



ITALICAB

the cable specialists



CATALOGUE 2016

ITALICAB

the cable specialists

COMPANY

ITALICAB Srl is a supplier of high quality standard and special application cables, with headquarters in Brescia Italy.

The technical expertise, commercial and logistics knowledge enables ITALICAB Srl to satisfy client demands on both domestic and international markets. Ability and know-how is the result of a more than thirty years experience in the field of standard and special application cables, copper conductors and thermoplastic insulation materials.

ITALICAB Srl has a very diversified product range that includes single and multicore electrical cables, wires, braids and copper connections, for major necessities.

The technical knowledge, experience, attention to customer service are the key assets of the companies organization that ensures the constant quality of the products supplied.

In view to meet the evolving market demands on particular special products, ITALICAB Srl manage a flexible structure, which turns its attention to the processing of materials with high technological content, allowing it to provide products for different fields of application to special cable requirements.

A complete operational laboratory equipped with all essential apparatus for testing mechanical, electrical, temperature and fire resistance is at the service of production and commercial necessities to guarantee full compliance to the required regulations.

PRODUCTS

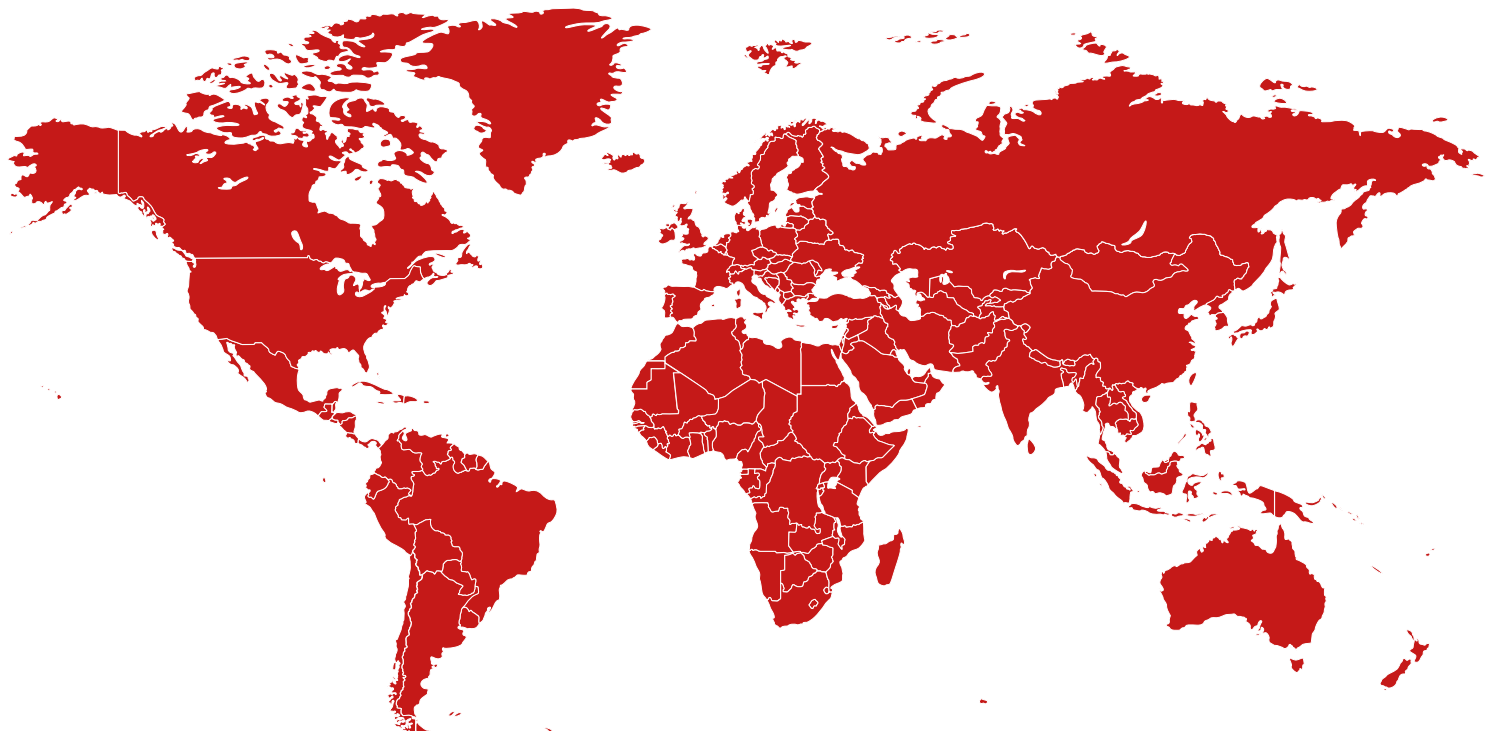
ITALICAB Srl welcomes all opportunities to assist in the design, development, sampling and production of special products. If your requirements include materials or products not listed in our catalogue, then please don't hesitate to contact us to review your requirements further.

ITALICAB Srl offers customers a team of skilled experts ready to provide their support to your requests for single and multicore electrical cables and copper accessories for system and machinery grounding requirements.

SERVICES

Our range of cables and accessories for special applications covers various fields such as automation and robotics, construction, lighting, welding, military, wind turbines, high temperature and many other customized solutions to match the characteristics of use.

The experience, reliability and attention to customer service is at the top of our priorities, that permits us to establish and strengthen the growing working relationship with our customers worldwide.



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GENERAL TECHNICAL INFORMATION



Edition 2016

CIVIL AND INDUSTRIAL CABLES



Cu/PVC

Cu/PVC/PVC

RUBBER CABLES

SILICONE CABLES

FEP CABLES

GARDEN TOOLS LEAD

WELDING CABLES

AIRPORT CABLES

SOLAR CABLES

EARTHING BRAIDS



Cu/PVC 70°C



TECHNICAL FEATURES

Operating temperature	-30 °C ÷ +70 °C / laying temp. -5 °C ÷ +70 °C
Rated voltage	300/500V or 450/750V
Testing Voltage	2,0 kV for 300/500V and 2,5kV for 450/750V
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Bare copper strand
Conductor Class	Class 1,2 and 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality TI1)
Core identification	Acc. to CEI UNEL 00722 / HD 308 / VDE-0293
Max. temp. of short circuit	160 °C (max. 5 sec)
Min. bending radius	Fixed 3 x cable Ø / mobile use 5 x cable Ø
Standards	CEI 20-20/3 / 20-35 (EN 60332-1)
	CEI 20-52 / HD 21.3 S3

APPLICATION

Single core for internal wiring of devices as well as protected laying within pipes on-wall and in-wall, permitted for signal facilities and illumination sets for voltage upto 1000V AC or 750V DC to ground for 450/750V

SPECIAL FEATURES

Flame retardant and self extinguishing CEI 20-35 /EN 60332-1 /EN 50265
Lead free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Customized versions on demand

OPTIONS

Cu/PVC 90°C
Cu/PVC 105°C
Cu/LSOH Halogen-free

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
300/500V class 1			
1 x 0,50	2	4,8	8
1 x 0,75	2,2	7,2	12
1 x 1,00	2,3	9,6	14
450/750V class 1			
1 x 1,50	2,8	14,4	21
1 x 2,50	3,4	24	32
1 x 4,00	3,6	38,4	48
1 x 6,00	4,1	57,6	66
1 x 10	5,3	96	112
300/500V class 5			
1 x 0,50	2,1	4,8	9
1 x 0,75	2,3	7,2	12
1 x 1,00	2,5	9,6	15
450/750V class 5			
1 x 1,50	3,1	14,4	21
1 x 2,50	3,75	24	33
1 x 4,00	4,4	38,4	48
1 x 6,00	4,9	57,6	66
1 x 10	6,4	96	112
1 x 16	7,4	153,6	167
1 x 25	9,1	240	254
1 x 35	10,35	336	340
1 x 50	12,4	480	485

Section mm	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
450/750V class 5			
1 x 1,50	3,1	14,4	21
1 x 2,50	3,75	24	33
1 x 4,00	4,4	38,4	48
1 x 6,00	4,9	57,6	66
1 x 10	6,4	96	112
1 x 16	7,4	153,6	167
1 x 25	9,1	240	254
1 x 35	10,35	336	340
1 x 50	12,4	480	485
1 x 70	13,6	672	674
1 x 95	15,8	912	894
1 x 120	17,4	1152	1110
1 x 150	19,8	1440	1400
1 x 185	21,6	1776	1700
1 x 240	24,6	2304	2230

Cu/PVC 90°C
Cu/LSOH/LSOH Halogen-free

The data and sketches of this technical leaflet are not binding and can be varied as a consequence of modifications and/or improvements deemed necessary by the manufacturer. Tolerances on weights and diameters $\pm 5\%$.

Operating temperature	-10 °C ÷ +90 °C / laying temp. +5 °C ÷ +90 °C
Rated voltage	300/500 V
Testing Voltage	2,5 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Bare copper strand
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC special heat resistant
Core identification	Acc. to CEI UNEL 00722 / HD 308 / VDE-0293
Outer Sheath material	Thermoplastic material based PVC special heat resistant
Colour outer sheath	Black or White
Printing	Acc. to HAR standards
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	Fixed 3 x cable Ø / mobile use 4 x cable Ø
Standards	Harmionized cable <HAR>
	CEI 20-20/7 - 20-35 (EN 60332-1)
	CENELEC HD 21.7 S2

Heat-resistant flexible round and flat multicore for connecting small electrical appliances, suitable for kitchens, offices for light duties, for light portable appliances (eg. radio sets, table and standard lamps, office machines). Internally in equipment.

Flame retardant CEI 20-35 /EN 60332-1)
Lead free CEI 20-52

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

[illegible]

H07RN-F Rubber



TECHNICAL FEATURES

Operating temperature:	-25°C ÷ +60° C / laying temp. -25°C ÷ +60°C
Rated voltage:	450/750V
Testing Voltage	2,5 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Bare copper strand
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Elastometric rubber compound (quality EI4)
Core identification	Acc. to CEI UNEL 00722 / HD 308 / VDE-0293

Outer Sheath material	Polychloroprene (Neoprene) quality EM2
Colour outer sheath	Black
Printing	to HAR standards
Max. temp. of short circuit:	200° C (max. 5 sec)
Min. bending radius:	fixed 3 x cable Ø / mobile 4 x cable Ø
Standards	Harmonized cable <HAR> CEI 20-19/4/20-35 (EN 60332-1) CENELEC HD 22.4.S2 UNEL 35364

APPLICATION

For connecting power tools, mobile units and machines for medium mechanical stress requirements in dry, humid and wet environments, for outdoor use, in explosive areas, for industrial and agricultural plants and construction sites, motors and transportable generators.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1)

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Lead free CEI 20-52

Customized versions on demand

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
1 x 1,50	5,90	14,40	50
1 x 2,50	6,60	24,00	65
1 x 4,00	7,50	38,40	90
1 x 6,00	8,30	57,60	115
1 x 10	10,10	96,00	182
1 x 16	11,30	153,60	255
1 x 25	13,10	240,00	365
1 x 35	14,70	336,00	485
1 x 50	16,80	480,00	680
1 x 70	18,90	672,00	910
1 x 95	21,20	912,00	1.160
1 x 120	23,40	1.152,00	1.460
1 x 150	25,70	1.440,00	1.780
1 x 185	28,20	1.776,00	2.190
1 x 240	31,30	2.304,00	2.830
1 x 300	34,10	2.880,00	3.480
1 x 400	39,70	3.840,00	4.500
2 x 1,00	8,30	19,20	90
2 x 1,50	9,20	28,80	115
2 x 2,50	11,00	48,00	165
2 x 4,00	12,60	76,80	230
2 x 6,00	14,20	115,20	302
2 x 10	19,20	192,00	545
2 x 16	22,00	307,20	765
2 x 25	25,40	480,00	1.090

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
3 G 1,00	8,90	28,80	110
3 G 1,50	9,90	43,20	140
3 G 2,50	11,80	72,00	202
3 G 4,00	13,50	115,20	280
3 G 6,00	15,20	172,80	375
3 G 1,00	8,90	28,80	110
3 G 1,50	9,90	43,20	140
3 G 2,50	11,80	72,00	202
3 G 4,00	13,50	115,20	280
3 G 6,00	15,20	172,80	375
3 G 10	20,60	288,00	675
3 G 16	23,60	460,80	950
3 G 25	27,30	720,00	1.360
3 G 35	30,30	1.008,00	1.795
3 G 50	34,90	1.440,00	2.480
3 G 70	39,10	2.016,00	3.285
3 G 95	45,30	2.736,00	4.210
3 G 120	49,10	3.456,00	5.280
3 G 150	59,60	4.320,00	6.420

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
4 G 1,00	9,90	38,40	135
4 G 1,50	10,90	57,60	172
4 G 2,50	12,90	96,00	250
4 G 4,00	14,80	153,60	350
4 G 6,00	16,90	230,40	470
4 G 10	22,50	384,00	830
4 G 16	25,30	614,40	1.175
4 G 25	30,20	960,00	1.720
4 G 35	33,70	1.344,00	2.285
4 G 50	38,60	1.920,00	3.155
4 G 70	43,50	2.688,00	4.215
4 G 95	49,40	3.648,00	5.445
4 G 120	54,00	4.608,00	6.770
5 G 1,00	10,90	48,00	160
5 G 1,50	12,00	72,00	205
5 G 2,50	14,20	120,00	300
5 G 4,00	16,60	192,00	420
5 G 6,00	18,80	288,00	580
5 G 10	24,80	480,00	1.120
5 G 16	28,10	768,00	1.440
5 G 25	33,40	1.200,00	2.115

H05RR-F, H05RN-F



TECHNICAL FEATURES

Operating temperature	-25°C ÷ +60° C / laying temp. -25°C ÷ +60°C
Rated voltage	300/500V
Testing Voltage	2,0 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Bare copper strand
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Elastometric rubber compound (quality EI4)
Core identification	Acc. to CEI UNEL 00722 / HD 308 / VDE-0293
Outer Sheath material	Polychloroprene (Neoprene) quality EM3
Colour outer sheath	Black
Printing	to HAR standards
Max. temp. of short circuit	200° C (max. 5 sec)
Min. bending radius	fixed 3 x cable Ø / mobile 4 x cable Ø
Standards	Harmionized cable <HAR>
	CEI 20-19/4/20-35 (EN 60332-1)
	CENELEC HD 22.4.S2

APPLICATION

H05RR-F light rubber sheathed cable for light and medium mechanical stress requirements. For connecting electrical portable devices, domestic tools and office equipment. For use in dry, humid and wet rooms, but not suitable for permanent outdoor use. H05RN-F matches the same applications and in addition it is suitable for outdoor use.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1)
Resistant to ozone, oxygen, UV rays. Good water rain resistant

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Lead free CEI 20-52
Customized versions on demand

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
H05RR-F			
2 x 0,75	6,3	14,85	53
2 x 1,00	6,7	19,80	64
2 x 1,50	8,3	29,70	95
2 x 2,50	9,8	49,50	140
3 G 0,75	6,8	22,28	65
3 G 1,00	7,1	29,70	77
3 G 1,50	8,8	44,55	115
3 G 2,50	10,4	74,25	170
3 G 4,00	12,2	118,80	240
3 G 6,00	13,6	178,20	320
4 G 0,75	7,4	29,70	80
4 G 1,00	7,8	39,60	95
4 G 1,50	9,8	59,40	145
4 G 2,50	11,5	99,00	210
4 G 4,00	13,5	158,40	300
4 G 6,00	15,1	237,60	405
5 G 0,75	8,3	37,13	100
5 G 1,00	8,7	49,50	115
5 G 1,50	10,7	74,25	170
5 G 2,50	12,8	123,75	255
H05RN-F			
2 x 0,75	6,3	14,85	45,00
2 x 1,00	6,7	19,80	45,00
3 G 0,75	6,8	22,28	45,00
3 G 1,00	7,1	29,70	45,00

APPLICATION

SPECIAL FEATURES

REMARKS

REMARKS
Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Lead free CFI 20-52

Customized versions on demand

OPTIONS

SIAF/GL with fiber glass braid

SIAF -40/+180°CSIAF/GL -40/+200 °C

SIHF (Multicore silicone)



TECHNICAL FEATURES

Operating temperature:	-60°C ÷ +180° C / laying temp. -40°C ÷ +180°C
Rated voltage:	300/500V
Testing Voltage	2,0 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Tinned or bare copper strand
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Silicone rubber
Core identification	Acc. to CEI UNEL 00722 / HD 308 / VDE-0293
Outer Sheath material	Silicone rubber
Colour outer sheath	Brick-red or Black
Printing	on request
Max. temp. of short circuit:	250° C (max. 5 sec)
Min. bending radius:	6 x cable Ø
Standards	Acc. to CEI - DIN VDE 0250

APPLICATION

Silicone cables are employed where insulations are subjected to extreme changes in temperature. Due to good resistance in all weather conditions these cables can also be employed at temperatures as low as - 60°C. Recommended for internal wiring of appliances where totally enclosed and protected against mechanical abuse and against substances like oils and chemical solvents. Silicone cables are halogen free.

SPECIAL FEATURES

Halogen free according to DIN VDE 0482
part 267 / EN 50267-2-1/ IEC 60754-1
On request: flame retardant and self extinguishing
CEI 20-35 / EN 60332-1 / EN 50265

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Lead free CEI 20-52

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2 x 0,5	5,8	9,6	50
2 x 0,75	6,4	14,4	63
2 x 1	6,6	19,2	71
2 x 1,5	7,6	28,8	97
2 x 2,5	9,2	48	146
2 x 4	10,8	76,8	210
2 x 6	13,4	115,2	322
2 x 10	15,8	192	474
2 x 16	19,6	307,2	739
2 x 25	24	480	1123
3 x 0,5	6,1	14,4	59
3 x 0,75	6,8	21,6	76
3 x 1	7,4	28,8	93
3 x 1,5	8	43,2	117
3 x 2,5	9,7	72	179
3 x 4	11,5	115,2	261
3 x 6	14,2	172,8	398
3 x 10	16,8	288	596
3 x 16	20,9	460,8	932
3 x 25	25,6	720	142
4 x 0,5	6,7	19,2	72
4 x 0,75	7,8	28,8	101
4 x 1	8,1	38,4	113
4 x 1,5	8,8	57,6	145
4 x 2,5	10,6	96	222
4 x 4	13,2	153,6	346
4 x 6	15,6	230,4	497

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
4 x 10	19,1	384	778
4 x 16	23,4	614,4	1197
4 x 25	28,6	960	1827
5 x 0,5	7,7	24	94
5 x 0,75	8,5	36	120
5 x 1	8,8	48	136
5 x 1,5	9,6	72	175
5 x 2,5	11,6	120	268
5 x 4	14,3	192	418
5 x 6	17,6	288	631
6 x 0,5	8,3	28,8	111
6 x 0,75	9,2	43,2	142
6 x 1	9,5	57,6	161
6 x 1,5	10,4	86,4	208
6 x 2,5	12,6	144	319
6 x 4	15,6	230,4	498
6 x 6	19,2	345,6	751
7 x 0,5	8,3	33,6	115
7 x 0,75	9,2	50,4	148
7 x 1	9,5	67,2	169
7 x 1,5	10,4	100,8	220
7 x 2,5	12,6	1680	339
7 x 4	15,6	2688	530
7 x 6	19,2	4032	799
10 x 1,5	14,2	1440	373
10 x 2,5	16,6	2400	546
12 x 1,5	14,6	1782	413

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
12 x 2,5	17,1	2880	609
14 x 1,5	15,4	201,6	465
16 x 1,5	16,2	230,4	520
18 x 1,5	17	259,2	579
19 x 1,5	17	273,6	591
20 x 1,5	18,6	288	676
24 x 1,5	20,4	345,6	811

Operating temperature:	-60°C + +180°C on the conductor
Rated voltage:	450/750V
Testing Voltage	2,5 kV
Current carrying capacity	Acc. DIN VDE, see technical sheet
Conductor material	Bare, tinned, Ni plated, Ag plated Cu, Ni, Ag strand
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Fluorinated Ethylene Propylene - FEP
Outer sheath (multicore)	Fluorinated Ethylene Propylene - FEP
Printing	On request
Max. temp. of short circuit:	200° C (max. 5 sec)

ETFE	-65°C +105°C
MFA	-100°C +240°C
PFA	-100°C +250°C
PTFE Lapped and sintered	-100°C +260°C

FEP cables are employed where insulations are subjected to extreme changes in temperature. Due to good resistance in all weather conditions these cables can also be employed at temperatures as low as - 60 °C. Recommended for internal wiring of appliances even if not totally enclosed and protected. Good resistance against substances like oils and chemical solvents. FEP cables are most suitable for power plants. They have become indispensable in a wide range of industrial cooking equipment, cement, glass and ceramic factories ship and aircraft construction.

Cable suitable for dry, humid or wet environments, where high and low temperature resistance is needed and/or resistance to chemical solutions. Very strong mechanical resistance and strong resistance to abrasion. Low dielectric constant.

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Lead free CEI 20-52
Customized versions on demand

Section	Nom. O.D.	Copper weight	Approx. Cable weight
mm²	mm	kg/km	kg/km
2x0.5	4,4	9,6	25,5
2x0.75	4,9	14,4	32,9
2x1	5,1	19,2	37,8
2x1.5	6,3	28,8	57,6
2x2.5	7,5	48	85,3
3x0.5	4,6	14,4	32,4
3x0.75	5,2	21,6	43,4
3x1	5,4	28,8	50,4
3x1.5	6,6	43,2	75,6
3x2.5	7,9	72	114
4x0.5	5,0	19,2	40,5
4x0.75	6,0	28,8	58,9
4x1	6,2	38,4	67,9
4x1.5	7,2	57,6	95,8
4x2.5	8,8	96	149
5x0.5	5,8	24	53,2
5x0.75	6,5	36	70,6
5x1	6,7	48	81,4
5x1.5	8,0	72	118
5x2.5	9,9	120	188
7x0.5	6,2	33,6	67,7
7x0.75	7,0	50,4	91,4
7x1	7,3	67,2	107
7x1.5	8,6	100,8	155
7x2.5	10,7	1680	249

CIVIL AND INDUSTRIAL CABLES



TECHNICAL FEATURES

Operating temperature	-10 °C ÷ +70 °C
Rated voltage	300/500V
Testing Voltage	2,0kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality TI2)
Core identification	Acc. to CEI UNEL 00722 / HD 308 / VDE-0293
Outer Sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Orange RAL 2004
Max. temp. of short circuit	250 °C (max. 5 sec)
Min. bending radius	Fixed 4 x cable Ø / mobile use 10 x cable Ø
Standards	CEI 20-22 II

APPLICATION

Hi-flex tool and and mobile connection cable. Ideal for garden use, power tools, workshops, garages or camping. High visibility orange cable

SPECIAL FEATURES

Flame retardant and self extinguishing CEI 20-35 / EN 60332-1

REMARKS

Conform to RoHS

Conform to 2006/95/EC - Guideline EC

Lead free CEI 20-52

[illegible]

PVC welding/battery cable



Operating temperature	-30 °C ÷ +70 °C / laying temp. +5 °C ÷ +70 °C
Rated voltage	450/750V
Testing Voltage	2,0 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Bare copper strand Ø 0,30 mm
Conductor Class	Class 5 and 6 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC Polyvinyl Chloride
Colour outer sheath	Black or Red
Printing	To be defined
Max. temp. of short circuit	160 °C (max. 5 sec)
Min. bending radius	Fixed 4 x cable Ø / mobile use 6 x cable Ø
Standards	Conform to 2006/95/EC - Guideline EC

PVC insulated welding cable suitable for mobile connection between welding equipment and electrodes or grounding clamps. 450/750 V for fixed installation and suitably protected.

Flame retardant CEI 20-35 / EN 60332-1

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Lead free CEI 20-52

The data and sketches of this technical leaflet are not binding and can be varied as a consequence of modifications and/or improvements deemed necessary by the manufacturer. Tolerances on weights and diameters $\pm 5\%$.



TECHNICAL FEATURES

Conductor:	Bare copper, class 2
Conductor screen	Black semiconductor layer (if necessary)
insulation:	XLPE
Insulation screen	Black semiconductor layer (if necessary)
Screen	Bare copper tape
Sheath material:	Polyvinyl Chloride (PVC) Colour: Black
Standards:	CEI ENN 50213 / FAA 150/5345-7E typeC

APPLICATION

In the medium voltage segment, XLPE insulation permits good cable performance at conductor's operating temperature as high as 90°C, and matches high current carrying capacity . This specific Airport cable is designed with concentric copper conductor extruded semi conductive layer Cross-linked polyethylene insulation, extruded semi conductive layer Copper tape shield, PVC jacket.

SPECIAL FEATURES

lead Free CEI 20-52
Conform to RoHS

REMARKS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Physical characteristics		
No. of cores	cores	1
Nom. cross-section	mm ²	16
Nom. conductor diameter	mm	4,80
Conductor screen	type	Black Semiconductive layer
Insulation material	type	XLPE
Nom. Insulation thickness	mm	2,3
Insulation colour	type	Natural/black
Insulation screen	mm	Black Semiconductive layer
Screen	type	Bare copper tape
Nom. cross-section of screen	mm ²	2,5
Sheath material	type	PVC
Nom. sheath thickness	mm	2,00
Nom. overall outer diameter	mm	16,80

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	1,16
Max. DC Resistance screen at 20°C	Ω/km	7,41

Miscellaneous

Operating temperature	°C	-40 / 90°C
Min bending radius	mm	235
Nominal cable weight	kg/km	504



Operating temperature	-40°C ÷ +90°C Max core temp. +120°C (20.000hrs)
Rated voltage	0,6/1,0 kV AC - 0,9/1,5 kV DC
Testing Voltage	6,5 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Tinned copper strand
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Halogen free Special Copolymer
Colour outer sheath	Halogen free Special Copolymer
Printing	To be defined
Max. temp. of short circuit	250 °C (max. 5 sec)
Min. bending radius	Fixed 4 x cable Ø / mobile use 6 x cable Ø
Standards	CEI EN 60332-1-2 EN 50396 - HD605/A1

Most favourable cabling in photovoltaic systems, for fixed laying and flexible applications with undefined cable routing. Suitable for use in dry and humid ambient. Outdoor use within temperature range, no laying underground

Min. 25 years life -cycle under direct solar radiation, 20.000h at 120°C
UV-resistant, halogen-free, ozon-resistant, resistant to seawater, resistant to
acid and base. flame-retardant

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Lead free CEI 20-52

[illegible]

CIVIL AND INDUSTRIAL CABLES

ROUND ROPES

CHARACTERISTICS

Section 0,04 ÷ 120 mm²
 Material Cu - SnCu - NiCu
 Strands 0,05 / 0,07 / 0,10 mm

Section mm ²	Strandings mm	N° of bunches	Diameter mm	Total weight kg/km 12%
0,04	21 x 0,05	1	0,26	0,4
0,05	26 x 0,05	1	0,3	0,47
0,1	51 x 0,05	1	0,4	0,93
0,14	72 x 0,05	2	0,5	1,35
0,2	102 x 0,05	2	0,6	1,9
0,25	128 x 0,05	3	0,7	2,4
0,35	180 x 0,05	3	0,8	3,3
0,5	256 x 0,05	4	1	4,7
0,75	384 x 0,05	4	1,2	7,3
1	512 x 0,05	4	1,5	9,8
1,5	302 x 0,07	7	1,9	14
2	525 x 0,07	7	2,2	20
2,5	651 x 0,07	7	2,4	24



ITALICAB round ropes are manufactured according to DIN 46438 specifications in untinned or tinned copper wire. The customer can request the right or left-hand pitch.

Section mm ²	Strandings mm	N° of bunches	Diameter mm	Total weight kg/km 12%
3,2	819 x 0,07	7	2,8	32
4	1036 x 0,07	7	3,1	39
4,5	1190 x 0,07	7	3,4	44
5,25	1372 x 0,07	7	3,6	51
6	1561 x 0,07	7	4	59
8	2100 x 0,07	7	4,6	79
10	2604 x 0,07	7	5	99
16	4200 x 0,07	7	6,5	158
25	3192 x 0,07	7	8,4	248
35	4480 x 0,07	7	10	350
50	6383 x 0,07	7	12	500
70	8918 x 0,07	7	12,8	700
120	15300 x 0,07	7	18	1190

ROUND BRAIDS

CHARACTERISTICS

Section 0,25 ÷ 25 mm²
 Material Cu - SnCu - NiCu
 Strands 0,05 / 0,07 mm



ITALICAB round braids are used as flexible continuous current carrying conductors as an alternative to flat braids for applications demanding a greater degree of flexibility. They are available in a wide range of sizes and may be multi-layered to increase their current carrying capacity. By changing the conductor strand size, it is possible to alter the level of flexibility of the braid whilst still maintaining the same cross-sectional area. Round braids are available with the option of a jacket, including zero-halogen, providing mechanical protection and electrical insulation.

Section mm ²	Rope diameter mm	Stranding mm
0,25	0,80	8 x 16 x 0,05
0,35	1,00	8 x 23 x 0,05
0,50	1,20	8 x 32 x 0,05
0,75	1,50	8 x 48 x 0,05
1,00	1,80	8 x 64 x 0,05
1,50	2,00	12 x 64 x 0,05
1,50	2,00	16 x 48 x 0,05
0,50	1,20	8 x 16 x 0,07
1,00	1,80	8 x 32 x 0,07
1,50	2,00	12 x 33 x 0,07

Section mm ²	Rope diameter mm	Stranding mm
2,00	2,30	12 x 44 x 0,07
2,50	2,50	12 x 54 x 0,07
4,00	2,90	12 x 42 x 0,10
6,00	3,60	12 x 64 x 0,10
8,00	4,10	12 x 85 x 0,10
10,00	4,50	12 x 106 x 0,10
12,00	5,00	12 x 127 x 0,10
16,00	5,50	12 x 170 x 0,10
25,00	7,30	12 x 265 x 0,10

SQUARE BRAIDS



CHARACTERISTICS

Section 0,25 ÷ 180 mm²
Material Cu - SnCu - NiCu
Strands 0,05 / 0,20 mm

Section	Wires dia.	Wires dia.	Wires dia.	Wires dia.	Wires dia.	Diameter
mm ²	0,05 mm	0,07 mm	0,10 mm	0,15 mm	0,20 mm	mm
0,25	8 x 16	8 x 8				0,7
0,35	8 x 24	8 x 12				1
0,5	8 x 32	8 x 16				1,2
0,75	8 x 48	8 x 24				1,4
1	8 x 64	8 x 32	8 x 16			1,5
1,25	8 x 80	8 x 40	8 x 20			1,65
1,5	8 x 96	8 x 48	8 x 24			1,8
2	8 x 128	8 x 64	8 x 32			2,1
3	8 x 192 / 12 x 128	8 x 96 / 12 x 64	12 x 32	12 x 15		2,8
4	8 x 256 / 12 x 170	8 x 128 / 12 x 88	12 x 44	12 x 19	8 x 16	3
5	8 x 320 / 12 x 212	8 x 160 / 12 x 108	12 x 54	12 x 24	8 x 20	3,8

ITALICAB square braids are produced, on request, in a shaped with four rounded edges, both in red copper and tinned copper. Square braids are available in a wide range of sizes and may be multi-layered to increase their current carrying capacity. By changing the conductor strand size, it is possible to change the level of flexibility of the braid whilst still maintaining the same cross-sectional area.

Section	Wires dia.	Wires dia.	Wires dia.	Wires dia.	Wires dia.	Diameter
mm ²	0,05 mm	0,07 mm	0,10 mm	0,15 mm	0,20 mm	mm
6	8 x 384 / 12 x 255	8 x 192 / 12 x 130	12 x 65	12 x 28	8 x 24	4
10	12 x 425	12 x 217	12 x 108	12 x 47	12 x 26	5,2
16	12 x 680	12 x 348	12 x 174	12 x 75	12 x 42	6,2
25	12 x 1062	12 x 542	12 x 265	12 x 117	12 x 66	8,2
50		12 x 1085	12 x 530	12 x 235	12 x 132	11
75			12 x 796	12 x 353	12 x 199	13,2
95			12 x 1008	12 x 448	12 x 252	15
100			12 x 1061	12 x 470	12 x 265	16
120			12 x 1270	12 x 565	12 x 318	18,4
150			12 x 1592	12 x 706	12 x 398	20
180			12 x 1910	12 x 847	12 x 477	22

FLAT BRAIDS



CHARACTERISTICS

Section 1 ÷ 350 mm²
Material Cu - SnCu - NiCu
Strands 0,05 / 0,20 mm

ITALICAB flat braids are used as continuous current carrying conductors and are utilised in the manufacture of heart bonding leads. They are available in a wide range of sizes and may be multi-layered to increase their current carrying capacity. By changing the conductor strand size, it is possible to change the level of flexibility of the braid whilst still maintaining the same cross-sectional area.

Section	Wires dia.	Wires dia.	Wires dia.	Wires dia.	Wires dia.	Diameter
mm ²	0,05 mm	0,07 mm	0,10 mm	0,15 mm	0,20 mm	mm
1	12 x 43	12 x 22	12 x 10			2 x 1
2	16 x 64	12 x 43	24 x 10			3 x 1
3	16 x 95	24 x 32	24 x 16			5 x 1
4	16 x 85	24 x 43	24 x 21		32 x 4	6 x 1
5	24 x 106	24 x 54	32 x 20	32 x 9	32 x 5	8 x 1
6	24 x 95	24 x 65	32 x 24	32 x 11	32 x 6	9 x 1
8	32 x 127	32 x 65	32 x 32	32 x 14	32 x 8	8 x 1,6
10	32 x 160	32 x 81	32 x 40	32 x 18	32 x 10	10 x 1,6
12	32 x 191	32 x 97	32 x 48	32 x 21	32 x 12	12 x 1,6
16	32 x 255	32 x 130	32 x 64	32 x 28	32 x 16	15 x 2
20	32 x 318	32 x 160	32 x 80	32 x 35	32 x 20	20 x 2
25	32 x 398	32 x 202	32 x 100	32 x 44	32 x 25	20 x 2,2
30	32 x 478	32 x 244	32 x 120	32 x 53	32 x 30	25 x 2,4

Section	Wires dia.	Wires dia.	Wires dia.	Wires dia.	Wires dia.	Diameter
mm ²	0,05 mm	0,07 mm	0,10 mm	0,15 mm	0,20 mm	mm
35	32 x 558	32 x 284	32 x 140	32 x 62	32 x 35	25 x 2,8
40			32 x 160	32 x 70	32 x 40	25 x 3
50	32 x 797	32 x 406	32 x 200	32 x 88	32 x 50	30 x 3,4
70			32 x 280	32 x 124	32 x 70	30 x 5
75			32 x 300	32 x 132	32 x 75	30 x 5
100			32 x 400	32 x 176	32 x 100	35 x 5,6
120			32 x 480	32 x 211	32 x 120	35 x 6
150			32 x 600	32 x 264	32 x 150	40 x 7,5
175					32 x 175	40 x 8
200					32 x 200	45 x 8,5
250					32 x 250	50 x 10
300					32 x 300	50 x 12
350					32 x 350	60 x 11,5

BRAIDS CONNECTORS



CHARACTERISTICS

Section	1 ÷ 350 mm ²
Material	Cu - SnCu - NiCu
Strands	0,05 / 0,20 mm

ITALICAB offers an extensive range of flexible braid connectors and earth bonding leads. By selecting the correct flat or round braid it is possible to create a connector with a specific temperature rating, corrosion resistance, weight, flexibility and current carrying capacity. Changing the strand size or the construction of the braid can alter the flexibility of a connector; finer strands generally offering the greatest flexibility.

COPPER EARTHING CABLE - ESUY



CHARACTERISTICS

Section	16 ÷ 120 mm ²
Material	Cu - SnCu - NiCu
Insulation	transparent silicon / PVC
Strands	0,05 / 0,20 mm

ITALICAB copper earthing cable perform a protective function in repair work. They are used for earthing current-carrying parts in high voltage power installations of the electricity supply companies and railways systems. Due to their high flexibility, our earthing cables are also suitable for earthing systems and equipotential systems on machine parts and data processing systems.

Section	Stranding	Total diameter	Total insulated diameter
		mm	mm
16	4200 x 0,07	6	8,5
16	2103 x 0,1	6	8,5
25	3192 x 0,1	7,5	9,8
35	4480 x 0,1	9	11,6
50	6383 x 0,1	10,5	13,8
70	8918 x 0,1	12,5	15,8
95	12100 x 0,1	15,5	18,1
120	15300 x 0,1	17	21

In order to quote to your requirement, please supply us the following information:

FOR ROUND ROPES

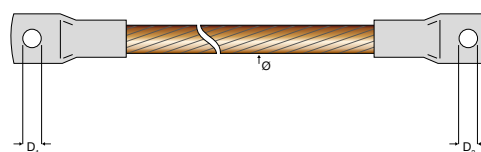
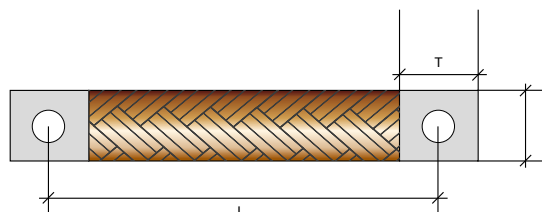
Diameter of copper strand? We can supply from 0,05 to 0,40 mm
Type of copper? We can supply red or tinned copper
Cross-section? We can supply from 0,25 mm² to 1000 mm²

FOR FLAT, ROUND OR SQUARE BRAID

Diameter of copper strand? We can supply from 0,05 mm to 0,40 mm
Type of copper? We can supply red or tinned copper
Cross-section? We can supply from 0,25 mm² to 1000 mm²

FOR FLAT, ROUND OR SQUARE BRAID CONNECTIONS

Diameter of copper strand? We can supply from 0,05 mm to 0,40 mm
Type of copper? We can supply red or tinned copper
Cross-section? We can supply from 0,25 mm² to 1000 mm²
Size of flat connection lug: (T, J) or any special round lug requirement
Length of braid connection: (L)
Diameter of hole (Ø)



TELEPHONE ALARM AND INTERPHONE CABLES



TR/R - TR/HR

Italian telephone cables and twisted pair unsheathed



TECHNICAL FEATURES

Operating temperature	-10 °C ÷ +70 °C
Conductor material	Solid tinned copper diam. 0,60mm
Core insulation	Thermoplastic material based PVC (quality TI2)
Core identification	According to colour code table CEI 46-5
Outer sheath material	Thermoplastic material based PVC (quality TM2)
Shield	Polyester tape, drain wire TC and Al/Polyester tape
Colour out sheath	Grey RAL 7001
Max. resistance in AC at 20°C	67,9 Ohm/km
Min. insulation resistance	500 Mohm/km
Test voltage in AC	1kV at 50Hz
Test voltage in DC	1,5kV
Max. mutual cap. at 800Hz	120 nF/km
Capacity range	400 pF/500mt

APPLICATION

Telephone cables for internal systems, isolated with a special PVC compound in accordance with flame propagation test CEI 20-22 that guarantees a reduced emission of toxic and corrosive gases.

SPECIAL FEATURES

Flame retardant and self extinguishing CEI 20-35 / EN 60332-1

Flame retardant and low toxic smoke CEI 20-22

Lead free CEI 20-52

According to CEI 46-5 and IEC 60189-2

REMARKS

Conform to RoHS

Conform to 2006/95/EC - Guideline EC

0,60mm		TR/R unshielded	TR/HR shielded
n° pairs	min. sheath thickness	Max. Outer diameter mm	Max. Outer diameter mm
1	0,6	4,8	5,3
1+E	0,6	5	5,5
2	0,6	5,5	6,0
2+E	0,6	6,0	6,5
3	0,6	6,5	7,0
3+E	0,6	6,5	//
4	0,6	6,5	7,0
4+E	0,6	6,8	//
5	0,6	7,0	7,5
5+E	0,6	7,0	//
6	0,6	7,5	//
6+E	0,6	7,5	//
8	0,6	8,0	8,5
8+E	0,6	8,0	//
11	0,7	10	10,5
11+E	0,7	10	//
16	0,8	11	11,5
16+E	0,8	11	//
21	0,8	13	13,5
21+E	0,8	13	//
Twisted pair unshielded	Colours	Insulated conductor diameter mm	
TR 2x0,6 mm	white-red	1,3	

The outer diameters indicated are nominal values of production



Operating temperature:	-30 °C ÷ +70 °C
Rated voltage	0,22 mm² 150 V / 0,5 -0,75 mm² 250 V / 1,0 - 1,5 mm² 300/500 V
Testing voltage	1,5 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Bare copper
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality T12)
Core identification	Acc. to alarm cables table
Separator tape	Polyester foil
Drain cable	Bare copper 7x0,18 mm
Screening	Aluminium/Polyester tape
Outer Sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	White RAL 9003
Printing	To be defined
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	Fixed 4 x cable Ø / mobile 10 x cable Ø
Standards	CEI 20-20 / 20-22 II

Alarm cable with electrostatic shield for alarm systems for lossless transmission of data and signals. Suitable for fixed laying in dry and humid rooms, on-wall and in-wall, outdoor use, no laying underground. Alarm cables are not designed for high voltage purposes and are not suitable for laying underground. The different Grade allow to use the cables together with other cables having tension 220 or 380 V

Shielded by aluminium foil-clad
Free from lacquer damaging substances and silicone (during production)
Also available in LSOH (zero halogen) version

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
We are pleased to produce special versions, other dimensions, core and jacket colours on request

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TELEPHONE, ALARM AND INTERPHONE CABLES

J-Y(St)Y J-H(St)H

Telephone and Alarm cables
BMK Fire Alarm Cable



TECHNICAL FEATURES

Operating temperature:	-30 °C ÷ +70 °C
Rated voltage	300 V
Testing voltage	800 V
Current carrying capacity	Acc. to DIN VDE, s. Techn. Guidelines
Conductor material	Solid Bare copper
Conductor class	Wire-Ø 0,6 mm (0,28 mm²), wire-Ø 0,8 mm (0,50 mm²)
Core insulation	Thermoplastic material based PVC (quality TI2)
Core identification	Acc. to DIN VDE 0815 different colours
Min. bending radius	Fixed 7,5 x cable Ø / mobile use 10 x cable Ø
Overall shield	Pol. Tape, drain wire tinned copper and Al/Pol. tape
Outer sheath	Thermoplastic material based PVC (quality TM2)
Sheath colour	Grey RAL 7001
Burning behavior	Self-extinguishing & flame-retardant acc. to IEC 60332-1
Standard	Acc. to DIN VDE 0815

APPLICATION

Installation cable with electrostatic shield for telecommunication and IT-system for lossless transmission of datas and signals. Suitable for fixed laying in dry and humid rooms, on-wall and in-wall, outdoor use, no laying underground. Installation cables are not designed for high voltage purposes and are not suitable for laying underground

SPECIAL FEATURES

Shielded by aluminium foil-tape

Pairs stranded in layers (Lg)

Free from lacquer damaging substances and silicone (during production)

Available: J-Y(St)Y BMK as fire alarm cable with red RAL3000 outer sheath

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

We are pleased to produce special versions, other dimensions, core and jacket colours on request

[illegible]

Interphone cables



TECHNICAL FEATURES

Operating temperature:	-10 °C ÷ +70 °C
Rated voltage	300/500 V
Testing voltage	1,5 kV
Conductor material	Flexible bare copper Cl.5
Core insulation	Thermoplastic material based PVC (quality TI2)
Cores identification	Acc. to DIN 47100
Outer sheath material	Thermoplastic material based PVC (quality TM2)
Current carrying capacity	CEI -UNEL 35024
Printing	To be defined
Min. bending radius:	10 x cable Ø
Colour outer sheath	Grey RAL 7001
Standards	CEI 20-29, 20-20, 20-22 II
	EN/IEC 60332-1

APPLICATION

Cables for interphonic systems and for signalling, control and command systems. Suitable for fixed laying in pipes and tubes, no on-wall and in-wall. Suitable for use in dry and humid rooms.

Outdoor use only with UV- protection, no laying underground

SPECIAL FEATURES

Free from laquer damaging substances and silicone (during production)

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Customized versions on demand

[illegible]

The data and sketches of this technical leaflet are not binding and can be varied as a consequence of modifications and/or improvements deemed necessary by the manufacturer. Tolerances on weights and diameters $\pm 5\%$.

MULTICORE INSTALLATION AND CONTROL CABLES



FROR
FROH2R
YSLY - HSLH
YSLCY - HSLCH
YSLY-CY HSLH-CH



TECHNICAL FEATURES

Operating temperature	-10 °C + +70 °C / laying temp. + 5 °C + +70 °C
Rated voltage	300/500 V or 450/750 V
Testing Voltage	2,0 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Bare copper strand Cl.5 > 1,00mm ²
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality TI2)
Core identification	DIN 47100 < 0,75mm ² / UNEL HD 308 > 0,75mm ²
Outer Sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Grey RAL 7035
Printing	Acc. to IMQ standards
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	Fixed 4 x cable Ø / mobile 10 x cable Ø
Standards	CEI 20-20 / 20-22 II / 20-29 / 20-34 / CEI 20-35 (EN 60332-1) 20-37 pt.2 (EN 50267) 20-52 35376 - 35377

APPLICATION

Suitable for mobile and fixed installations. In low voltage circuits, signal and control. Particularly suitable for construction sites, trade shows and connections of mobile equipment. Can be laid inside dry or wet rooms and outdoors for temporary use.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1)
Low smoke and reduced corrosive gas emission CEI 20-37 pt.2
Good water and rain resistance
Lead free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Customized version on demand
Also available in Halogen-free, screened and armoured

Section	Nom. O.D.	Copper weight	Approx. Cable weight	Section	Nom. O.D.	Copper weight	Approx. Cable weight
mm²	mm	kg/km	kg/km	mm²	mm	kg/km	kg/km
Control 300/500V				Installation 450/750V			
2 x 0,75	4,8	14,4	49	2 x 1,00	7,0	19,2	60
3 x 0,75	5,3	21,6	59	3 x 1,00	7,5	28,8	72
4 x 0,75	5,8	28,8	70	4 x 1,00	8,0	38,4	85
5 x 0,75	6,5	36	85	5 x 1,00	9,0	48	105
7 x 0,75	6,8	50,4	107	7 x 1,00	9,5	67,2	135
12 x 0,75	8,6	86,4	191	10 x 1,00	11,4	96	197
19 x 0,75	10,6	136,8	294	12 x 1,00	12,5	115,2	220
25 x 0,75	12,2	180	410				
				2 x 1,50	8,0	28,8	88
				3 x 1,50	8,4	43,2	98
				4 x 1,50	9,0	57,6	130
				5 x 1,50	10,0	72	150
				7 x 1,50	10,40	100,8	200
				10 x 1,50	12,8	144	300
				12 x 1,50	13,8	172,8	320
				2 x 2,50	9,4	48	115
				3 x 2,50	10	72	154
				4 x 2,50	11	96	197
				5 x 2,50	11,5	120	230
				7 x 2,50	12,2	168	300
				2 x 4,00	9,5	76,8	180
				3 x 4,00	10,8	115,2	233
				4 x 4,00	12	153,6	286

FROH2R
Cu/PVC/PVC screened



TECHNICAL FEATURES

Operating temperature	-10 °C ÷ +70 °C / laying temp. + 5 °C ÷ +70 °C
Rated voltage	300/500 V or 450/750 V
Testing Voltage	2,0 kV
Current carrying capacity	Acc. to DIN VDE 0295 resp IEC 60228
Conductor material	Bare copper strand Cl.5 > 1,00mm ²
Conductor Class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality T12)
Core identification	DIN 47100 < 0,75mm ² / UNEL 007722 HD 308 > 0,75mm ²
Tape separator	Polyester foil
Screening	Bare copper braid coverage > 70%
Outer Sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Grey RAL 7035
Printing	Acc. to IMQ standards
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	Fixed 4 x cable Ø / mobile 10 x cable Ø
Standards	CEI 20-20 / 20-22 II / 20-29 / 20-34 / CEI 20-35 (EN 60332-1) 20-37 pt.2 (EN 50267) 20-52 35376 - 35377

APPLICATION

Suitable for mobile and fixed installations. In low voltage circuits, signal and control. Particularly suitable for construction sites, trade shows and connections of mobile equipment. Can be laid inside dry or wet rooms and outdoors for temporary use.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1)

Low smoke and reduced corrosive gas emission CEI 20-37 pt.2

Good water and rain resistance

Lead free CEI 20-52

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Customized versions on demand

Also available in Halogen-free, screened and armoured

[illegible]

YSLY - HSLH

Cu/PVC/PVC - Cu/LSOH/LSOH



TECHNICAL FEATURES

Operating temperature	-5 °C ÷ +70 °C
Rated voltage	300/500 V
Testing voltage	3,0 kV
Current carrying capacity	Acc. DIN VDE, see technical sheet
Conductor material	Bare copper strand
Conductor class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality T12)
Core identification	Black, white numbered (with Y/G on request)
Outer sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Grey RAL 7001
Printing	To be defined
Max. temp. of short circuit	150 °C (max. 5 sec)
Standards	IEC 60331-1, EN 50265-2-1
Other versions	HSLH low smoke zero halogen (LSOH)
Burning behavior	PVC self-extinguishing and flame retardant, according to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1

APPLICATION

YSLY flexible cables are used for medium mechanical stress but tensile stress must be avoided. These cables are suitable for dry, moist and wet areas, but are not designed for open-air application. These cables are applicable in measuring and controlling technics, production lines, airconditioning etc.

SPECIAL FEATURES

Free from laquer damaging substances and silicone (during production)

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Customized versions on demand

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2x0,5	4,8	9,6	36
3x0,5	5,1	14,4	42
4x0,5	5,7	19,2	55
5x0,5	6,2	24	65
6x0,5	6,8	28,8	77
7x0,5	6,8	33,6	80
8x0,5	8	38,4	103
10x0,5	8,6	48	112
12x0,5	8,9	57,6	128
14x0,5	9,5	67,2	150
16x0,5	10	76,8	169
18x0,5	10,6	86,4	189
21x0,5	11,4	100,8	217
24x0,5	12,5	115,2	245
25x0,5	12,8	120	260
27x0,5	12,8	129,6	269
30x0,5	13,2	144	294
32x0,5	14,7	153,6	332
34x0,5	14,7	163,2	366
37x0,5	14,7	177,6	380
2x0,75	5,4	14,4	47
3x0,75	5,7	21,6	56
4x0,75	6,2	36	83
5x0,75	6,8	36	83
6x0,75	7,4	43,2	98
7x0,75	7,4	50,4	104
8x0,75	8,7	57,6	132
10x0,75	9,6	72	149
12x0,75	9,9	86,4	172
14x0,75	10,6	100,8	200
16x0,75	11,2	115,2	226
18x0,75	11,8	129,6	252
21x0,75	12,6	151,2	283
24x0,75	14,1	172,8	326
25x0,75	14,4	180	352
27x0,75	14,4	194,4	366
30x0,75	15,1	216	407
32x0,75	15,7	230,4	445
34x0,75	16,3	244,8	466
37x0,75	16,3	266,4	487

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2x1,0	5,7	19,2	55
3x1,0	6	28,8	67
4x1,0	6,6	38,4	83
5x1,0	7,2	48	100
6x1,0	8	57,6	122
7x1,0	8	67,2	130
8x1,0	9,5	76,8	164
10x1,0	10,3	96	183
12x1,0	10,6	115,2	212
14x1,0	11,3	134,4	243
16x1,0	11,9	153,6	275
18x1,0	12,7	172,8	314
21x1,0	13,5	201,6	353
24x1,0	15	230,4	406
25x1,0	15,3	240	429
27x1,0	15,3	259,2	448
30x1,0	16,1	288	498
32x1,0	16,7	307,2	544
34x1,0	17,3	326,4	570
37x1,0	17,3	355,2	598
2x1,5	6,3	28,8	72
3x1,5	6,7	43,2	88
4x1,5	7,3	57,6	110
5x1,5	8,1	72	135
6x1,5	8,9	86,4	163
7x1,5	8,9	100,8	174
8x1,5	10,7	115,2	223
10x1,5	11,6	144	250
12x1,5	12	172,8	289
14x1,5	12,7	201,6	333
16x1,5	13,4	230,4	377
18x1,5	14,4	259,2	433
21x1,5	15,5	302,4	497
24x1,5	17	345,6	565
25x1,5	17,4	360	596
27x1,5	17,4	388,8	624
30x1,5	18,1	432	684
32x1,5	18,8	460,8	746
34x1,5	19,6	489,6	786
37x1,5	19,6	532,8	829

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2x2,5	7,6	48	110
3x2,5	8,1	72	137
4x2,5	8,9	96	174
5x2,5	10	120	217
6x2,5	11,1	144	263
7x2,5	11,1	168	283
8x2,5	13,2	192	389
10x2,5	14,4	240	389
12x2,5	14,9	288	467
14x2,5	15,8	336	538
16x2,5	16,9	384	623
18x2,5	17,8	432	696
3x4	9,9	115,2	213
4x4	10,8	153,6	267
5x4	12,1	192	331
7x4	13,4	268,8	432
8x4	16,1	307,2	552
12x4	18,1	460,8	722
2x6	10,8	115,2	240
3x6	11,7	172,8	303
4x6	13	230,4	388
5x6	14,5	288	480
7x6	16	403,2	626
21x2,5	18,9	504	788
25x2,5	21,3	600	969
34x2,5	24,4	816	1352
2x4	9,5	76,8	174
3x4	9,9	115,2	213
4x4	10,8	153,6	267
5x4	12,1	192	331
7x4	13,4	268,8	432
8x4	16,1	307,2	552
12x4	18,1	460,8	722
2x6	10,8	115,2	240
3x6	11,7	172,8	303
4x6	13	230,4	388
5x6	14,5	288	480
7x6	16	403,2	626
21x2,5	18,9	504	788
25x2,5	21,3	600	969
34x2,5	24,4	816	1352
2x4	9,5	76,8	174
3x4	9,9	115,2	213
4x4	10,8	153,6	267
5x4	12,1	192	331
7x4	13,4	268,8	432
8x4	16,1	307,2	552
12x4	18,1	460,8	722
2x6	10,8	115,2	240
3x6	11,7	172,8	303
4x6	13	230,4	388
5x6	14,5	288	480
7x6	16	403,2	626

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2x10	13,7	192	380
3x10	14,6	288	482
4x10	16,2	384	616
5x10	18,1	480	766
7x10	20	672	999
25x2,5	21,3	600	969
34x2,5	24,4	816	1352
2x4	9,5	76,8	174
3x4	9,9	115,2	213
4x4	10,8	153,6	267
5x4	12,1	192	331
7x4	13,4	268,8	432
8x4	16,1	307,2	552
12x4	18,1	460,8	722
2x6	10,8	115,2	240
3x6	11,7	172,8	303
4x6	13	230,4	388
5x6	14,5	288	480
7x6	16	403,2	626
2x10	13,7	192	380
3x10	14,6	288	482
4x10	16,2	384	616
5x10	18,1	480	766
7x10	20	672	999
2x16	16,2	307,2	560
3x16	17,3	460,8	718
4x16	18,9	614,4	908
5x16	21,2	768	1134
7x16	23,4	1075,2	1485
4x25	23,6	960	1411
5x25	26,4	1200	1756
4x35	27,3	1344	1941
5x35	30,5	1680	2410
4x50	32,3	1920	2727
5x50	36	2400	3383

YSLCY - HSLCH

Cu/PVC/PVC screened



TECHNICAL FEATURES

Operating temperature	-5 °C ÷ +80 °C (-40 °C fix inst.)
Rated voltage	300/500 V
Testing voltage	4,0 kV
Current carrying capacity	Acc. DIN VDE, see technical sheet
Conductor material	Bare copper strand
Conductor class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality TI2)
Core identification	Black, white numbered (with Y/G on request)
Separator	Polyester Tape
Screening	Tin copper braid coverage > 80%
Outer sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Grey RAL 7001
Printing	To be defined
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	4 x cable Ø
Standards	IEC 60331-1, EN 50265-2-1

APPLICATION

For the electrical connection of components of production machines and machine tools if a certain amount of electronic screening is required. Shows some resistance to all-purpose mineral oil and is not designed for permanent usage in oil baths. The cable is designed for use within buildings and should be installed with mechanical protection

SPECIAL FEATURES

Free from laquer damaging substances and silicone (during production)

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Customized versions on demand

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2x0,5	5,8	29	51
3x0,5	6,1	39	61
4x0,5	6,5	49	72
5x0,5	7	57	85
6x0,5	7,6	66	99
7x0,5	7,6	69	103
8x0,5	9,1	82	138
10x0,5	9,6	90	147
12x0,5	9,9	104	165
14x0,5	10,4	122	186
16x0,5	11	129	214
18x0,5	11,6	141	236
21x0,5	12,5	168	268
24x0,5	13,4	190	300
25x0,5	13,6	211	314
27x0,5	13,6	224	324
30x0,5	15,1	144	309
32x0,5	15,2	251	401
34x0,5	15,8	266	419
37x0,5	15,8	283	433
2x0,75	6,2	43	60
3x0,75	6,5	52	77
4x0,75	7	61	87
5x0,75	7,7	72	106
6x0,75	8,3	80	124
7x0,75	8,3	89	129
8x0,75	9,8	98	172
10x0,75	10,4	115	184
12x0,75	10,9	138	211
14x0,75	11,5	144	239
16x0,75	12,1	172	268
18x0,75	12,7	211	307
21x0,75	13,8	237	344
24x0,75	14,8	250	393
25x0,75	15	280	413
27x0,75	15	290	427
30x0,75	15,9	317	466
32x0,75	16,5	330	508

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
34x0,75	17,2	350	542
37x0,75	17,2	376	561
2x1,0	6,5	51	79
3x1,0	6,8	62	88
4x1,0	7,4	74	106
5x1,0	8,1	88	124
6x1,0	8,8	105	147
7x1,0	8,8	112	155
8x1,0	10,3	130	196
10x1,0	11,2	138	221
12x1,0	11,5	185	250
14x1,0	12,2	198	284
16x1,0	12,8	203	320
18x1,0	13,8	268	368
20x1,0	14,6	290	408
24x1,0	15,9	340	470
25x1,0	16,1	354	493
27x1,0	16,1	372	512
30x1,0	17,1	404	565
32x1,0	17,7	422	614
34x1,0	18,5	440	654
37x1,0	18,5	472	681
2x1,5	7,1	65	91
3x1,5	7,5	82	112
4x1,5	8,2	100	141
5x1,5	8,9	119	161
6x1,5	9,9	138	194
7x1,5	9,9	154	206
8x1,5	11,6	172	266
10x1,5	12,6	193	297
12x1,5	13	268	355
14x1,5	13,9	303	408
16x1,5	14,6	339	458
18x1,5	15,5	373	517
20x1,5	16,5	385	582
24x1,5	17,9	506	672
25x1,5	18,1	530	705
27x1,5	18,1	562	734

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
30x1,5	19,5	634	830
32x1,5	20,2	656	858
34x1,5	21	683	909
37x1,5	21	734	952
2x2,5	8,3	96	128
3x2,5	9	118	157
4x2,5	9,9	147	201
5x2,5	11	176	248
6x2,5	11,9	214	293
7x2,5	11,9	253	313
8x2,5	14,4	283	410
10x2,5	15,4	335	457
12x2,5	15,9	385	524
14x2,5	16,8	440	594
16x2,5	17,7	488	680
18x2,5	19	565	781
21x2,5	20,2	656	899
25x2,5	22,1	773	1091
34x2,5	25,6	1028	1501
2x4	10	135	190
3x4	10,7	178	231
4x4	11,7	248	291
5x4	12,9	269	361
7x4	14,2	371	468
8x4	16,8	423	591
12x4	19,3	634	796
2x6	11,7	175	251
3x6	12,5	240	318
4x6	13,9	343	437
5x6	15,4	441	510
7x6	16,9	510	662

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2x10	14,7	265	367
3x10	15,7	350	491
4x10	17,4	535	685
5x10	19,5	592	824
7x10	21,5	820	1067
2x10	14,7	265	367
3x10	15,7	350	491
4x10	17,4	535	685
5x10	19,5	592	824
7x10	21,5	820	1067
2x16	16,9	390	517
3x16	18,2	590	711
4x16	20,6	800	972
5x16	22,7	1050	1287
7x16	24,9	1470	1730
4x25	25,3	1075	1443
5x25	28,3	1446	1820
4x35	29,4	1620	1986
5x35	32,8	2006	2494
4x50	35,9	2288	2774
5x50	40	2836	3492

YSLY-CY HSLH-CH

Cu/PVC/PVC double sheath screened



TECHNICAL FEATURES

Operating temperature	Fixed -40 °C ÷ +80 °C / mobile use -5 °C ÷ +80 °C
Operating voltage	300/500 V
Nominal voltage	0,6/1kV
Testing voltage	4,0 kV
Current carrying capacity	Acc. DIN VDE, see technical sheet
Conductor material	Bare copper strand
Conductor class	Class 5 DIN VDE 0295 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality T12)
Outer sheath material	PVC compound type TM2
Screening	Tin copper braid coverage > 80%
Core identification	Black, white numbered (with Y/G on request)
Colour outer sheath	Grey RAL 7001
Printing	To be defined
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	10 x cable Ø
Standards	VDE 0281 and 0250

APPLICATION

Multipolar cables suitable for connection to fixed and mobile without tensile stress. Used for signaling systems and control and where you need a good protection against electromagnetic interference. Recommended for indoor dry or wet. Not recommended for outdoor use

SPECIAL FEATURES

Free from laquer damaging substances and silicone (during production)

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Customized versions on demand

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km	Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2x0,5	7,0	41,0	80	2x1,5	8,5	77,0	127
3x0,5	7,3	45,5	88	3x1,5	8,9	85,0	146
4x0,5	7,9	55,0	104	4x1,5	9,5	100,0	170
5x0,5	8,4	66,0	118	5x1,5	10,4	120,0	203
7x0,5	9,0	80,5	136	7x1,5	11,3	162,0	249
12x0,5	11,3	133,0	203	12x1,5	14,7	267,0	395
18x0,5	13,3	156,4	281	18x1,5	17,1	389,0	549
25x0,5	15,2	241,0	367	25x1,5	20,1	535,0	757
34x0,5	17,2	288,0	471	34x1,5	22,5	702,0	976
2x0,75	7,4	45,0	92	2x2,5	9,7	96,0	172
3x0,75	7,9	52,0	107	3x2,5	10,2	121,0	201
4x0,75	8,4	64,0	122	4x2,5	11,3	163,0	250
5x0,75	9,0	77,4	139	5x2,5	12,6	199,0	305
7x0,75	9,7	92,0	166	7x2,5	13,9	261,0	385
12x0,75	12,3	177,0	253	12x2,5	17,4	470,0	581
18x0,75	14,5	243,0	352				
25x0,75	16,6	307,3	462	4x4	13,3	238,0	357
34x0,75	19,0	420,0	615	5x4	14,6	279,0	427
2x1,0	7,9	50,0	106	4x6	15,7	318,0	501
3x1,0	8,2	65,3	120	5x6	17,2	387,0	600
4x1,0	8,8	78,1	138				
5x1,0	9,5	90,0	161	4x10	19,0	558,0	762
7x1,0	10,2	113,3	193	5x10	20,8	674,0	915
12x1,0	13,3	194,0	307				
18x1,0	15,4	286,0	420	4x16	22,2	804,0	1104
25x1,0	17,5	388,5	545	5x16	24,3	977,0	1330
34x1,0	20,3	516,0	743				

DATA, SIGNAL AND CONTROL CABLES



LIYY - LIHH
LIY-CY LIH-CH
LIYY PAAR LIHH PAAR
LIYCY PAAR LIHCH PAAR



TECHNICAL FEATURES

Operating temperature	-15 °C ÷ +70 °C (-40 °C fixed inst.)
Rated voltage	250 V
Testing voltage	2,0 kV
Current carrying capacity	Acc. DIN VDE, see technical sheet
Conductor material	Bare copper flexible
Conductor class	Class 5 DIN VDE 0812 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality T12)
Core identification	Acc. to DIN 47100
Outer sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Grey RAL 7001
Printing	To be defined
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	DIN VDE 0298 part 3
Other versions	LIHH Low Smoke Zero Halogen (LSOH)
Standards	IEC 60332-1, EN50265 -2-1, IEC 60332-3C, HD 405.3, IEC 70754-1, EN 50267-2-1, IEC 61034, EN 50268-2 LT > 60%

APPLICATION

Data transmission cable, control and connecting cable mainly for transmission of analog and digital signals in process controlled facilities in measurement and control technology. For fixed laying and flexible applications with undefined cable routing and without tensile stress. Suitable for use in dry and humid rooms.

Outdoor use only with UV-protection, no laying underground

SPECIAL FEATURES

Free from laquer damaging substances and silicone (during production)

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Customized versions on demand

Section		Nom. O.D.	Copper weight	Approx. Cable weight
mm ²	mm	kg/km	kg/km	
2	x 0,14	3,2	2,7	14
3	x 0,14	3,4	4	16
4	x 0,14	3,6	5,4	19
5	x 0,14	3,9	6,7	23
6	x 0,14	4,2	8,1	27
7	x 0,14	4,2	9,4	28
8	x 0,14	4,8	10,8	34
10	x 0,14	5,4	13,4	40
12	x 0,14	5,6	16,1	45
14	x 0,14	5,8	18,8	51
16	x 0,14	6,3	21,5	60
18	x 0,14	6,6	24,2	66
20	x 0,14	7	26,9	73
21	x 0,14	7	28,2	74
24	x 0,14	7,6	32,3	82
25	x 0,14	7,8	33,6	89
27	x 0,14	7,8	36,3	90
28	x 0,14	8	37,6	95
30	x 0,14	8	40,3	98
32	x 0,14	8,3	43	108
36	x 0,14	8,6	48,4	115
8	x 0,25	6	19,2	54
10	x 0,25	6,8	24	65
12	x 0,25	7	28,8	74
14	x 0,25	7,3	33,6	83
16	x 0,25	7,7	38,4	94
18	x 0,25	8,1	43,2	104

Section		Nom. O.D.	Copper weight	Approx. Cable weight
mm ²	mm	kg/km	kg/km	
20	x 0,25	8,6	48	114
21	x 0,25	8,6	50,4	116
24	x 0,25	9,8	57,6	140
25	x 0,25	10	60	148
27	x 0,25	10	64,8	153
28	x 0,25	10,3	67,2	161
30	x 0,25	10,3	72	166
32	x 0,25	10,7	76,8	183
36	x 0,25	11,1	86,4	196
2	x 0,34	4,2	6,5	26
3	x 0,34	4,4	9,8	31
4	x 0,34	5	13,1	39
5	x 0,34	5,5	16,3	48
6	x 0,34	6,1	19,6	58
7	x 0,34	6,1	22,8	61
8	x 0,34	6,7	26,1	69
10	x 0,34	7,6	32,6	83
12	x 0,34	7,8	39,2	95
14	x 0,34	8,2	45,7	107
16	x 0,34	8,7	52,2	121
18	x 0,34	9,1	58,8	135
20	x 0,34	10,1	65,3	158
21	x 0,34	10,1	68,5	161
24	x 0,34	11	78,3	180
25	x 0,34	11,2	81,6	192
27	x 0,34	11,2	88,1	198
28	x 0,34	11,6	91,4	209

Section		Nom. O.D.	Copper weight	Approx. Cable weight
mm ²	mm	kg/km	kg/km	
30	x 0,34	11,6	97,9	215
32	x 0,34	12,1	104,4	238
36	x 0,34	12,5	117,5	255
2	x 0,50	4,8	9,6	36
3	x 0,50	5,1	14,4	42
4	x 0,50	5,7	19,2	55
5	x 0,50	6,2	24,0	65
6	x 0,50	6,8	28,8	77
7	x 0,50	6,8	33,6	80
8	x 0,50	8	38,4	103
10	x 0,50	8,6	48,0	112
12	x 0,50	8,9	57,6	128
14	x 0,50	9,5	67,2	150
16	x 0,50	10	76,8	169
18	x 0,50	10,6	86,4	189
21	x 0,50	11,4	100,8	217
25	x 0,50	12,8	120,0	260
2	x 0,75	5,4	14,4	47
3	x 0,75	5,7	21,6	56
4	x 0,75	6,2	28,8	69
5	x 0,75	6,8	36,0	83
6	x 0,75	7,4	43,2	98
7	x 0,75	7,4	50,4	104
8	x 0,75	8,7	57,6	132
10	x 0,75	9,6	72,0	149
12	x 0,75	9,9	86,4	172

LIY-CY LIH-CH

Cu/PVC/PVC screened



TECHNICAL FEATURES

Operating temperature	-15 °C ÷ +70 °C (-40 °C fixed inst.)
Rated voltage	250 V
Testing voltage	2,0 kV
Current carrying capacity	Acc. DIN VDE, see technical sheet
Conductor material	Bare copper flexible
Conductor class	Class 5 DIN VDE 0812 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality TI2)
Core identification	Acc. to DIN 47100
Separator	Polyester Tape
Screening	Tin copper braid coverage > 80%
Outer sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Grey RAL 7001
Printing	To be defined
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	DIN VDE 0298 part 3
Other versions	LIHCH Low Smoke Zero Halogen (LSOH)
Standards	IEC 60332-1, EN50265 -2-1, IEC 60332-3C, HD 405.3, IEC 70754-1, EN 50267-2-1, IEC 61034, EN 50268-2 LT > 60%

APPLICATION

Data transmission cable, control and connecting cable mainly for transmission of analog and digital signals in process controlled facilities in measurement and control technology. For fixed laying and flexible applications with undefined cable routing and without tensile stress. Suitable for use in dry and humid rooms. Outdoor use only with UV-protection, no laying underground

SPECIAL FEATURES

Free from laquer damaging substances and silicone (during production)

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Customized versions on demand

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2 x 0,14	3,8	12,1	23
3 x 0,14	4	14	27
4 x 0,14	4,2	16,4	30
5 x 0,14	4,5	18,9	35
6 x 0,14	4,8	22	40
7 x 0,14	4,8	22,8	41
8 x 0,14	5,4	25,6	49
10 x 0,14	6	30,8	58
12 x 0,14	6,2	34,1	63
14 x 0,14	6,6	37,8	73
16 x 0,14	6,9	43	80
18 x 0,14	7,2	52	88
20 x 0,14	7,6	55	96
21 x 0,14	7,6	56	97
24 x 0,14	8,2	62	108
25 x 0,14	8,4	63	113
27 x 0,14	8,4	66	116
28 x 0,14	8,6	67,7	122
30 x 0,14	8,6	69	125
32 x 0,14	9,1	76	141
36 x 0,14	9,6	82	154
2 x 0,25	4,4	16,6	31
3 x 0,25	4,6	21	36
4 x 0,25	5	24	42
5 x 0,25	5,5	29	53
6 x 0,25	5,9	31,3	60
7 x 0,25	5,9	37	62
8 x 0,25	6,4	42	69
10 x 0,25	7,4	46,1	87

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
12 x 0,25	7,6	54,3	96
14 x 0,25	8	59	106
16 x 0,25	8,3	65	118
18 x 0,25	8,7	83	131
20 x 0,25	9,2	88	142
21 x 0,25	9,2	93	144
24 x 0,25	10,4	110	171
25 x 0,25	10,6	114	181
27 x 0,25	10,6	125	185
28 x 0,25	11	127	195
30 x 0,25	11	132	199
32 x 0,25	11,3	138	218
36 x 0,25	11,8	146	238
2 x 0,34	4,8	21	36
3 x 0,34	5,1	27	43
4 x 0,34	5,6	33	54
5 x 0,34	6,1	36	64
6 x 0,34	6,7	39	76
7 x 0,34	6,7	46	79
8 x 0,34	7,3	52	89
10 x 0,34	8,2	74	107
12 x 0,34	8,5	80	119
14 x 0,34	8,8	86	133
16 x 0,34	9,3	94	148
18 x 0,34	9,9	103	169
20 x 0,34	10,7	112	188
21 x 0,34	10,7	116	191
24 x 0,34	11,7	130	221
25 x 0,34	11,9	135	233

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
27 x 0,34	11,9	138	239
28 x 0,34	12,3	146	259
30 x 0,34	12,5	159	265
32 x 0,34	13	163	290
36 x 0,34	13,6	178	315
2 x 0,50	5,8	29,0	51
3 x 0,50	6,1	39,0	61
4 x 0,50	6,5	49,0	72
5 x 0,50	7,0	57,0	85
6 x 0,50	7,6	66,0	99
7 x 0,50	7,6	69,0	103
8 x 0,50	9,1	82,0	138
10 x 0,50	9,6	90,0	147
12 x 0,50	9,9	104,0	165
14 x 0,50	10,4	122,0	186
16 x 0,50	11,1	129,0	214
18 x 0,50	11,7	141,0	236
21 x 0,50	12,5	168,0	268
25 x 0,50	13,6	211,0	314
2 x 0,75	6,2	43,0	60
3 x 0,75	6,5	52,0	77
4 x 0,75	7,0	61,0	87
5 x 0,75	7,7	72,0	106
6 x 0,75	8,3	80,0	124
7 x 0,75	8,3	89,0	129
8 x 0,75	9,9	98,0	172
10 x 0,75	10,5	115,0	184
12 x 0,75	10,9	138,0	211

LIYY PAAR LIHH PAAR

Cu/PVC/PVC twisted pair



TECHNICAL FEATURES

Operating temperature	-15 °C ÷ +70 °C (-40 °C fixed inst.)
Rated voltage	250 V
Testing voltage	2,0 kV
Current carrying capacity	Acc. DIN VDE, see technical sheet
Conductor material	Bare copper flexible
Conductor class	Class 5 DIN VDE 0812 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality TI2)
Stranding	Cores twisted in pairs: pairs twisted in layers
Core identification	DIN 47100
Outer sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Grey RAL 7001
Printing	To be defined
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	DIN VDE 0298 part 3
Other versions	LIHH PAAR Low Smoke Zero Halogen (LSOH)
Standards	IEC 60332-1, EN50265 -2-1, IEC 60332-3C, HD 405.3, IEC 70754-1, EN 50267-2-1, IEC 61034, EN 50268-2 LT > 60%

APPLICATION

Data transmission cable, control and connecting cable mainly for transmission of analog and digital signals in process controlled facilities in measurement and control technology. For fixed laying and flexible applications with undefined cable routing and without tensile stress. Suitable for use in dry and humid rooms. Outdoor use only with UV-protection, no laying underground

SPECIAL FEATURES

Free from laquer damaging substances and silicone (during production)
Recommended for EMC applications

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Customized versions on demand

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2 x 2 x 0,14	4,8	5,4	25,5
3 x 2 x 0,14	4,9	8	32
4 x 2 x 0,14	5,5	10,7	38,5
5 x 2 x 0,14	5,7	13,4	45,5
6 x 2 x 0,14	6,2	16,1	51
10 x 2 x 0,14	8	26,9	77,5
12 x 2 x 0,14	8,2	32,3	94,5
14 x 2 x 0,14	8,6	37,6	105,5
16 x 2 x 0,14	9,1	43	110,5
18 x 2 x 0,14	9,6	48,4	119,5
25 x 2 x 0,14	11,8	67	180,5
30 x 2 x 0,14	12,2	81	199,5
50 x 2 x 0,14	15,8	134	387
2 x 2 x 0,25	6,1	9,6	38
3 x 2 x 0,25	6,2	14,4	48
4 x 2 x 0,25	6,9	19,2	59
6 x 2 x 0,25	7,8	28,8	80
8 x 2 x 0,25	9,2	38,4	98
10 x 2 x 0,25	10,3	48	115
2 x 2 x 0,50	7,9	19,2	72
3 x 2 x 0,50	8	28,8	83
4 x 2 x 0,50	8,7	38,4	115
8 x 2 x 0,50	12,2	76,8	206
10 x 2 x 0,50	13,2	96	247

LIYCY PAAR LIHCH PAAR

Cu/PVC/PVC twisted pair (overall screened)



TECHNICAL FEATURES

Operating temperature	-15 °C ÷ +70 °C (-40 °C fixed inst.)
Rated voltage	250 V
Testing voltage	2,0 kV
Current carrying capacity	Acc. DIN VDE, see technical sheet
Conductor material	Bare copper flexible > 1,00m2
Conductor class	Class 5 DIN VDE 0812 resp IEC 60228
Core insulation	Thermoplastic material based PVC (quality T12)
Stranding	Cores twisted in pairs: pairs twisted in layers
Core identification	DIN 47100
Separator	Polyester Tape
Screening	Tin copper braid coverage > 80%
Outer sheath material	Thermoplastic material based PVC (quality TM2)
Colour outer sheath	Grey
Printing	To be defined
Max. temp. of short circuit	150 °C (max. 5 sec)
Min. bending radius	DIN VDE 0298 part 3
Other versions	LIHCH PAAR Low Smoke Zero Halogen (LSOH)
Standards	IEC 60332-1, EN50265 -2-1, IEC 60332-3C, HD 405.3, IEC 70754-1, EN 50267-2-1, IEC 61034, EN 50268-2 LT > 60%

APPLICATION

Data transmission cable, control and connecting cable mainly for transmission of analog and digital signals in process controlled facilities in measurement and control technology. For fixed laying and flexible applications with undefined cable routing and without tensile stress. Suitable for use in dry and humid rooms. Outdoor use only with UV-protection, no laying underground

SPECIAL FEATURES

Free from laquer damaging substances and silicone (during production)
Recommended for EMC applications

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Customized versions on demand

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2 x 2 x 0,14	4,3	24,6	37
3 x 2 x 0,14	4,7	28,5	43
4 x 2 x 0,14	5,6	33,5	55
5 x 2 x 0,14	5,9	40,5	64
6 x 2 x 0,14	6	48,5	67
7 x 2 x 0,14	6,4	51,4	76
8 x 2 x 0,14	7,5	53,7	84
10 x 2 x 0,14	8	59	110
12 x 2 x 0,14	8,3	69,5	120
16 x 2 x 0,14	10,1	79	170
20 x 2 x 0,14	10,5	97	200
25 x 2 x 0,14	11,7	113	250
30 x 2 x 0,14	13,4	140	270
2 x 2 x 0,25	5	30,3	45
3 x 2 x 0,25	5,6	39,6	58
4 x 2 x 0,25	6,5	44,9	73
5 x 2 x 0,25	7,3	48,7	85
6 x 2 x 0,25	7,5	61,2	100
7 x 2 x 0,25	8,1	67,5	115
8 x 2 x 0,25	9,1	82,5	126
10 x 2 x 0,25	10,3	102	160
12 x 2 x 0,25	10,6	120	190
16 x 2 x 0,25	12,4	146,5	235
18 x 2 x 0,25	13,4	170	260
20 x 2 x 0,25	14,3	192	285
25 x 2 x 0,25	15,5	239,3	330

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2 x 2 x 0,34	6,7	36,9	68
3 x 2 x 0,34	7,3	49,2	82
4 x 2 x 0,34	8,4	55,2	104
5 x 2 x 0,34	9,6	66,5	130
6 x 2 x 0,34	10,6	74,2	150
7 x 2 x 0,34	10,8	79,5	160
8 x 2 x 0,34	11,4	88,4	180
10 x 2 x 0,34	13,2	118,5	230
12 x 2 x 0,34	13,6	123	270
16 x 2 x 0,34	14,8	165,2	320
2 x 2 x 0,50	7,3	48,1	80
3 x 2 x 0,50	8,4	73,7	108
4 x 2 x 0,50	9,4	82	130
5 x 2 x 0,50	10,2	101,5	175
6 x 2 x 0,50	12	110	190
7 x 2 x 0,50	12,2	130,4	195
8 x 2 x 0,50	13,4	147	237
10 x 2 x 0,50	14,8	186	280
2 x 2 x 0,75	8	64,6	98
3 x 2 x 0,75	8,9	84	135
4 x 2 x 0,75	10	108	167
5 x 2 x 0,75	11	126	210
6 x 2 x 0,75	11,6	146	255
7 x 2 x 0,75	12	176,4	285
8 x 2 x 0,75	13,6	180	330
10 x 2 x 0,75	15,2	228	395

Section mm ²	Nom. O.D. mm	Copper weight kg/km	Approx. Cable weight kg/km
2 x 2 x 1,0	10,3	84,0	142
3 x 2 x 1,0	10,4	96,0	173
4 x 2 x 1,0	11,1	121,0	212
5 x 2 x 1,0	12,2	161,0	266
8 x 2 x 1,0	15,4	240,0	400
10 x 2 x 1,0	16,6	282,0	510
12 x 2 x 1,0	18,2	324,0	590
2 x 2 x 1,5	12,4	112,0	165
3 x 2 x 1,5	13,0	140,0	218
4 x 2 x 1,5	13,3	176,0	265
5 x 2 x 1,5	15,5	212,0	310
8 x 2 x 1,5	18,8	322,0	642
10 x 2 x 1,5	20,2	380,0	870
12 x 2 x 1,5	22,2	442,0	939

BMS

BUILDING MANAGEMENT SYSTEM CABLES



Nowadays always more and more equipment and installations are designed for the control, monitoring and optimization of various functions and services provided in a building, that includes: heating, ventilation, air-conditioning, lighting, security systems and the operation of electric / electronic appliances.

An efficient building management system will provide a greater level of convenience in our living environments and help reduce heating/cooling costs significantly.

An advanced building management system can control the safety in homes and offices, monitoring doors and windows for alarm systems and detect floods and fires.

ITALICAB Code	DESCRIPTION	OUTER DIA	size	Cond. Cu	shield. Y/N	insul. material	Sheath material	Temp. range	Voltage	Page
SOUND / CONTROL CABLES										
ITAL002	2 core 16 AWG Un-shielded	4,90 mm	16 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	39
ITAL024	3 core 16 AWG Un-shielded	5,00 mm	16 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	39
ITAL023	4 core 16 AWG Un-shielded	5,50 mm	16 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	39
ITAL028	2 core 14 AWG Un-Shielded	5,70 mm	14 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	39
ITAL303	3 core 14 AWG Un-shielded	6,00 mm	14 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	39
ITAL305	4 core 14 AWG Un-shielded	6,90 mm	14 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	39
ITAL004	2 core 18 AWG Un-shielded	4,40 mm	18 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	40
ITAL322	3 core 18 AWG Un-shielded	4,40 mm	18 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	40
ITAL006	4 core 18 AWG Un-shielded	4,80 mm	18 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	40
ITAL325	2 core 20 AWG Un-shielded	3,80 mm	20 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	40
ITAL327	3 core 20 AWG Un-shielded	4,00 mm	20 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	40
ITAL329	4 core 20 AWG Un-shielded	4,30 mm	20 awg	bare	N	PP	FR PVC	-20 / +75°C	300V	40
ITAL001	2 core 16 AWG Overall Shielded	4,70 mm	16 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	41
ITAL017	3 core 16 AWG Overall Shielded	5,00 mm	16 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	41
ITAL018	4 core 16 AWG Overall Shielded	5,80 mm	16 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	41
ITAL019	2 core 14 AWG Overall Shielded	6,00 mm	14 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	41
ITAL302	3 core 14 AWG Overall Shielded	6,30 mm	14 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	41
ITAL304	4 core 14 AWG Overall Shielded	8,00 mm	14 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	41
ITAL003	2 core 18 AWG Overall Shielded	4,60 mm	18 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	42
ITAL321	3 core 18 AWG Overall Shielded	4,60 mm	18 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	42
ITAL005	4 core 18 AWG Overall Shielded	5,20 mm	18 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	42
ITAL324	2 core 20 AWG Overall Shielded	4,00 mm	20 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	42
ITAL326	3 core 20 AWG Overall Shielded	4,30 mm	20 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	42
ITAL328	4 core 20 AWG Overall Shielded	4,50 mm	20 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	42
ITAL016	3 Core 18 AWG Overall Shielded	6,40 mm	18 awg	Tin.Cu	Y	PE	FR PVC	-20 / +60°C	300V	43
ITAL606	4 Core 18 AWG Overall shielded	6,30mm	18 awg	Tin.Cu	Y	FR PVC	FR PVC	-20 / +80°C	300V	43
ITAL350	6 Core 18 AWG Overall Shielded	6,50 mm	18 awg	bare	Y	PP	FR PVC	-20 / +75°C	300V	43
ITAL354	3 Core 20 AWG Overall Shielded	5,60 mm	20 awg	Tin.Cu	Y	PE	FR PVC	-20 / +60°C	300V	43
ITAL604	7 Core 22 AWG Overall Shielded + Screen	6,50 mm	22 awg	Tin.Cu	Y	FR PVC	FR PVC	-30 / +80°C	300V	43
ITAL608	6 PR 18 AWG Overall Shielded	12,70 mm	18 awg	Tin.Cu	Y	PVC105	FR PVC	-30 / +105°C	300V	44
ITAL603	2T 20 AWG Overall Shielded	9,20 mm	20 awg	bare	Y	PVC105	FR PVC	-30 / +105°C	300V	44
ITAL600	2 PR 16 AWG Overall Shielded	11,80 mm	16 awg	bare	Y	PVC105	FR PVC	-30 / +105°C	300V	44
ITAL340	1PR 20 AWG individually Shielded	5,20 mm	20 awg	Tin.Cu	Y	PE	FR PVC	-20 / +60°C	300V	45
ITAL341	1PR 22 AWG Individually Shielded	4,40 mm	22 awg	Tin.Cu	Y	PE	FR PVC	-20 / +60°C	300V	45
ITAL012	2PR 22 AWG Individually Shielded	5,60 mm	22 awg	Tin.Cu	Y	PP	FR PVC	-20 / +75°C	300V	45
ITAL013	3PR 22 AWG Individually Shielded	7,20 mm	22 awg	Tin.Cu	Y	PP	FR PVC	-20 / +80°C	300V	45
ITAL352	6PR 22 AWG Individually Shielded	8,90 mm	22 awg	Tin.Cu	Y	PP	FR PVC	-20 / +80°C	300V	45

ITALICAB Code	DESCRIPTION	OUTER DIA	size	Cond. Cu	shield. Y/N	insul. material	Sheath material	Temp. range	Voltage	Page
SPEAKER CABLES										
ITAL027	1PR 14 AWG Un-Shielded	8,70 mm	14 awg	Tin.Cu	N	FR PVC	FR PVC	-20 / +80°C	600V	47
ITAL014	1PR 16 AWG Un-Shielded	7,00 mm	16 awg	Tin.Cu	N	FR PVC	FR PVC	-20 / +80°C	300V	47
ITAL015	1PR 18 AWG Un-shielded	5,40 mm	18 awg	Tin.Cu	N	FR PVC	FR PVC	-20 / +80°C	300V	47
ITAL353	1PR 14 AWG Overall Shielded	9,00 mm	14 awg	Tin.Cu	Y	PE	FR PVC	-20 / +80°C	600V	47
ITAL351	1PR 16 AWG Overall Shielded	8,00 mm	16 awg	Tin.Cu	Y	PE	FR PVC	-20 / +80°C	600V	47
ITAL011	1PR 18 AWG Overall Shielded	5,80 mm	18 awg	Tin.Cu	Y	PE	FR PVC	-20 / +60°C	300V	47
COAXIAL CABLES										
ITAL030	Coax RG59 BC + AL-Shield	6,10 mm	0,80 mm	bare	Y	foam PE	FR PVC	-25 / +75°C	75 Ohm	49
ITAL031	Coax RG59 BC + BC-Shield	6,10 mm	0,80 mm	bare	Y	foam PE	FR PVC	-25 / +75°C	75 Ohm	49
ITAL035	Coax RG6 CCS + AL Shield	6,60 mm	1,02 mm	CCS	Y	foam PE	FR PVC	-25 / +75°C	75 Ohm	50
ITAL039	Coax RG6 BC + BC Shield	6,60 mm	1,00 mm	bare	Y	foam PE	FR PVC	-25 / +75°C	75 Ohm	50
ITAL038	Coax RG11 BC + AL Shield	10,20 mm	1,63 mm	CCS	Y	foam PE	FR PVC	-25 / +75°C	75 Ohm	51
ITAL040	Coax RG11 BC + BC Shield	10,20 mm	1,65 mm	bare	Y	foam PE	FR PVC	-25 / +75°C	75 Ohm	51
LAN CABLES										
ITAL102-113	CAT 3 UTP/FTP 22-24awg	//	0,5 - 0,6 mm	bare	Y - N	FR PVC	LSOH	-20 / +80°C	300V	53
ITAL034	CAT 5e UTP 24awg	5,10 mm	0,50 mm	bare	N	PE	LSOH	-25 / +60°C	300V	54
ITAL036	CAT 5e FTP 24awg	5,10 mm	0,50 mm	bare	Y	PE	LSOH	-25 / +60°C	300V	55
ITAL032	CAT 6 UTP 23awg	5,80 mm	0,565 mm	bare	N	PE	LSOH	-25 / +60°C	300V	56
ITAL033	CAT 6 FTP 23awg	6,00 mm	0,565 mm	bare	Y	PE	LSOH	-25 / +60°C	300V	57
ITAL032A	CAT 6A UTP 23awg	6,80 mm	0,585 mm	bare	N	PE	LSOH	-25 / +60°C	300V	58
ITAL033A	CAT 6A FTP 23awg	7,20 mm	0,585 mm	bare	Y	PE	LSOH	-25 / +60°C	300V	59
BUS CABLES										
ITAL355	1 PR 0,80mm Bus KNX Konnex	5,20 mm	0,80 mm	bare	Y	LSOH	LSOH	-25 / +75°C	300V	61
ITAL356	2 PR 0,80mm Bus KNX Konnex	7,10 mm	0,80 mm	bare	Y	LSOH	LSOH	-25 / +75°C	300V	62
ITAL357	1PR 22awg 0,64mm ProfBus L2	8,00 mm	0,64 mm	bare	Y	Foam PE	PVC	-40 / +80°C	350V	63
FIRE ALARM CABLES										
ITAL050	2 Conductor 18 AWG Un-shielded	5,50 mm	18 awg	bare	N	PVC105	FR PVC	-40 / +105°C	300V	64
ITAL051	2 Conductor 16 AWG Un-shielded	6,00 mm	16 awg	bare	N	PVC105	FR PVC	-40 / +105°C	300V	64
ITAL053	2 Conductor 14 AWG Un-shielded	6,70 mm	14 awg	bare	N	PVC105	FR PVC	-40 / +105°C	300V	64
ITAL052	2 Conductor 12 AWG Un-shielded	8,80 mm	12 awg	bare	N	PVC105	FR PVC	-40 / +105°C	300V	64
ITAL054	2 Conductor 18 AWG Shielded	5,90 mm	18 awg	bare	Y	PVC105	FR PVC	-40 / +105°C	300V	65
ITAL055	2 Conductor 16 AWG Shielded	6,50 mm	16 awg	bare	Y	PVC105	FR PVC	-40 / +105°C	300V	65
ITAL056	2 Conductor 14 AWG Shielded	7,20 mm	14 awg	bare	Y	PVC105	FR PVC	-40 / +105°C	300V	65
ITAL057	2 Conductor 12 AWG Shielded	8,90 mm	12 awg	bare	Y	PVC105	FR PVC	-40 / +105°C	300V	65
FIRE RESISTANT ALARM CABLES										
ITAL080A	2x20awg+E	6,80 mm	20 awg	bare	Y	Silicone	LSOH	3h 950°C	300/500V	66
ITAL081A	2x18awg+E	7,00 mm	18 awg	bare	Y	Silicone	LSOH	3h 950°C	300/500V	66
ITAL082A	2x16awg+E	7,50 mm	16 awg	bare	Y	Silicone	LSOH	3h 950°C	300/500V	66
ITAL083A	2x12awg+E	9,20 mm	12 awg	bare	Y	Silicone	LSOH	3h 950°C	300/500V	66
FIRE RESISTANT CABLES										
ITAL080	Italfire CWZ 2x0,75+E	7,50 mm	0,75 mm2	bare	Y	Silicone	LSOH	3h 950°C	300/500V	67
ITAL081	Italfire CWZ 2x1,0+E	7,80 mm	1,00 mm2	bare	Y	Silicone	LSOH	3h 950°C	300/500V	67
ITAL082	Italfire CWZ 2x1,5+E	8,70 mm	1,50 mm2	bare	Y	Silicone	LSOH	3h 950°C	300/500V	67
ITAL083	Italfire CWZ 2x2,5+E	9,90 mm	2,50 mm2	bare	Y	Silicone	LSOH	3h 950°C	300/500V	67
ITAL084	Italfire CWZ 2x4,0+E	12,0 mm	4,00 mm2	bare	Y	Silicone	LSOH	3h 950°C	300/500V	67

SOUND, CONTROL CABLES



SOUND, CONTROL
UN-SHIELDED

SOUND, CONTROL
OVERALL SHIELDED

SOUND, CONTROL
INDIVIDUALLY SHIELDED

SOUND, CONTROL UN-SHIELDED



TECHNICAL FEATURES

Conductor:	Flexible bare copper wire
Insulation:	PP Polypropylene
Sheath material:	Flame retardant Polyvinyl Chloride (PVC) Colour Grey
Standard:	(BS) EN 50290-2 - IEC 60332-1 - IEC 60332-3-24
Core colours identification:	black - red - white - green

APPLICATION

Multiconductor un-shielded, suitable for sound, control, instrumentation and Building Management Systems (BMS)

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
and 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL002	ITAL024	ITAL023	ITAL028	ITAL303	ITAL305
No. of cores	num	2c	3c	4c	2c	3c	4c
Conductor size	AWG	16	16	16	14	14	14
Conductor stranding	n.xmm	19x0,28	19x0,28	19x0,28	19x0,36	19x0,36	19x0,36
Conductor stranding	n.awg	19x29	19x29	19x29	19x27	19x27	19x27
Drain wire size	AWG	No	No	No	No	No	No
Drain wire stranding	n.xmm	No	No	No	No	No	No
Drain wire stranding	n.awg	No	No	No	No	No	No
Nom. Diameter of copper conductor	mm	1,4	1,4	1,4	1,81	1,81	1,81
Insulation material	type	PP	PP	PP	PP	PP	PP
Nom. Radial Thickness insulation	mm	0,20	0,20	0,20	0,27	0,27	0,27
Shield	Yes/No	No	No	No	No	No	No
Individual shield	Yes/No	No	No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No	No	No
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	1,80	1,80	1,80	2,40	2,40	2,40
Nom. Radial sheath thickness	mm	0,43	0,43	0,43	0,43	0,43	0,43
Nom. overall outer diameter	mm	4,90	5,00	5,50	5,70	6,00	6,90

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	13,80	13,80	13,80	8,40	8,40	8,40
Max. DC Resistance shield	Ω/km	//	//	//	//	//	//
Capacitance conductor to conductor	pF/m	76	78	76	74	74	74
Capacitance cond. to other cond.+shield	pF/m	//	//	//	//	//	//
Nominal inductance	μH/m	0,5	//	//	0,5	//	//
Max. recommended Current at 25°C	Amps	6,25	6,25	5,00	8,00	8,00	6,40
Max. operating voltage	Vrms	300	300	300	300	300	300

Miscellaneous

Operating temperature	°C	-20 / +75	-20 / +75	-20 / +75	-20 / +75	-20 / +75	-20 / +75
Max. recommended pulling tension	N	131	195	520	423	635	845
Min. bending radius (install)	mm	46	49	51	58	61	67
Nominal cable weight	kg/km	46	58	72	63	85	110

SOUND, CONTROL UN-SHIELDED



TECHNICAL FEATURES

[illegible]

APPLICATION

Multiconductor un-shielded, suitable for sound, control, instrumentation and Building Management Systems (BMS)

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

REMARKS
Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
and 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics							
ITALICAB part number		ITAL004	ITAL322	ITAL006	ITAL325	ITAL327	ITAL329
No. of cores	num	2c	3c	4c	2c	3c	4c
Conductor size	AWG	18	18	18	20	20	20
Conductor stranding	n.xmm	7x0,40	7x0,40	7x0,40	7x0,32	7x0,32	7x0,32
Conductor stranding	n.awg	7x26	7x26	7x26	7x28	7x28	7x28
Drain wire size	AWG	No	No	No	No	No	No
Drain wire stranding	n.xmm	No	No	No	No	No	No
Drain wire stranding	n.awg	No	No	No	No	No	No
Nom. Diameter of copper conductor	mm	1,2	1,2	1,2	1,0	1,0	1,0
Insulation material	type	PP	PP	PP	PP	PP	PP
Nom. Radial Thickness insulation	mm	0,20	0,20	0,20	0,20	0,20	0,20
Shield	Yes/No	No	No	No	No	No	No
Individual shield	Yes/No	No	No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No	No	No
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	1,60	1,60	1,60	1,40	1,40	1,40
Nom. Radial shetah thickness	mm	0,43	0,43	0,43	0,43	0,43	0,43
Nom. overall outer diameter	mm	4,40	4,40	4,80	3,80	4,00	4,30
Electrical Characteristics							
Nom. DC Resistance conductor at 20°C	Ω/km	21,4	21,4	21,4	33,5	33,5	33,5
Nom. DC Resistance shield	Ω/km	//	//	//	//	//	//
Capacitance conductor to conductor	pF/m	71	67	73	61	55	63
Capacitance cond. to other cond.+shield	pF/m	//	//	//	//	//	//
Nominal inductance	μH/m	0,5	//	//	0,6	//	//
Max. recommended Current at 25°C	Amps	5,00	5,00	4,00	3,75	3,75	3,00
Max. operating voltage	Vrms	300	300	300	300	300	300
Miscellaneous							
Operating temperature	°C	-20 / +75	-20 / +75	-20 / +75	-20 / +75	-20 / +75	-20 / +75
Max. recommended pulling tension	N	200	298	401	112	168	224
Min. bending radius (install)	mm	40	42	46	35	37	41
Nominal cable weight	kg/km	38	49	60	27	39	45

SOUND, CONTROL OVERALL SHIELDED



TECHNICAL FEATURES

Conductor:	Flexible bare copper wire
Insulation:	PP Polypropylene
Drain wire:	Tinned copper
Shield:	Aluminium/Polyester 100% (reversed)
Sheath material:	Flame retardant Polyvinyl Chloride (PVC) Colour Grey
Standard:	IEC 60332-1 - IEC 60332-3-24
Core colours identification:	table(1): black - red - white - green
	table(2): black - white - red - green

APPLICATION

Multiconductor overall shielded, suitable for sound, control, instrumentation and Building Management Systems (BMS)

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
and 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL001	ITAL017	ITAL018	ITAL019	ITAL302	ITAL304
No. of cores	num	2c	3c	4c	2c	3c	4c
Conductor size	AWG	16	16	16	14	14	14
Conductor stranding	n.xmm	19x0,28	19x0,28	19x0,28	19x0,36	19x0,36	19x0,36
Conductor stranding	n.awg	19x29	19x29	19x29	19x27	19x27	19x27
Drain wire size	AWG	24	24	24	22	22	22
Drain wire stranding	n.xmm	7x0,20	7x0,20	7x0,20	7x0,25	7x0,25	7x0,25
Drain wire stranding	n.awg	7x32	7x32	7x32	7x30	7x30	7x30
Nom. Diameter of copper conductor	mm	1,4	1,4	1,4	1,81	1,81	1,81
Insulation material	type	PP	PP	PP	PP	PP	PP
Nom. Radial Thickness insulation	mm	0,20	0,20	0,20	0,27	0,27	0,27
Shield	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No	No	No
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	1,80	1,80	1,80	2,40	2,40	2,40
Nom. Radial sheath thickness	mm	0,43	0,43	0,43	0,43	0,43	0,43
Nom. overall outer diameter	mm	4,70	5,00	5,80	6,00	6,30	8,00
Colour coding	table	1	1	1	2	2	2

Electrical Characteristics

Nom. DC Resistance conductor at 20°C	Ω/km	13,80	13,80	13,80	8,40	8,40	8,40
Nom. DC Resistance shield	Ω/km	47,3	49,9	47,25	32,81	37,08	32,81
Capacitance conductor to conductor	pF/m	191	191	101	178	273	98
Capacitance cond. to other cond.+shield	pF/m	374	343	181	320	491	178
Nominal inductance	μH/m	0,5	0,5	0,5	0,5	0,5	0,5
Max. recommended Current at 25°C	Amps	6,25	6,25	5,0	8,0	8,0	6,4
Max. operating voltage	Vrms	300	300	300	300	300	300

Miscellaneous

Operating temperature	°C	-20 / +75	-20 / +75	-20 / +75	-20 / +75	-20 / +75	-20 / +75
Max. recommended pulling tension	N	381	516	651	558	770	845
Min. bending radius (install)	mm	45	49	53	58	64	70
Nominal cable weight	kg/km	42	55	67	57	80	100

SOUND, CONTROL OVERALL SHIELDED



TECHNICAL FEATURES

Conductor:	Flexible bare copper wire
Insulation:	PP Polypropylene
Drain wire:	Tinned copper
Shield:	Aluminium/Polyester 100% (reversed)
Sheath material:	Flame retardant Polyvinyl Chloride (PVC) Colour Grey
Standard:	IEC 60332-1 - IEC 60332-3-24
Core colours identification:	black - red - white - green

APPLICATION

Multiconductor overall shielded, suitable for sound, control, instrumentation and Building Management Systems (BMS)

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
and 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL003	ITAL321	ITAL005	ITAL324	ITAL326	ITAL328
No. of cores	num	2c	3c	4c	2c	3c	4c
Conductor size	AWG	18	18	18	20	20	20
Conductor stranding	n.xmm	7x0,40	7x0,40	7x0,40	7x0,32	7x0,32	7x0,32
Conductor stranding	n.awg	7x26	7x26	7x26	7x28	7x28	7x28
Drain wire size	AWG	24	24	24	24	24	24
Drain wire stranding	n.xmm	7x0,20	1x0,50	7x0,20	1x0,50	1x0,50	1x0,50
Drain wire stranding	n.awg	7x32	1x24	7x32	1x24	1x24	1x24
Nom. Diameter of copper conductor	mm	1,2	1,2	1,2	1,0	1,0	1,0
Insulation material	type	PP	PP	PP	PP	PP	PP
Nom. Radial Thickness insulation	mm	0,20	0,20	0,20	0,20	0,20	0,20
Shield	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No	No	No
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	1,60	1,60	1,60	1,40	1,40	1,40
Nom. Radial sheath thickness	mm	0,43	0,43	0,43	0,43	0,43	0,43
Nom. overall outer diameter	mm	4,60	4,60	5,20	4,00	4,30	4,50

Electrical Characteristics

Nom. DC Resistance conductor at 20°C	Ω/km	21,4	21,4	21,4	33,8	33,8	33,8
Nom. DC Resistance shield	Ω/km	53,3	55,5	23,7	55	53	25
Capacitance conductor to conductor	pF/m	174	119	89	132	164	95
Capacitance cond. to other cond.+shield	pF/m	314	213	159	237	296	224
Nominal inductance	μH/m	0,5	0,5	0,5	0,5	0,5	0,5
Max. recommended Current at 25°C	Amps	5,0	5,0	4,0	5,0	5,0	4,0
Max. operating voltage	Vrms	300	300	300	300	300	300

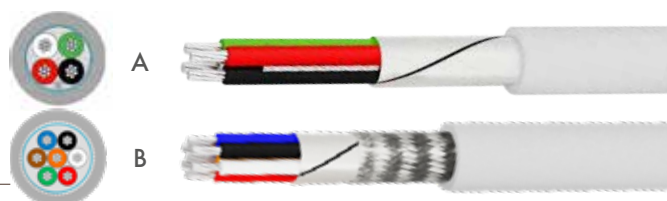
Miscellaneous

Operating temperature	°C	-20 / +75	-20 / +75	-20 / +75	-20 / +75	-20 / +75	-20 / +75
Max. recommended pulling tension	N	259	362	230	83	104	224
Min. bending radius (install)	mm	40	42	46	35	39	41
Nominal cable weight	kg/km	38	47	59	32	39	48

SOUND, CONTROL OVERALL SHIELDED

TECHNICAL FEATURES

Conductor:	Flexible (TC) tinned copper wire or (BC) bare copper wire
Insulation:	LDPE Polyethylene or PVC or PP
Drain wire:	Tinned copper
Shield:	Aluminium/Polyester 100% (reversed)
Screen:	Tinned copper braid 70% coverage
Sheath material:	Flame retardant Polyvinyl Chloride (PVC) Colour Grey
Standard:	IEC 60332-1 - IEC 60332-3-24
Core colours identification:	table(1): black - red - clear
	table(2): black - red - green - white
	table(3): black - white - red - green - brown - blue - orange



APPLICATION

Multiconductor overall shielded, suitable for sound, control, instrumentation and Building Management Systems (BMS)

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
and 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL016	ITAL606	ITAL350	ITAL354	ITAL604
Design		A	A	A	A	B
No. of cores	num	3c	4c	6c	3c	7c
Conductor size	AWG	18	18	18	20	22
Conductor stranding	n.xmm	TC 16x0,25	TC 19x0,25	BC 7x0,40	TC 7x0,32	TC 7x0,25
Conductor stranding	n.awg	TC 16x30	TC 19x30	BC 7x26	TC 7x28	TC 7x30
Drain wire size	AWG	20	20	24	20	-
Drain wire stranding	n.xmm	7x0,32	7x0,32	1x0,50	7x0,32	-
Drain wire stranding	n.awg	7x28	7x28	1x24	7x28	-
Nom. Diameter of copper conductor	mm	1,2	1,2	1,2	1,00	0,80
Insulation material	type	LDPE	PVC	PP	LDPE	FR PVC
Nom. Radial Thickness insulation	mm	0,50	0,30	0,20	0,40	0,30
Shield	Yes/No	Yes	Yes	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No	Yes
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	2,20	1,80	1,60	1,80	1,40
Nom. Radial sheath thickness	mm	0,80	0,90	0,43	0,75	0,90
Nom. overall outer diameter	mm	6,40	6,30	6,50	5,60	6,50
Colour coding	table	1	2	3	1	3

Electrical Characteristics

Nom. DC Resistance conductor at 20°C	Ω/km	21,7	21,4	21,4	32,8	48,2
Nom. DC Resistance shield	Ω/km	28	28	51	30	23
Capacitance conductor to conductor	pF/m	79	132	89	90	115
Capacitance cond. to other cond.+shield	pF/m	158	237	160	168	207
Nominal inductance	μH/m	0,6	//	//	//	//
Max. recommended Current at 25°C	Amps	5,3	5	3,50	4	2,10
Max. operating voltage	Vrms	300	300	300	300	300

Miscellaneous

Operating temperature	°C	-20 / +60	-20 / +80	-20 / +75	-20 / +60	-30 / +80
Max. recommended pulling tension	N	330	445	661	201	192
Min. bending radius (install)	mm	64	64	58	58	64
Nominal cable weight	kg/km	60	55	75	35	65

SOUND, CONTROL INDIVIDUALLY SHIELDED



TECHNICAL FEATURES

Conductor:	Flexible tinned copper wire
Insulation:	LDPE Polyethylene or PP Polypropylene
Drain wire:	Tinned copper
Shield:	Aluminium/Polyester 100% (reversed)
Sheath material:	Flame retardant Polyvinyl Chloride (PVC) Colour Grey
Standard:	IEC 60332-1 - IEC 60332-3-24
Core colours identification:	table(1) pairs: black - clear
	table(2) pairs: black, red / black, white / black, green
	black, blue / black, yellow / black, brown
	table(3) pairs: red, black / green, white

APPLICATION

Multiconductor individually shielded, suitable for sound, control, instrumentation and Building Management Systems (BMS)

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
and 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL340	ITAL341	ITAL012	ITAL013	ITAL352
No. of pairs	num	1p	1p	2p	3p	6p
Conductor size	AWG	20	22	22	22	22
Conductor stranding	n.xmm	7x0,32	7x0,25	7x0,25	7x0,25	7x0,25
Conductor stranding	n.awg	7x28	7x30	7x30	7x30	7x30
Drain wire size	AWG	20	22	24	22	22
Drain wire stranding	n.xmm	7x0,32	7x0,25	7x0,20	7x0,25	7x0,25
Drain wire stranding	n.awg	7x28	7x30	7x32	7x30	7x30
Nom. Diameter of copper conductor	mm	1,0	0,80	0,80	0,80	0,80
Insulation material	type	LDPE	LDPE	PP	PP	PP
Nom. Radial Thickness insulation	mm	0,40	0,40	0,22	0,27	0,27
Shield	Yes/No	Yes	Yes	Yes	Yes	Yes
Individual shield	Yes/No	Yes	Yes	Yes	Yes	Yes
Screen (braid)	Yes/No	No	No	No	No	No
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	1,80	1,60	1,20	1,30	1,30
Nom. Radial sheath thickness	mm	0,70	0,60	0,50	0,90	0,90
Nom. overall outer diameter	mm	5,20	4,40	5,60	7,20	8,90
Colour coding	table	1	1	3	2	2

Electrical Characteristics

Nom. DC Resistance conductor at 20°C	Ω/km	31,20	52,7	48,2	49,20	49,20
Nom. DC Resistance shield	Ω/km	//	//	52,7	52,7	99,0
Capacitance conductor to conductor	pF/m	89	79	109	98	98
Capacitance cond. to other cond.+shield	pF/m	161	155	204	180	180
Nominal inductance	μH/m	0,6	0,6	0,6	0,6	0,6
Max. recommended Current at 25°C	Amps	3,90	2,90	2,30	2	2,00
Max. operating voltage	Vrms	300	300	300	300	300

Miscellaneous

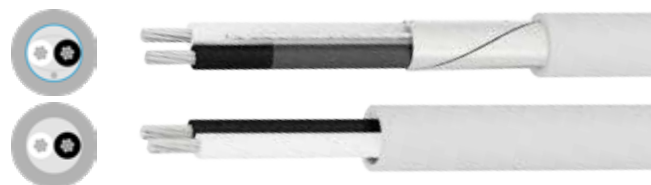
Operating temperature	°C	-20 / +60	-20 / +60	-20 / +75	-20 / +80	-20 / +80
Max. recommended pulling tension	N	205	121	187	352	699
Min. bending radius (install)	mm	58	45	45	70	96
Nominal cable weight	kg/km	38	30	28	65	108

SPEAKER CABLES



SPEAKER CABLES
SHIELDED AND UN-SHIELDED

SPEAKER CABLE SHIELDED AND UN-SHIELDED



TECHNICAL FEATURES

Conductor:	Flexible tinned copper wire
Insulation (shielded):	LDPE Polyethylene
Insulation (un-shielded):	Polyvinyl Chloride (PVC)
Drain wire:	Tinned copper
Shield:	Aluminium/Polyester 100% coverage
Sheath material:	Flame retardant Polyvinyl Chloride (PVC) Colour Grey
Standard:	IEC 60332-1 - IEC 60332-3-24
Core colours identification:	table(1): black - clear
	table(2): black - white
	table(3): black - red

APPLICATION

High conductivity single pair speaker cable, suitable for sound, control and instrumentation

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics		UN-SHIELDED			SHIELDED		
ITALICAB part number		ITAL027	ITAL014	ITAL015	ITAL353	ITAL351	ITAL011
No. Of pairs	num	1p	1p	1p	1p	1p	1p
Conductor size	AWG	14	16	18	14	16	18
Conductor stranding	n.xmm	19x0,36	19x0,28	7x0,40	19x0,36	19x0,28	16x0,25
Conductor stranding	n.awg	19x27	19x29	7x26	19x27	19x29	16x30
Drain wire size	AWG	//	//	//	16	18	20
Drain wire stranding	n.xmm	//	//	//	7x0,51	7x0,40	7x0,32
Drain wire stranding	n.awg	//	//	//	7x24	7x26	7x28
Nom. Diameter of copper conductor	mm	1,81	1,4	1,2	1,81	1,4	1,2
Insulation material	type	PVC	PVC	PVC	LDPE	LDPE	LDPE
Nom. Radial Thickness insulation	mm	0,80	0,60	0,30	0,80	0,80	0,50
Shield	Yes/No	No	No	No	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No	No	No
Colour coding	table	2	2	3	1	1	1
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	3,40	2,70	1,90	3,40	3,00	2,10
Nom. Radial sheath thickness	mm	0,90	0,80	0,80	0,90	0,80	0,70
Nom. overall outer diameter	mm	8,70	7,00	5,40	9,00	8,00	5,80
Electrical Characteristics							
Nom. DC Resistance conductor at 20°C	Ω/km	9,5	14,8	22,6	9,6	14,8	21,7
Nom. DC Resistance shield	Ω/km	//	//	//	//	//	//
Capacitance conductor to conductor	pF/m	108	109	85	79	76	90
Capacitance cond. to other cond.+shield	pF/m	//	//	//	154	144	134
Nominal inductance	μH/m	0,6	0,6	0,6	0,7	0,6	0,6
Max. recommended Current at 25°C	Amps	9,5	6,1	4,8	9,5	7,1	5,2
Max. operating voltage	Vrms	600	300	300	600	600	300
Miscellaneous							
Operating temperature	°C	-20 / +80	-20 / +80	-20 / +80	-20 / +80	-20 / +80	-20 / +60
Max. recommended pulling tension	N	400	270	200	712	227	120
Min. bending radius (install)	mm	88	70	58	96	83	56
Nominal cable weight	kg/km	92	65	40	110	82	48

COAXIAL CABLES



RG59 75 Ohm CCTV

RG6 and RG11 75 Ohm CATV

RG59 75 Ohm CCTV Coaxial Cable



TECHNICAL FEATURES

Conductor:	Soild wire
Insulation:	Foam PE Polyethylene colour natural
Tape shield (if applicable) :	Alluminium polyester tape h15mm, 100% coverage
Braid shield:	Bare copper or Aluminium
Sheath material:	Polyvinyl Chloride (PVC) Colour Black or Transparent
Temperature range:	-30 / 70°C
Standards:	IEC 611961-1 / (BS) 50117 / EN 50290-2

APPLICATION

RG-59 Coax cable 75 Ohm is by far the most common type of cable used in CCTV camera installations

SPECIAL FEATURES

lead Free CEI 20-52
Conform to RoHS

REMARKS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL030	ITAL031
Conductor size	AWG	20	20
Nom. Diameter of conductor	mm	0,81	0,81
Conductor material	type	CCS	BC
Dielectric Pee/PH Ø	mm	3,65	3,65
Tape shield	Yes/No	Yes	No
Braid shield	%	> 50	> 90
Braid material	type	Al	BC
Nom. Overall outer diameter	mm	6,1 ± 0,10	6,1 ± 0,10
Impedance	Ohm	75 ± 3	75 ± 3
Capacitance	pF/m	53,0	53,0
Velocity Ratio	%	84,0	84,0
Inner conductor resistance	Ohm/km	35,0	35,0
Braid resistance	Ohm/km	29,0	13,0
Testing voltage, Spark-test	kV	4,0	4,0
Min bending radius	mm	30,5	30,5
Cable weight	kg/km	31,8	45,7

Cu (BC)	Copper - bare copper
CuSn	Tinned copper
Al	Aluminum
CCS	Copper Clad Steel
CCA	Copper Clad Alluminium
MATV	Master Antenna television
CATV	Community Antenna television
DGSAT	Digital Satellite
CCTV	closed circuit television (security)

Frequency	Max Attuation at 20°C (dB/100m)(±8%)	Max Attuation at 20°C (dB/100m)(±8%)
MHz	dB/100mt	dB/100mt
5	1,7	1,8
10	2,4	2,6
50	5,7	5,8
100	8,0	8,5
200	11,1	11,9
300	13,6	15,4
470	17,2	19,9
600	19,9	23,4
800	22,8	26,9
862	23,9	28,7
1000	26,2	31,3
1350	30,7	36,1
1500	32,9	38,7
1750	35,4	41,9
2150	39,8	47,2
2400	42,5	51,3
2750	45,8	56,5
3000	48,2	59,0

ITAL030

ITAL031

Structural Return Loss dB

30 ÷ 470 MHz >32dB	30 ÷ 300 MHz >31dB
470 ÷ 862 MHz >30dB	300 ÷ 800 MHz >27dB
862 ÷ 2400 MHz >26dB	800 ÷ 1000 MHz >25dB
2400 ÷ 3000 MHz >19dB	1000 ÷ 2000 MHz >19dB
	2000 ÷ 3000 MHz >15dB

Screening attenuation dB

30 ÷ 1000 MHz >90dB	100 ÷ 900 MHz >57dB
1000 ÷ 2000 MHz >80dB	900 ÷ 2000 MHz -
2000 ÷ 3000 MHz >70dB	2000 ÷ 3000 MHz -

RG6 75 Ohm CATV Coaxial Cable



TECHNICAL FEATURES

Conductor:	Sold wire
Insulation:	Foam PE Polyethylene colour natural
Tape shield (if applicable) :	Aluminium polyester tape h18mm, 100% coverage
Braid shield:	Bare copper or Aluminium
Sheath material:	Polyvinyl Chloride (PVC) Colour Black or Transparent
Temperature range:	-30 / 70°C
Standards:	IEC 611961-1 / (BS) 50117 / EN 50290-2

APPLICATION

RG6 Coax cables 75 Ohm are ideal for residential and commercial antenna, cable television and satellite installations

SPECIAL FEATURES

lead Free CEI 20-52
Conform to RoHS

REMARKS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics		ITAL035	ITAL039
ITALICAB part number			
Conductor size	AWG	18	18
Nom. Diameter of conductor	mm	1,02	1,02
Conductor material	type	CCS	BC
Dielectric Pee/PH Ø	mm	4,60	4,60
Tape shield	Yes/No	Yes	No
Braid shield	%	> 60	> 95
Braid material	type	Al	BC
Nom. Overall outer diameter	mm	6,8 ± 0,10	6,8 ± 0,10
Impedance	Ohm	75 ± 3	75 ± 3
Capacitance	pF/m	53,0	56,0
Velocity Ratio	%	84,0	80,0
Inner conductor resistance	Ohm/km	64,0	22,5
Braid resistance	Ohm/km	15,9	7,0
Testing voltage, Spark-test	kV	3,5	3,5
Min bending radius	mm	34,0	34,0
Cable weight	kg/km	40,7	54,8

Cu (BC)	Copper - bare copper
CuSn	Tinned copper
Al	Aluminum
CCS	Copper Clad Steel
CCA	Copper Clad Aluminium
MATV	Master Antenna television
CATV	Community Antenna television
DGSAT	Digital Satellite
CCTV	closed circuit television (security)

Frequency	Max Attenuation at 20°C (dB/100m)(±8%)	Max Attenuation at 20°C (dB/100m)(±8%)
MHz	dB/100mt	dB/100mt
5	1,4	1,5
10	2,0	2,1
50	4,4	5,1
100	6,3	7,4
200	9,0	10,8
300	10,9	13,6
470	13,9	17,5
600	16,2	20,5
800	18,6	23,8
862	19,5	25,2
1000	21,3	27,6
1350	25,0	31,9
1500	27,0	34,1
1750	29,1	36,8
2150	32,8	41,2
2400	35,2	44,3
2750	38,2	48,4
3000	40,5	50,4

ITAL035	ITAL039
Structural Return Loss dB	
30 ÷ 470 MHz >31dB	30 ÷ 300 MHz >30dB
470 ÷ 862 MHz >30dB	300 ÷ 800 MHz >27dB
862 ÷ 2400 MHz >26dB	800 ÷ 1000 MHz >25dB
2400 ÷ 3000 MHz >22dB	1000 ÷ 2000 MHz >22dB
Screening attenuation dB	
30 ÷ 1000 MHz >90dB	100 ÷ 900 MHz >57dB
1000 ÷ 2000 MHz >80dB	900 ÷ 2000 MHz -
2000 ÷ 3000 MHz >70dB	2000 ÷ 3000 MHz -

RG11 75 Ohm CATV Coaxial Cable



TECHNICAL FEATURES

Conductor:	Soild wire
Insulation:	Foam PE Polyethylene colour natural
Tape shield (if applicable) :	Alluminium polyester tape h27mm, 100% coverage
Braid shield:	Bare copper or Aluminium
Sheath material:	Polyvinyl Chloride (PVC) Colour Black or Transparent
Temperature range:	-30 / 70°C
Standards:	IEC 611961-1 / (BS) 50117 / EN 50290-2

APPLICATION

RG11 Coax cable 75 Ohm is primarily used for longer distance runs for residential and commercial antenna, cable television and satellite installations

SPECIAL FEATURES

lead Free CEI 20-52
Conform to RoHS

REMARKS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL038	ITAL040
Conductor size	AWG	14	14
Nom. Diameter of conductor	mm	1,63	1,63
Conductor material	type	CCS	BC
Dielectric Pee/PH Ø	mm	7,20	7,20
Tape shield	Yes/No	Yes	No
Braid shield	%	> 60	> 95
Braid material	type	Al	BC
Nom. Overall outer diameter	mm	10,2 ± 0,10	10,3 ± 0,10
Impedance	Ohm	75 ± 3	75 ± 3
Capacitance	pF/m	53,0	53,0
Velocity Ratio	%	84,0	84,0
Inner conductor resistance	Ohm/km	8,2	8,2
Braid resistance	Ohm/km	10,0	4,8
Testing voltage, Spark-test	kV	5,0	5,0
Min bending radius	mm	51,0	51,0
Cable weight	kg/km	87,6	126,4

Cu (BC)	Copper - bare copper
CuSn	Tinned copper
Al	Aluminum
CCS	Copper Clad Steel
CCA	Copper Clad Alluminium
MATV	Master Antenna television
CATV	Community Antenna television
DGSAT	Digital Satellite
CCTV	closed circuit television (security)

Frequency	Max Attuation at 20°C (dB/100m)(±8%)	Max Attuation at 20°C (dB/100m)(±8%)
MHz	dB/100mt	dB/100mt
5	0,8	1,0
10	1,0	1,5
50	2,8	3,2
100	4,0	4,4
200	5,9	6,3
300	6,9	7,9
470	8,9	10,0
600	10,2	11,4
800	12,1	13,4
862	12,3	13,9
1000	13,5	15,2
1350	16,3	18,0
1500	17,4	18,9
1750	18,8	20,8
2150	21,1	23,5
2400	22,4	24,6
2750	24,0	27,1
3000	25,4	29,6

ITAL038

ITAL040

Structural Return Loss dB

30 ÷ 470 MHz >31dB	30 ÷ 300 MHz >31dB
470 ÷ 862 MHz >28dB	300 ÷ 800 MHz >29dB
862 ÷ 2400 MHz >24dB	800 ÷ 1000 MHz >28dB
2400 ÷ 3000 MHz >20dB	1000 ÷ 2000 MHz >24dB
	2000 ÷ 3000 MHz >20dB

Screening attenuation dB

30 ÷ 1000 MHz >90dB	100 ÷ 900 MHz >57dB
1000 ÷ 2000 MHz >80dB	900 ÷ 2000 MHz -
2000 ÷ 3000 MHz >70dB	2000 ÷ 3000 MHz -

LAN CABLES



CAT 3 UTP / FTP

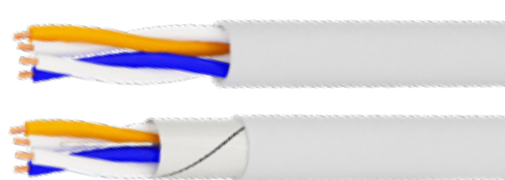
CAT 5e UTP / FTP

CAT 6 UTP / FTP

CAT 6A UTP / FTP

CAT 3 UTP / FTP

TEL. CABLES HALOGEN-FREE SHEATH



TECHNICAL FEATURES

Conductor:	Solid bare copper
Insulation:	PVC flame retardant
Drain wire (FTP):	Solid tinned copper
Overall shield FTP:	Aluminium/ Polyester 100% coverage
Sheath material:	LSOH Low smoke Halogen-free colour Grey
Standards:	IEC 60189-1-2-3 - IEC60332-1 - IEC 60332-3-24
Core colours identification:	CEI 46-5 Telephone cables

APPLICATION

Central office Cat. 3 telephone cable, shielded and un-shielded pair, suitable for internal wiring upto 16MHz. Halogen-free sheath.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL102	ITAL103	ITAL104	ITAL105	ITAL106	ITAL107
No. of cores (twisted pairs)	Pairs/cond.	2p	3p	4p	6p	10p	12p
Conductor size	AWG	22	22	22	22	22	22
Conductor stranding	n.xmm	1x0,60	1x0,60	1x0,60	1x0,60	1x0,60	1x0,60
Conductor stranding	n.awg	1x22	1x22	1x22	1x22	1x22	1x22
Drain wire size FTP	AWG	22	22	22	22	22	22
Drain wire stranding FTP	n.xmm	1x0,60	1x0,60	1x0,60	1x0,60	1x0,60	1x0,60
Drain wire stranding FTP	n.awg	1x22	1x22	1x22	1x22	1x22	1x22
Nom. Diameter of copper conductor	mm	0,60	0,60	0,60	0,60	0,60	0,60
Nom. Radial Thickness insulation	mm	0,22	0,22	0,22	0,22	0,22	0,22
Overall diameter of conductor	mm	1,05	1,05	1,05	1,05	1,05	1,05
Nom. overall outer diameter ±0,30mm UTP	mm	4,30	5,10	5,80	6,60	8,00	9,00
Nom. overall outer diameter ±0,30mm FTP	mm	4,70	5,30	6,00	7,80	9,20	9,70
Nominal cable weight UTP	kg/km	28	35	46	64	85	100
Nominal cable weight FTP	kg/km	33	44	55	72	108	120

ITALICAB part number		ITAL108	ITAL109	ITAL110	ITAL111	ITAL112	ITAL113
No. of cores (twisted pairs)	Pairs/cond.	2p	3p	4p	6p	10p	12p
Conductor size	AWG	24	24	24	24	24	24
Conductor stranding	n.xmm	1x0,50	1x0,50	1x0,50	1x0,50	1x0,50	1x0,50
Conductor stranding	n.awg	1x24	1x24	1x24	1x24	1x24	1x24
Drain wire size FTP	AWG	24	24	24	24	24	24
Drain wire stranding FTP	n.xmm	1x0,50	1x0,50	1x0,50	1x0,50	1x0,50	1x0,50
Drain wire stranding FTP	n.awg	1x24	1x24	1x24	1x24	1x24	1x24
Nom. Diameter of copper conductor	mm	0,50	0,50	0,50	0,50	0,50	0,50
Nom. Radial Thickness insulation	mm	0,25	0,25	0,25	0,25	0,25	0,25
Overall diameter of conductor	mm	0,95	0,95	0,95	0,95	0,95	0,95
Nom. overall outer diameter ±0,30mm UTP	mm	3,80	4,60	5,00	5,80	7,50	8,00
Nom. overall outer diameter ±0,30mm FTP	mm	4,20	4,60	5,00	5,80	7,70	8,30
Nominal cable weight UTP	kg/km	20	28	32	46	70	83
Nominal cable weight FTP	kg/km	24	33	40	56	85	98

Insulation material	type	PVC	PVC	PVC	PVC	PVC	PVC
Shield	Yes/No	No	No	No	No	No	No
Sheath material	type	LSOH	LSOH	LSOH	LSOH	LSOH	LSOH
Operating temperature	°C	-20 / +80	-20 / +80	-20 / +80	-20 / +80	-20 / +80	-20 / +80
insulation resistance	Ω/km	200	200	200	200	200	200
working voltage	Volt	300	300	300	300	300	300
test voltage	Volt	1200	1200	1200	1200	1200	1200

The data and sketches of this technical leaflet are not binding and can be varied as a consequence of modifications and/or improvements deemed necessary by the manufacturer. Tolerances on weights and diameters ± 5%.

CAT 5e UTP

NETWORK CABLES UN-SHIELDED



TECHNICAL FEATURES

[illegible]

APPLICATION

Local area Cat. 5e LAN cable, un-shielded, twisted pair, suitable for Networks and video applications.

SPECIAL FEATURES

Halogen-Free sheath
Conform to RoHS

REMARKS

REMARKS
Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums or boxes

Physical characteristics		
ITALICAB part number		ITAL034
No. of pairs	num	4
Conductor size	AWG	24
Nom. Diameter of copper strand	mm	0,50
Nom. Radial Thickness insulation	mm	0,20
Nom. diameter over insulation	mm	0,92x2c twist
Nom. Radial sheath Thickness	mm	0,50
Nom. Overall outer diameter	mm	5,10

Electrical Characteristics		
Impedance (1 - 100 MHz)	Ω	100±15
Impedance (100 - 250 MHz)	Ω	100±18
Mutual Capacitance	pF/m	49,2±5
Velocity Ratio	%	68
Maximum Delay	ns/100m	≤ 45
Max. conductor Resistance at 20°C	Ω /km	104,8
Max. operating voltage	V _{rms}	300

Miscellaneous		
Operating temperature	°C	-25 / +60
Max. recommended pulling tension	N	156
Min. bending radius (install)	mm	12,7
Nominal cable weight	kg/km	30

Electrical Characteristics				
Frequency	Attenuation	NEXT	PSNEXT	Return Loss
MHz	dB/100m	dB	dB	dB
	max			
1,00	2,00	62,30	62,30	17,00
4,00	4,10	53,30	53,30	18,80
10,00	6,50	47,30	47,30	20,00
16,00	8,20	44,20	44,20	20,00
31,25	9,30	39,90	39,90	18,60
62,00	17,00	35,40	35,40	16,50
100,00	22,00	32,30	32,30	15,10
250,00	36,50	29,30	17,30	17,30

Frequency	ELFEXT	PSELFEXT
MHz	dB	dB
1	61,00	61,00
4	49,00	49,00
10	41,00	41,00
16	37,00	37,00
31,25	31,00	31,00
62,5	25,00	25,00
100	21,00	21,00
250	16,00	13,20

CAT 5e FTP

NETWORK CABLES SHIELDED



TECHNICAL FEATURES

Conductor:	Solid bare copper wire
Insulation:	LDPE Polyethylene
Rip cord:	Nylon
Drain wire:	27awg CCA
Shield	Aluminium / Polyester 100% coverage
Sheath material:	LSZH Low Smoke Zero Halogen, Colour Grey
Standards:	TIA/EIA-568B & ISO/TEC 11801 & IEC 61156-5:2009
Core colours identification:	blue, white / blue - orange, white / orange - green, white / green - brown, white / brown

APPLICATION

Local area Cat. 5e LAN cable, shielded, twisted pair, suitable for Networks and video applications.

SPECIAL FEATURES

Halogen-Free sheath
Conform to RoHS

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums or boxes

Physical characteristics

ITALICAB part number	num	ITAL036
No. of pairs	num	4
Conductor size	AWG	24
Nom. Diameter of copper strand	mm	0,50
Nom. Radial Thickness insulation	mm	0,20
Nom. Diameter over insulation	mm	0,92x2c twist
Overall Malyar spiral	%	>100
Drain wire	Y/N	Yes
Nom. Radial sheath Thickness	mm	0,50
Nom. Overall outer diameter	mm	5,10

Electrical Characteristics

Impedance (1 - 100 MHz)	Ω	100 $\pm$ 15
Impedance (100 - 250 MHz)	Ω	100 $\pm$ 18
Mutual Capacitance	pF/m	49,2 $\pm$ 5
Velocity Ratio	%	68
Maximum Delay	ns/100m	$\leq$ 45
Max. conductor Resistance at 20°C	Ω /km	104,8
Max. operating voltage	Vrms	300

Miscellaneous

Operating temperature	°C	-25 / +60
Max. recommended pulling tension	N	111
Min. bending radius (install)	mm	60
Nominal cable weight	kg/km	32,5

Electrical Characteristics

Frequency MHz	Attenuation dB/100m max	NEXT dB	ACR dB	RL dB min.
1,00	2,10	65,30	62,30	20,00
4,00	4,10	56,30	53,30	23,00
10,00	6,50	50,30	47,30	25,00
16,00	8,30	47,20	44,20	25,00
31,25	11,70	42,90	39,90	23,60
62,00	17,00	38,40	35,40	21,60
100,00	22,00	35,30	32,30	20,10
250,00	28,30	29,30	17,30	36,50

Frequency MHz	ELFEXT dB	PSSELFEXT dB		
1	63,80	62,30		
4	51,70	53,30		
10	43,80	47,30		
16	39,70	44,20		
31,25	37,70	33,90		
62,5	33,90	27,80		
100	23,80	23,80		
250	16,20	16,20		



The data and sketches of this technical leaflet are not binding and can be varied as a consequence of modifications and/or improvements deemed necessary by the manufacturer. Tolerances on weights and diameters $\pm 5\%$.

CAT 6 FTP

NETWORK CABLES SHIELDED



TECHNICAL FEATURES

Conductor:	Solid bare copper wire
Insulation:	LDPE Polyethylene
Filler:	Cross member PE
Drain wire:	27awg CCA
Shield:	Aluminium / Polyester 100% coverage
Sheath material:	LSZH Low Smoke Zero Halogen, Colour Grey
Standards:	TIA/EIA-568B & ISO/TEC 11801 & IEC 61156-5:2009
Core colours identification:	blue, white / blue - orange, white / orange - green, white / green - brown, white / brown

APPLICATION

Local area Cat. 6 LAN cable, shielded, twisted pair, suitable for Networks and video applications.

SPECIAL FEATURES

Halogen-Free sheath
Conform to RoHS

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums or boxes

Physical characteristics

ITALICAB part number		ITAL033
No. of pairs	num	4
Conductor size	AWG	23
Nom. Diameter of copper strand	mm	0,565
Nom. Radial Thickness insulation	mm	0,26
Nom. diameter over insulation	mm	1,08x2c twist
Overall Malyar spiral	%	>100
Drain wire	Y/N	Yes
Nom. Radial sheath Thickness	mm	0,60
Nom. Overall outer diameter	mm	6,0 ± 0,2

Electrical Characteristics

Impedance (1 - 100 MHz)	Ω	100±15
Impedance (100 - 250 MHz)	Ω	100±20
Mutual Capacitance	pF/m	50±5
Velocity Ratio	%	70
Maximum Delay	ns/100m	≤45
Max. conductor Resistance at 20°C	Ω/km	<91,3
Max. operating voltage	Vrms	300

Miscellaneous

Operating temperature	°C	-25 / +50
Max. recommended pulling tension	N	111
Min. bending radius (install)	mm	60
Nominal cable weight	kg/km	56

Electrical Characteristics

Frequency MHz	Attenuation dB/100m max	NEXT dB	PSNEXT dB	Return Loss dB
1,00	1,90	74,30	72,30	20,00
4,00	3,70	65,30	63,30	23,00
10,00	5,90	59,30	57,30	25,00
16,00	7,50	56,30	54,30	25,00
31,25	10,60	51,90	49,90	23,60
62,00	15,40	47,40	45,40	21,50
100,00	19,80	44,30	42,30	20,10
250,00	32,80	38,30	36,30	17,30

Frequency MHz	ELFEXT dB	PSSELFEXT dB		
1	67,80	64,80		
4	61,80	57,80		
10	53,80	44,80		
16	49,70	40,70		
31,25	43,90	34,90		
62,5	37,90	28,80		
100	33,80	24,80		
250	24,30	16,80		

CAT 6A UTP

NETWORK CABLES UN-SHIELDED



TECHNICAL FEATURES

Conductor:	Solid bare copper wire
Insulation:	LDPE Polyethylene
Filler:	Cross member PE
Ripcord:	Nylon
Sheath material:	LSZH Low Smoke Zero Halogen, Colour Grey
Standards:	TIA/EIA-568B & ISO/TEC 11801 & IEC 61156-5:2009
Core colours identification:	blue, white / blue - orange, white / orange - green, white / green - brown, white / brown

APPLICATION

Local area Cat. 6A LAN cable, un-shielded, twisted pair, suitable for Networks and video applications.

SPECIAL FEATURES

Halogen-Free sheath
Conform to RoHS, FLUKE TEST passed

REMARKS

Conform to RoHS, FLUKE TEST passed
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums or boxes

Physical characteristics		
ITALICAB part number		ITAL032A
No. of pairs	num	4
Conductor size	AWG	23
Nom. Diameter of copper strand	mm	0,585
Nom. Radial Thickness insulation	mm	0,26
Nom. diameter over insulation	mm	1,13x2c twist
Nom. Radial sheath Thickness	mm	0,60
Nom. Overall outer diameter	mm	6,8 ± 0,2

Electrical Characteristics		
Impedance (1 - 100 MHz)	Ω	100±15
Impedance (100 - 250 MHz)	Ω	100±20
Mutual Capacitance	pF/m	50±5
Velocity Ratio	%	70
Maximum Delay	ns/100m	≤45
Max. conductor Resistance at 20°C	Ω /km	<91,3
Max. operating voltage	Vrms	300

Miscellaneous		
Operating temperature	°C	-25 / +50
Max. recommended pulling tension	N	156
Min. bending radius (install)	mm	12,7
Nominal cable weight	kg/km	43

Electrical Characteristics				
Frequency	Attenuation	NEXT	PSNEXT	Return Loss
MHz	dB/100m	dB	dB	dB
max				
1,00	1,90	74,30	72,30	20,00
4,00	3,70	65,30	63,30	23,00
10,00	5,90	59,30	57,30	25,00
16,00	7,50	56,30	54,30	25,00
31,25	10,60	51,90	49,90	23,60
62,00	15,40	47,40	45,40	21,50
100,00	19,80	44,30	42,30	20,10
250,00	32,80	38,30	36,30	17,30
Frequency	ELFEXT	PSSELFEXT		
MHz	dB	dB		
1	67,80	64,80		
4	55,80	57,70		
10	47,80	44,80		
16	43,70	40,70		
31,25	37,90	34,90		
62,5	31,90	28,80		
100	27,80	24,80		
250	19,80	16,80		

CAT 6A FTP

NETWORK CABLES SHIELDED



TECHNICAL FEATURES

Conductor:	Solid bare copper wire
Insulation:	LDPE Polyethylene
Filler:	Cross member PE
Drain wire:	27awg CCA
Shield:	Aluminium / Polyester 100% coverage
Sheath material:	LSZH Low Smoke Zero Halogen, Colour Grey
Standards:	TIA/EIA-568B & ISO/TEC 11801 & IEC 61156-5:2009
Core colours identification:	blue, white / blue - orange, white / orange - green, white / green - brown, white / brown

APPLICATION

Local area Cat. 6A LAN cable, shielded, twisted pair, suitable for Networks and video applications.

SPECIAL FEATURES

Halogen-Free sheath
Conform to RoHS, FLUKE TEST passed

REMARKS

Conform to RoHS, FLUKE TEST passed
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums or boxes

Physical characteristics

ITALICAB part number		ITAL033A
No. of pairs	num	4
Conductor size	AWG	23
Nom. Diameter of copper strand	mm	0,585
Nom. Radial Thickness insulation	mm	0,26
Nom. diameter over insulation	mm	1,13x2c twist
Overall Malyar spiral	%	>100
Drain wire	Y/N	Yes
Nom. Radial sheath Thickness	mm	0,60
Nom. Overall outer diameter	mm	7,20 ± 0,2

Electrical Characteristics

Impedance (1 - 100 MHz)	Ω	100±15
Impedance (100 - 250 MHz)	Ω	100±20
Mutual Capacitance	pF/m	50±5
Velocity Ratio	%	70
Maximum Delay	ns/100m	≤45
Max. conductor Resistance at 20°C	Ω/km	<91,3
Max. operating voltage	Vrms	300

Miscellaneous

Operating temperature	°C	-25 / +50
Max. recommended pulling tension	N	111
Min. bending radius (install)	mm	60
Nominal cable weight	kg/km	46

Electrical Characteristics

Frequency MHz	Attenuation dB/100m max	NEXT dB	PSNEXT dB	Return Loss dB
1,00	1,90	74,30	72,30	20,00
4,00	3,70	65,30	63,30	23,00
10,00	5,90	59,30	57,30	25,00
16,00	7,50	56,20	54,30	25,00
31,25	10,60	51,90	49,90	23,60
62,00	15,40	47,40	45,40	21,50
100,00	19,80	44,30	42,30	20,10
250,00	32,80	38,30	36,30	17,30

Frequency MHz	ELFEXT dB	PSSELFEXT dB		
1	64,80	61,80		
4	58,80	54,80		
10	50,80	41,80		
16	46,70	37,70		
31,25	40,90	31,90		
62,5	34,90	25,80		
100	30,80	21,80		
250	21,30	13,80		

BUS CABLES KNX / EIB



BUS KNX CABLE (EIB)
PROFIBUS 150 Ohm

BUS CABLES

Bus KNX/EIB



TECHNICAL FEATURES

Conductor:	Solid bare copper wire
Insulation:	LSOH, flame retardant
Shield:	Aluminium/Polyester 100% coverage
Drain wire:	Tinned copper
Sheath material:	LSOH, flame retardant, Green (RAL 6018)
Standards:	IEC 60332-1 - IEC 60332-3-24
	EN 50363-0:2011 - EN 61034-2:2006
	EN 60754-1:2005 - EN 60754-2:2015
	EN 50090-2-2:2008
Core colours identification:	black, red / yellow, white

APPLICATION

BUS cable, shielded, suitable for KNX/EIB (European Installation Bus) Building Management Systems (BMS)

KNX systems, formerly known as EIB, allow the operation and control of heating, lighting and air condition among others, based on a twisted pair cable design and available in 1 or 2 pair.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1

lead Free CEI 20-52

REMARKS

Conform to RoHS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL355	ITAL356
No. of pairs	num	1p	2p
Conductor size	mm ²	0,50	0,50
Conductor	n.xmm	1x0,80	1x0,80
Drain wire size	mm	0,40	0,40
Drain wire	n.xmm	1x0,40	1x0,40
Nom. Diameter of copper conductor	mm	0,8	0,8
Insulation material	type	LSOH	LSOH
Nom. Radial Thickness insulation	mm	0,35	0,30
Shield	Yes/No	Yes	Yes
Individual shield	Yes/No	No	No
Screen (braid)	Yes/No	No	No
Sheath material	type	LSOH	LSOH
Overall diameter of conductor	mm	1,50	1,40
Nom. Radial sheath thickness	mm	1,00	1,20
Nom. overall outer diameter	mm	5,2	7,10

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	36,40	36,17
Max. DC Resistance shield	Ω/km	78,5	78,5
Max. Capacitance conductor to conductor (10kHz)	pF/m	100	100
Max. Capacitance cond. to other cond.+shield	pF/m	225	210
Nominal inductance	μH/m	0,85	0,85
Max. recommended Current at 25°C	Amps	4,0	4,0
Max. operating voltage	Vrms	300	300

Miscellaneous

Operating temperature	°C	-25 / +70	-25 / +70
Max. recommended pulling tension	N	262	391
Min. bending radius (install)	mm	51	60
Nominal cable weight	kg/km	35	52

BUS CABLES

PROFIBUS L2/FIP 150 Ohm
Factory instrumentation Protocol



TECHNICAL FEATURES

Conductor:	Soild wire bare copper
insulation:	Foam PE Polyethylene, with hard skin
Bedding:	Synthetic PVC bedding
Shield:	Overall Alluminium polyester tape, 100% coverage
Braid shield:	Tinned copper, optical coverage 60%
Sheath material:	Polyvinyl Chloride (PVC) Colour Violet RAL4001
Colour coding:	Red - Green
Standards:	EN 50170 / VDE 0482-332-1-2/IEC 60332-1-2

APPLICATION

This cable is usually reffered as siemens profibus.
Low capacitance cables with twisted pairs, double shield, for industrial use.
PROFIBUS-L2/FIP are field bus cables designed for use in FIP (Factory Instrumentation Protocol), SINEC-L2 field bus systems and other high performance field bus networks.

SPECIAL FEATURES

lead Free CEI 20-52
Conform to RoHS

REMARKS

CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number	ITAL357	
No. of cores (twisted pairs)	Pairs/cond.	2p
Conductor size	AWG	22
Nom. Diameter of copper conductor	mm	0,64
Conductor stranding	n.xmm	1x0,64
Conductor stranding	n.awg	1x22
Conductor material	type	Cu Bare copper
Insulation material	type	Foam PE
Nom. Radial Thickness insulation	mm	0,80
Overall shield	Yes/No	Yes
Screen	Yes/No	Yes
Colour coding	type	Red - Green
Sheath material	type	PVC
Nom. Overall diameter of conductor	mm	2,55
Nom. Radial shetah thickness	mm	0,95
Nom. overall outer diameter	mm	8,0 ± 0,40

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	<55.0
Nom. Impedance	Ω	150 ± 10
Mutual Capacitance @ 1khz	nF/km	<35,0
Max. operating voltage	Volts	350
Miscellaneous		
Operating temperature	°C	-40 / 80°C
Min bending radius	mm	48
Nominal cable weight	kg/km	57

FIRE ALARM CABLES

FIRE ALARM

SYSTEM CABLES 105°C, UN-SHIELDED
SYSTEM CABLES 105°C, OVERALL SHIELDED

FIRE RESISTANT ALARM CABLES, OVERALL SHIELDED

SILICONE INSULATED TO CIRCUIT INTEGRITY IEC STANDARDS
750°C STANDARDS UP TO 950°C FOR 3 HOURS

FIRE RESISTANT CABLES

OVERALL SHIELDED CONFORMING TO BS 6387 CWZ EN 50200



FIRE ALARM

SYSTEM CABLES 105°C, UN-SHIELDED



TECHNICAL FEATURES

Conductor:	Solid bare copper wire
Insulation:	Polyvinyl Chloride (PVC) 105°C
Sheath material:	Flame retardant Polyvinyl Chloride (PVC) Colour Red
Standards:	IEC 60332-1 - IEC 60332-3-24
Core colours identification:	black, red

APPLICATION

Fire detection alarm cable, un-shielded, suitable for fire alarm systems, smoke alarms, voice communications and burglar alarms. Manufactured with flame retardant insulation and up to 105°C working temperature.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL050	ITAL051	ITAL053	ITAL052
No. of cores	num	2c	2c	2c	2c
Conductor size	AWG	18	16	14	12
Conductor stranding	n.xmm	1x1,02	1x1,30	1x1,62	1x2,05
Conductor stranding	n.awg	1x18	1x16	1x14	1x12
Drain wire size	AWG	No	No	No	No
Drain wire stranding	n.xmm	No	No	No	No
Drain wire stranding	n.awg	No	No	No	No
Nom. Diameter of copper conductor	mm	1,02	1,30	1,62	2,05
Insulation material	type	PVC 105	PVC 105	PVC 105	PVC 105
Nom. Radial Thickness insulation	mm	0,40	0,40	0,50	0,60
Shield	Yes/No	No	No	No	No
Individual shield	Yes/No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	1,90	2,20	2,55	3,25
Nom. Radial sheath thickness	mm	0,80	0,80	0,80	0,80
Nom. overall outer diameter	mm	5,50	6,00	6,70	8,80

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	22	14,5	9,10	5,30
Max. DC Resistance shield	Ω/km	//	//	//	//
Capacitance conductor to conductor	pF/m	65	71	72	75
Capacitance cond. to other cond.+shield	pF/m	//	//	//	//
Nominal inductance	μH/m	0,30	0,50	0,60	0,60
Max. recommended Current at 25°C	Amps	5,30	11,00	18,00	24,00
Max. operating voltage	Vrms	300	300	300	300

Miscellaneous

Operating temperature	°C	-40 / +105	-40 / +105	-40 / +105	-40 / +105
Max. recommended pulling tension	N	215	345	552	876
Min. bending radius (install)	mm	57	60	77	86
Nominal cable weight	kg/km	19	28	43	62

FIRE ALARM

SYSTEM CABLES 105°C, OVERALL SHIELDED



TECHNICAL FEATURES

Conductor:	Solid bare copper wire
Insulation:	Polyvinyl Chloride (PVC) 105°C
Sheath material:	Flame retardant Polyvinyl Chloride (PVC) Colour Red
Drain wire:	Tinned copper
Shield:	Aluminium/Polyester 100% coverage
Standards:	IEC 60332-1 - IEC 60332-3-24
Core colours identification:	black, red

APPLICATION

Fire detection alarm cable, shielded, suitable for fire alarm systems, smoke alarms, voice communications and berglar alarms. Manufactured with flame retardant insulation and up to 105°C working temperature.

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALICAB part number		ITAL054	ITAL055	ITAL056	ITAL057
No. of cores	num	2c	2c	2c	2c
Conductor size	AWG	18	16	14	12
Conductor stranding	n.xmm	1x1,02	1x1,30	1x1,62	1x2,05
Conductor stranding	n.awg	1x18	1x16	1x14	1x12
Drain wire size	AWG	24	24	24	24
Drain wire stranding	n.xmm	7x0,20	7x0,20	7x0,20	7x0,20
Drain wire stranding	n.awg	7x32	7x32	7x32	7x32
Nom. Diameter of copper conductor	mm	1,02	1,30	1,62	2,05
Insulation material	type	PVC 105	PVC 105	PVC 105	PVC 105
Nom. Radial Thickness insulation	mm	0,40	0,40	0,50	0,60
Shield	Yes/No	Yes	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No
Sheath material	type	PVC TM2	PVC TM2	PVC TM2	PVC TM2
Overall diameter of conductor	mm	1,90	2,20	2,55	3,25
Nom. Radial sheath thickness	mm	0,80	0,80	0,80	1,10
Nom. overall outer diameter	mm	5,90	6,50	7,20	8,90

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	22	14,5	9,10	5,30
Max. DC Resistance shield	Ω/km	52,7	52,7	52,7	52,7
Capacitance conductor to conductor	pF/m	165	189	192	216
Capacitance cond. to other cond.+shield	pF/m	312	358	358	424
Nominal inductance	μH/m	0,30	0,50	0,60	0,60
Max. recommended Current at 25°C	Amps	5,30	11,00	18,00	24,00
Max. operating voltage	Vrms	300	300	300	300

Miscellaneous

Operating temperature	°C	-40 / +105	-40 / +105	-40 / +105	-40 / +105
Max. recommended pulling tension	N	215	222	552	876
Min. bending radius (install)	mm	57	64	77	86
Nominal cable weight	kg/km	20	30	45	65

The data and sketches of this technical leaflet are not binding and can be varied as a consequence of modifications and/or improvements deemed necessary by the manufacturer. Tolerances on weights and diameters $\pm 5\%$.

FIRE RESISTANT CABLES

OVERALL SHIELDED
CONFORMING TO BS 6387 CWZ EN 50200



TECHNICAL FEATURES

Conductor:	Solid bare copper wire
Insulation:	High performance ceramifiable Silicone Rubber
Drain wire:	Tinned copper
Shield:	Aluminium/Polyester 115% coverage
Sheath material:	Halogen-free, flame retardant LSOH, Colour Red
Standards:	IEC 60332-1 - IEC 60332-3-24 / EN50200 / BS 6387
Core colours identification:	black, red

APPLICATION

Fire performance power cable, suitable for fire alarm systems and emergency lighting, designed to maintain circuit integrity under fire conditions according to BS6387 Categories C, W & Z: up to 950°C

SPECIAL FEATURES

Flame retardant CEI 20-35 / EN 60332-1
lead Free CEI 20-52

REMARKS

Conform to RoHS
CE acc. to EC Low-Voltage Directive 73/23/EEC and 93/68/EEC
Standard put up: 305 meters drums

Physical characteristics

ITALCAB part number		ITAL080	ITAL081	ITAL082	ITAL083	ITAL084
No. of cores	num	2c	2c	2c	2c	2c
Conductor size	mm ²	0,75	1,00	1,50	2,50	4,00
Conductor stranding	n.xmm	1x0,98	1x1,13	1x1,38	1x1,75	7x0,83
Drain wire size	mm ²	0,75	1,00	1,50	2,50	4,00
Drain wire stranding	n.xmm	1x0,98	1x1,13	1x1,38	1x1,75	7x0,83
Nom. Diameter of copper conductor	mm	0,98	1,13	1,38	1,75	2,60
Insulation material	type	Silicone	Silicone	Silicone	Silicone	Silicone
Nom. Radial Thickness insulation	mm	0,70	0,70	0,80	0,80	1,00
Shield	Yes/No	Yes	Yes	Yes	Yes	Yes
Individual shield	Yes/No	No	No	No	No	No
Screen (braid)	Yes/No	No	No	No	No	No
Sheath material	type	LSOH	LSOH	LSOH	LSOH	LSOH
Overall diameter of conductor	mm	1,90	2,50	3,00	3,50	4,50
Nom. Radial sheath thickness	mm	0,90	0,90	0,90	1,10	1,10
Nom. overall outer diameter	mm	7,50	7,80	8,70	9,90	12,00

Electrical Characteristics

Max. DC Resistance conductor at 20°C	Ω/km	24,5	18,1	12,10	7,41	4,61
Min. insulation resistance	Ω/km	200	200	200	200	200
Max. recommended Current at 25°C	Amps	12	18	21	30	40
Max. operating voltage	Vrms	300/500	300/500	300/500	300/500	300/500

Miscellaneous

Operating temperature (3h 950°C)	°C	-40 / +105	-40 / +105	-40 / +105	-40 / +105	-40 / +105
Max. recommended pulling tension	N	205	265	405	670	1250
Min. bending radius (install)	mm	75	78	87	99	120
Nominal cable weight	kg/km	67	75	100	143	201

FIRE TEST to BS 6387

	test applied	
resistance to Fire alone	BS 6387 D 2	3 hours
fire test category (A=650°C; B=750°C; C=950°C) for 20 min	BS 6387 D 2	C
resistance to Fire with Water	BS 6387 D 2	30 min
category W at 650°C for 30 mins, 15 min of water	BS 6387 D 2	W
resistance to fire with mechanical shock (one shock every 30 sec)	BS 6387 D 2	15 min
category X at 650°C; Y=750°C; Z=950°C	BS 6387 D 2	Z
RESISTANCE TO FIRE CEI EN 50200		
resistance to fire with mechanical shock (one shock every 5 min)	EN 50200	OK
category (PH15; PH30; PH60; PH90; PH120) temperature 842°C	EN 50200	30 min PH30
resistance to fire with water and shock (one shock every 5 min)	EN 50200-E	30 min
category (temperature 842°C, 15 min of water	EN 50200-E	OK

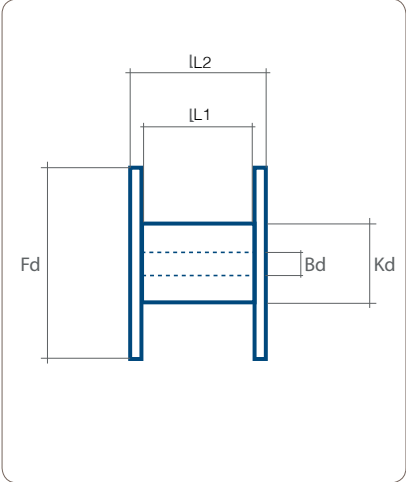
PACKAGING



Drums

DRUMS DIMENSIONS

Drum Size	Flange Size	Barrel Size	Bore Size	Outer Width	Inner Width	Load Capacity	Drum Weight
	Fd mm	Kd mm	Bd mm	L2 mm	L1 mm	KG	KG
600	630	315	56	415	335	250	15
700	710	355	80	520	440	250	20
800	800	400	80	520	440	400	25
900	900	450	80	690	610	750	40
1000	1000	500	80	710	630	900	45
1250	1250	630	80	890	790	1700	75
1400	1400	710	80	890	770	2000	115
1600	1600	800	80	1100	980	3000	185

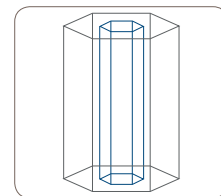


DRUM CONTENT IN METERS

CABLE	600 (UNI06)	800 (UNI08)	1000 (UNI10)	1200 (UNI12)	1400 (UNI14)	1600 (UNI16)	1800 (UNI18)	2000 (UNI20)	2200 (UNI22)
8,0	1000	2120	4808	-	-	-	-	-	-
8,5	880	1900	3690	-	-	-	-	-	-
9,0	780	1700	3210	5410	-	-	-	-	-
9,5	690	1520	2900	4780	-	-	-	-	-
10,0	660	1370	2640	4370	-	-	-	-	-
10,5	580	1230	2390	4000	-	-	-	-	-
11,0	510	1100	2170	3670	-	-	-	-	-
11,5	490	980	1960	3360	5420	-	-	-	-
12,0	420	930	1750	3080	5000	-	-	-	-
12,5	410	840	1710	2790	4610	-	-	-	-
13,0	360	800	1540	2580	4200	-	-	-	-
13,5	430	710	1390	2370	3910	5840	-	-	-
14,0	330	690	1340	2160	3770	5370	-	-	-
14,5	290	610	1210	2080	3470	4960	-	-	-
15,0	280	590	1170	1900	3200	4800	-	-	-
16,0	230	500	1020	1680	2840	4070	5950	-	-
17,0	220	470	880	1480	2540	3630	5000	-	-
18,0	170	400	760	1290	2230	3240	4450	5950	-
19,0	160	370	710	1130	2000	2880	4210	5000	-
20,0	160	310	630	1090	1770	2570	3760	4750	5680
21,0	130	300	580	940	1570	2450	3340	4250	5100
22,0	120	250	510	910	1520	2180	2960	3810	4590
23,0	120	240	490	800	1350	1940	2820	3390	4110
24,0	-	230	410	770	1200	1860	2500	3250	3950
25,0	-	190	400	670	1150	1640	2400	2900	3530

CABLE	600 (UNI06)	800 (UNI08)	1000 (UNI10)	1200 (UNI12)	1400 (UNI14)	1600 (UNI16)	1800 (UNI18)	2000 (UNI20)	2200 (UNI22)
26,0	-	180	380	640	1010	1580	2110	2790	3390
27,0	-	180	320	560	970	1390	2030	2480	3040
28,0	-	170	310	540	940	1340	1790	2390	2930
29,0	-	-	300	520	820	1180	1720	2120	2610
30,0	-	-	290	440	800	1140	1670	2040	2527
31,0	-	-	240	430	770	1100	1450	1800	2230
32,0	-	-	230	410	670	960	1400	1740	2170
33,0	-	-	220	400	650	930	1360	1690	2100
34,0	-	-	220	340	630	900	1170	1640	1850
35,0	-	-	210	330	540	880	1140	1430	1800
36,0	-	-	170	320	530	760	1100	1390	1570
37,0	-	-	160	270	510	730	1070	1350	1530
38,0	-	-	160	260	430	710	910	1170	1490
39,0	-	-	160	250	420	610	890	1140	1450
40,0	-	-	150	250	410	590	870	1110	1260
41,0	-	-	150	240	400	580	850	1080	1220
42,0	-	-	110	230	390	560	830	920	1190
43,0	-	-	-	230	380	550	690	900	1170
44,0	-	-	-	190	320	540	680	880	1140
45,0	-	-	-	180	310	450	660	860	970
46,0	-	-	-	170	300	440	650	840	950
47,0	-	-	-	170	300	430	630	820	930
48,0	-	-	-	170	290	410	620	690	910
49,0	-	-	-	170	290	410	600	680	890
50,0	-	-	-	160	280	410	500	660	880

Barrel	Dimensions		
	Height cm	Outer diameter cm	Inner diameter cm
Small	50	40	18
Large	80	52	30



STANDARD CAPACITY BARREL

Nominal section n° x mm2	Cable type H05V-K, H07V-K m	Cable type H05Z-K, H07Z-K m	Cable type SIAF m
1 x 0,50	7000	5000	7000
1 x 0,75	6000	5000	6000
1 x 1	5200	4500	5000
1 x 1,5	3500	3500	4000
1 x 2,5	2500	2500	2500
1 x 4	1500	1500	1500
1 x 6	1300	1000	1000

STANDARD CAPACITY Ø 300 & Ø 400 DRUMS

Nominal section n° x mm2	Ø 400 Cable type H05V-K, H07V-K m	Ø 400 Cable type H05Z-K, H07Z-K m	Ø 300 Cable type SIAF m
1 x 0,50	3500	3500	2000
1 x 0,75	3000	3000	1500
1 x 1	2000	1800	1500
1 x 1,5	1500	-	1000
1 x 2,5	1000	-	700
1 x 4	600	-	500
1 x 6	500	-	300

Pallet

EUROPALLET 80 x 120 cm

Pallets 110 x 110 cm for container loading

Drums and Pallets can be supplied according to ISPM15 on demand

CONTAINER CAPACITY SPECIFICATION

	Standard 20'	Standard 40'	High Cube 40'
Inside length	5,89 m	12,01 m	12,01 m
Inside width	2,33 m	2,33 m	2,33 m
Inside height	2,38 m	2,38 m	2,69 m
Capacity	33,18 m3	67,67 m3	76,28 m3
Tare Weight	2.229 Kg	3.701 Kg	3.968 Kg
Max Cargo	27.987 Kg	26.780 Kg	26.512 Kg

CUSTOMIZED LABELS (optional)

your logo

CE

ITEM

SECTION

COLOUR

QUANTITY

MADE IN ITALY

ITALICAB

is able to supply customized labels on demand.

TECHNICAL DATA



COMPARISON OF HARMONIZED CABLES WITH IEC, DIN VDE AND HD

PVC-insulated cables according to DIN VDE 0281 in comparison with IEC and HD

Designation	accord. To VDE part...	short designation new	short designation old VDE 0250	nominal cross section (mm ²)	nominal voltage U ₀ /U (V)	according to HD	comparative design to IEC
PVC-wiring cables							
Single wires	0281 part 3	H05V-U	NYFA, NYA	0,5 to 1,0	300/500	HD 21.3 S3	227 IEC 01
Fine wires	0281 part 3	H05V-K	NYFAF, NYAF				227 IEC 01
PVC-insulated cables							
Single wires	0281 part 3	H07V-U	NYA	1,5 to 10	450/750	HD 21.3 S3	227 IEC 01
Multi stranded wires	0281 part 3	H07V-R	NYA	1,5 to 400			227 IEC 01
Fine wires	0281 part 3	H07V-K	NYAF	1,5 to 240			227 IEC 02
Light PVC-Twin cables	0281 part 5	H03VH-Y	NLYZ	0,1	300/300	HD 21.3 S3	227 IEC 41
Twin cables	0281 part 5	H03VH-H	NYZ	0,5+0,75	300/300	HD 21.3 S3	227 IEC 42
PVC-sheathed cables 03VV-F							
Round	0281 part 5	H03VV-F	NYLHY rund	0,5+0,75	300/300	HD 21.3 S3	227 IEC 43
Flat	0281 part 5	H03VVH2-F	NYLHY flach	0,5+0,75			227 IEC 43
PVC-sheathed cables 05VV-F							
Round	0281 part 5	H05VV-F	NYMHY rund	0,75 to 2,5	300/500	HD 21.3 S3	227 IEC 53
			NYMHY rund	1 to 2,5			
Flat	0281 part 5	H05VVH2-F	NYMHY flach	0,75	300/500		227 IEC 53
PVC-Flat-cable 05VV-H6	0281 part 5	H05VVH6-F	NYFLY	0,75 to 1	300/500	-	-
PVC-Flat-cable 05VV-H6	0281 part 5	H05VVH6-F	NYFLY	1,5 to 25	450/750		-

CABLE IDENTIFICATION SYMBOLS ACCORDING TO VDE STANDARDS

Cable part or feature	Symbol	Description
Conductor	Li	Flexible multicore conductor
Insulation sheath and materials	G	Natural rubber
	Y	PVC
	2Y	Polyethylene
	2X	Cross-linked polyethylene
	11Y	Polyurethane
	9Y	Polypropylene
Jackets and shields	C	Tinned copper braid shield
	(St)	Aluminium/Polyester tape shield
	(Z)	Galvanized steel braid armour
COLOUR CODING	-J	With protective ground Y/G conductor
	-O	Without protective ground conductor
	Z	Numbered cores
	B	Coloured cores

CURRENT RATINGS General for flexible cables

AMBIENT TEMPERATURE UP TO 30°C

Nominal cross section mm ²	Group 1		Group 2		Group 3	
	power rating A	protective fuse A	power rating A	protective fuse A	power rating A	protective fuse A
0,05	1	-	1	-	-	-
0,14	2	-	2	-	3,5	-
0,25	4	-	4,5	-	6	-
0,34	6	-	6	-	9	-
0,5	9	-	9	-	12	-
0,75	12	-	12	10	15	10
1	15	10	15	10	19	16
1,5	18	16	18	16	24	20
2,5	26	25	26	25	32	25
4	34	25	34	25	42	35
6	44	35	44	35	54	50
10	61	50	61	50	73	63
16	82	80	82	63	98'	80
25	108	100	108	80	129	100
35	135	125	135	100	158	125
50	168	160	168	125	198	160
70	207	200	207	160	245	200
95	250	250	250	200	292	250
120	292	250	292	250	344	315
150	335	315	335	315	391	355
185	382	355	382	355	448	400
240	-	-	453	425	528	500
300	-	-	523	500	608	600
400	-	-	-	-	726	630

GROUP 1 - One or more single core cables and insulated wires laid in duct i. e. PVC-sheated single cores H03V. ./H05V../H07V.. According to VDE 0281.

GROUP 2 - Multi core cables, i. e. light PVC-sheathed cables, flexible cables, metal-clad wiring cables in open or ventilated conduits.

GROUP 3 - Single core cables, laid open in air with a spacing at least equal to cable diameter, such as single core wirings for switch-and distribution cabinets and rail line distributors.

CONVERSION FACTORS For deviating ambient temperature

Ambient Temperature over 30°

Ambient Temperature C°	Conversion factors, applied to the above current ratings table	
	RUBBER insulation conversion factors up to 60°C	PVC insulation conversion factors up to 60°C
over 30 bis 35	0,91	0,94
over 35 bis 40	0,82	0,87
over 40 bis 45	0,71	0,79
over 45 bis 50	0,58	0,71
over 50 bis 55	0,41	0,61
over 55 bis 60	-	0,50
over 60 bis 65	-	0,35

Ambient Temperature over 50° (heat resistant)

Conversion factors, applied to the above current ratings table							
conversion factors up to 90°C				conversion factors up to 110°C			
over 50 bis 55	0,94			over 50 bis 55	1		
over 55 bis 60	0,87			over 55 bis 60	1		
over 60 bis 65	0,79			over 60 bis 65	1		
over 65 bis 70	0,71			over 65 bis 70	1		
over 70 bis 75	0,61			over 70 bis 75	1		
over 75 bis 80	0,5			over 75 bis 80	1		
over 80 bis 85	0,35			over 80 bis 85	0,91		
over 85 bis 90	-			over 85 bis 90	0,82		
				over 90 bis 95	0,71		
				over 95 bis 100	0,58		
				over 100 bis 105	0,41		
				over 105 bis 110	-		

TABLE I - Permissible currents (ambient temperature 40°C)

Maximum permissible temperature	180°C	200°C	250°C	450°C	450°C
Cross-section mm ²	Red or tinned copper core NF C 31-111	Silver-plated copper core NF C 31-111	Nickel-plated copper core class 2 ASTM B 355	Nickel-plated copper core class 27 ASTM B 355	Nickel core 200 ASTM B 160
0,5	11,1	12,4	14,4	16,5	7,7
0,75	14,6	16,3	18,8	21,5	10,1
1	17,8	19,8	22,7	26,0	12,1
1,5	23,4	26,0	29,5	33,8	15,8
2,5	33,0	36,7	41,2	47,2	22,1
4	45,4	50,4	56,0	64,1	30,0
6	59,7	66,3	72,9	83,5	39,1

TABLE II - Correction factors

Ambient °C	180°C	200°C	250°C	450°C
41-50	0,96	0,97	0,98	0,99
51-60	0,91	0,94	0,95	0,99
61-70	0,87	0,90	0,93	0,96
71-80	0,81	0,87	0,90	0,95
81-90	0,77	0,83	0,87	0,93
91-100	0,65	0,72	0,85	0,92
101-120	0,62	0,71	0,79	0,89
121-140	0,50	0,61	0,71	0,86
141-160	0,35	0,50	0,65	0,84
161-180	-	0,35	0,58	0,81
181-200	-	-	0,49	0,78
201-225	-	-	0,35	0,74
226-250	-	-	-	0,69
251-275	-	-	-	0,65
276-300	-	-	-	0,60
301-325	-	-	-	0,55
326-350	-	-	-	0,49
351-375	-	-	-	0,42
376-400	-	-	-	0,34

STRAND MAKE-UP

According to DIN VDE 0295, IEC 60228 and HD 383

Cross Section mm ²	Stranded wires Class 2 DIN VDE 0295	Multi-stranded wires	Fine wires Class 5 DIN VDE 0295	Extra fine wires			
	Column 1 no of wires3 x single wire	Column 2 no of wires x single wire	Column 3 no of wires1 x single wire2	Class 6 DIN VDE 0296 Column 4 no of wires1 x single wire2	Column 5 no of wires1 x single wire	Column 6 no of wires1 x single wire	Column 7 no of wires1 x single wire
	mm	mm	mm	mm	mm	mm	mm
0,14			18 x 0,1	18 x 0,1	18 x 0,1	36 x 0,07	72 x 0,05
0,25			14 x 0,15	32 x 0,1	32 x 0,1	65 x 0,07	128 x 0,05
0,34		7 x 0,25	19 x 0,15	42 x 0,1	42 x 0,1	88 x 0,07	174 x 0,05
0,38		7 x 0,27	12 x 0,2	21 x 0,15	48 x 0,1	100 x 0,07	194 x 0,05
0,50	7 x 0,30	7 x 0,3	16 x 0,2	28 x 0,15	64 x 0,1	131 x 0,07	256 x 0,05
0,75	7 x 0,37	7 x 0,37	24 x 0,2	42 x 0,15	96 x 0,1	195 x 0,07	384 x 0,05
1,00	7 x 0,43	7 x 0,43	32 x 0,2	56 x 0,15	128 x 0,1	260 x 0,07	512 x 0,05
1,50	7 x 0,52	7 x 0,52	30 x 0,25	84 x 0,15	192 x 0,1	392 x 0,07	768 x 0,05
2,50	7 x 0,67	19 x 0,41	50 x 0,25	140 x 0,15	320 x 0,1	651 x 0,07	1280 x 0,05
4,00	7 x 0,85	19 x 0,52	56 x 0,3	224 x 0,15	512 x 0,1	1040 x 0,07	
6,00	7 x 1,05	19 x 0,64	84 x 0,3	192 x 0,2	768 x 0,1	1560 x 0,07	
10,00	7 x 1,35	49 x 0,51	80 x 0,4	320 x 0,2	1280 x 0,1	2600 x 0,07	
16,00	7 x 1,70	49 x 0,65	128 x 0,4	512 x 0,2	2048 x 0,1		
25,00	7 x 2,13	84 x 0,62	200 x 0,4	800 x 0,2	3200 x 0,1		
35,00	7 x 2,52	133 x 0,58	280 x 0,4	1120 x 0,2			
50,00	7 x 3,02 / 19 x 1,83	133 x 0,69	400 x 0,4	705 x 0,3			
70,00	19 x 2,17	189 x 0,69	356 x 0,5	990 x 0,3			
95,00	19 x 2,52	259 x 0,69	485 x 0,5	1340 x 0,3			
120,00	37 x 2,03	336 x 0,67	614 x 0,5	1690 x 0,3			
150,00	37 x 2,27	392 x 0,69	765 x 0,5	2123 x 0,3			
185,00	37 x 2,52	494 x 0,69	944 x 0,5	1470 x 0,4			
240,00	61 x 2,24	627 x 0,7	1225 x 0,5	1905 x 0,4			
300,00	61 x 2,50	790 x 0,7	1530 x 0,5	2385 x 0,4			
400,00	61 x 2,89		2035 x 0,5				
500,00	61 x 3,23		1768 x 0,6				

1. The n° of individual wires are without obligation. 2. The diameters of the single wires for each conductor are not allowed to exceed the values stated to DIN VDE 0295 the singles wires of a stranded conductors must have all the same nominal diameters. 3. Minimum number of single wires of stranded conductor. the singles wires of a stranded conductors must have all the same nominal diameters.

AMERICAN STRANDINGS

Size AWG	Section mm2	Stranding (n x mm)				Solid mm
		150°		200°		
		E.U. (n x mm)	U.S.A.(n/awg)	E.U. (n x mm)	U.S.A.(n/awg)	
24	0,21	7 x 0,20	7/32	1 x 0,50	1/24	1 x 0,5
23	0,26	8 x 0,20		1 x 0,60		1 x 0,6
22	0,32	11 x 0,20	7/30	1 x 0,70	1/22	1 x 0,7
21	0,41	13 x 0,20		1 x 0,72		1 x 0,72
20	0,52	16 x 0,20	10/30	5 x 0,40	1/20	1 x 0,81
18	0,82	26 x 0,20	16/30	7 x 0,40	7/26	1 x 1,02
16	1,31	42 x 0,20	26/30	11 x 0,40	7/24	1 x 1,3
15	1,65	33 x 0,25		13 x 0,40		1 x 1,45
14	2,08	42 x 0,25	41/30	17 x 0,40	7/22	1 x 1,62
13	2,63	53 x 0,25		21 x 0,40		1 x 1,82
12	3,31	67 x 0,25	65/30	27 x 0,40	19/0,0185"	1 x 2,04
11	4,17	59 x 0,30		33 x 0,40		1 x 2,3
10	5,26	74 x 0,30	105/30	42 x 0,40	19/0,0234"	1 x 2,6
9	6,63	93 x 0,30		52 x 0,40		1 x 2,9
8	8,36	118 x 0,30	133/29	66 x 0,40	54/25	1 x 3,3
7	10,55	148 x 0,30		84 x 0,40		
6	13,3	106 x 0,40	133/27	106 x 0,40	84/25	
5	16,77	133 x 0,40		133 x 0,40		
4	21,15	168 x 0,40	133/25	168 x 0,40	133/25	
3	26,67	212 x 0,40		212 x 0,40		
2	33,62	267 x 0,40	259/26	267 x 0,40	259/26	
1	42,41	337 x 0,40	259/25	337 x 0,40	259/25	
1/0	53,49	425 x 0,40	259/24	425 x 0,40	259/24	
2/0	67,43	536 x 0,40	259/23	536 x 0,40	259/23	
3/0	85,01	676 x 0,40	259/22	676 x 0,40	259/22	
4/0	107,2	853 x 0,40	259/21	853 x 0,40	259/21	
250 MCM	127	1011 x 0,40	427/22	1011 x 0,40	427/22	
300 MCM	152	1210 x 0,40		1210 x 0,40		
350 MCM	177	1409 x 0,40	427/21	1409 x 0,40	427/21	
400 MCM	203	1616 x 0,40		1616 x 0,40		
450 MCM	228	1815 x 0,40	427/20	1815 x 0,40	427/20	
500 MCM	253	2014 x 0,40	427/0,0341"	2014 x 0,40	427/0,0341"	

AWG/MCM TABLE WIRE GAUGE CONVERSION

based on solid conductors						based on solid conductors						based on solid conductors					
size awg/mcm	SECTION mm2	normal diameter inches	normal diameter mm	lbs per m	kgs	size awg/mcm	SECTION mm2	normal diameter inches	normal diameter mm	lbs per m	kgs	size awg/mcm	SECTION mm2	normal diameter inches	normal diameter mm	lbs per m	kgs
36	0,012	0,0050	0,127	0,0757	0,0343	21	0,412	0,02846	0,723	2,452	1,112	2/0	67,5	0,3648	9,27	411	186
35	0,016	0,00561	0,143	0,0954	0,0433	20	0,519	0,03196	0,812	3,154	1,431	3/0	85,0	0,4096	10,40	518	235
34	0,020	0,00630	0,160	0,1203	0,0546	18	0,832	0,04030	1,024	5,015	2,275	4/0	107,2	0,4600	11,68	653	296
33	0,025	0,00708	0,180	0,1517	0,0688	16	1,310	0,0508	1,290	7,974	3,617	250 MCM	136,0	0,4999	12,70	772	350
32	0,032	0,00795	0,202	0,1913	0,0868	14	2,080	0,0641	1,630	12,68	5,752	300 MCM	161,0	0,5476	13,70	925	420
31	0,040	0,00893	0,227	0,2413	0,1095	12	3,310	0,0808	2,050	20,16	9,145	350 MCM	193,0	0,5917	15,03	1080	490
30	0,050	0,01003	0,255	0,3042	0,1380	10	5,270	0,1019	2,590	32,06	14,54	400 MCM	225,0	0,6322	16,06	1236	561
29	0,065	0,01126	0,286	0,3836	0,1740	9	6,620	0,1144	2,910	40,42	18,33	450 MCM	257,0	0,7070	17,96	1542	699
28	0,080	0,01264	0,321	0,4837	0,2194	8	8,350	0,1285	3,260	51,00	23,13	500 MCM	322,0	0,7744	19,67	1850	839
27	0,102	0,01420	0,361	0,6100	0,2767	6	13,30	0,1620	4,110	80,90	36,70						
26	0,128	0,01594	0,405	0,7692	0,3489	4	21,20	0,2043	5,190	129	58,50						
25	0,163	0,01790	0,455	0,9699	0,4399	3	26,70	0,2294	5,830	162	73,50						
24	0,205	0,02010	0,511	1,223	0,5548	2	33,6	0,2576	6,54	205	93						
23	0,259	0,02257	0,573	1,542	0,6995	1	42,4	0,2893	7,35	259	117						
22	0,325	0,02535	0,644	1,945	0,8823	1/0	53,4	0,3249	8,25	326	148						

TABLE METRIC CONVERSIONS

to convert from	to	multiply by	to convert from	to	multiply by
circular mils	square inches	0,0000007854	miles	kilometers	1,6093
circular mils	square mils	0,7854	millimeters	inches	0,03937
circular mils	square millimeters	0,0005066	millimeters	mils	39,3701
square centimeters	square inches	0,155	mils	inches	0,001
square feet	square meters	0,0929	mils	millimeters	0,0254
square inches	circular mils	1273240	yards	meters	0,9144
square inches	square centimeters	6,4516			
square inches	square millimeters	645,16	kilograms	pounds	2,205
square inches	square mils	1000000	kilograms per kilometer	pounds per 1000 feet	0,6719
square meters	square feet	10764	ohms per kilometers	ohms per 1000 feet	0,3048
square millimeters	square inches	0,00155	ohms per 1000 feet	ohms per kilometers	3,2808
square millimeters	circular mils	1973510	ohms per 1000 yard	ohms per kilometers	1,0936
square mils	circular mils	1273	picofarads per foot	picofarads per meter	3,285
square mils	square inches	0,0000001	pounds	kilograms	0,4536
			pounds per 1000 feet	kilograms per kilometer	1,488
centimeters	inches	0,3937	pounds per 1000 yards	kilograms per kilometer	0,496
centimeters	feet	0,03281	pounds per 1000 yards	pounds per kilometers	1,0936
feet	centimeters	30,48	diam. circle	circumference circle	3,1416
feet	meters	0,3048	diam. circle	side of equal sphere	0,8862
inches	centimeters	2,54	diam. sphere-cubed	volume of sphere	0,5236
inches	meters	0,0254	u.s. gallons	imperial gallons (british)	0,8327
inches	millimeters	25,4	u.s. gallons	cubic feet	0,1337
inches	mils	1000	u.s. gallons	pounds of water (20°C)	8,33
kilometers	miles	0,6214	cubic feet	pounds of water (4°C)	32,427
meters	feet	3,2808	feet of water (4°C)	pound per square inch	0,4336
meters	inches	39,3701	inches of mercury (0°C)	pound per square inch	0,4912
meters	yards	1,0936	knots	miles per hour	1,1516

GENERAL INFORMATION - DEFINITIONS OF TERMS

FLAME-RETARDANT To be flame-retardant, the cable must withstand the test specified in IEC standard 60332-3 or IEC 60332-1. Flame retardant cables do not propagate fire and are self-extinguishing. The requirement for passing the test is that after the burner has been removed the cables must extinguish themselves.	IEC 60332-1 Is the flame test for single insulated wire and cable.	IEC 60332-3 Is the flame test for bunched wires and cables. The burner is directed towards the bunch of cables.	FIRE-RESISTANT To be classified as fire-resistant the cables must withstand the test specified in standard IEC 60331-21. The cables must operate for a minimum of 90 minutes while the burner is directed towards the cable.
SMOKE EMISSION Smoke emission refers to visibility in a fire. The greater the light transmittance, the better the visibility. When tested in accordance with IEC 61034-1 (test method) and IEC 61034-2 (test requirements) the smoke emission of a cable during fire must not exceed the relative values.	HALOGEN-FREE Halogen-free refers to the absence of halogens, such as chlorine and fluorine and is determined on the basis of halogen content and the acidity of gases of a cable.	IEC 60754-1 Determines the halogen content of the material. To meet the requirements as halogen-free the halogen content of the material may not exceed 0,5% or 5 mg/g.	IEC 60754-2 Determines the degree of acidity of gases evolved during combustion. The limit values are 4,3 for pH and 10 mikroS for conductivity.

MATERIAL FEATURES

Int. l name	Materials	Temp. rating °C	Density g/cm ³	Oxygen index %	Tensile strength N/mm ²	Dielectric const. (1 MHz)	Dielectric strength kV/mm	Flexibility	Abrasion resist.
Thermoplastics									
PVC	Polyvinylchloride	-30 ÷ +70/90	1,25 / 1,60	25 / 30	10 / 25	3,3 / 4,5	30 / 60	good	good
PVC150	Polyvinylchloride	-30 ÷ +70/90	1,25 / 1,60	25 / 30	10 / 25	3,3 / 4,5	30 / 60	good	good
LDPE	Low Density Polyethylene	-60 ÷ +70	0,92 / 0,96	18,00	14,00	2,27	20 / 30	average	average
HDPE	High Density Polyethylene	-60 ÷ +110	0,92 / 0,96	18,00	14,00	2,27	17 / 24	poor	good
XLPE	Crosslinked polyethylene	-80 ÷ +115	0,91 / 0,92	18,00	14 / 40	2,3 / 2,8	20 / 24	average	good
PA	Polyamide Nylon Rilsan	-30 ÷ +105	0,90	18,00	50 / 60	4,00	20 / 30	average	very good
PP	Polypropylene	-30 ÷ +105	0,90	18,00	15 / 34	2,1 / 2,2	26 / 30	average	good
PUR	Polyurethane	-40 ÷ +100	1,20	19,00	30 / 60	3,5 / 6,0	15,00	good	very good
TR	Thermoplastic rubber	-55 ÷ +125	0,98 / 1,24	20 / 25	8 / 10	2,10	22,00	good	good
ETFE	Ethylene tetrafluoroethylene	-100 ÷ +155	1,73 / 1,76	31,00	40 / 50	2,6 / 2,7	20,00	average	very good
FEP	Fluoroethylenepropylene	-100 ÷ +200	2,15	90 / 95	20 / 30	2,1 / 2,2	24,00	average	average
MFA	Methylvinyletherfluoroalkoxy	-100 ÷ +230	2,12 / 2,17	> 95	23,00	2,00	30 / 35	good	good
PFA	Perfluoroalkoxy	-190 ÷ +260	2,17	95,00	20 / 30	2,10	80,00	good	good
PTFE	Polytetrafluoroethylene	-190 ÷ +260	2,17 / 2,2	95,00	14 / 40	2,10	24,00	poor	good
PEEK	Polyethylethylketone	-65 ÷ +200	1,2 / 1,32	35 / 48	34 / 92	3,0 / 3,3	16 / 21	poor	very good
Elastomers									
CR	Neoprene	-30 ÷ +115	1,25	30 / 35	15,00	12,00	20,00	very good	good
EPM EPR	Ethylene-Polypropylene Copol.	-30 ÷ +115	0,85	30 / 35	5	3,3	35	very good	good
EVA	Vinylethileneacetate, Levaprene	-50 ÷ +125	0,98 / 1,24	20 / 25	6,00	5,00	15,00	very good	average
SIR	Silicone rubber	-55 ÷ +180/250	1,1 / 1,3	20,00	7,00	3,2 / 3,3	26,00	very good	average
Mineral insulators									
GL	Glass fiber	-55 ÷ +200 / 400	2,80	-	2400,00	3,80	-	average	poor

ITALIAN vs EUROPEAN STANDARDS

1. CEI Standards	TITLE OF STANDARDS	2. VDE Standards	3. IEC Publications	4. European Harmonizations
CEI 20-11	Technical characteristics and test requirements for insulation and sheath compound of electric cables	0207	-	-
CEI 20-14	PVC insulated cables for electrical systems with rated voltage between 1 kV and 3 kV	0271	227	-
CEI 20-20	PVC insulated cables for electrical systems with rated voltage up to including 450/750V	0281	227	HD 21.1
CEI 20-22	Test on electric cables under fire conditions. Part 2: fire propagation. Part 3: test on bunched wires of cables	0482-266	332-3	EN 50266
CEI 20-29	Conductors for insulated cables	0295	228	HD 383
CEI 20-34	Common test methods for insulating and sheathing materials for electric cables	0472	811	EN 60811
CEI 20-35	Test on gases evolved during combustion of materials from cables	0482-266	332-1	EN 50265
CEI 20-36	Test for electric cables under fire conditions	0472-814	331	
	Specifications for harness cables and telecommunications cables	0812		
CEI 46-4	Low frequency cables and wires with PVC insulation and PVC sheath. General tests and measuring methods		189-1	
CEI 46-6	Low frequency cables and wires with PVC insulation and PVC sheath. Equipment wires with solids or stranded conductors, single, pairs, terms		189-3	

1 - CEI: Italian electrotechnical committee; 2 - VDE: Verband Deutscher Elektrotechniker;
3 - IEC International Electrotechnical Commission; 4 - CENELEC: European Committee for Electrotechnical Standardizations.

DESIGNATION SYSTEM ACCORDING TO HAR

Cable part or feature	Symbol	Description
Potentiality	Number	Number of the main cores in cable
	X	Separation code for cables without yellow/green protection
	G	Separation code for cables with yellow/green protection conductor
	Section	Nominal section in mm ² of conductors
Conductor	F	flexible round stranded copper conductor
Insulation	R	PVC compound
Cable shape	O	Cores assembled in round shape
Shield	H	Aluminium tape
	H1	Copper tape
	H2	Copper braid
Protective covering	R	Sheath with PVC compound
Metallic protection	A	Steel with braid armour
	F	Round wire steel armour
	N	Steel tape armour
Sheath	R	PVC compound
Working voltage	300/500V	Nominal voltage U ₀ = 300V phase to earth U= 500V phase to phase
	450/750V	Nominal voltage U ₀ = 450V phase to earth U= 750V phase to phase
	0,6/1 kV	Nominal voltage U ₀ = 600V phase to earth U= 1000V phase to phase

COLOUR CHART

** only for special applications

CEI UNEL 00722 / HD 308

WITH GROUNDING CONDUCTOR			WITHOUT GROUNDING CONDUCTOR		
conductors	2	 Blue, Brown	2	 Blue, Brown	
conductors	3	 Y-G, Blue, Brown	3	 Brown, Black, Grey	
conductors	4	 Y-G, Brown, Black, Grey	3**	 Blue, Brown, Black	
conductors	4**	 Y-G, Blue, Brown, Black	4	 Blue, Brown, Black, Grey	
conductors	5	 Y-G Blue Brown Black Grey	5	 Blue, Brown, Black, Grey, Black	
conductors and more	6	black numbered conductors + Y/G	6	black numbered conductors	

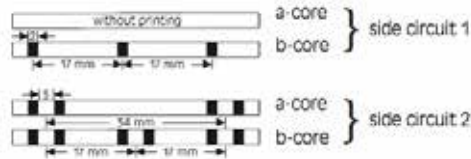
COLOUR CODING TELEPHONE ALARM and CONTROL CABLE

Couple	Alarm Domestic (pairs)	CEI 46-5 Telephone cable (pairs)	Alarm cable NEN 1597 (pairs)	DIN47100 (pairs)		DIN47100 Multicore (conductors)
1	WHITE-RED	WHITE-BLUE	WHITE-RED	WHITE	BROWN	WHITE
2	YELLOW-GREEN	WHITE-ORANGE	WHITE-BLUE	GREEN	YELLOW	BROWN
3	GREY-ORANGE	WHITE-GREEN	WHITE-YELLOW	GREY	PINK	GREEN
4	L.BLUE-BROWN	WHITE-BROWN	WHITE-GREEN	BLUE	RED	YELLOW
5	VIOLET-BLACK	WHITE-GREY	WHITE-BLACK	BLACK	VIOLET	GREY
6	BLUE-PINK	RED-BLUE	WHITE / RED-RED	GREY / PINK	RED / BLUE	PINK
7	W/BROW-W/VIOLET	RED-ORANGE	WHITE / RED-BLUE	WHITE / GREEN	BROWN / GREEN	BLUE
8	W/GREEN-W/BLUE	RED-GREEN	WHITE / RED-YELLOW	WHITE / YELLOW	YELLOW / BROWN	RED
9	W/GREY-W/YELLOW	RED-BROWN	WHITE / RED-GREEN	WHITE / GREY	GREY / BROWN	BLACK
10	W/BLA-W/RED	RED-GREY	WHITE / RED-BLACK	WHITE / PINK	PINK / BROWN	VIOLET
11		BLACK-BLUE		WHITE / BLUE	BROWN / BLUE	GREY / PINK
12		BLACK-ORANGE		WHITE / RED	BROWN / RED	RED / BLUE
13		BLACK-GREEN		WHITE / BLACK	BROWN / BLACK	WHITE / GREEN
14		BLACK-BROWN		GREY / GREEN	YELLOW / GREY	BROWN / GREEN
15		BLACK-GREY		PINK / GREEN	YELLOW / PINK	WHITE / YELLOW
16		YELLOW-BLUE		GREEN / BLUE	YELLOW / BLUE	YELLOW / BROWN
17		YELLOW-ORANGE		GREEN / RED	YELLOW / RED	WHITE / GREY
18		YELLOW-GREEN		GREEN / BLACK	YELLOW / BLACK	GREY / BROWN
19		YELLOW-BROWN		GREY / BLUE	PINK / BLUE	WHITE / PINK
20		YELLOW-GREY		GREY / RED	PINK / RED	PINK / BROWN

Colour code according to DIN VDE 0815

Installation Cables

J-YY . . . Bd, J-HH . . . Bd, J-Y(St)Y . . . Bd, J-H(St)H . . . Bd and J-2Y(St)Y . . . Bd
The Insulating coverings of single cores of a star quad are marked with black rings:



The cores of a star quad or a sub unit are counted according to the sequence of basic colours:

- Quad 1: basic colour of all cores red
- Quad 2: basic colour of all cores green
- Quad 3: basic colour of all cores grey
- Quad 4: basic colour of all cores yellow
- Quad 5: basic colour of all cores white

The marker of units are identified with a red helix, the others with white or uncoloured.
The quads of sub units are counted according to the sequence of basic colours.
The units are counted continuously through all layers beginning in the inner layer.

Installation Cables

J-Y(St)Y . . . Lg

2-paired installation cables are stranded to a star quad.

- circuit 1 a-core red, b-core black
- circuit 2 a-core white, b-core yellow

4- and multi-paired installation cables

- a-core of 1. pair in each layer is red other pairs are white
- b-core blue, yellow, green, brown, black in continuous repeat

Counting: from outside to inside

Installation Cables

JE-Y(St)Y . . . Bd, JE-LiYCY . . . Bd, JE-H(St) . . . and JE-HCH...Bd

Pair-colour-identification

The insulating cores are identified with different basic colours which are repeated sequentially in each unit.

Basic colours of pairs

Pair	1	2	3	4
a-core	blue	grey	green	white
b-core	red	yellow	brown	black

2-paired cables: the cores are stranded to a star quad:

circuit 1: a-core blue

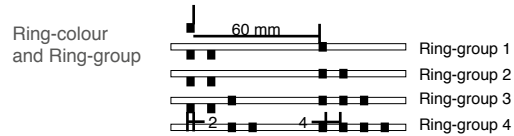
b-core red

circuit 2: a-core grey

b-core yellow

Each unit is assigned to one group of ring. All cores in each unit are marked with coloured rings and ring-groups.

Counting direction in all units is from inside to outside.



Unit-identification

Unit No.	Ring colour	Ring group	Colour identification tape
1-2-3-4	pink	I II III IIII	-
5-6-7-8	orange	I II III IIII	-
9-10-11-12	violet	I II III IIII	-
13-14-15-16	pink	I II III IIII	blue
17-18-19-20	orange	I II III IIII	red

cable with more than 12 units contain coloured plastic helix in addition to ring code

CONDUCTOR RESISTANCE According to DIN VDE 0295, IEC 60228 and HD 383

Nominal Cross Section	Copper conductors plain wires (0hm/km)		Copper conductors tinned wires (0hm/km)		Welding Cable (0hm/km)	
	Class 1 + 2	Class 5 + 6	Class 1 + 2	Class 5 + 6	Copper conductor plain wires	Copper conductor tinned wires
0,05		~ 380		~ 392		
0,08		~ 237		~ 244		
0,11		~ 170		~ 175		
0,13		~ 150		~ 155		
0,14		~ 134		~ 138		
0,22		~ 96		~ 99		
0,25		~ 76		~ 79		
0,34		~ 53		~ 56		
0,50	36,0	39	36,7	40,1		
0,75	24,5	26	24,8	26,7		
1,00	18,1	19,5	18,2	20		
1,50	12,1	13,3	12,2	13,7		
2,50	7,41	7,98	7,56	8,21		
4,00	4,61	4,95	4,7	5,09		
6,00	3,08	3,3	3,11	3,39		
10,00	1,83	1,91	1,84	1,95		
16,00	1,15	1,21	1,16	1,24	1,16	1,19
25,00	0,727*	0,78	0,734	0,795	0,758	0,78
35,00	0,524*	0,554	0,529	0,565	0,536	0,552
50,00	0,387*	0,386	0,391	0,393	0,379	0,39
70,00	0,268*	0,272	0,27	0,277	0,268	0,276
95,00	0,193*	0,206	0,195	0,21	0,198	0,204
120,00	0,153*	0,161	0,154	0,164	0,155	0,159
150,00	0,124*	0,129	0,126	0,132	0,125	0,129
185,00	0,099	0,106	0,1	108	0,102	0,105
240,00	0,075	0,080	0,076	0,082		
300,00	0,060	0,064	0,061	0,065		
400,00	0,047	0,049	0,048	0,049		

class 1 = single core conductor for single and multi core cables. class 2 = multi core conductor for single and multi core cables. class 5 = fine wire copper conductors for single and multi core cables. class 6 = Extra fine wire copper conductors for single and multi core cables. * = for mineral-insulated cables (class 1 up to 1500 mm²).

GENERAL TERMS OF SALE

Premises: deviations to the herewith following sales terms have to be agreed by both Supplier and Purchaser in a written agreement.

CABLES AND PRODUCTS

- 1) Cables are in accordance with CEI standards when applied, except for written agreements. The weights, dimensions and diameters of the cables are only indicative, except for goods which price is agreed with specific reference to the above mentioned units. On purchasing a ITALICAB product, the unit of measure will be the kilometres.
- 2) Any information or data of the technical features and/or specifications of the cables described in ITALICAB brochures, price lists, catalogues and other ITALICAB documents are binding only if clearly pointed out in the contract.
- 3) Use tolerances are anyway allowed such as:
 - a) Technical tolerances as per drawings/ both on the manufactured cables and single parts of the product.
 - b) Quantity tolerances: a variation of +/- 10% of goods may be delivered with respect to the quantity ordered by the Purchaser.
 - c) Package tolerances: special cables are delivered according to the requirements of the manufacturing process.
- 4) Drawings and technical literature given by ITALICAB to the Purchase before and after the acceptance of the contract shall remain the property of the Supplier. The Purchaser is allowed to use the cables for installation and related maintenance. They cannot be copied or transmitted to third parties, without the Supplier's permission.
- 5) Declared lengths can vary by +/- 1%

TESTING

- 1) Potential tests as per contract will be carried out at ITALICAB site if not differently specified. The tests will be performed according to the procedure of the country the Supplier is located in.
- 2) When the test is to be performed in the presence of the Purchaser, the latter will be informed about the testing date. The test results will be considered valid even though the Purchaser has been absent.

DELIVERIES

- 1) The delivery date stated on the order confirmation shall be understood to be in force from the date on which all aspects of the order have been clarified. In this respect upon receipt of the eventual updated order confirmation, this will be considered as confirmed, by the Purchaser if he does not send any written notice about it to the Supplier in no more than three days. If the Supplier cannot respect the delivery date agreed on the order confirmation, he will have to inform the customer in advance. The customer will be given a new delivery date having a right to rescind the contract in case it is over 8 weeks.
- 2) The Supplier may not be blamed for delays caused by unforeseen circumstances or by acts of the Purchaser such as: omissions of data necessary to manufacture the product or faults from the Purchaser like outstanding payments in advance, etc...
- 3) The Purchaser will bear at its own charge all risks of a DDU shipment (goods and packing) once the goods have been handled to the forwarding agent.

PRICES AND SALES TERMS

- 1) Prices and sales terms will be those agreed on the original contract.
- 2) When a payment is delayed, the Purchaser will due to the Supplier the interests according to the current rates.
- 3) The Purchaser is not allowed to decrease the price as per contract if not mutually agreed.
- 4) The minimum order value is Euro 500,00.

WARRANTY

- 1) If not differently specified, the period of warranty will be of 12 months from the date of delivery even if the cables have not been used for any reason. The right of warranty is subordinated to the observance of point 3 of this paragraph
- 2) The Supplier assures that custom cables are produced according to some specific data sheets and they are suitable for special applications only if all this has been clearly specified on the contract and documents related to it. The Supplier is not responsible for any damage arising from further manufacturing processes performed by third parties.
- 3) Any complaints about packing, wrong quantities or technical features that do not correspond to the ones agreed on the contract must be notified to the Supplier within 2 working weeks from the receipt of the goods.

Before returning the non-compliant cables, the Purchaser will have to ask the Supplier for the "return authorization" of the material. The goods will be sent along with a document on which all the details of the wrong supply are indicated such as: date of invoice, type of cable, quantity, etc...

Without the Supplier's authorization and the document showing all the details regarding the defective shipment, the goods will be sent back to the Purchaser.

In any case, potential complaints do not give the Purchaser a right to stop or delay the outstanding payments due to previous or subsequent supplies.

DRUMS

In case the Supplier lends some drums to the Purchaser, the latter has to pay a fee that will be indicated on the invoice.

When the drums are given back at the Supplier's plant, the fee will be returned and the Purchaser charged of the fees of decay calculated according to current rates.

The fee will not be returned if drums are so damaged that they cannot be used again.

FORCE MAJEURE

Both the Supplier and the Purchaser can suspend the fulfilment of their duties when the execution is impossible because of causes beyond their control, such as strike, boycott, fire, embargo, laws, delays in deliveries of raw material or components from outside sources.

APPLICABLE LAW – COMPETENT FORUM

The Italian Law will rule the contract. For any debates the competent court will be the one of the Supplier in Brescia.

