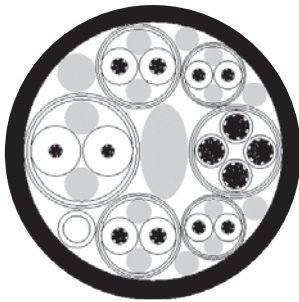


# BUS-Cables



Multibus I, high flexible



## Type Cable structure

Profibus:	1 x 2 x AWG 22 mm <sup>2</sup> (Foam-Skin PO/rd/gn)
DeviceNet™:	2 x 2 x AWG 22 mm <sup>2</sup> (Foam-Skin PO/wh/bn, ye/gn)
Interbus:	2 x 2 x 0,25 (Foam-Skin PO/ gn/pk, ye/gn)
Power cores:	4 x 1 x 1,0 mm <sup>2</sup> (PO/rd, bl, bu, bn)
Protective earth core:	1,0 mm <sup>2</sup> (PO/gnye)
Stranding:	Single cores totally stranded together and filled with plastic elements
Total shielding:	PP vlies
Outer sheath material:	PUR, halogenfree
Cable external diameter:	app. 14,7 mm
Outer sheath colour:	violet similar to RAL 4001

## Electrical data

Characteristic impedance:	150 + - 15 Ohm (Profibus) 120 + - 12 Ohm (DeviceNet™) 100 + - 15 Ohm (Interbus)
Conductor resistance:	<= 20 Ohm/km (power cores + protection core) <= 70 Ohm/km (Profibus) <= 70 Ohm/km (DeviceNet™) <= 80 Ohm/km (Interbus)
Insulation resistance:	>= 500 Mohm x km (at 20° C)
Mutual capacitance:	30 pF/m nominal (Profibus) 40 pF/m nominal (DeviceNet™) 50 pF/m nominal (Interbus)
Testvoltage:	2500 V (core/ core) 1500 V (core/ screen)

## Mechanical data

Bending radius single:	<= 70 mm
Bending radius repeated:	<= 110 mm
Tensile strength static:	300 N
Tensile strength dynamic:	140 N
Oil resistance:	Diesel, IRM 902, Biohydran TM68, Ecocut HFN 10LE
Flame resistance:	IEC 60332-1, VW1/ FT1 acc. C-UL
FCKW free:	yes
Self extinguishable:	yes
Other attributes:	PVC free, free of lacquer wetting disturbing substances, siliconfree, resistant against PVC flexibiliser and cable fat RB1

## Thermal attributes

Operating temperature range:	- 40° C to + 80° C
Laying temperature range:	- 30° C to + 80° C

## Norms

Profibus standard, DeviceNet™ standard, Interbus standard

## UL-Style

VW1/ FT1 acc. C-UL, AWM style 20236

## Application

HELUKABEL® Multibus I is highly flexible with a special structure for use in cable carrier applications and robotics (use in acc. with HELU specification) in a PVC-free design. The Multibus I combines the Profibus / DeviceNet™ / Interbus bus systems as well as the power supply in a single hybrid cable.

## Part no.

801652, Multibus I, 15 cores



# BUS-Cables



Multibus II, high flexible



## Type Cable structure

Profibus:	1 x 2 x 0,34 mm <sup>2</sup> (Foam-Skin PO/rd/gn)
DeviceNet™:	4 x 2 x 0,34 mm <sup>2</sup> (Foam-Skin PE/ye, or, wh, bu-ye, or, wh, bu)
Power cores 1:	2 x 1,0 mm <sup>2</sup> (PO/rd, bl)
Power cores 2:	2 x 1,5 mm <sup>2</sup> (PO/bu, bn)
Protective earth core:	1,5 mm <sup>2</sup> (PO/gnye)
Stranding:	Single cores totally stranded together and filled with plastic elements
Total shielding:	PP vlies
Outer sheath material:	PUR, halogenfree
Cable external diameter:	app. 15,0 mm
Outer sheath colour:	violet similar to RAL 4001

## Electrical data

Characteristic impedance:	150 + - 15 Ohm (Profibus) 100 + - 15 Ohm (PROFINet)
Conductor resistance:	<= 20 Ohm/km (power cores + protection core) <= 70 Ohm/km (Profibus) <= 62 Ohm/km (PROFINet)
Insulation resistance:	>= 500 Mohm x km (at 20° C)
Mutual capacitance:	30 pF/m nominal (Profibus) 40 pF/m nominal (PROFINet)
Testvoltage:	2500 V (core/ core) 1500 V (core/ screen)

## Mechanical data

Bending radius single:	<= 70 mm
Bending radius repeated:	<= 110 mm
Tensile strength static:	300 N
Tensile strength dynamic:	140 N
Oil resistance:	Diesel, IRM 902, Biohydran TM68, Ecocut HFN 10LE
Flame resistance:	IEC 60332-1, VW1/ FT1 acc. C-UL
FCKW free:	yes
Self extinguishable:	yes
Other attributes:	PVC free, free of lacquer wetting disturbing substances, siliconfree, resistant against PVC flexibiliser and cable fat RB1

## Thermal attributes

Operating temperature range:	- 40° C to + 80° C
Laying temperature range:	- 20° C to + 80° C

## Norms

### UL-Style

### Application

Profibus standard, PROFINet standard  
VW1/ FT1 acc. C-UL, AWM style 20236

HELUKABEL® Multibus II is highly flexible with a special structure for use in cable carrier applications and robotics (use in acc. with HELU specification) in a PVC-free design. The Multibus II (further development of Multibus I) combines the Profibus /Profinet bus systems as well as the power supply in a single hybrid cable.

## Part no.

**804115**, Multibus II, 15 cores