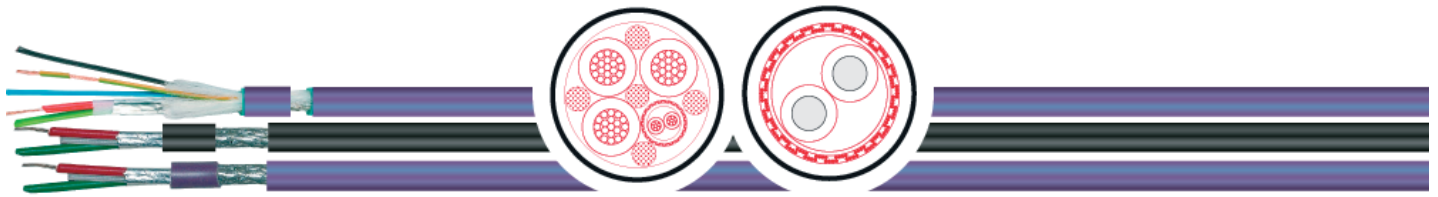


per installazioni fisse e limitate applicazioni flessibili

for fixed installation & limited flexible applications



Impiego

cavi bus di campo per sistemi PROFIBUS (Process Field BUS) per posa fissa e per limitate applicazioni flessibili non guidate a dinamica limitata.

Questi cavi sono sviluppati per comunicazioni PROFIBUS DP (Decentralized Peripherals) e PROFIBUS FMS (Fieldbus Message Specification) e anche per applicazioni FIP (Factory Instrumentation Protocol).

Standard secondo Profibus-Spec.: EN61158 e EN61784 (DIN19245 T3 e EN50170)

Application

as fieldbus cable for PROFIBUS (Process Field BUS) systems, for fixed installation & limited flexible applications.

These cables are suitable for PROFIBUS DP (Decentralized Peripherals) and PROFIBUS FMS (Fieldbus Message Specification) and also for FIP (Factory Instrumentation Protocol) applications.

Standard acc. to Profibus-Spec.: EN61158 & EN61784 (DIN19245 T3 & EN50170)

Caratteristiche Distintive

- ampiamente resistente all'azione di grassi, lubrificanti e liquidi refrigeranti
- resistente agli oli: PUR e PVC secondo DIN EN 60811-2-1 (PVC solo oli minerali) Marine MUD secondo NEK 606 (fanghi di perforazione)
- resistente ai raggi UV: PUR; FEP; PVC; PE nero; CMG; CMX
- schermatura ottimizzata compatibile EMC
- lunghezza max. del cavo per un segmento bus secondo PI ad una determinata velocità di trasmissione:

PROFIBUS DP: 93,75kbit/s-max.1,2km | 187,5kbit/s-max.1km | 0,5Mbit/s-max.400m
1,5 Mbit/s-max.200m | 12,0 Mbit/s-max.100m

FIP: 2,5 Mbit/s-max. 200m

Special Features

- largely resistant to grease, coolant fluids and lubricants
- oil-resistant: PUR & PVC acc.to DIN EN 60811-2-1 (PVC only mineral oil) Marine MUD acc.to NEK 606 (drilling mud)
- UV-resistant: PUR; FEP; PVC & PE black; CMG & CMX types
- optimized EMC compliant shielding
- max. cable lengths for a bus segment acc.to PI at stated transmission rate:
PROFIBUS DP: 93,75kbit/s-max.1,2km | 187,5kbit/s-max.1km | 0,5Mbit/s-max.400m
1,5 Mbit/s-max.200m | 12,0 Mbit/s-max.100m
FIP : 2,5 Mbit/s-max. 200m

Annotazioni

- conforme a RoHS // conforme a DESINA (viola)
- LABS-/ privo di silicone (in fase di produzione)
- conforme alla direttiva 2014/35/EU-(Direttiva Bassa Tensione) CE
- FRNC: Flame Retardant Non Corrosive, privo di alogeni
- FC-Type = costruzione 'fast-connect' // PI = Profibus e Profinet International

Remarks

- conform to RoHS // conform to DESINA (violet)
- LABS-/silicone-free (during production)
- conform to 2014/35/EU-Guideline ("Low-Voltage Directive") CE
- FRNC: Flame Retardant Non Corrosive, halogen free
- FC-Type = 'fast-connect' construction // PI = Profibus & Profinet International

Struttura & Specifiche Tecniche

materiale conduttore	filo in rame rosso o trefolo in rame rosso
classe conduttore	Ø 0,64 mm: solid; Ø 0,64L & 0,34 mm ² : 7-wired; 1,0 mm ² : fine wired acc. to IEC 60228 cl. 5
isolamento conduttore	BUS: poliolefina espansa o FEP espanso; conduttori alimentazione: poliolefina
distinzione dei conduttori	BUS: Verde, Rosso; alimentazione: Nero, Blu, G/V
cordatura	cond. BUS: cordati a coppia
schermatura	lamina in alluminio, pell. di poliestere, parte metallica esterna, copertura 100% , calza di rame stagnato
schermatura totale	HYBRID: BUS scherm.; alimentazioni cordate
materiale guaina esterna	PVC, PE, FEP, PUR, XP, HP, mescola priva di alogeni
colore guaina	viola RAL 4001, blu RAL 5015 o nero
tensione nominale	cond. BUS: 250 V (non per uso potenza) cond. alimentazione: 500v
resistenza ad anello	max. 110,0 Ω/km - 0,64 mm; max. 175,2 Ω/km - 0,64L; max. 39,0 Ω/km - 1,0 mm ²
capacità	nom. 30 nF/km
impedenza caratteristica	150 +/- 15 Ω
raggio min. curv. p. fissa	7,5 x d
raggio min. curv. p. mobile	15 x d
temp. eser. fissa min/max	FRNC, XP: -25 °C/+80 °C PE: -40 °C/+70 °C PVC, PUR, HP: -40 °C/+80 °C PVCExt.: -40 °C/+105 °C FEPExt.: -50 °C/+180 °C
temp. eser. mobile min/max	-10 °C/+70 °C; PUR, FEP: -30 °C/+80 °C
privo di alogeni	secondo IEC 60754-1 (tipo FRNC)
comportamento al fuoco	PE: non ritardante la fiamma PVC+Marine C-XP: secondo IEC 60332-1-2 AWM: secondo IEC 60332-1-2, cable flame test (UL 2556) CMX: secondo IEC 60332-1-2, FT1, VW-1 CMG: secondo IEC 60332-3-24 (Cat.C), FT4 CM: secondo IEC 60332-3-24(Cat.C), UL FlameExposure (UL 1685/CSA) Marine C-HP: secondo 60332-3-22(Cat.A/F)
approvazioni	vedere tabella sul lato destro

Structure & Specifications

conductor material	bare copper wire resp. bare copper strand
conductor class	Ø 0,64 mm: solid; Ø 0,64L & 0,34 mm ² : 7-wired; 1,0 mm ² : fine wired acc. to IEC 60228 cl. 5
core insulation	BUS: foamed Polyolefin resp. foamed FEP; supply cores: Polyolefin
core identification	BUS: gn, rd; supply cores: bk, bu, gnye
stranding	BUScores stranded to a pair
shield	alu-lamin. polyester foil, metal side outside, cover. 100% under copper braid tinned
overall stranding	HYBRID: screened BUSelem. a. supply cores stranded
outer sheath	PVC, PE, FEP, PUR, XP, HP, halogen-free compound
sheath colour	violet RAL4001(VT), blue RAL5015(BU) or black(BK)
rated voltage	BUScores: 250 V (not for high voltage purposes); supply cores: 500 V
loop resistance	max. 110,0 Ω/km - 0,64 mm; max. 175,2 Ω/km - 0,64L; max. 39,0 Ω/km - 1,0 mm ²
capacity	nom. 30 nF/km
characteristic impedance	150 +/- 15 Ω
min. bending radius fixed	7,5 x d
min. bending radius moved	15 x d
operat. temp. fixed min/max	FRNC, XP: -25 °C/+80 °C PE: -40 °C/+70 °C PVC, PUR, HP: -40 °C/+80 °C PVCExt.: -40 °C/+105 °C FEPExt.: -50 °C/+180 °C
operat. temp. moved min/max	-10 °C/+70 °C; PUR, FEP: -30 °C/+80 °C
halogen free	acc. to IEC 60754-1 (FRNC types)
burning behavior	PE: not flame retardant PVC+Marine C-XP: acc. to IEC 60332-1-2 AWM: acc. to IEC 60332-1-2, cable flame test (UL 2556) CMX: acc. to IEC 60332-1-2, FT1, VW-1 CMG: acc. to IEC 60332-3-24(Cat.C), FT4 CM: acc. to IEC 60332-3-24(Cat.C), UL FlameExposure (UL 1685/CSA) Marine C-HP: acc. to IEC 60332-3-22(Cat.A/F)
approvals	see table right side

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art. n Item no.	referenza OEM OEM-Reference	tipo Type	n. cond. & sezione n x 2 x mm dimension n x 2 x mm	diametro mm outer-Ø mm	peso rame kg/km Cu index kg/km	peso netto kg/km weight kg/km
PROFIBUS DP - STANDARD						
2003630	6XV1830-0AH10	C-PVC - VT	1X2X0,64 (AWG 22/1)	7,0	26,0	50,0
2003631	6XV1830-0EH10	FC C-PVC UL/CSA ¹ - VT	1X2X0,64 (AWG 22/1)	7,8	30,0	75,0
2003632	6XV1831-2A	FC C-PVC Ex UL/CSA ¹ - BU	1X2X0,64 (AWG 22/1)	7,8	30,0	75,0
PROFIBUS DP - HYBRID						
2003633		C-PVC UL/CSA ¹ - VT	1X2X0,64L(AWG 24/7)+3G1(AWG 18)	9,8	60,0	108,0
PROFIBUS DP - TRAY						
2003634		C-PVC UL/CSA ¹ - VT	1X2X0,64 (AWG 22/1)	8,0	30,0	82,0
PROFIBUS DP - Flexible						
2003635		FC C-PVC UL/CSA ¹ - VT	1X2X0,64L (AWG 24/7)	8,0	30,0	74,0
PROFIBUS DP - FRNC						
2003636	6XV1830-0LH10	FC C-H UL/CSA ¹ - VT	1X2X0,64 (AWG 22/1)	7,8	30,0	77,0
PROFIBUS DP - Burial						
2003637		C-PVC/PE - BK	1X2X0,64 (AWG 22/1)	10,0	30,0	98,0
2003638	6XV1830-3FH10	FC C-PVC/PE - BK	1X2X0,64 (AWG 22/1)	10,0	30,0	98,0
PROFIBUS DP - Robust						
2003639	6XV1830-0JH10	FC C-PUR FRNC UL/CSA ¹ - VT	1X2X0,64 (AWG 22/1)	8,0	30,0	89,0
PROFIBUS DP - Food						
2003640	6XV1830-0GH10	FC C-PE - BK	1X2X0,64 (AWG 22/1)	7,8	30,0	65,0
PROFIBUS DP - Extemp 105°C & 180°C						
2003641		105°C C-PVC - VT	1X2X0,64 (AWG 22/1)	7,8	30,0	60,0
2003642		180°C C-FEP - VT	1X2X0,64 (AWG 22/1)	7,2	30,0	64,0
PROFIBUS DP - Marine						
2003643	6XV1830-0MH10	C-XP FRNC ¹ - VT	1X2X0,64 (AWG 22/1)	8,0	35,0	70,0
2003644		C-HP FRNC MUD ¹ - VT	1X2X0,64 (AWG 22/1)	8,0	35,0	70,0

¹Approvazioni | Approvals

2003631 - cULus: 300V, 75°C, CMG/CL3/SunRes/OilRes & cURus: 600 V, 60°C
 2003632 - cULus: 300V, 75°C, CMG/CL3/SunRes/OilRes & cURus: 600 V, 60°C
 2003633 - cURus: 600V, 60°C
 2003634 - cULus: 300V, 75°C, CMG/PLTC/CL3/SunRes/OilRes & cURus: 600 V, 60°C
 2003635 - cULus: 300V, 75°C, CMG/CL3/SunRes/OilRes & cURus: 600 V, 60°C
 2003636 - cULus: 300V, 75°C, CM
 2003639 - cULus: 300V, 75°C, CMX/CL3/SunRes/OilRes
 2003643 & 2003644 - GL, LRS, BV, ABS, DNV