

# Profibus L2 DP/SK

## Технические характеристики

### По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Россия (495)268-04-70

Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Липецк (4742)52-20-81  
Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Киргизия (996)312-96-26-47

Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Симферополь (3652)67-13-56  
Казахстан (7172)727-132

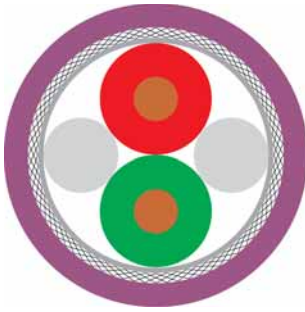
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

# BUS Cables

Profibus fixed installed High Temperature +105°C or +200°C

**HELUKABEL®**

PVC + FRNC PH120



## Type

### Cable structure

Inner conductor diameter:  
Core insulation:  
Core colours:  
Stranding element:  
Separator:  
Shielding 1:  
Total shielding:  
Outer sheath material:  
Cable external diameter:  
Outer sheath colour:

## Fixed installation, indoor

### 1x2x0.64 mm

Copper, bare (AWG 22/1)  
Foam-skin-PE  
rd, gn  
2 cores + 2 fillers stranded together  
Polyester foil over stranded bundle  
Al-Foil  
Cu braid, tinned  
PVC  
app. 7,8 mm ± 0,2 mm  
Violet similar to RAL 4001

## High temperature areas

### 1x2xAWG23/1

Copper, bare (AWG 23/1)  
Rubber compound  
rd, gn  
2 cores + 2 fillers stranded together  
-  
-  
AL-Foil + braid  
FRNC  
app. 8,3 mm ± 0,3 mm  
Black similar to RAL 9005

## Electrical data

Characteristic impedance:  
Conductor resistance, max.:  
Insulation resistance, min.:  
Loop resistance:  
Mutual capacitance:  
Test voltage:  
Attenuation:

150 Ohm ± 10 %  
55 Ohm/km  
5 GOhm x km  
110 Ohm/km max.  
30 nF/km nom.  
1,5 kV  
Frequency at +20°C  
9,6 kHz < 3,0 dB/km  
38,4 kHz < 5,0 dB/km  
4 MHz < 22,0 dB/km  
16 MHz < 42,0 dB/km

150 Ohm ± 10 %  
74,5 Ohm/km  
2 GOhm x km  
149 Ohm/km max.  
36 nF/km nom.  
1,5 kV  
Frequency at +20°C at +200°C  
9,6 kHz < 3,0 dB/km < 8,0 dB/km  
38,4 kHz < 5,0 dB/km < 12,0 dB/km  
4 MHz < 22,0 dB/km < 41,0 dB/km  
16 MHz < 42,0 dB/km < 90,0 dB/km

## Technical data

Weight:  
bending radius, repeated:  
Operating temperature range min.:  
Operating temperature range max.:  
Caloric load, approx. value:  
Copper weight:

app. 69 kg/km  
120 mm  
-40°C  
+105°C  
0,99 MJ/m  
24,00 kg/km

app. 88 kg/km  
130 mm  
-50°C  
+200°C  
1,46 MJ/m  
28,00 kg/km

## Norms

Applicable standards:

Profibus acc. to DIN 19245 T3 and EN50170  
Flame-retardant acc. to IEC 60332-1-2

Profibus acc. to DIN 19245 T3 and EN50170  
Halogen-free acc. to 60754-1  
Flame-retardant acc. to IEC 60332-1-2

## Application

HELUKABEL® Profibus L2 105°C is for fixed installation indoor and enhanced temperature resistance.

The version Profibus L2 SR 200°C Fire Resistant has additional circuit integrity for 120 minutes (EN50200 PH120) and the temperature range up to +200°C for fix indoor installation.

## Part no.

**805705**, Profibus high temperature

**805706**, Profibus high temperature with circuit integrity

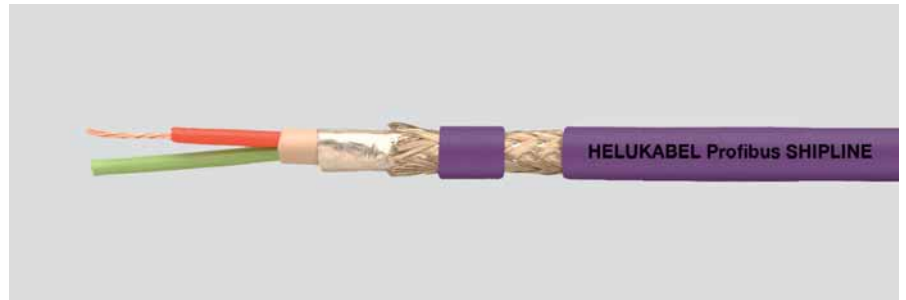
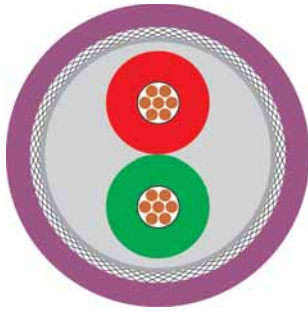
Dimensions and specifications may be changed without prior notice.

# BUS Cables

Profibus fixed installed SHIPLINE + High Temperature 180°C

**HELUKABEL®**

X-FRNC + FEP



## Type Cable structure

Inner conductor diameter:  
Core insulation:  
Core colours:  
Stranding element:  
Separator:  
Inner sheath material:  
Shielding 1:  
Total shielding:  
Outer sheath material:  
Cable external diameter:  
Outer sheath colour:

## Marine and Offshore 1x2x0.75 mm (stranded)

Copper, bare (AWG 22/7)  
Foam-skin-PE  
rd, gn  
Double core  
Polyester foil over stranded bundle  
FRNC  
Al-Foil  
Cu braid, tinned  
X-FRNC  
app. 8,0 mm ± 0,4 mm  
Violet similar to RAL 4001

## High temperature areas 1x2x0.64 mm

Copper, bare (AWG 22/1)  
FEP  
rd, gn  
2 cores + 2 fillers stranded together  
-  
Al-Foil  
Cu braid, tinned  
FEP  
app. 7,2 mm ± 0,3 mm  
Violet similar to RAL 4001

## Electrical data

Characteristic impedance: 150 Ohm ± 10 %  
Conductor resistance, max.: 55 Ohm/km  
Insulation resistance, min.: 1,6 GOhm x km  
Loop resistance: 110 Ohm/km max.  
Mutual capacitance: 29 nF/km nom.  
Nominal voltage: 60 V  
Test voltage: 1 kV  
Attenuation: 9,6 kHz < 2,5 dB/km  
38,4 kHz < 4,0 dB/km  
4 MHz < 22,0 dB/km  
16 MHz < 42,0 dB/km

150 Ohm ± 10 %  
55 Ohm/km  
1,6 GOhm x km  
110 Ohm/km max.  
28 nF/km nom.  
250 V  
3,6 kV  
9,6 kHz < 2,5 dB/km  
38,4 kHz < 4,0 dB/km  
4 MHz < 22,0 dB/km  
16 MHz < 42,0 dB/km

## Technical data

Weight:  
bending radius, repeated:  
Operating temperature range min.:  
Operating temperature range max.:  
Caloric load, approx. value:  
Copper weight:

app. 84 kg/km  
80 mm  
-25°C  
+80°C  
1,26 MJ/m  
35,00 kg/km

app. 64 kg/km  
52 mm  
-50°C  
+180°C  
0,30 MJ/m  
24,00 kg/km

## Norms

Applicable standards:

Profibus acc. to DIN 19245 T3 and EN50170  
Halogen-free acc. to 60754-1  
Flame-retardant acc. to IEC 60332-1-2

Profibus acc. to DIN 19245 T3 and EN50170  
Flame-retardant acc. to IEC 60332-3

## Application

HELUKABEL® Profibus Shipline is designed for marine/offshore applications and **certified by German Lloyd**. Thanks to use of stranded conductors, this cable can be moved occasionally. The High-Temperature version is used in fixed installations with demanding temperature requirements, e.g. in the vicinity of a hot furnace or near welding activities.

## Part no.

**802178**, Profibus SHIPLINE

**802179**, Profibus high temperature

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