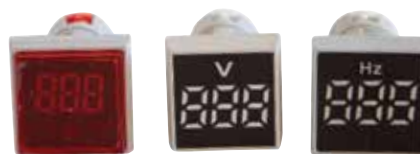
AMMETER / VOLTMETER / FREQUENCY METERS	
K63/VOLT-SQ-B	SQUARE VOLTMETER BLUE 22MM
K63/VOLT-SQ-G	SQUARE VOLTMETER GREEN 22MM
K63/VOLT-SQ-R	SQUARE VOLTMETER RED 22MM
K63/VOLT-SQ-W	SQUARE VOLTMETER WHITE 22MM
K63/VOLT-SQ-Y	SQUARE VOLTMETER YELLOW 22MM
K63/FREQ-W	SQUARE FREQUENCY METER WHITE 22MM
K63/LEAD-1M	1 METER EXTENTION LEAD

Round Also Available

## Ammeter / Voltmeter / Frequency Meters 22mm Hole Pilot Light Type

AMMETER / VOLTMETER / FREQUENCY METERS 22MM HOLE PILOT LIGHT TYPE	
K63/AMM-SQ-B	SQUARE AMMETER BLUE 22MM
K63/AMM-SQ-G	SQUARE AMMETER GREEN 22MM
K63/AMM-SQ-R	SQUARE AMMETER RED 22MM
K63/AMM-SQ-W	SQUARE AMMETER WHITE 22MM
K63/AMM-SQ-Y	SQUARE AMMETER YELLOW 22MM

Round Also Available





# SWITCHES

## Lockable Weatherproof Isolator Ip65

LOCKABLE WEATHERPROOF ISOLATOR IP65	
K63/UK-20-2P-20A	LOCKABLE ISOLATOR 20AMP 2 POLE IP65
K63/UK-20-2P-35A	LOCKABLE ISOLATOR 35AMP 2 POLE IP65
K63/UK-20-2P-63A	LOCKABLE ISOLATOR 63AMP 2 POLE IP65
K63/UK-20-4P-20A	LOCKABLE ISOLATOR 20AMP 4 POLE IP65
K63/UK-20-4P-35A	LOCKABLE ISOLATOR 35AMP 4 POLE IP65
K63/UK-20-4P-63A	LOCKABLE ISOLATOR 63AMP 4 POLE IP65



## Fuses Rf-1038 Range

FUSES RF-1038 RANGE	
K63/RF-1038-1A	10X38 FUSE 1AMP
K63/RF-1038-2A	10X38 FUSE 2AMP
K63/RF-1038-6A	10X38 FUSE 6AMP
K63/RF-1038-10A	10X38 FUSE 10AMP
K63/RF-1038-16A	10X38 FUSE 16AMP
K63/RF-1038-232A	10X38 FUSE 32AMP
K63/RF-1451-40A	14X51 FUSE 40AMP
K63/RF-1451-50A	14X51 FUSE 50AMP
K63/RF-1451-63A	14X51 FUSE 63AMP
K63/RF-2258-100A	22X58 FUSE 100AMP
K63/RF-2258-125A	22X58 FUSE 125AMP



## Fuse Bases

FUSE BASES	
K63/RT18-32-1P	10X38 FUSE BASE 1POLE WITH INDICATOR
K63/RT18-33-2P	10X38 FUSE BASE 2POLE WITH INDICATOR
K63/RT18-34-3P	10X38 FUSE BASE 3POLE WITH INDICATOR
K63/RT18-63-1P	14X51 FUSE BASE 1POLE WITH INDICATOR
K63/RT18-125-1P	22X58 FUSE BASE 1POLE WITH INDICATOR



# SWITCHES

## Timer

SUL 181h  
SUL 161h



## Time Switches

K63/TS-19-SUL181 H	TIMER ANALOG 24 HOUR 20A
K63/TS-19-SUL181 H	TIMER 24 HOUR 7 DAY
K63/TS-15-TB45	DIGITAL TIMER 16A
K63/AHC-810	WEEKLY PROGRAMMABLE TIMER 16A 24H / 7 DAY DIGITAL



# SWITCHES

## 8 & 11pin

PLUG IN RELAYS 8 & 11PIN	
K41/MK-2P-B	RELAY 8 PIN 24VAC
K41/MK-2P-E	RELAY 8 PIN 48VAC
K41/MK-2P-F	RELAY 8 PIN 110VAC
K41/MK-2P-M	RELAY 8 PIN 230VAC
K41/MK-2P-Q	RELAY 8 PIN 390VAC
K41/MK-2P-BD	RELAY 8 PIN 24VDC
K41/MK-2P-ED	RELAY 8 PIN 48VDC

K41/ML-3P-B	RELAY 11 PIN 24VAC
K41/ML-3P-E	RELAY 11 PIN 48VAC
K41/ML-3P-F	RELAY 11 PIN 110VAC
K41/ML-3P-M	RELAY 11 PIN 230VAC
K41/ML-3P-BD	RELAY 11 PIN 24VDC
K41/ML-3P-ED	RELAY 11 PIN 48VDC
K41/ML-3P-FD	RELAY 11 PIN 110VDC



## Relay Bases 8 & 11pin Round

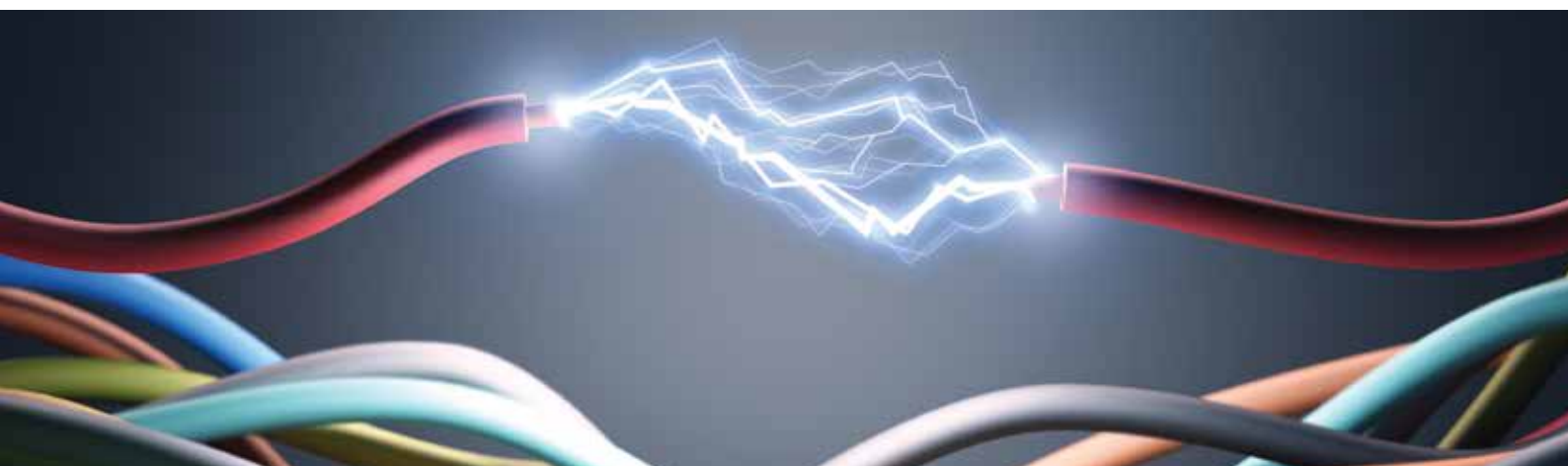
RELAY BASES 8 & 11PIN ROUND	
K41/-083A	8 PIN RELAY BASES
K41/PF-113A	11 PIN RELAY BASES



# ADDITIONAL PRODUCTS

Products stocked or manufactured on request

<b>NYJ / NYO</b>	Power cable for building installation, underground and fixed installation with various applications. 0.6/1kV
<b>N2XY / NA2XY</b>	Power cable for installation underground, in water, concrete, outdoors. 0.6/1kV
<b>NAYJ / NAYO</b>	Cable for fixed installation, PVC cable for direct burial with solid Aluminium conductors. 0.6/1kV
<b>N2XH</b>	Halogen-free power cable with nominal voltage 0.6/1kV for fixed installation
<b>NA2XS(F)2Y</b>	Single core Aluminium medium voltage cable, for indoor use and highly abrasion resistant. 6/10kV; 12/20kV; 18.30kV
<b>PUR</b>	Polyurethane cables for use in harsh environments. The PUR and robust sheath offer increased mechanical and chemical resistance. Ideally suited for applications in the Food & Beverage industry
<b>FR02</b>	Cable used in the fire detection industry. (0.8sqmm cores)
<b>AUDIO CABLE</b>	Range of cables used in sound systems (speakers, microphones etc.)
<b>BUS CABLES</b>	Devicenet and Profinet - designed for industrial fieldbus systems and industrial Ethernet
<b>SERIAL CABLES</b>	RS422, RS485 (LI-2YCYv), LI-2YCY
<b>DRAG CHAIN</b> PE Chain and Cables	Cable carriers, also known as drag chains, energy chains, or cable chains are guides designed to surround and guide flexible cables and hydraulic or pneumatic hoses connected to moving automated machinery
<b>ROBOTIC CABLES</b>	Flexible robotic control and signal cable designed for the stresses and environment in robotic equipment and handling tools
<b>ACCESSORIES</b>	Connectors, glands, junction boxes and tools
<b>CUSTOM CABLES</b>	Cables manufactured according to customer specifications



# TECHNICAL

## Charts and Technical Information

### AWG to Metric Conversion Chart

AWG to mm<sup>2</sup>

AWG NO.	Ø (INCH)	Ø (MM)	Ø (MM <sup>2</sup> )
∞ = 000000	0.580	14.73	170.30
∞ = 00000	0.517	13.12	135.10
∞ = 0000	0.460	11.7	107
∞ = 000	0.410	10.4	85.0
∞ = 00	0.365	9.26	67.4
∞ = 0	0.325	8.25	53.5
1	0.289	7.35	42.4
2	0.258	6.54	33.6
3	0.229	5.83	26.7
4	0.204	5.19	21.1
5	0.182	4.62	16.8
6	0.162	4.11	13.3
7	0.144	3.66	10.5
8	0.128	3.26	8.36
9	0.114	2.91	6.63
10	0.102	2.59	5.26
11	0.0907	2.30	4.17
12	0.0808	2.05	3.31
13	0.0720	1.83	2.62
14	0.0641	1.63	2.08
15	0.0571	1.45	1.65
16	0.0508	1.29	1.31
17	0.0453	1.15	1.04

AWG NO.	Ø (INCH)	Ø (MM)	Ø (MM <sup>2</sup> )
18	0.0403	1.02	0.823
19	0.0359	0.912	0.653
20	0.0320	0.812	0.518
21	0.0285	0.723	0.410
22	0.0253	0.644	0.326
23	0.0226	0.573	0.258
24	0.0201	0.511	0.205
25	0.0179	0.455	0.162
26	0.0159	0.405	0.129
27	0.0142	0.361	0.102
28	0.0126	0.321	0.0810
29	0.0113	0.286	0.0642
30	0.0100	0.255	0.0509
31	0.00893	0.227	0.0404
32	0.00795	0.202	0.0320
33	0.00708	0.180	0.0254
34	0.00631	0.160	0.0201
35	0.00562	0.143	0.0160
36	0.00500	0.127	0.0127
37	0.00445	0.113	0.0100
38	0.00397	0.101	0.00797
39	0.00353	0.0897	0.00632
40	0.00314	0.0799	0.00501

### Stranding Chart

IEC 60228/BS 6360 Conductors for insulated cables

CROSS SECTION MM <sup>2</sup>	NEAREST AWG SIZE*	STRANDING CLASS 1	STRANDING CLASS 2	RESISTANCE OHM/KM CLASSES 1 & 2	STRANDING CLASS 5	STRANDING CLASS 6	RESISTANCE OHM/KM CLASSES 5 & 6	APPROX. WEIGHT KG/KM
0.14	26	–	–	–	–	18 x 0.10	138	1.35
0.25	24	–	–	–	14 x 0.16	32 x 0.10	79	2.4
0.34	22	–	–	–	19 x 0.16	42 x 0.10	57	3.3
0.50	20	1 x 0.80	7 x 0.30	36.0	16 x 0.21	28 x 0.16	38	4.8
0.75	18	1 x 0.97	7 x 0.37	24.5	24 x 0.21	42 x 0.16	26	7.2
1.0	18	1 x 1.13	7 x 0.43	18.1	32 x 0.21	56 x 0.16	19.5	9.6
1.5	16	1 x 1.38	7 x 0.53	12.1	30 x 0.26	84 x 0.16	13.3	14.4
2.5	14	1 x 1.78	7 x 0.67	7.41	50 x 0.26	140 x 0.16	7.98	24
4.0	12	1 x 2.26	7 x 0.85	4.61	56 x 0.31	224 x 0.16	4.95	38
6.0	10	1 x 2.76	7 x 1.04	3.08	84 x 0.31	192 x 0.21	3.3	58
10	8	1 x 3.57	7 x 1.35	1.83	80 x 0.41	320 x 0.21	1.91	96
16	6	1 x 4.5	17 x 1.70	1.15	128 x 0.41	512 x 0.21	1.21	154
25	4	–	7 x 2.14	0.72	200 x 0.41	800 x 0.21	0.78	240
35	2	–	7 x 2.52	0.52	280 x 0.41	1,120 x 0.21	0.55	336
50	1/0	–	19 x 1.78	0.39	400 x 0.41	705 x 0.31	0.39	480
70	2/0	–	19 x 2.14	0.27	356 x 0.51	990 x 0.31	0.27	672
95	3/0	–	19 x 2.52	0.19	485 x 0.51	1,340 x 0.31	0.21	912
120	250MCM	–	37 x 2.03	0.15	614 x 0.51	1,690 x 0.31	0.16	1,152
150	300MCM	–	37 x 2.25	0.12	765 x 0.51	2,123 x 0.31	0.13	1,440
185	400MCM	–	37 x 2.52	0.1	944 x 0.51	1,470 x 0.41	0.11	1,776
240	500MCM	–	61 x 2.25	0.07	1,225 x 0.51	1,905 x 0.41	0.08	2,304
300	600MCM	–	61 x 2.52	0.06	1,530 x 0.51	2,385 x 0.41	0.064	2,880
400	750MCM	–	61 x 2.85	0.05	2,035 x 0.51	–	0.068	3,840
500	1,000MCM	–	61 x 3.20	0.04	1,768 x 0.60	–	0.0384	4,800

**Notes:** The number of strands according to IEC 60228/BS 6360 shown in classes 1 & 2 is obligatory. Stranding shown in classes 5 & 6 gives the maximum strand diameters and may have less strands provided the conductor does not exceed the resistance figures shown. In either case the standard gives the maximum resistance in ohms/km that is permissible for non-tinned conductors. \* AWG sizes are approximate and for information only. Please contact us for exact sizing.

# TECHNICAL Continued

## Single Core Sheath Colour Key

H03 V-K, H05 V-K, SIAF, etc.

CODE	COLOUR	CODE	COLOUR	CODE	COLOUR
BK	Black	G/Y	Green-yellow	OR	Orange
RD	Red	GY	Grey	VI	Violet
BL	Blue	GN	Green	YE	Yellow
BRN	Brown	WH	White	PI	Pink

## Defence Standard Colour Coding Chart

Def Stan 61-12

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

## Core Identification - Cables for Fixed or Flexible installations

DIN VDE 0293-308:2003

NO. CORES	CABLE WITH GREEN/YELLOW EARTH (-J) OR G	NO. CORES	CABLE WITH GREEN/YELLOW EARTH (-J) OR G
2	-	2	Blue, Brown
3	Green-yellow, Blue, Brown	3	Brown, Black, Grey
3*	-	3*	Brown, Black, Blue
4	Green-yellow, Brown, Black, Grey	4	Blue, Brown, Black, Grey
4*	Green-yellow, Brown, Black, Blue	4*	-
5	Green-yellow, Blue, Brown, Black, Grey	5	Blue, Brown, Black, Grey, Black
6+	Green-yellow, Black numbered cores	6+	Black numbered cores

\*For certain applications

## Core Identification – Electronic Control & Computer Cabling

DIN VDE 0293-308 (without colour repetition from core no. 45 and above.)

NO.	COLOUR	NO.	COLOUR	NO.	COLOUR	NO.	COLOUR
1	White	17	White-grey	33	Green-red	45	White-brown-black
2	Brown	18	Grey-brown	34	Yellow-red	46	Yellow-green-black
3	Green	19	White-pink	35	Green-black	47	Grey-pink-black
4	Yellow	20	Pink-brown	36	Yellow-black	48	Red-blue-black
5	Grey	21	White-blue	37	Grey-blue	49	White-green-black
6	Pink	22	Brown-blue	38	Pink-blue	50	Brown-green-black
7	Blue	23	White-red	39	Grey-red	51	White-yellow-black
8	Red	24	Brown-red	40	Pink-red	52	Yellow-brown-black
9	Black	25	White-black	41	Grey-black	53	White-grey-black
10	Violet	26	Brown-black	42	Pink-black	54	Grey-brown-black
11	Grey-pink	27	Grey-green	43	Blue-black	55	White-pink-black
12	Red-blue	28	Yellow-grey	44	Red-black	56	Pink-brown-black
13	White-green	29	Pink-green			57	White-blue-black
14	Brown-green	30	Yellow-pink			58	Brown-blue-black
15	White-yellow	31	Green-blue			59	White-red-black
16	Yellow-brown	32	Yellow-blue			60	Brown-red-black
						61	Black-white

With colour repetition, the colours for cores No. 45 to 61 are duplicated from core No. 1 to 17.

# TECHNICAL Continued

## Standards & Certifications

Local and International



**CE**  
Conformité Européene (European Conformity).  
Declaration that the product meets the requirements of the applicable EC directives.



**ROHS**  
Restriction of Hazardous Substances in electrical and electronic products, such as lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants.



**TÜV**  
World leader in product testing and certification.



**BSI**  
The British Standards Institution is the national standards body of the UK.



**VDE**  
European and international standardisation.



**FDIA**  
Fire Detection Installers Association. South African National Standards and training.



**REACH**  
Registration, Evaluation, Authorisation and Restriction of Chemicals. European Union regulation that addresses use of chemical substances, and their potential impacts on both human health and the environment.



**SABS**  
The South African Bureau of Standards is the leading global provider of standards, management systems, business improvement and regulatory approval information.



**HAR**  
Harmonised European standard cables conform to a European Harmonisation Standard set out by CENELEC, the European Committee for Electrotechnical Standardisation.



**AENOR**  
The Spanish Association for Standardization and Certification (AENOR) is an entity dedicated to the development of standardization and certification in all Spanish industrial and service sectors.

## Telephone Cable Colour Coding Chart

International and TELKOM Spec (SAPO)

PAIR NO.	INSULATION COLOUR		PAIR NO.	INSULATION COLOUR		PAIR NO.	INSULATION COLOUR	
	A-WIRE	B-WIRE		A-WIRE	B-WIRE		A-WIRE	B-WIRE
1	White	Blue	35	Blue-Black	Grey	69	Green-Red	Brown
2	White	Orange	36	Yellow-Blue	Blue	70	Green-Red	Grey
3	White	Green	37	Yellow-Blue	Orange	71	Green-Black	Blue
4	White	Brown	38	Yellow-Blue	Green	72	Green-Black	Orange
5	White	Grey	39	Yellow-Blue	Brown	73	Green-Black	Green
6	Red	Blue	40	Yellow-Blue	Grey	74	Green-Black	Brown
7	Red	Orange	41	White-Orange	Blue	75	Green-Black	Grey
8	Red	Green	42	White-Orange	Orange	76	Yellow-Green	Blue
9	Red	Brown	43	White-Orange	Green	77	Yellow-Green	Orange
10	Red	Grey	44	White-Orange	Brown	78	Yellow-Green	Green
11	Black	Blue	45	White-Orange	Grey	79	Yellow-Green	Brown
12	Black	Orange	46	Orange-Red	Blue	80	Yellow-Green	Grey
13	Black	Green	47	Orange-Red	Orange	81	White-Brown	Blue
14	Black	Brown	48	Orange-Red	Green	82	White-Brown	Orange
15	Black	Grey	49	Orange-Red	Brown	83	White-Brown	Green
16	Yellow	Blue	50	Orange-Red	Grey	84	White-Brown	Brown
17	Yellow	Orange	51	Orange-Black	Blue	85	White-Brown	Grey
18	Yellow	Green	52	Orange-Black	Orange	86	Red-Brown	Blue
19	Yellow	Brown	53	Orange-Black	Green	87	Red-Brown	Orange
20	Yellow	Grey	54	Orange-Black	Brown	88	Red-Brown	Green
21	White-Blue	Blue	55	Orange-Black	Grey	89	Red-Brown	Brown
22	White-Blue	Orange	56	Yellow-Orange	Blue	90	Red-Brown	Grey
23	White-Blue	Green	57	Yellow-Orange	Orange	91	Brown-Black	Blue
24	White-Blue	Brown	58	Yellow-Orange	Green	92	Brown-Black	Orange
25	White-Blue	Grey	59	Yellow-Orange	Brown	93	Brown-Black	Green
26	Red-Blue	Blue	60	Yellow-Orange	Grey	94	Brown-Black	Brown
27	Red-Blue	Orange	61	White-Green	Blue	95	Brown-Black	Grey
28	Red-Blue	Green	62	White-Green	Orange	96	Yellow-Brown	Blue
29	Red-Blue	Brown	63	White-Green	Green	97	Yellow-Brown	Orange
30	Red-Blue	Grey	64	White-Green	Brown	98	Yellow-Brown	Green
31	Blue-Black	Blue	65	White-Green	Grey	99	Yellow-Brown	Brown
32	Blue-Black	Orange	66	Green-Red	Blue	100	Yellow-Brown	Grey
33	Blue-Black	Green	67	Green-Red	Orange			
34	Blue-Black	Brown	68	Green-Red	Green			

# TECHNICAL Continued

## Current Rating - Multi-core PVC

FLEX-TECH T500, FLEX-TECH P500 CY

CONDUCTOR SIZE (MM <sup>2</sup> )	MAXIMUM CURRENT CARRYING CAPACITY AT AN AMBIENT TEMPERATURE OF 30°C (A)							MAX. RESISTANCE CLASS 5 (Ω/KM)
	2 CORE	3, 4, 5 CORE	7 CORE	12 CORE	18 CORE	27 CORE	36 CORE	
0.5	10.0	9.0	6.5	5.5	4.5	4	3.5	39.0
0.75	13.5	12.0	9.0	7.0	6.0	5.5	5.0	26.0
1	15.0	13.5	10.5	8.0	7.0	6.5	5.5	19.5
1.5	19.5	17.5	13.0	10.5	9.5	8.0	7.0	13.3
2.5	26.0	24.0	17.5	14.5	12.5	11.0	10	7.98
4	35.0	32.0	-	-	-	-	-	4.95
6	46.0	41.0	-	-	-	-	-	3.3

## Current Rating - Single Cores

SIL-TRON SIAF, PVC Panel Wire (H05 V-K, H07 V-K)

CONDUCTOR SIZE (MM <sup>2</sup> )	PVC PANEL WIRE AT 30°C	SILICONE RUBBER CURRENT CARRYING CAPACITY (A)					CONDUCTOR OPERATING TEMP. 180°C	
		AT 30°C	AT 60°C	AT 90°C	AT 120°C	AT 150°C	AT 180°C	
0.5	10	18	16	13	10	7	2	
0.75	12	21	19	16	12	8	3	
1	14	34	31	26	20	13	5	
1.5	18	42	38	32	25	16	6	
2.5	24	58	53	45	35	22	7	
4	32	77	70	60	47	29	10	
6	41	95	86	74	59	36	13	
10	57	135	122	105	82	51	17	
16	76	185	168	144	113	70	24	
25	101	250	228	195	153	95	32	
35	125	310	281	241	189	118	39	
50	151	390	355	304	238	148	49	
70	183	500	455	390	307	190	65	
95	218	600	546	468	368	228	78	
120	255	690	628	538	423	262	88	
150	292	780	710	608	477	296	100	
185	331	850	774	663	520	323	107	
240	380	950	865	741	582	361	123	

\*Current ratings are estimated and for information purposes only.





# CABLE SELECTION CHART

## 220 Volt Cable Selection

Cable Size mm <sup>2</sup>										
H.P.	kW	1,5	2,2	4	6	10	16	25	35	50
0,33	0,25	170	280	450	670	1130	1750	2640	3590	4940
0,5	0,37	120	200	320	480	810	1260	1900	2590	3580
0,75	0,55	80	130	220	320	550	850	1290	1760	2430
1	0,75	60	100	170	250	430	670	1010	1380	1910
1,5	1,1	40	70	120	480	300	470	710	960	1360
2	1,5	30	60	90	130	230	360	550	760	1060
3	2,2	20	40	60	90	150	230	350	490	680

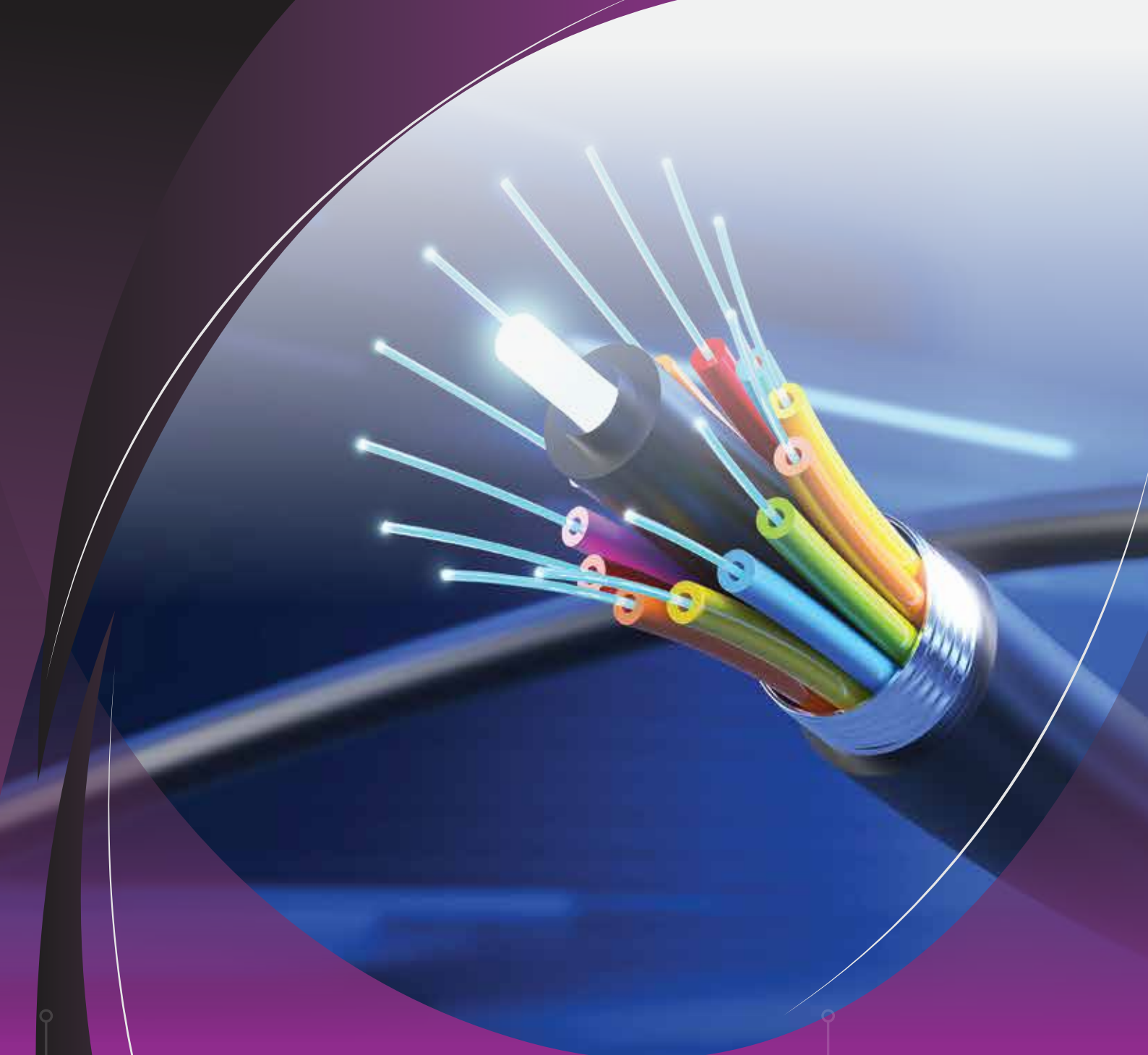
## 380 Volt Cable Selection

Cable Size mm <sup>2</sup>										
H.P.	kW	1,5	2,2	4	6	10	16	25	35	50
0,5	0,37	810	135Q	2160	3240	5500	8530:	-	-	-
0,75	0,55	550	920	1480	2230	3780	5860	8890	-	-
1	0,75	410	680	1090	1640	2780	4330	6570	910	-
1,5	1,1	300	500	810	1210	2060	3200	4850	6640	9220
2	1,5	220	370	590	880	1500	2340	3560	4890	6380
3	2,2	150	250	400	600	1030	1600	2440	3350	4680
5	3,7	90	150	240	370	630	980	1490	2050	2870
7,5	5,5	60	110	170	260	440	690	1060	1450	2030
10	7,5	50	80	130	200	340	530	810	1110	1560
15	11	-	50	90	130	230	360	550	750	1060
20	15	.	.	70	100	170	270	410	570	800
25	18,5	-	.	-	80	140	210	330	450	630
30	22	.	.	.	70	120	180	280	380	540
40	30	.	.	.	.	90	130	210	280	400
50	37	-	-	-	-	-	110	170	230	320



In some installations it may be convenient to use two different cable sizes. This is acceptable if the two cable sections in percent of the maximum allowable total is less than 100%.

Example: A 1.5 kW 220 V pump is to be installed as a replacement in an existing borehole which already has 82 metres of buried 6 mm<sup>2</sup> supply cable. What cable size is required for 560 metres in the borehole? From the above table 6 mm<sup>2</sup> is useable with a 1.5kW motor to 130 metres. The existing buried cable uses 82 mm + 130 = 63% of the allowable total. The balance of 37% is left for the borehole. Thus 130 m x 37% = 48 m - is not sufficient for the borehole. Referring to the 10 mm<sup>2</sup> cable size on the table, 230 mm x 37% = 85 m. Thus 10 mm<sup>2</sup> submersible pump cable must be used in the borehole.





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