

## Generalities

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3 - Properties of thermoplastic insulation and outer sheath materials	3-4

## Control Cables

Rheflex® PVC Control Power Cables			
Cables	Voltage	Temperature	Page
Rheflex® Y	300/500 V	70°C	7
Rheflex® CY	300/500 V	70°C	11
Rheflex® YCY	300/500 V	70°C	15
Rheflex® YSY	300/500 V	70°C	19
H05VV5-F (previously NYSLYÖ-J)	300/500 V	80°C	23
H05VVC4V5-K (previously NYSLYCYÖ)	300/500 V	70°C	27
RHEXFLEX® H05BQ-F and H07BQ-F	300/500 V et 450/750 V	70°C	31
G.M.B.S	300/500 V	70°C	33
G.V.C.S.T.V.-LSLH-C1	06/1 kV	°C	35
G.M.B.S		70°C	37
LYFLEX®	300/500 V	70°C	39
LYFLEX® B	300/500 V	70°C	41
LYFLEX® B(C)	300/500 V	70°C	43
LYFLEX® B(I)	300/500 V	70°C	45



The progressive electrification of machinery, and the industry for electrical equipment and tools, creates an increasing demand for mobile cables...

These cables are used in fixed installations or in environments where a high degree of flexibility is required.

Especially if control panels or other equipment is moved, these cables are most suitable.

The product range comprises cables which are suitable to interconnect most different applications from control and computer panels down to lifts, material flow and automation equipment.

Control cables are exposed to a variety of mechanical and environmental stresses. Especially such as tension and pressure to cores and change of length while bending. These requirements are met by selecting most appropriate construction principles and state of the art conductor, insulation and sheathing materials.

The degree of flexibility and the reversed bending strength are determined by the construction of the copper conductor, i.e. diameter of

single strands and length of lay, as well as by the formation of the cores and the mode of laying up to form the cable core.

For normal and medium stresses the cores are additionally powdered. With that, the friction coefficient between the cores, and between the cores and the sheath, is decreased. The friction coefficient is lower than the bending stiffness of the cores.

If a very high flexibility is required, an additional tight overlapped taping is applied over the cable core besides the powdering. The taping keeps the cores within the stranded layers.

Cantilevered control cables, e.g. for lifts, are laid up in such a way that the sum of all torques in the cable is practically zero.

RHEYFLEX® control cables are adapted to the environmental conditions and can be supplied in the following designs:

- cold-resistant flexible at low temperatures
- oil-resistant
- screened
- armoured

## Materials:

The insulation and sheath materials correspond to the PVC insulation compounds YI2 and YI8, and to the PVC sheath compounds YM2 and YM4, according to VDE 0207, Part 4 and 5, as well as to the rubber insulation compound 3G3, according to VDE 0207, Part 21. The thermoplastic polyurethane 11YM1, used for outer sheaths, corresponds to the VDE 0207. These compounds are prepared for the special applications for the RHEYFLEX® control cables, i.e. to be flexible at low temperatures, heat resistant or oil resistant.

## Properties of Thermoplastic insulation and outer sheath materials

	Tests according to: VDE 0472	YI 2	YI 8	YM 2 YM 2Ö	YM	11 YM 1
		Normal basic values PVC Max. operating temperature on core (°C) 70	PVC 90	PVC 70	PVC 90	PUR 80
<b>Mechanical Properties</b>						
Before Ageing						
Traction Resistance mind. N/mm <sup>2</sup>	Part 602	10.0	15.0	10.0	15.0	25.0
Tearing Resistance after ageing in heating cabinet	Part 602	150	150	150	150	300
Ageing temperature °C	Partl 303 A	80±2	140±3	80±2	140±3	120±3
Ageing duration d		7	14	7	14	7
Traction Resistance mind.N/mm <sup>2</sup>	Part 602	10.0	15.0	10.0	15.5	-
Change after ageing max. %		±20	±25	±20	±25	±30
Elongation at break mind. %	Part 602	150	150	150	150	300
Change after ageing max.%		±20	±25	±20	±25	±30
Resistance to tearing mind.N/mm <sup>2</sup>	Part 613	-	-	-	-	40

## Properties of Thermoplastic insulation and outer sheath materials

	Tests according to: VDE 0472	YI 2	YI 8	YM 2 YM 2Ö	YM	11 YM 1	
		Normal basic values					
		PVC Max. operating temperature on core (°C) 70	PVC 90	PVC 70	PVC 90	PUR 80	
<b>Thermic Properties</b>							
Weight loss through evaporation	Part 612						
Testing temperature °C		80±2	115±2	80±2	115±2	-	
Testing duration d		7	14	7	14	-	
Weight loss max.mg/cm <sup>2</sup>		2.0	1.5	2.0	1.5		
Resistance to pressure at high temperature	Part. 609						
Testing temperature °C		70±2	90±2	70±2	90±2	80±2	
Testing duration d		4	4	4	4	4	
Indentation depth max. %		50	60	50	50	50	
Heat shock test	Part. 608						
Testing temperature °C		150±3	150±3	150±3	150±3	-	
Testing duration h		1	6	1	6		
Thermic Stability	Part. 614		After Ageing 14d/140°C		After Ageing 14d/140°C		
Test temperature °C		-	200±0.5		200±0.5	-	
Test period mind. min.		-	120	-	120	-	
Cold bending test °C	Part. 610	-25	-25	-25	-25	-40	
Mandrel Ø 5 x D							
Impact resistance of cable of °C at low temperatures	Part. 611	-25	-25	-25	-25	-40	
Resistance to Radation Mrad	-	-	-	-	-	500	
<b>Chemical Properties</b>							
Saponification value max.mg KOH/g	Part 704	-	-	-	-	200	
Oil Resistance	Part.803	-	-	Test B	-	Test A	
Test temperature °C		-	-	90	-	90	
Test duration d		-	-	7	-	7	
Tensile strenght min N/mm <sup>2</sup>	Part 602						
Elongation at rupture min %	Part 602			150		300	
Change after oil immersion				±25		±30	
<b>Electrical Properties</b>							
D.C. resistance	Part 510						
Testing temperature °C	-	60±5	60±5				
Test duration d	-	10	10				
Volume resistivity min.Ω x cm	Part 502						
Surface resistance min Ω	Part503 Test B	-	-	10 <sup>9</sup>	10 <sup>9</sup>	10 <sup>9</sup>	

# Symbols

## Temperature

Admissible ambient temperature for continuous duty operation



## Impacts

Cable mechanical resistance to impacts



## Chemical attacks

Resistance to chemicals.



## Fire Performances



## Smoke-Corrosivity-Toxicity

Smoke density, corrosivity and toxicity



## Flexibility



## Halogen free



## Electro Magnetic Interference



## Radiation Resistant





### Type Approval Certificates

VDE Reg N° 6596

### Applications

In dry and moist rooms for light and medium mechanical stresses, however not outdoors.  
As supply or interconnecting cable for measuring, control and regulating, according to VDE 0113 for computers units for control equipments on machine tools, conveyors and assembly lines for controlling and regulating, and for monitoring of production processes, industrial plants, assembly lines and machinery when freely moved without forced guidance. Cross sections above 10 mm<sup>2</sup> are energy supply cable for fixed installations on machine tools in production lines. Cores are normally identified by colours to VDE 0293.

**Max core temperature: 70 °C**

### Design

#### 1. Conductor

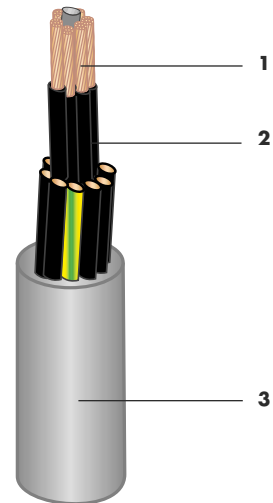
Copper bare stranded  
VDE 0295  
Class 5

#### 2. Insulation

PVC  
(polyvinyl chloride)

#### 3. Outer sheath

PVC  
(polyvinyl chloride)  
Colour: grey

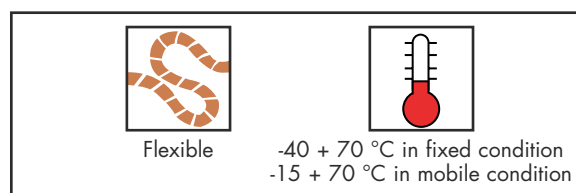


### Marking

Rheyflex Y - JZ - 300/500V  
n G s VDE Reg. N° 6596 bzw  
Rheyflex Y - OZ - 300/500V  
n x s VDE Reg. N° 6596

### Core Identification

Colour: black, white printed numbers and or without green/yellow core.  
Rheyflex special design: coloured cores



Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78703002	2 x 0.5	5.5	40
78703003	3 G 0.5	14.4	50
78703004	4 G 0.5	6.5	60
78703005	5 G 0.5	7	70
78703006	6 G 0.5	7	70
78703007	7 G 0.5	7.5	80
78703008	8 G 0.5	8	85
78703010	10 G 0.5	9	110
78703012	12 G 0.5	9.5	120
78703014	14 G 0.5	10	140
78703016	16 G 0.5	10.5	180
78703018	18 G 0.5	11.5	185
78703021	21 G 0.5	12.5	210
78703024	24 G 0.5	13	240
78703025	25 G 0.5	13.5	245
78703027	27 G 0.5	13.5	260
78703030	30 G 0.5	14	280
78703034	34 G 0.5	15	320
78703040	40 G 0.5	16	375
78703044	44 G 0.5	17.5	430
78703048	48 G 0.5	18	450
78703050	50 G 0.5	18.5	460
78703052	52 G 0.5	18.5	470
78703061	61 G 0.5	20.5	570
78703080	80 G 0.5	22	730
78703100	100 G 0.5	24	880
78703102	2 x 0.75	6	50
78703103	3 G 0.75	6.5	60
78703104	4 G 0.75	7	75
78703105	5 G 0.75	7	85
78703106	6 G 0.75	8	95
78703107	7 G 0.75	8.5	95
78703108	8 G 0.75	9	125
78703109	9 G 0.75	10	140
78703110	10 G 0.75	10	145
78703112	12 G 0.75	10.5	165
78703115	15 G 0.75	12	205
78703118	18 G 0.75	12.5	245
78703120	20 G 0.75	13	260
78703121	21 G 0.75	13.5	270
78703125	25 G 0.75	14.5	310
78703132	32 G 0.75	16	400
78703134	34 G 0.75	17	420
78703140	40 G 0.75	18.5	500
78703141	41 G 0.75	18.5	500
78703142	42 G 0.75	18.5	510
78703148	48 G 0.75	20	600
78703150	50 G 0.75	20.5	630
78703161	61 G 0.75	22	740
78703165	65 G 0.75	22.5	820
78703182	80 G 0.75	24	980
78703200	100 G 0.75	27	1180

**Stocked products**



Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78703202	2 x 1	6.2	55
78703203	3 G 1	6.7	70
78703204	4 G 1	7.3	85
78703205	5 G 1	8	100
78703206	6 G 1	8.5	100
78703207	7 G 1	9.1	140
78703208	8 G 1	10	160
78703209	9 G 1	11	180
78703210	10 G 1	11	190
78703212	12 G 1	11.5	220
78703214	14 G 1	12	240
78703216	16 G 1	12.5	260
78703218	18 G 1	13.5	290
78703220	20 G 1	14	320
78703221	21 G 1	14.5	340
78703224	24 G 1	15.5	370
78703225	25 G 1	16	390
78703226	26 G 1	16	400
78703230	30 G 1	17.5	470
78703232	32 G 1	18	500
78703234	34 G 1	18.5	540
78703240	40 G 1	20.5	630
78703241	41 G 1	20.5	650
78703242	42 G 1	20.5	660
78703248	48 G 1	21.5	740
78703250	50 G 1	22	770
78703256	56 G 1	22.5	840
78703261	61 G 1	24	920
78703265	65 G 1	24.5	970
78703280	80 G 1	27	1200
78703300	100 G 1	29.5	1470
78703302	2 x 1.5	7	80
78703303	3 G 1.5	7.5	100
78703304	4 G 1.5	8	120
78703305	5 G 1.5	9	140
78703306	6 G 1.5	9.5	160
78703307	7 G 1.5	10.5	180
78703308	8 G 1.5	11.5	210
78703309	9 G 1.5	12.5	230
78703310	10 G 1.5	12.5	240
78703311	11 G 1.5	13	260
78703312	12 G 1.5	13	280
78703314	14 G 1.5	13.5	310
78703316	16 G 1.5	14	350
78703318	18 G 1.5	15	380
78703320	20 G 1.5	17	450
78703321	21 G 1.5	17	460
78703325	25 G 1.5	19	550
78703326	26 G 1.5	19	560
78703332	32 G 1.5	20.5	700
78703334	34 G 1.5	21	740
78703340	40 G 1.5	22.5	840
78703342	42 G 1.5	22.5	880
78703350	50 G 1.5	25	1040
78703356	56 G 1.5	27.5	1170

**Stocked products**

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78753361	61 G 1.5	27.5	1270
78753365	65 G 1.5	28	1340
78753380	80 G 1.5	30	1750
78753400	100 G 1.5	34	2100
78753402	2 x 2.5	8	120
78753403	3 G 2.5	9	160
78753404	4 G 2.5	10	200
78753405	5 G 2.5	10.5	230
78753406	6 G 2.5	12	230
78753407	7 G 2.5	13.5	280
78753408	8 G 2.5	13.5	320
78753411	11 G 2.5	15.5	390
7875412	12 G 2.5	15.5	430
78753414	14 G 2.5	16	470
78753416	16 G 2.5	18	560
78753418	18 G 2.5	19	640
78753420	20 G 2.5	20.5	710
78753421	21 G 2.5	21	730
78753425	25 G 2.5	23	880
78753430	30 G 2.25	23.5	1050
78753434	34 G 2.5	23.5	1200
78753440	40 G 2.5	28	1400
78753450	50 G 2.5	30.5	1700
78753456	56 G 2.5	31.5	1900
78753461	61 G 2.5	34	2100
78753502	2 x 4	10	180
78753503	3 G 4	10.5	220
78753504	4 G 4	11.5	280
78753505	5 G 4	12.5	340
78753507	7 G 4	14.5	400
78753512	12 G 4	19	700
78753515	15 G 4	21.5	790
78753518	18 G 4	22.5	920
78753525	25 G 4	27	1300
78753603	3 G 6	12.5	320
78753604	4 G 6	13.5	400
78753605	5 G 6	15	480
78753607	7 G 6	17	570
78753704	4 G 10	18.5	650
78753705	5 G 10	19	800
78753707	7 G 10	23	950
78753804	4 G 16	20.5	950
78753805	5 G 16	22.5	1200
78753807	7 G 16	24	1500
78753854	4 G 25	24	1400
78753855	5 G 25	27	1780
78753857	7 G 25	30	2200
78753904	4 G 35	26.5	2000
78753905	5 G 35	30.5	2400
78753954	4 G 50	32.5	2700
78753955	4 G 70	38	3700
78753956	4 G 95	44	4900
78770269	4 G 120	51.5	6200

**Stocked products**


$d \leq 8 \text{ mm} = 3d$   
 $8 \leq d \leq 12 \text{ mm} = 4d$   
 $d > 12 \text{ mm} = 5d$

# RHEYFLEX® CY LiYCY

**300/500 V**

## Applications

In dry and moist rooms for light and medium mechanical stresses, however not outdoors.  
As supply or interconnecting cable for measuring, control and regulating, according to VDE 0113 for computer units for control equipments on machine tools, conveyors and assembly lines for controlling and regulating, and for monitoring of production processes, industrial plants, assembly lines and machinery when freely moved without forced guidance.

**Max core temperature: 70 °C**

## Design

### 1. Conductor

Stranded, bare copper  
IEC 60228  
Class 5

### 2. Insulation

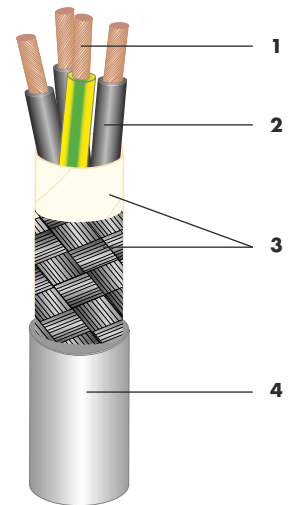
PVC  
(polyvinyl chloride)

### 3. Screen

Polyester tape  
Tinned copper braid

### 4. Outer sheath

PVC  
(polyvinyl chloride)  
Colour: grey



## Marking

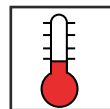
Rheyflex - CY - JZ - 300/500V n G s  
Rheyflex - CY - OZ - 300/500V n x s  
+ Rheyflex-CY-JB-300/500V n G s  
+ Rheyflex-CY-OB-300/500V n x s

## Core Identification

JZ Colour: black, white printed numbers and or without green/yellow core.  
JB Colour: coloured according DIN 47100



Flexible



-40 + 70 °C in fixed condition  
-15 + 70 °C in mobile condition



No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
2 x 0.5	6.0	38
3 G 0.5	6.5	48
4 G 0.5	7.0	63
5 G 0.5	7.5	83
6 G 0.5	7.7	97
7 G 0.5	7.7	104
8 G 0.5	8.1	120
10 G 0.50	9.7	140
12 G 0.5	9.7	170
15 G 0.5	10.7	210
18 G 0.5	11.2	239
21 G 0.50	11.6	276
25 G 0.5	13.4	330
30 G 0.5	13.8	397
32 G 0.50	14.9	416
40 G 0.50	15.3	495
42 G 0.5	15.9	517
50 G 0.5	17.5	603
61 G 0.5	18.6	727
2 x 0.75	6.1	53
3 G 0.75	6.4	64
4 G 0.75	6.9	77
5 G 0.75	7.5	103
6 G 0.75	8.3	115
7 G 0.75	8.3	128
8 G 0.75	8.8	142
10 G 0.75	10.5	185
12 G 0.75	10.5	198
15 G 0.75	11.6	273
18 G 0.75	12.4	237
21 G 0.75	12.9	381
25 G 0.75	14.6	454
32 G 0.75	15.7	512
34 G 0.75	16.3	534
40 G 0.75	16.8	620
42 G 0.75	17.6	651
50 G 0.75	19.2	750
61 G 0.75	19.2	750
2 x 1	6.5	65
3 G 1	6.9	84
4 G 1	7.6	98
5 G 1	8.2	118
6 G 1	8.9	135
7 G 1	8.9	150
8 G 1	9.4	175
10 G 1	11.4	220
12 G 1	11.4	248
15 G 1	12.7	324
18 G 1	13.4	389
21 G 1	13.9	439
25 G 1	15.9	475

**Stocked products**

**RHEYFLEX® CY - LiCY**

No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
30 G 1	16.4	660
34 G 1	17.9	730
40 G 1	18.4	840
42 G 1	19.1	876
50 G 1	20.9	1020
61 G 1	22.2	1232
2 G 1.5	7.3	105
3 G 1.5	7.7	132
4 G 1.5	8.4	165
5 G 1.5	9.3	214
6 G 1.5	10.1	252
7 G 1.5	10.1	283
8 G 1.5	10.7	328
10 G 1.5	13.2	390
12 G 1.5	13.2	412
15 G 1.5	14.6	450
18 G 1.5	15.4	519
21 G 1.5	16.0	662
25 G 1.5	18.5	901
30 G 1.5	19.2	1023
32 G 1.5	19.2	1088
40 G 1.5	21.3	1341
42 G 1.5	22.1	1399
50 G 1.5	24.5	1700
61 G 1.5	26.0	2010
2 x 2.5	9.5	141
3 G 2.5	10.1	178
4 G 2.5	10.9	218
5 G 2.5	11.9	259
7 G 2.5	12.7	332
10 G 2.5	16.6	537
2 G 4	12.4	252
3 G 4	12.8	318
4 G 4	14.5	383
5 G 4	15.0	463
2 x 6	13.9	322
3 G 6	14.8	453
4 G 6	16.7	583
5 G 6	17.3	698
2 x 10	17.4	142
3 G 10	18.4	185
4 G 10	20.7	198
5 G 10	22.6	230
2 x 16	20.2	754
3 G 16	21.4	1061
4 G 16	23.3	1263

**Stocked products**



# RHEYFLEX® YCY LiYYCY

**300/500 V**

## Type Approval Certificates

VDE - Reg N° 6596

## Applications

In dry and moist rooms for light and medium mechanical stresses, however not outdoors.  
As supply or interconnecting cable for measuring, control and regulating, according to VDE 0113 for computer units for control equipments on machine tools, conveyors and assembly lines for controlling and regulating, and for monitoring of production processes, industrial plants, assembly lines and machinery when freely moved without forced guidance.

**Max core temperature: 70 °C**

## Design

### 1. Conductor

Copper bare stranded  
VDE 0295  
Class 5

### 2. Insulation

PVC  
(polyvinyl chloride)

### 3. Inner sheath

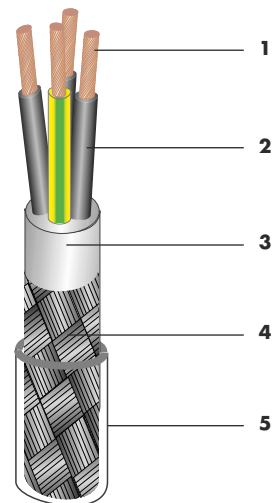
PVC  
(polyvinyl chloride)

### 4. Screen

Tinned copper braid

### 5. Outer-sheath

PVC  
(polyvinyl chloride)  
Colour: transparent



## Marking

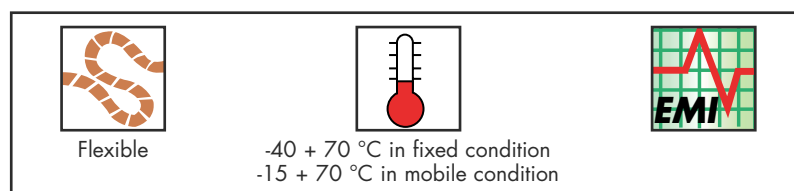
Rheflex YCY JZ - 300/500V  
n G s VDE Reg. N° 6596 bzw  
Rheflex YCY OZ - 300/500V  
n x s VDE Reg. N° 6596

## Core Identification

Colour: black, white printed  
numbers and or without  
green/yellow core.

## Standards

HD 359 S2  
IEC 227 Part 6



Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78720002	<b>2 x 0.5</b>	7	70
78720003	<b>3 G 0.5</b>	7.5	80
78720004	<b>4 G 0.5</b>	8	90
78720005	<b>5 G 0.5</b>	8.5	110
78720006	<b>6 G 0.5</b>	9	120
78720007	<b>7 G 0.5</b>	9.5	130
78720010	<b>10 G 0.5</b>	11	170
78720012	<b>12 G 0.5</b>	11.5	190
78720014	<b>14 G 0.5</b>	11.5	200
78720016	<b>16 G 0.5</b>	12	220
78720018	<b>18 G 0.5</b>	13	260
78720021	<b>21 G 0.5</b>	14.5	300
78720025	<b>25 G 0.5</b>	15.5	340
78720030	<b>30 G 0.5</b>	16	390
78720034	<b>34 G 0.5</b>	17	440
78720040	<b>40 G 0.5</b>	19	560
78720050	<b>50 G 0.5</b>	20.5	600
78720061	<b>61 G 0.5</b>	23.5	780
78720080	<b>80 G 0.5</b>	24.5	910
78720100	<b>100 G 0.5</b>	27	1 100
78720102	<b>2 x 0.75</b>	7.5	85
78720103	<b>3 G 0.75</b>	8	95
78720104	<b>4 G 0.75</b>	8.5	110
78720105	<b>5 G 0.75</b>	9	120
78720106	<b>6 G 0.75</b>	9.5	130
78720107	<b>7 G 0.75</b>	10	150
78720110	<b>10 G 0.75</b>	12	200
78720112	<b>12 G 0.75</b>	12	230
78720114	<b>14 G 0.75</b>	12.5	250
78720116	<b>16 G 0.75</b>	13.5	300
78720118	<b>18 G 0.75</b>	14.5	320
78720121	<b>21 G 0.75</b>	16	380
78720125	<b>25 G 0.75</b>	17	430
78720130	<b>30 G 0.75</b>	17.5	490
78720134	<b>34 G 0.75</b>	18.5	540
78720140	<b>40 G 0.75</b>	20.5	640
78720150	<b>50 G 0.75</b>	23	790
78720161	<b>61 G 0.75</b>	24.5	920
78720180	<b>80 G 0.75</b>	27	1 200
78720200	<b>100 G 0.75</b>	30	1 500
78720202	<b>2 x 1</b>	8	90
78720203	<b>3 G 1</b>	8.5	110
78720204	<b>4 G 1</b>	9	130
78720205	<b>5 G 1</b>	9.5	150
78720206	<b>6 G 1</b>	10	160
78720207	<b>7 G 1</b>	11	190
78720210	<b>10 G 1</b>	12.5	240
78720212	<b>12 G 1</b>	13.5	290
78720214	<b>14 G 1</b>	14	320
78720216	<b>16 G 1</b>	14.5	360
78720218	<b>18 G 1</b>	16	400
78720221	<b>21 G 1</b>	17	480

**Stocked products**



Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78720225	25 G 1	18	520
78720230	30 G 1	20	600
78720234	34 G 1	21	680
78720240	40 G 1	23	790
78720250	50 G 1	24.5	950
78720261	61 G 1	26.5	1 200
78720280	80 G 1	30	1 500
78720300	100 G 1	33	1 900
78720302	2 x 1.5	8.5	120
78720303	3 G 1.5	9	140
78720304	4 G 1.5	9.5	160
78720305	5 G 1.5	10.5	200
78720306	6 G 1.5	11.5	220
78720207	7 G 1.5	12	250
78720310	10 G 1.5	14.5	340
78720312	12 G 1.5	15	370
78720314	14 G 1.5	16	440
78720316	16 G 1.5	16.5	470
78720318	18 G 1.5	17	510
78720321	21 G 1.5	20	620
78720325	25 G 1.5	21	690
78720330	30 G 1.5	21.5	800
78720334	34 G 1.5	23.5	890
78720340	40 G 1.5	26	1 150
78720350	50 G 1.5	28.5	1 350
78720361	61 G 1.5	30.5	1 580
78720380	80 G 1.5	33.5	2 000
78720400	100 G 1.5	37.5	2 450
78720403	3 G 2.5	11	210
78720404	4 G 2.5	12	270
78720405	5 G 2.5	14	380
78720407	7 G 2.5	16	420
78720504	4 G 4	13.5	380
78720820	5 G 5	14.5	430
78720604	4 G 6	16	500
78720850	5 G 6	20	700
78720704	4 G 10	20.5	800
78720705	5 G 10	22.5	950
78720804	4 G 16	22	1 100
78720887	5 G 16	28	1 550
78720854	4 G 25	28	1 700
78720904	4 G 35	30.5	2 300
78721355	5 G 35	34	2 950
78721350	5 G 50	36	3 150
78721424	5 G 70	41	4 300
78721457	5 G 95	47	5 600

**Stocked products**


$d \leq 8 \text{ mm} = 3d$   
 $8 \leq d \leq 12 \text{ mm} = 4d$   
 $d > 12 \text{ mm} = 5d$



# RHEYFLEX® YSY LiYYSY

**300/500 V**

## Type Approval Certificates

VDE - Reg N° 6596

## Applications

In dry and moist rooms for light and medium mechanical stresses, however not outdoors.  
As supply or interconnecting cable for measuring, control and regulating, for computer units for equipments on machine tools, conveyors and assembly lines for controlling and regulating, and for monitoring of production processes, industrial plants, assembly lines and machinery when freely moved without forced guidance. Cross sections above 10 mm<sup>2</sup> are energy supply cables for fixed installation on machine tools production lines.  
Cores are normally identified by colours to VDE 0293.

**Max core temperature: 70 °C**

## Design

### 1. Conductor

Copper bare stranded  
VDE 0295  
Class 5

### 2. Insulation

PVC  
(polyvinyl chloride)

### 3. Inner sheath

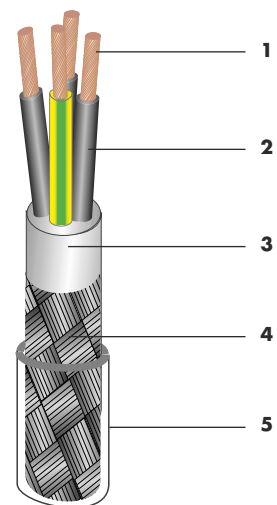
PVC  
(polyvinyl chloride)

### 4. Screen

Tinned steel braid

### 5. Outer-sheath

PVC  
(polyvinyl chloride)  
Colour: transparent

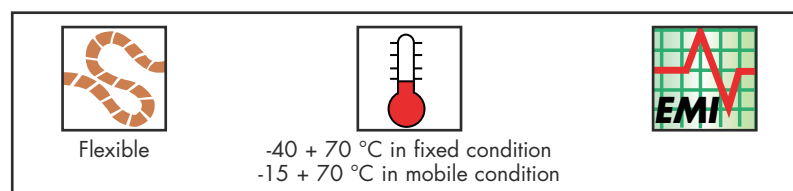


## Marking

Rheflex YSY JZ - 300/500V  
n G s VDE Reg. N° 6596 bzw  
Rheflex YSY OZ - 300/500V  
n x s VDE Reg. N° 6596

## Core Identification

Colour: black, white printed  
numbers and or without  
green/yellow core.



Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78790002	2 x 0.5	8	90
78790003	3 G 0.5	8.5	100
78790004	4 G 0.5	9	110
78790005	5 G 0.5	9.5	120
78790006	6 G 0.5	9.5	150
78790007	7 G 0.5	10	150
78790008	8 G 0.5	10.5	180
78790010	10 G 0.5	11.5	190
78790012	12 G 0.5	12	210
78790014	14 G 0.5	12.5	230
78790016	16 G 0.5	13	250
78790018	18 G 0.5	13.5	280
78790021	21 G 0.5	14.5	310
78790025	25 G 0.5	16	360
78790030	30 G 0.5	16.5	410
78790034	34 G 0.5	17.5	440
78790040	40 G 0.5	18.5	500
78790052	52 G 0.5	21	640
78790061	61 G 0.5	23	730
78790080	80 G 0.5	25	1 050
78790100	100 G 0.5	27	1 100
78790102	2 G 0.75	8	100
78790103	3 G 0.75	8.5	115
78790104	4 G 0.75	9	125
78790105	5 G 0.75	9.5	140
78790106	6 G 0.75	10	160
78790107	7 G 0.75	11.5	190
78790108	8 G 0.75	11.5	200
78790110	10 G 0.75	12.5	230
78790112	12 G 0.75	12.5	250
78790115	15 G 0.75	14.5	310
78790118	18 G 0.75	14.5	350
78790121	21 G 0.75	16	390
78790125	25 G 0.75	17.5	440
78790130	30 G 0.75	18	490
78790134	34 G 0.75	19	560
78790140	40 G 0.75	21	650
78790150	50 G 0.75	23	780
78790161	61 G 0.75	25	920
78790180	80 G 0.75	27	1 200
78790200	100 G 0.75	30	1 450
78790202	2 x 1	9	110
78790203	3 G 1	9	130
78790204	4 G 1	9.5	150
78790205	5 G 1	10	170
78790206	6 G 1	10.5	190
78790207	7 G 1	12.5	210
78790208	8 G 1	12.5	240
78790210	10 G 1	13	270
78790212	12 G 1	14	290
78790214	14 G 1	14.5	350
78790216	16 G 1	15	370
78790218	18 G 1	16	410

**Stocked products**

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78790220	20 G 1	16.55	440
78790225	25 G 1	19	540
78790230	30 G 1	20	600
78790234	34 G 1	21.5	690
78790240	40 G 1	23	800
78790250	50 G 1	25	950
78790256	56 G 1	25.5	1100
78790261	61 G 1	26.5	1150
78790280	80 G 1	30	1450
78790300	100 G 1	32.5	1800
78790302	2 x 1.5	9	130
78790303	3 G 1.5	9.5	150
78790304	4 G 1.5	10	180
78790305	5 G 1.5	11.5	200
78790306	6 G 1.5	12	240
78790307	7 G 1.5	12.5	260
78790308	8 G 1.5	13.5	290
78790310	10 G 1.5	15	340
78790312	12 G 1.5	15.5	400
78790314	14 G 1.5	16.5	460
78790316	16 G 1.5	17	500
78790318	18 G 1.5	17.5	530
78790321	21 G 1.5	20	620
78790325	25 G 1.5	21	700
78790330	30 G 1.5	22	800
78790334	34 G 1.5	24	920
78790342	42 G 1.5	25.5	1120
78790350	50 G 1.5	27.5	1300
78790361	61 G 1.5	30.5	1550
78790380	80 G 1.5	33	1950
78790400	100 G 1.5	36.5	2350
78790402	2 x 2.5	11	180
78790403	3 G 2.5	11.5	220
78790404	4 G 2.5	13	260
78790405	5 G 2.5	13.5	300
78790406	6 G 2.5	14	330
78790407	7 G 2.5	15	380
78790408	8 G 2.5	16.5	430
78790410	10 G 2.5	17.5	500
78790412	12 G 2.5	18.5	570
78790414	14 G 2.5	19	620
78790416	16 G 2.5	20.5	740
78790418	18 G 2.5	22	850
78790421	21 G 2.5	24	950
78790425	25 G 2.5	25.5	1100
78790430	30 G 2.5	26.5	1300
78790434	34 G 2.5	29	1450
78790440	40 G 2.5	31	1650
78790450	50 G 2.5	33.5	2000
78790461	61 G 2.5	37	2400

Stocked products

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78790503	<b>3 G 4</b>	12.5	270
78790504	<b>4 G 4</b>	14	340
78790505	<b>5 G 4</b>	15	400
78790507	<b>7 G 4</b>	17.5	540
78790510	<b>10 G 4</b>	21	700
78790512	<b>12 G 4</b>	21.5	820
78790515	<b>15 G 4</b>	24	1 000
78790518	<b>18 G 4</b>	26	1 300
78790521	<b>21 G 4</b>	27.5	1 400
78790525	<b>25 G 4</b>	30.5	1 600
78790603	<b>3 G 6</b>	14.5	400
78790604	<b>4 G 6</b>	16	520
78790605	<b>5 G 6</b>	18	600
78790607	<b>7 G 6</b>	19.5	780
78790704	<b>4 G 10</b>	20	800
78790705	<b>5 G 10</b>	21.5	930
78790707	<b>7 G 10</b>	23.5	1 200
78790804	<b>4 G 16</b>	22.5	1 200
78790805	<b>5 G 16</b>	23	1 400
78790807	<b>7 G 16</b>	30	1 800
78790854	<b>4 G 25</b>	27	1 600
78790855	<b>5 G 25</b>	30	1 950
78790904	<b>4 G 35</b>	31	2 250
78790905	<b>5 G 35</b>	33.5	2 700
78790954	<b>4 G 50</b>	35.5	2 900
78790955	<b>4 G 70</b>	41.5	3 900
78790956	<b>4 G 95</b>	47	5 100

**Stocked products**


$d \leq 8 \text{ mm} = 3d$   
 $8 \leq d \leq 12 \text{ mm} = 4d$   
 $d > 12 \text{ mm} = 5d$

# H05VV5-F (previously NYSLYÖ-J) PVC Control cables, oil resistant - CNOMO

## Type Approval Certificates

UL approvals  
 Core styles  
 1007: 80 °C, 300 V, 0.031 to 1.31 mm<sup>2</sup>  
 1011: 80 °C, 600 V, 0.031 to 1.31 mm<sup>2</sup>  
 Outer sheath styles  
 2464: 80 °C, 300 V  
 2570: 80 °C, 600 V

## Applications

These cables are used for festoons systems, for outdoors applications. Copper screens are efficient against electro magnetic disturbances caused by power cables.

**300/500 V**

**Max core temperature: 80 °C**

## Design

### 1. Conductor

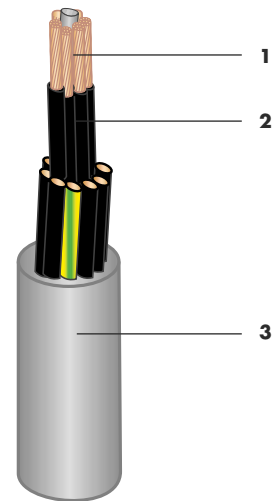
Flexible bare copper  
 Class 5  
 IEC 60228  
 Class 5 up to 25 sqmm  
 Class 6 up to 35 sqmm

### 3. Outer-sheath

PVC  
 (polyvinyl chloride)  
 Colour: grey

### 2. Insulation

PVC  
 (polyvinyl chloride)



## Marking

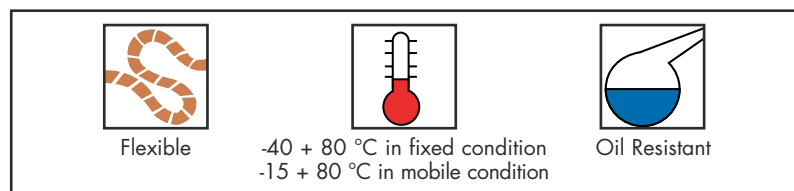
H05VV5-F ◁VDE▷ ◁HAR▷  
 AWN E 60193

## Core Identification

Colour: black, white printed numbers and green/yellow core.

## Standards

HD 21.13-51  
 VDE 0281 Part 13/5/96  
 CNOMO



## H05VV5-F

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78733002	2 x 0.5*	6	45
78733003	3 G 0.5	6.5	55
78733004	4 G 0.5	7.3	75
78733005	5 G 0.5	8	85
78733007	7 G 0.5	9	105
78733008	8 G 0.5	10.5	135
78733010	10 G 0.5	11.7	170
78733012	12 G 0.5	11	180
78733014	14 G 0.5	12.5	210
78733016	16 G 0.5	13.5	240
78733018	18 G 0.5	14.2	260
78733021	21 G 0.5	15.5	305
78733025	25 G 0.5	17	365
78733030	30 G 0.5	18.5	440
78733034	34 G 0.5	20	500
78733040	40 G 0.5	21	580
78733044	44 G 0.5	21.5	620
78733050	50 G 0.5	23	670
78733061	61 G 0.5	25	820
78733080	80 G 0.5	28	1 060
78733100	100 G 0.5	31	1 300
78733102	<b>2 x 0.75*</b>	6.5	60
78733103	<b>3 G 0.75</b>	7.4	70
78733104	<b>4 G 0.75</b>	7.5	80
78733105	<b>5 G 0.75</b>	8.5	100
78733107	<b>7 G 0.75</b>	10	140
78733108	8 G 0.75	11.5	175
78733110	10 G 0.75	12.5	200
78733112	<b>12 G 0.75</b>	12.5	215
78733115	15 G 0.75	14	275
78733118	<b>18 G 0.75</b>	14.5	305
78733121	21 G 0.75	16.5	380
78733125	25 G 0.75	18	420
78733132	32 G 0.75	20.5	580
78733134	34 G 0.75	20	580
78733140	40 G 0.75	23	720
78733150	50 G 0.50	24	810
78733161	81 G 0.75	26	980
78733180	80 G 0.75*	30.5	1 330
78733200	100 G 0.75*	34	1 670

### Stocked products

\* Dimensions not in VDE



## H05VV5-F

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78733202	2 x 1*	7.1	65
78733203	3 G 1	7.5	80
78733204	4 G 1	8.1	95
78733205	5 G 1	9	120
78733206	6 G 1	10.2	145
78733207	7 G 1	10.5	160
78733208	8 G 1	12.2	205
78733209	9 G 1	13.3	235
78733212	12 G 1	13.5	250
78733214	14 G 1	14.0	290
78733216	16 G 1	15.5	350
78733218	18 G 1	15.5	360
78733220	20 G 1	17.2	440
78733224	24 G 1	18.5	500
78733225	25 G 1	19.5	540
78733230	30 G 1	21	670
78733234	34 G 1	22	710
78733240	40 G 1	24	850
78733248	48 G 1	26	980
78733250	50 G 1	26	1 020
78733256	56 G 1	28	1 200
78733261	61 G 1	28.5	1 220
78733380	80 G 1*	33	1 600
78733300	100 G 1	36	2 000
78733302	2 x 1.5*	8	85
78733303	3 G 1.5	8.5	110
78733304	4 G 1.5	9.2	140
78733305	5 G 1.5	10.5	165
78733306	6 G 1.5	11.2	190
78733307	7 G 1.5	12.2	230
78733308	8 G 1.5	13.5	260
78733309	9 G 1.5	14.5	300
78733312	12 G 1.5	15.5	345
78733314	14 G 1.5	16.3	400
78733316	16 G 1.5	17	450
78733318	18 G 1.5	18.5	520
78733320	20 G 1.5	19	570
78733325	25 G 1.5	22.5	720
78733332	32 G 1.5	24	890
78733334	34 G 1.5	25.5	950
78733340	40 G 1.5	27	1 140
78733342	42 G 1.5	27	1 180
78733350	50 G 1.5	30	1 400
78733356	56 G 1.5	31	1 550
78733361	61 G 1.5	31.5	1 640
78733480	80 G 1.5*	36	2 100
78733400	100 G 1.5*	40	2 600

**Stocked products**

\* Dimensions not in VDE

## H05VV5-F

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78733402	2 x 2.5*	9.6	135
78733403	<b>3 G 2.5</b>	10	165
78733404	<b>4 G 2.5</b>	10.9	200
78733405	<b>5 G 2.5</b>	12.3	255
78733406	6 G 2.5	13.3	285
78733407	<b>7 G 2.5</b>	14.5	360
78733408	8 G 2.5	16	390
78733412	<b>12 G 2.5</b>	18.3	535
78733414	14 G 2.5	19.8	630
78733416	16 G 2.5	20.8	705
78733418	18 G 2.5	21.8	785
78733420	20 G 2.5	22.9	865
78733425	25 G 2.5	26.5	1 070
78733430	30 G 2.5	27.4	1 240
78733434	34 G 2.5	30	1 450
78733440	40 G 2.5	32	1 750
78733450	50 G 2.5	35.3	2 000
78733456	56 G 2.5	37	2 300
78733461	61 G 2.5	38	2 450
78733470	70 G 2.5*	41.5	2 800
78733502	2 x 4*	11.1	190
78733503	3 G 4*	11.8	240
78733504	<b>4 G 4*</b>	12.9	300
78733505	5 G 4*	14.1	355
78733507	7 G 4*	17.5	510
78733512	12 G 4*	21.8	800
78733515	15 G 4*	24	960
78733518	18 G 4*	25.9	1 160
78733525	25 G 4*	31.5	1 600
78733603	3 G 6*	13	315
78733604	<b>4 G 6*</b>	14	390
78733605	5 G 6*	15.5	470
78733607	7 G 6*	18	660
78733704	<b>4 G 10*</b>	20	720
78733705	5 G 10*	21.5	865
78733707	7 G 10*	24	1 150
78733804	<b>4 G 16*</b>	22.5	1 000
78733805	5 G 16*	25	1 250
78733807	7 G 16*	29	1 650
78733854	4 G 25*	28	1 550
78733855	5 G 25*	31	1 900
78733904	4 G 35*	31	2 000
78733905	5 G 35*	34.5	2 500
78733954	4 G 50*	37.5	2 900
78733955	4 G 70*	42	3 900
78733956	4 G 95*	49	5 300

### Stocked products

\* Dimensions not in VDE



d ≤ 8 mm = 3d  
8 ≤ d ≤ 12 mm = 4d  
d > 12 mm = 5d

# H05VVC4V5-K previously (NYSLYCYÖ) PVC Control Cables, screened, oil resistant

## Type Approval Certificates

UL approval see HO5VV5-F

## Applications

In dry and moist rooms for light and medium mechanical stresses, however not outdoors.  
As supply or interconnecting cable for measuring, control and regulating, according to VDE 0113 for computer units for control equipments on machine tools, conveyors and assembly lines for controlling and regulating, and for monitoring of production processes, industrial plants, assembly lines and machinery when freely moved without forced guidance. This design facilitates undisturbed transmission of control signal.

**300/500 V**

**Max core temperature: 70 °C**

## Design

### 1. Conductor

Copper bare stranded  
VDE 0295 Class 5

### 2. Insulation

PVC  
(polyvinyl chloride)

### 3. Inner sheath

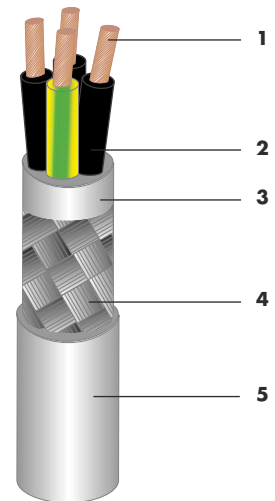
PVC  
(polyvinyl chloride)

### 4. Screen

Tinned copper braid

### 5. Outer sheath

PVC oil resistant  
(polyvinyl chloride)  
Colour: grey



## Marking

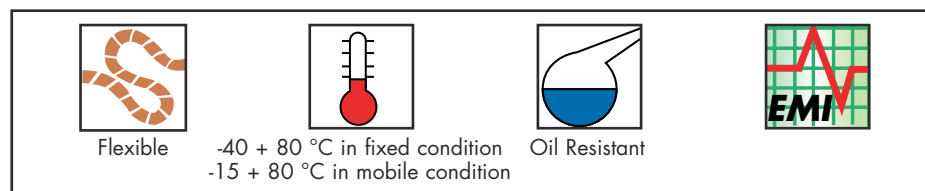
H05VVC4V5-K <VDE>  
<HAR>  
AWN E 60193

## Core Identification

Colour: black, white printed  
numbers and green/yellow  
core.

## Standards

Colour: black, white printed  
numbers and green/yellow  
core.



## H05VVC4V5-K

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78743002	2 x 0.5*	8.3	90
78743003	3 G 0.5	8.5	95
78743004	4 G 0.5	9.5	120
78743005	5 G 0.5	10	155
78743007	7 G 0.5	11.5	190
78743010	10 G 0.5	14	250
78743012	12 G 0.5	13.5	270
78743018	18 G 0.5	17.5	400
78743021	21 G 0.5	19	460
78743025	25 G 0.5	20.5	530
78743034	34 G 0.5	22.5	650
78743040	40 G 0.5	24.5	750
78743050	50 G 0.5	27	940
78743061	61 G 0.5	28.5	1080
78743080	80 G 0.5*	33	1410
78743100	100 G 0.5*	35.5	1670
78743102	2 x 0.75*	9	110
78743103	3 G 0.75	9.4	120
78743104	4 G 0.75	10	155
78743105	5 G 0.75	10.5	175
78743107	7 G 0.75	12.5	220
78743110	10 G 0.75	15	300
78743112	12 G 0.75	15	300
78743118	18 G 0.75	17.5	440
78743121	21 G 0.75	20.5	560
78743125	25 G 0.75	21.5	620
78743134	34 G 0.75	24.5	790
78743140	40 G 0.75	27	960
78743150	50 G 0.75	28.5	1110
78743161	61 G 0.75	30	1300
78743180	80 G 0.75*	35	1700
78743200	100 G 0.75*	39	2100
78743202	2 x 1*	9.5	115
78743203	3 G 1	10	140
78743204	4 G 1	10.5	175
78743205	5 G 1	11.5	200
78743207	7 G 1	13.5	245
78743210	10 G 1	15.3	325
78743212	12 G 1	17	400
78743218	18 G 1	18.5	560
78743221	21 G 1	21.5	640
78743225	25 G 1	22	720
78743234	34 G 1	26	940
78743240	40 G 1	28	1100
78743250	50 G 1	29	1320
78743261	61 G 1	33.5	1600
78743280	80 G 1*	37	2000
78743300	100 G 1*	41.5	2500

\* Dimensions not in VDE

## H05VVC4V5-K

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
78743302	2 x 1.5*	10.5	145
78743303	3 G 1.5	11	175
78743304	4 G 1.5	12	220
78743305	5 G 1.5	13	240
78743307	7 G 1.5	15	330
78743310	10 G 1.5	16.5	410
78743312	12 G 1.5	18.5	530
78743318	18 G 1.5	22	680
78743321	21 G 1.5	24	800
78743325	25 G 1.5	25.5	920
78743334	34 G 1.5	28.5	1200
78743340	40 G 1.5	31	1400
78743350	50 G 1.5	34	1700
78743361	61 G 1.5	28.5	1080
78743380	80 G 1.5*	41	2650
78743400	100 G 1.5*	46	3250
78743403	3 G 2.5	12.5	280
78743404	4 G 2.5	14	340
78743405	5 G 2.5	15.4	380
78743407	7 G 2.5	17	430

\* Dimensions not in VDE



$d \leq 8 \text{ mm} = 3d$   
 $8 \leq d \leq 12 \text{ mm} = 4d$   
 $d > 12 \text{ mm} = 5d$



# RHEYFLEX® H05BQ-F and H07BQ-F polyurethane cables for energy and control

## Applications

Outdoors and in dry or wet rooms, under high mechanical stresses. In industrial plants and on sites where high requirements for abrasion resistance, tear resistance and oil resistance have to be met. As supply cable on portable electrical appliances like drills, grinding machines and other, which to be for highest mechanical requirements. For control purposes in steel, automobile and mining industries, as well as in chemical industry, where are subjected to mineral oils and where they are dragged over sharp edges, rough floors and through sharp metal shaving during operation. For the connection of machine aggregates and machine tools in plants, where a high radiation resistance is required, e.g. particle accelerator, radiation equipment but not in nuclear power stations (containment)

**H05BQ-F 300/500 V**  
**H07BQ-F 450/750 V**

**Max core temperature: 70 °C**

## Design

### 1. Conductor

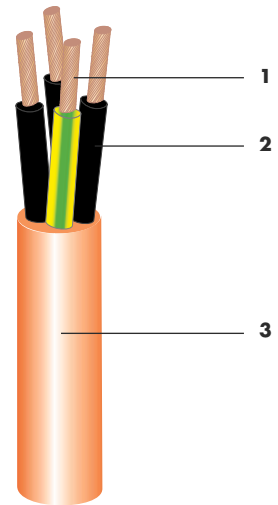
Copper bare stranded  
VDE 0295 Class 5

### 2. Insulation

EPR  
(ethylen propylen rubber)

### 3. Outer-sheath

PUR  
(polyurethan)  
Colour: orange



## Marking

H05BQ-F  
H07BQ-F

## Core Identification

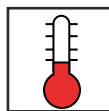
Colours to VDE 0293

## Standards

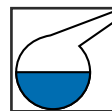
HD22 - 10 S1  
VDE 0282 Part 10/11.95  
H07BQ - F 450/750 V



Flexible



-50 + 90 °C



Oil Resistant



Good



Good

## RHEYFLEX® H05BQ-F - H07BQ-F

Type	No. of cores and rated cross section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Weight approximately (kg/km)
<b>H05BQ-F</b>			
78930102	<b>2 x 0.75</b>	7	60
78930103	<b>3 G 0.75</b>	7.5	75
78930104	<b>4 G 0.75</b>	8.5	90
78930105	<b>5 G 0.75</b>	9.5	110
78930202	<b>2 x 1</b>	7.5	75
78930203	<b>3 G 1</b>	8	85
78930204	<b>4 G 1</b>	9	105
78930205	<b>5 G 1</b>	9.1	130
<b>H07BQ-F</b>			
78930302	<b>2 G 1.5</b>	9.5	105
78930303	<b>3 G 1.5</b>	10	130
78930304	<b>4 G 1.5</b>	11	160
78930305	<b>5 G 1.5</b>	12	200
78930402	<b>2 x 2.5</b>	10.5	150
78930403	<b>3 G 2.5</b>	11	200
78930404	<b>4 G 2.5</b>	13	240
78930405	<b>5 G 2.5</b>	14	310
75930407	<b>7 G 2.5</b>	17	240
78930504	<b>4 G 4</b>	15	350
78930505	<b>5 G 4</b>	16.5	430
78930604	<b>4 G 6</b>	17	470
78930605	<b>5 G 6</b>	19	600

Stocked products



## G.M.B.S. Multicore Collective Screened Cables

### Applications

**300/500 V**

Flexible connections for computer and remote control, electronic equipment, surveillance circuits, control, robotic and automation.

**Max core temperature: 70 °C**

### Design

#### 1. Conductor

Tinned flexible copper  
NF C 93-251  
class 5

#### 2. Insulation

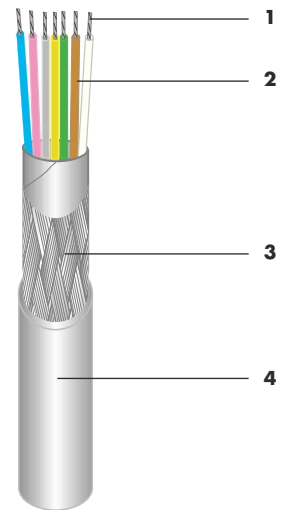
Polychloride vinyl  
(PVC 105°C)

#### 3. Screen

Polyethylen tape  
Aluminium/Polyethylen tape  
Tinned copper braid

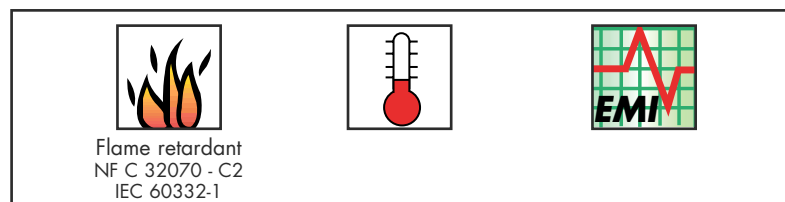
#### 4. Outer-sheath

PVC  
(polychloride vinyl)  
Colour: grey



### Core Identification

By colours and bands  
ACCORDING TO: DIN 47 100



Section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Bending radius (mm)	Weight approximately (kg/km)
72 x 0.22	3.9	16	20
<b>3 x 0.22</b>	4.3	18	25
<b>4 x 0.22</b>	4.6	19	30
<b>5 x 0.22</b>	4.9	20	35
<b>7 x 0.22</b>	5.2	21	45
<b>12 x 0.22</b>	6.7	27	70
19 x 0.22	7.6	31	95
24 x 0.22	9.0	36	125
27 x 0.22	9.2	37	135
37 x 0.22	10.1	41	170
<b>2 x 0.34</b>	4.7	19	30
<b>3 x 0.34</b>	4.9	20	35
<b>4 x 0.34</b>	5.3	22	40
<b>5 x 0.34</b>	5.6	23	50
<b>7 x 0.34</b>	6.1	25	60
<b>12 x 0.34</b>	7.9	32	100
19 x 0.34	9.3	38	145
24 x 0.34	10.9	44	180
27 x 0.34	11.1	45	195
37 x 0.34	12.3	50	255
<b>2 x 0.5</b>	5.2	21	35
<b>3 x 0.5</b>	5.4	22	40
<b>4 x 0.5</b>	5.8	23	50
<b>5 x 0.5</b>	6.5	26	60
<b>7 x 0.5</b>	7.0	28	80
<b>12 x 0.5</b>	9.0	36	125
19 x 0.5	10.4	42	175
24 x 0.5	12.2	49	225
27 x 0.5	12.5	50	245
37 x 0.5	14.0	56	325
<b>2 x 0.60</b>	5.2	21	40
<b>3 x 0.60</b>	5.5	22	50
<b>4 x 0.60</b>	5.9	24	60
<b>5 x 0.60</b>	6.6	27	70
<b>7 x 0.60</b>	7.1	29	90
<b>12 x 0.60</b>	9.2	37	145
<b>19 x 0.60</b>	10.6	43	210
<b>24 x 0.60</b>	12.6	51	265
27 x 0.60	12.8	52	290
37 x 0.60	14.4	58	385
<b>2 x 0.75</b>	5.5	22	45
<b>3 x 0.75</b>	5.8	23	55
<b>4 x 0.75</b>	6.5	26	65
<b>5 x 0.75</b>	7.0	28	80
<b>7 x 0.75</b>	7.5	30	100
<b>12 x 0.75</b>	10.0	40	165
19 x 0.75	11.6	46	240
24 x 0.75	13.6	54	300
27 x 0.75	13.9	56	330
37 x 0.75	15.8	63	450
<b>2 x 0.93</b>	5.8	24	50
<b>3 x 0.93</b>	6.2	25	65
<b>4 x 0.93</b>	6.9	28	80
<b>5 x 0.93</b>	7.4	30	95
<b>7 x 0.93</b>	8.0	32	125
<b>12 x 0.93</b>	10.4	42	200
<b>19 x 0.93</b>	12.3	50	300
<b>24 x 0.93</b>	14.5	58	380
27 x 0.93	14.8	60	415
<b>37 x 0.93</b>	16.7	67	555

Stocked products

# G.V.C.S.T.V.-LSLH-C1

## Multicores Collective Screened Cables

### Applications

0.6/1 kV

Flexible connections necessitating an anti-inductive screen. Installation shall be postponed if the temperature is lower than -5°C.

Max core temperature: °C

### Design

#### 1. Conductor

Tinned copper, flexible stranded IEC 60228 class 5

#### 2. Insulation

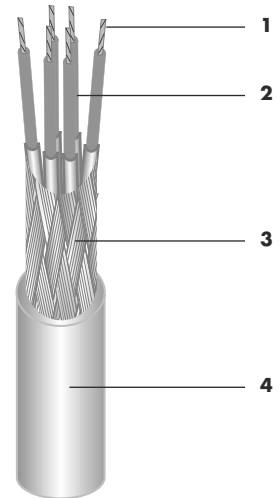
Thermoplastic fireproofed

#### 3. Screen

Non-hygroscopic tape  
Tinned copper braid

#### 4. Outer-sheath

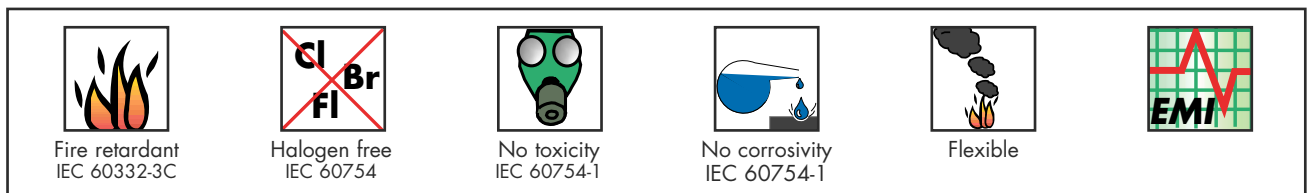
Thermoplastic low halogene  
Colour: grey



### Marking

### Core Identification

### Standards



## G.V.C.S.T.V.-LSLH-C1

Section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Bending radius (mm)	Weight approximately (kg/km)
<b>2 x 0.75</b>	13.5	6.9	80
<b>3 x 0.75</b>	12.0	7.3	90
<b>4 x 0.75</b>	11.5	8.1	110
<b>5 x 0.75</b>	10.5	8.7	135
<b>7 x 0.75</b>	9.0	9.6	165
<b>12 x 0.75</b>	7.0	12.9	280
<b>19 x 0.75</b>	5.5	15.5	420
<b>27 x 0.75</b>	4.5	18.5	570
<b>37 x 0.75</b>	4.0	21.4	725
<b>2 x 1</b>	15	7.3	90
<b>3 x 1</b>	13.5	7.9	110
<b>4 x 1</b>	13.0	8.6	130
<b>5 x 1</b>	11.5	9.5	155
<b>7 x 1</b>	10.0	10.2	195
<b>12 x 1</b>	7.5	14.2	345
<b>19 x 1</b>	6.0	16.5	485
<b>27 x 1</b>	5.0	20.0	690
<b>37 x 1</b>	5.0	22.5	910
<b>2 x 1.5</b>	22	8.3	115
<b>3 x 1.5</b>	18.5	8.8	140
<b>4 x 1.5</b>	15.5	9.7	170
<b>5 x 1.5</b>	15.5	10.8	205
<b>7 x 1.5</b>	14.0	11.6	250
<b>12 x 1.5</b>	11.0	16.0	455
<b>19 x 1.5</b>	9.0	19.1	650
<b>27 x 1.5</b>	8.0	22.8	925
<b>37 x 1.5</b>	6.0	25.7	1 200
<b>2 x 2.5</b>	30	9.9	165
<b>3 x 2.5</b>	25	10.5	195
<b>4 x 2.5</b>	21	11.6	240
<b>5 x 2.5</b>	21	13.1	300
<b>7 x 2.5</b>	21	14.6	390
<b>12 x 2.5</b>	16	19.5	690
<b>2 x 4</b>	40	11.4	210
<b>3 x 4</b>	34	12.0	260
<b>4 x 4</b>	29	13.3	325
<b>5 x 4</b>	29	14.8	420
<b>2 x 6</b>	51	12.6	280
<b>3 x 6</b>	43	13.5	355
<b>4 x 6</b>	36	14.9	465
<b>5 x 6</b>	36	16.4	550
<b>2 x 10</b>	70	16.4	490
<b>3 x 10</b>	60	17.1	595
<b>4 x 10</b>	50	19.4	760
<b>5 x 10</b>	50	21.5	945
<b>2 x 16</b>	94	18.7	645
<b>3 x 16</b>	9 480	19.8	800
<b>4 x 16</b>	8 067	22.1	1 020
<b>5 x 16</b>	6 767	24.9	1 335
<b>2 x 25</b>	119	27.7	970
<b>3 x 25</b>	101	24.2	1 215
<b>4 x 25</b>	85	26.6	1 490
<b>5 x 25</b>	85	30.1	1 965

Stocked products

### Type Approval Certificates

### Applications

Flexible connections for computer and remote control, electronic equipment, surveillance circuits, control, robotic and automation.

Max core temperature: 70 °C

### Design

#### 1. Conductor

Flexible tinned copper  
NF C 93-251

#### 2. Insulation

(PVC 105°C)  
NF C 93 251

#### 3. Laying up

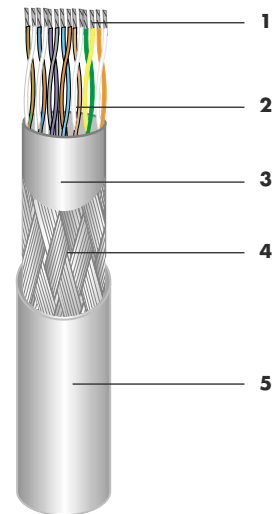
Cores are stranded into pairs or triples

#### 4. Screen

Polyethylen tape  
Tinned copper braid

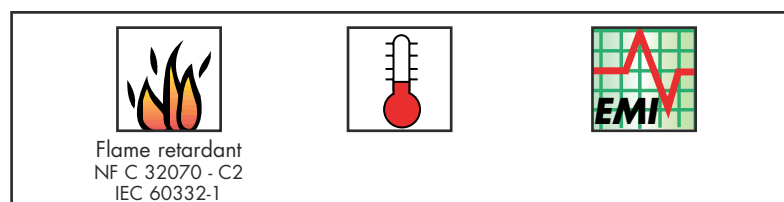
#### 5. Outer-sheath

PVC  
Colour: grey



### Core Identification

DIN 47 100



## G.M.B.S.

Nominal Section (mm <sup>2</sup> )	Outer diameter approximately (mm)	Bending radius (mm)	Weight approximately (kg/km)
2 x 0.22	6.0	24	40
3 x 0.22	6.5	26	50
5 x 0.22	7.6	31	70
7 x 0.22	8.2	33	85
10 x 0.22	10.0	40	115
15 x 0.22	11.6	47	160
21 x 0.22	13.5	54	220
30 x 0.22	15.8	64	300

Stocked products

# LYFLEX® Multicores cables

**300/500 V**

## Applications

LYFLEX cables are designed for all control links: connection of remote control, data processing, electronic, remote monitoring, telemetry, robot and automation equipment. These cable are suitable for home computing requirements. They can be screened (by a braid) if anti-inductive protection is necessary for correct operation of the link.

**Max core temperature: 70 °C**

## Design

### 1. Conductor

Stranded bare copper

### 2. Insulation

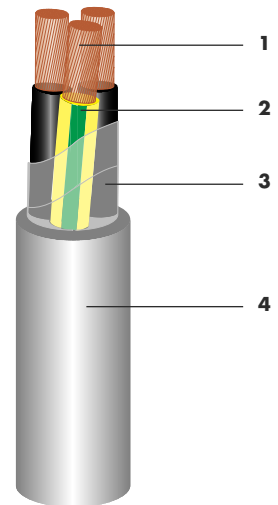
PVC  
(polyvinyl chloride)

### 3. Tape

Polyester (optional)

### 4. Outer-sheath

PVC  
(polyvinyl chloride)  
Colour: grey



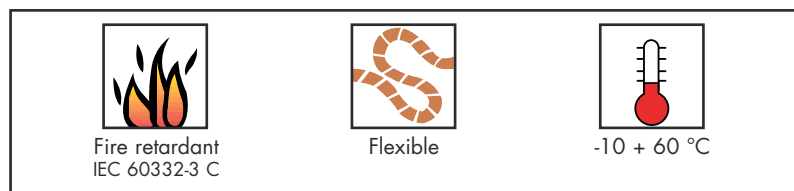
## Core Identification

0.22 - 0.34 - 0.50 mm<sup>2</sup>

By colour coding and rings according to DIN 47 100

0.75 - 1 - 1.5 mm<sup>2</sup>

Colour: black, white printed numbers and green/yellow



Cables (mm <sup>2</sup> )	Outer diameter max. (mm)	Weight approximately (kg/km)	Cables (mm <sup>2</sup> )	Outer diameter max. (mm)	Weight approximately (kg/km)
2 x 0.22	3.4	15	2 x 0.75	5.3	35
3 x 0.22	3.6	20	<b>3 G 0.75</b>	5.5	45
4 x 0.22	3.9	25	<b>4 G 0.75</b>	6.1	55
5 x 0.22	4.2	27	<b>5 G 0.75</b>	6.6	65
<b>7 x 0.22</b>	4.7	33	<b>7 G 0.75</b>	7.2	85
12 x 0.22	6.5	57	<b>19 G 0.75</b>	11.2	220
			<b>27 G 0.75</b>	13.8	310
			<b>37 G 0.75</b>	15.2	420
<b>2 x 0.34</b>	3.9	22	2 x 1	5.5	45
<b>3 x 0.34</b>	4.1	25	<b>3 G 1</b>	5.8	50
4 x 0.34	4.5	35	<b>4 G 1</b>	6.3	65
5 x 0.34	4.9	38	<b>5 G 1</b>	6.9	80
7 x 0.34	5.6	48	<b>7 G 1</b>	7.5	105
12 x 0.34	7.7	84	<b>12 G 1</b>	10.0	170
			<b>19 G 1</b>	12.2	270
			<b>27 G 1</b>	14.6	380
			<b>37 G 1</b>	16.5	510
<b>2 x 0.50</b>	4.8	30	2 x 1.5	6.6	65
<b>3 x 0.50</b>	5.1	35	<b>3 G 1.5</b>	7.0	70
<b>4 x 0.50</b>	5.8	40	<b>4 G 1.5</b>	7.7	95
5 x 0.50	6.0	55	<b>5 G 1.5</b>	8.3	115
<b>7 x 0.50</b>	6.7	70	<b>7 G 1.5</b>	9.2	160
<b>12 x 0.50</b>	8.9	120	<b>12 G 1.5</b>	12.6	270
			<b>19 G 1.5</b>	15.2	410
			<b>27 G 1.5</b>	18.5	570
			37 G 1.5	21.0	780

**Stocked products**



- 3 x outer diameter



# LYFLEX® B

## Multicores Collective Screened Cables

300/500 V

### Applications

LYFLEX cables are designed for all control links: connection of remote control, data processing, electronic, remote monitoring, telemetry, robot and automation equipment. These cable are suitable for home computing requirements. They are screened (by a braid) for anti-inductive protection necessary for correct operation of the link.

Max core temperature: 70 °C

### Design

#### 1. Conductor

Stranded bare copper

#### 2. Insulation

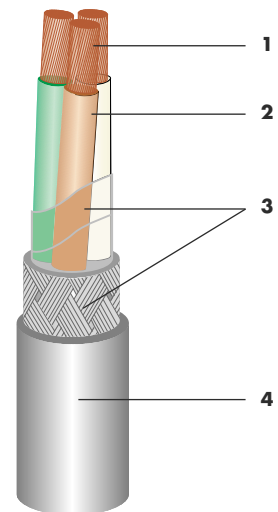
PVC  
(polyvinyl chloride)

#### 3. Screen

Tape  
Tinned copper braid

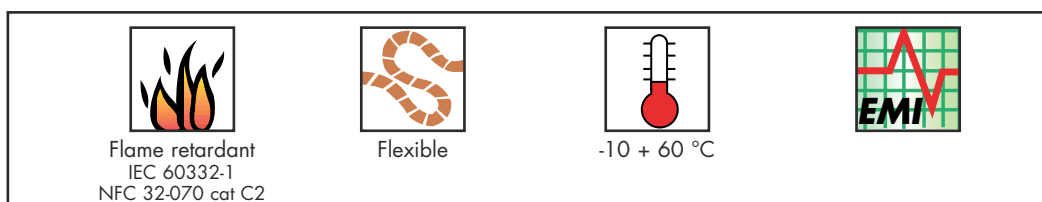
#### 4. Outer-sheath

PVC  
(polyvinyl chloride)  
Colour: grey



### Core Identification

By colour coding and rings according DIN 47100



Cables (mm <sup>2</sup> )	Outer diameter max. (mm)	Weight approximately (kg/km)
<b>2 x 0.22</b>	4.7	35
<b>3 x 0.22</b>	4.9	40
<b>4 x 0.22</b>	5.2	45
5 x 0.22	5.5	55
<b>7 x 0.22</b>	5.9	60
12 x 0.22	7.3	90
<b>19 x 0.22</b>	8.3	120
<b>25 x 0.22</b>	9.7	155
30 x 0.22	10.3	185
<b>37 x 0.22</b>	10.9	210
<b>2 x 0.34</b>	5.0	40
<b>3 x 0.34</b>	5.2	45
<b>4 x 0.34</b>	5.6	55
5 x 0.34	5.9	60
<b>7 x 0.34</b>	6.3	75
12 x 0.34	7.9	115
19 x 0.34	9.0	155
27 x 0.34	10.8	215
<b>2 x 0.50</b>	5.3	45
<b>3 x 0.50</b>	5.5	55
<b>4 x 0.50</b>	5.9	65
5 x 0.50	6.3	70
<b>7 x 0.50</b>	6.8	90
<b>12 x 0.50</b>	8.5	135
<b>19 x 0.50</b>	9.8	185
<b>27 x 0.50</b>	12.0	270
32 x 0.50	12.7	295
<b>37 x 0.50</b>	13.6	365
<b>2 x 0.75</b>	5.9	60
<b>3 x 0.75</b>	6.2	65
<b>4 x 0.75</b>	6.6	80
5 x 0.75	7.1	95
<b>7 x 0.75</b>	7.7	115
12 x 0.75	9.8	180
19 x 0.75	11.5	265
27 x 0.75	14.4	400
32 x 0.75	15.6	470
37 x 0.75	16.2	515
<b>2 x 1.0</b>	6.3	70
<b>3 x 1.0</b>	6.6	80
<b>4 x 1.0</b>	7.1	95
<b>5 x 1.0</b>	7.7	110
<b>7 x 1.0</b>	8.3	140
<b>12 x 1.0</b>	10.8	225
<b>19 x 1.0</b>	13.1	3
<b>27 x 1.0</b>	15.7	495
32 x 1.0	17.4	575
<b>37 x 1.0</b>	18.0	645
<b>2 x 1.5</b>	6.7	80
<b>3 x 1.5</b>	7.0	100
<b>4 x 1.5</b>	7.6	120
5 x 1.5	8.2	140
<b>7 x 1.5</b>	8.9	175

**Stocked products**


• 6 x outer diameter

# LYFLEX® B(C) Multipairs Collective Screened Cables

## Applications

300/500 V

LYFLEX cables are designed for all control links : connection of remote control, data processing, electronic, remote monitoring, telemetry, robot and automation equipment.

These cable are suitable for home computing requirements.

Max core temperature: 70 °C

## Design

### 1. Conductor

Stranded bare copper

### 2. Insulation

PVC  
(polyvinyl chloride)

### 3. Pairing

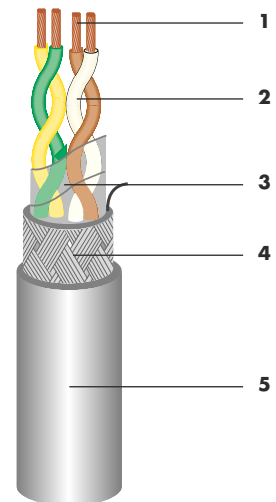
Wrapped with polyester tape  
(optional)

### 4. Collective screen

Drain tinned copper wire  
0.22mm<sup>2</sup>  
Tinned copper braid

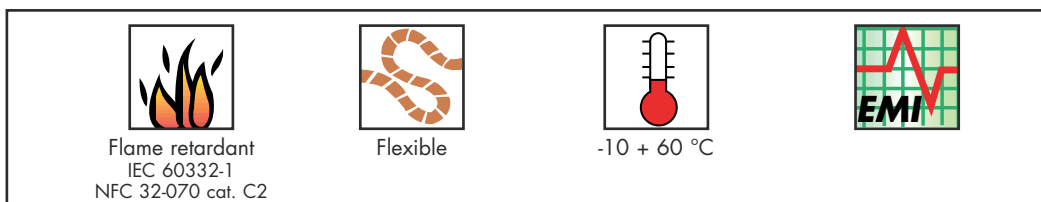
### 5. Sheath

PVC  
(polyvinyl chloride)  
Colour: grey



## Core Identification

By colour coding and rings  
according DIN 47100



## LYFLEX® B(C)

Cables (mm <sup>2</sup> )	Outer diameter max. (mm)	Weight approximately (kg/km)	Cables (mm <sup>2</sup> )	Outer diameter max. (mm)	Weight approximately (kg/km)
2 P 0.22	6.7	70	<b>2 P 0.34</b> <b>3 P 0.34</b> 4 P 0.34	7.3	85
3 P 0.22	7.1	80		7.7	95
4 P 0.22	7.6	90		8.3	105
5 P 0.22	8.3	100		<b>2 P 0.50</b>	7.8
<b>7 P 0.22</b>	9.0	120	<b>3 P 0.50</b>	8.2	110
<b>12 P 0.22</b>	11.3	180	<b>4 P 0.50</b>	9.0	125
<b>15 P 0.22</b>	12.8	230	<b>2 P 0.75</b> <b>3 P 0.75</b> <b>4 P 0.75</b>	9.0	120
<b>20 P 0.22</b>	14.7	295		9.4	140
				10.6	180

Stocked products



• 6 x outer diameter

# LYFLEX® B(I) Multipairs Individual Screen Copper Braid

**300/500 V**

## Applications

LYFLEX cables are designed for all control links : connection of remote control, data processing, electronic, remote monitoring, telemetry, robot and automation equipment.

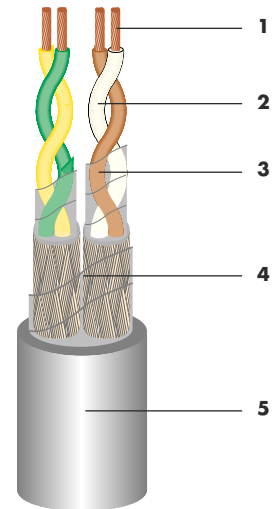
These cable are suitable for home computing requirements.

**Max core temperature: 70 °C**

## Design

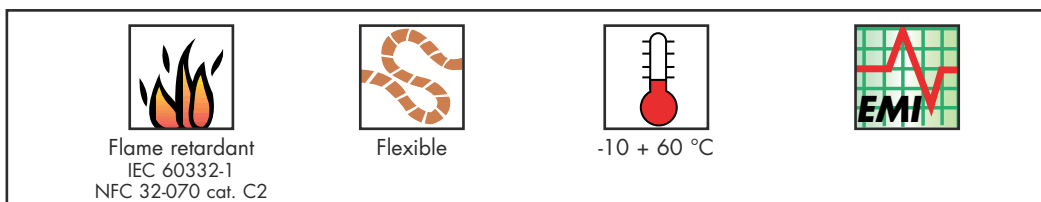
- 1. Conductor**  
Stranded bare copper
- 2. Insulation**  
PVC  
(polyvinyl chloride)
- 3. Pairing**  
Wrapped with polyester tape  
(optional)

- 4. Individual screen**  
Tinned copper braid  
Polyester (optional)
- 5. Outer-sheath**  
PVC  
(polyvinyl chloride)  
Colour: grey



## Core Identification

By colour coding and rings  
according to DIN 47100



## LYFLEX® B(I)

Cables (mm <sup>2</sup> )	Outer diameter max. (mm)	Weight approximately (kg/km)
2 P 0.22	7.3	75
3 P 0.22	7.8	90
5 P 0.22	9.4	127
2 P 0.34	7.9	85
3 P 0.34	8.4	105
2 P 0.50	8.5	100
3 P 0.50	9.0	125
2 P 0.75	9.6	130
3 P 0.75	10.2	165

### Stocked products



- 6 x outer diameter