



شرکت فرااتصال رایان عصر

پیشرو در زمینه فناوری اطلاعات و ارتباطات

کابل های صنعتی

کابل‌های Fieldbus، Modbus و Profibus از اجزای کلیدی شبکه‌های اتوماسیون صنعتی محسوب می‌شوند و برای انتقال مطمئن داده بین تجهیزات کنترلی، سنسورها و عملگرها به کار می‌روند. این کابل‌ها با ساختار استاندارد، شیلدینگ مناسب و مقاومت مطلوب در برابر تداخلات الکترومغناطیسی (EMI)، موجب افزایش پایداری شبکه و کاهش خطا در تبادل اطلاعات می‌شوند. انتخاب درست کابل باس، علاوه بر بهبود کیفیت سیگنال، باعث کاهش توقف‌های ناخواسته، افزایش بهره‌وری خط تولید و اطمینان از عملکرد مداوم تجهیزات خواهد شد.

شرکت فرااتصال با تأمین کابل‌های باس از برندهای معتبر لئونی (Leoni)، هلوکیبل (Helukabel) و بلدن (Belden)، امکان انتخاب محصول متناسب با نیاز هر پروژه را فراهم کرده و راهکاری قابل انکا برای کاربردهای صنعتی ارائه می‌دهد. چه در پروژه‌های کارخانه‌ای و خطوط تولید، چه در سیستم‌های کنترلی و مانیتورینگ، فرااتصال با تمرکز بر کیفیت، اصالت برند و مشاوره انتخاب درست به شما کمک می‌کند شبکه‌ای پایدار، دقیق و قابل اعتماد داشته باشید.



HELUKABEL

LAPPKABEL

BELDEN

SIEMENS

FABER CABEL

Draka

TMC

Prysmian

legrand

LEONI

Nexans

2MKABLO

Panasonic

UIDEDTEC

AMARYLLO

iii-PRO

F e e L T E K

CISCO

EasyLan[®]

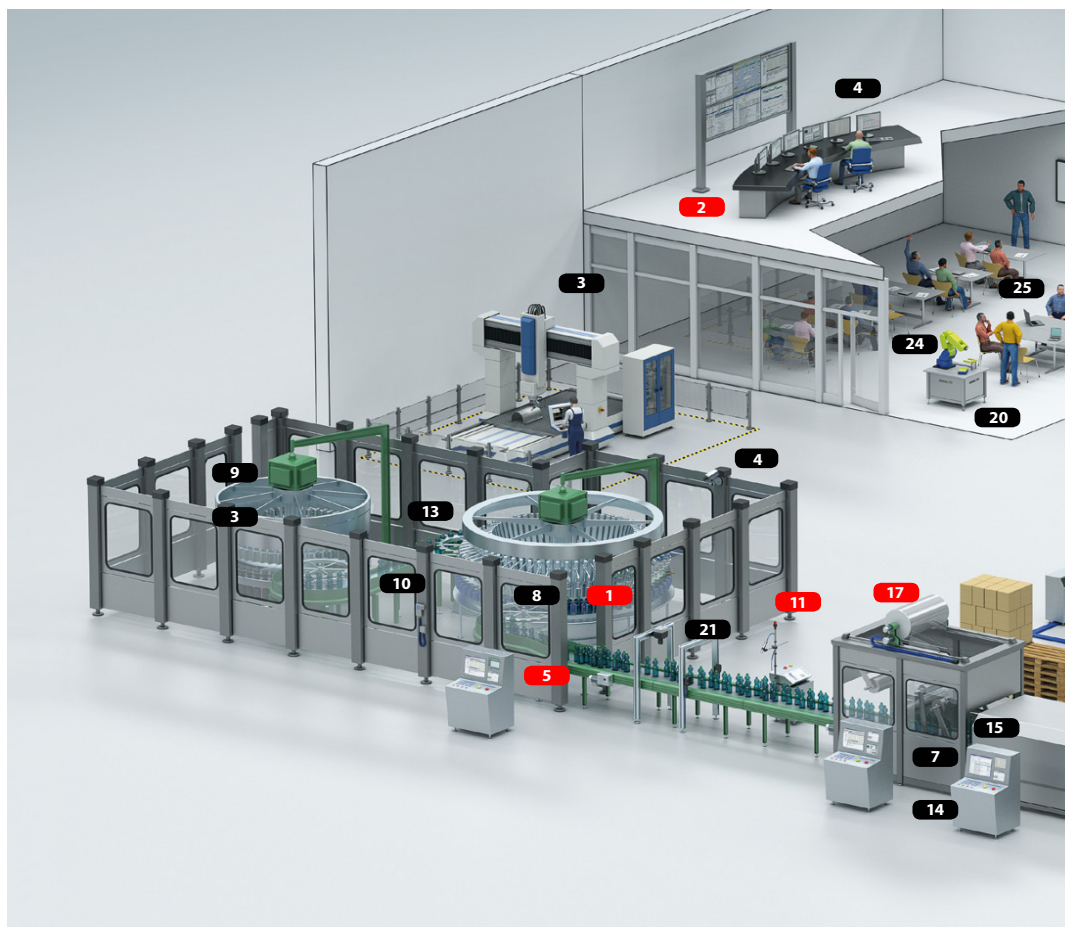
igus

HUBBELL

GAI-TRONICS

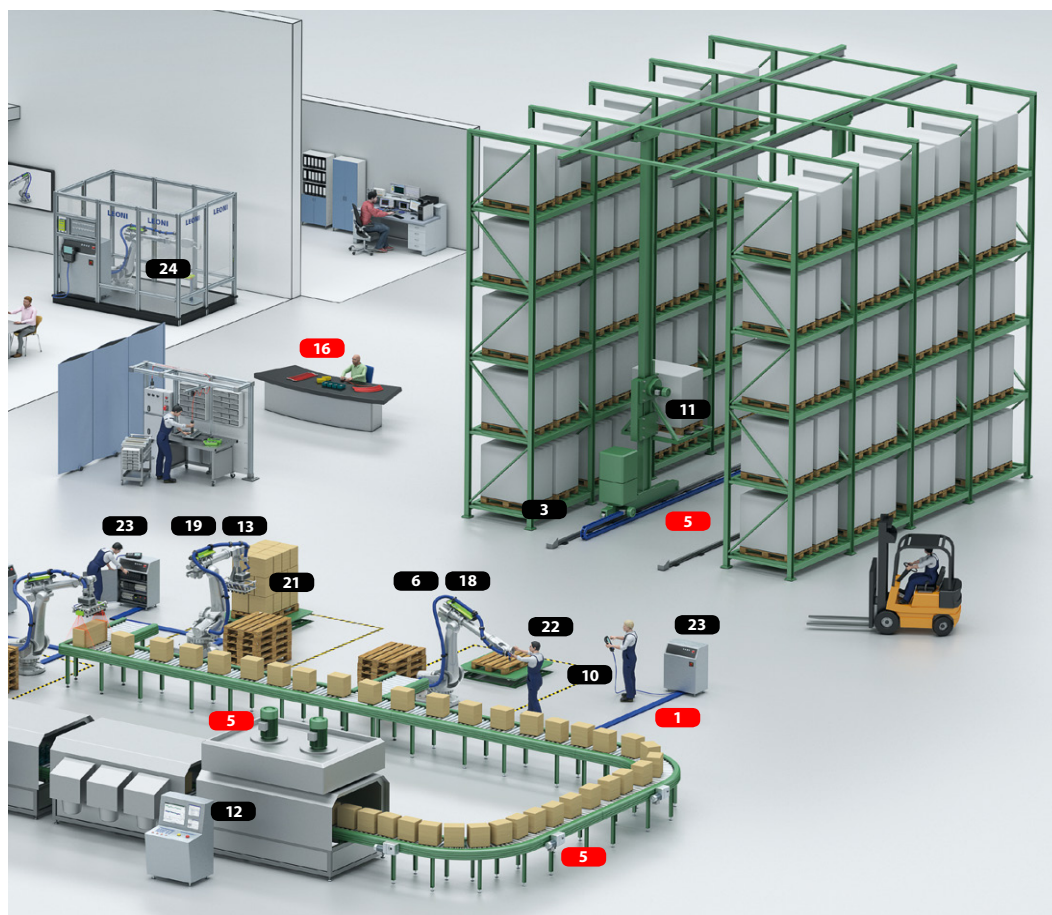
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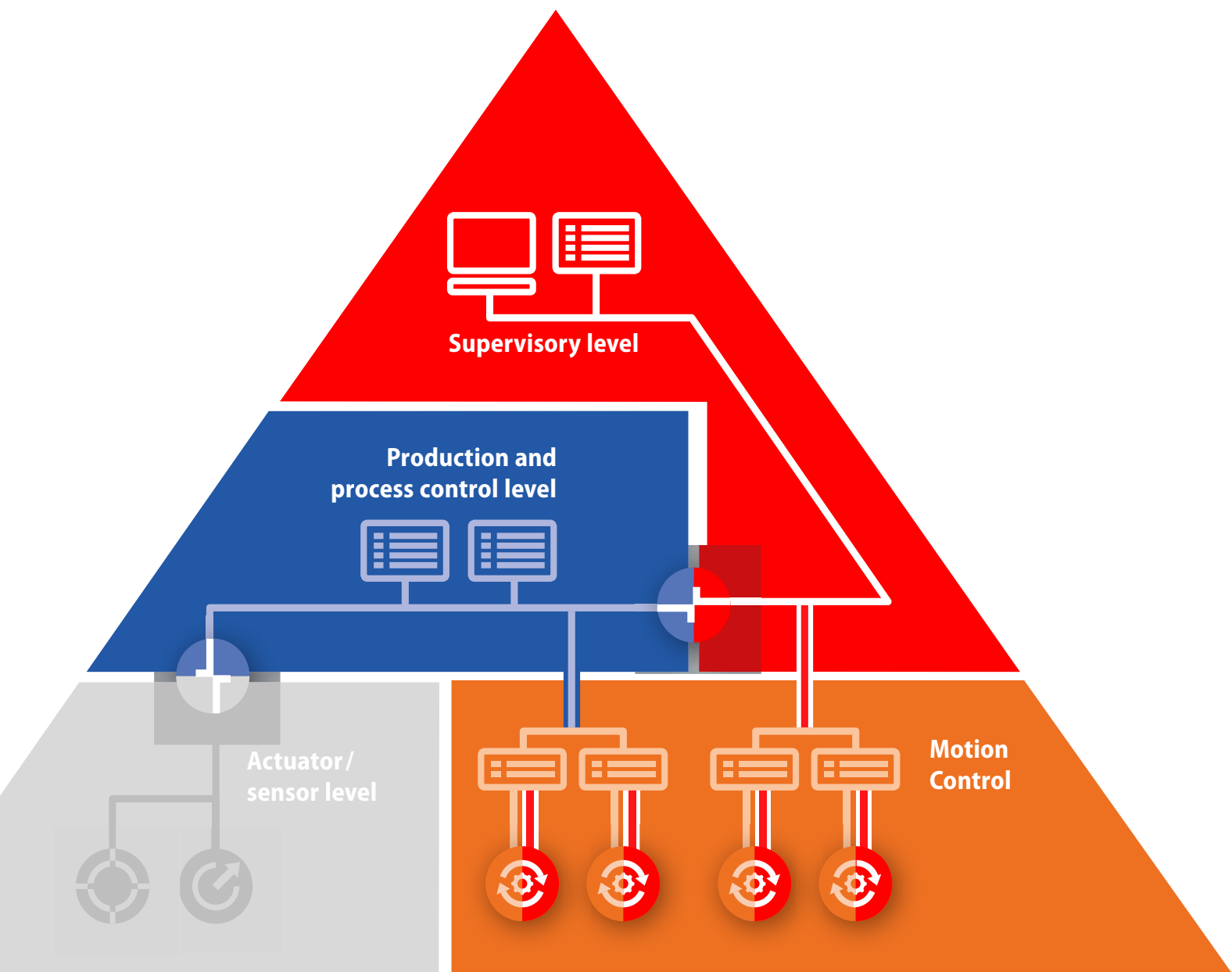
SENTECH



- 1** FieldLink® bus cables
- 2** FieldLink® Industrial Ethernet cables
- 3** Fiber optic cables
- 4** Audio and video cables
- 5** FieldLink®MC cables and cable systems for Motion Control
- 6** Robotic cables
- 7** Ribbon cables (high-performance-flex)
- 8** Miniature cables
- 9** Cleanroom cables
- 10** Coiled cables
- 11** Hybrid cables
- 12** High-temperature resistant cables

- 13** Polyurethane tubes & hoses, corrugated hoses
- 14** Electromechanical component assemblies
- 15** Casted and extrusion-coated products
- 16** Assembly of standardised and special cables
- 17** Cable drag chain systems
- 18** Dresspack systems
- 19** Robot function packages
- 20** advintec measurement and calibration systems
- 21** Machine vision systems
- 22** Installation & maintenance
- 23** Robot & PLC programming
- 24** Automation systems training
- 25** Project management





- IT communication – WAN
- Task: visualisation, archival, e.g. control post, interference indicating station



- Data communication – LAN
- Task: system control, e.g. reception, administration



- Field communication (process signals)
- Task (operation level):
processing, e.g. regulation/control of realtime functions
- Task (drive control):
input and output, e.g. measure, regulate, move, switch



- Field communication and power supply
- Task:
drive control with input and output
and additional power supply



The standard in office communication

Cable programme

PROFINET





fixed installed + robust

Type Cable structure	Fixed installation, indoor 2x2x0.64 mm	Industrial Area 2x2x0.64 mm
Inner conductor diameter: Core insulation: Core colours: Stranding element: Shielding 1: Inner sheath material: Shielding 2: Total shielding: Outer sheath material: Cable external diameter: Outer sheath colour:	Copper, bare (AWG 22/1) PE wh, ye, bu, og Star quad Polyester foil over stranded bundle PVC Polyester foil, aluminium-lined Cu braid, tinned PVC app. 6,5 mm ± 0,2 mm Green similar to RAL 6018	Copper, bare (AWG 22/1) PE wh, ye, bu, og Star quad Polyester foil over stranded bundle FRNC Polyester foil, aluminium-lined Cu braid, tinned PUR app. 6,5 mm ± 0,2 mm Green similar to RAL 6018
Electrical data		
Characteristic impedance: Conductor resistance, max.: Insulation resistance, min.: Loop resistance: Mutual capacitance: Test voltage:	100 Ohm ± 15 ohm at 1 to 100 MHz 62 Ohm/km 0,5 GOhm x km 115 Ohm/km max. 50 nF/km nom. 2 kV	100 Ohm ± 15 ohm at 1 to 100 MHz 62 Ohm/km 0,5 GOhm x km 115 Ohm/km max. 50 nF/km nom. 2 kV
Typical values		
Frequency (MHz) Attenuation (dB/100m) Next (db) ACR (db)	10 5,2 70,0 64,8	16 6,9 65,0 58,1
		62,5 15,0 55,0 40,0
		100 19,5 50,0 30,5
Technical data		
Weight: bending radius, repeated: Operating temperature range min.: Operating temperature range max.: Caloric load, approx. value: Copper weight:	app. 67 kg/km 65 mm -40°C +80°C 0,34 MJ/m 32,00 kg/km	app. 64 kg/km 65 mm -40°C +70°C 0,91 MJ/m 32,00 kg/km
Norms		
Applicable standards: UL Style: CSA standard:	PROFINet Guideline Acc. to ISO/IEC 11801 Acc. to EN 50173 Category 5e Flame-retardant acc. to IEC 60332-1 CMG 75°C PLTC FT4 CSA FT 4	PROFINet Guideline Acc. to ISO/IEC 11801 Acc. to EN 50173 Category 5e Flame-retardant acc. to IEC 60332-1 - -

Application

HELUKAT® PROFINet Type A Cat 5e for fixed installation in industrial networks, rugged. It guarantees excellent transmission characteristics and may be used even under the harshest conditions. The cable listed here corresponds to PROFINet Type A; this means the version with PVC sheath is designed for normal fixed installations and the version with PU sheath is for difficult fixed installations in harsh industrial environments.

کابل پروفینت (Type A) دو زوج مفتولی با روکش پی وی سی ساخت شرکت هلوکیبل



flexible + high flexible

Type Cable structure	Mobile use 2x2x0,75 mm (stranded)	Drag chain applications 2x2x0.75 mm (stranded)																				
Inner conductor diameter: Core insulation: Core colours: Stranding element: Shielding 1: Inner sheath material: Shielding 2: Total shielding: Outer sheath material: Cable external diameter: Outer sheath colour:	Copper, tinned (AWG 22/7) PE wh, ye, bu, og Star quad Polyester foil over stranded bundle PVC Polyester foil, aluminium-lined Cu braid, tinned PVC app. 6,5 mm ± 0,2 mm Green similar to RAL 6018	Copper, tinned (AWG 22/7) PE wh, ye, bu, og Star quad Polyester foil over stranded bundle FRNC Polyester foil, aluminium-lined Cu braid, tinned PUR app. 6,5 mm ± 0,2 mm Green similar to RAL 6018																				
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Typical values																						
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Technical data Weight: bending radius, repeated: Operating temperature range min.: Operating temperature range max.: Caloric load, approx. value: Copper weight:	app. 67 kg/km 100 mm -40°C +70°C 0,32 MJ/m 32,00 kg/km	app. 61 kg/km 55 mm -40°C +70°C 0,85 MJ/m 32,00 kg/km																				
Norms Applicable standards: UL Style: CSA standard:	PROFinet Guideline Acc. to ISO/IEC 11801 Acc. to EN 50173 Category 5e Flame-retardant acc. to IEC 60332-1 CMG 75°C PLTC FT4 CSA FT 4	PROFinet Guideline Acc. to ISO/IEC 11801 Acc. to EN 50173 Category 5e Halogen-free acc. to 60754-2 Flame-retardant acc. to IEC 60332-1 CMX 75°C (shielded)																				

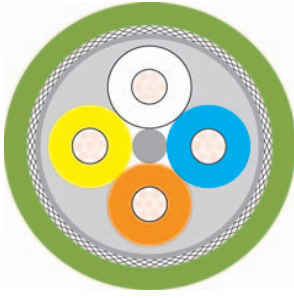
Application

HELUKAT® PROFinet Type B (flexible) + Type C (highly flexible) Cat 5e for use on moving parts and in cable carriers. The cables listed here correspond to the PROFinet classifications Type B and Type C for moving cables and are designed to withstand mechanical loads.

کابل پروفینت (Type B) دو زوج افشان با روکش پی وی سی ساخت شرکت هلوکیبل

Part Number: 800654

کابل پروفینت با کد: 800654



flexible + high flexible

Type Cable structure	Mobile use 2x2x0,75 mm (stranded)	Drag chain applications 2x2x0.75 mm (stranded)																				
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Application

HELUKAT® PROFinet Type B (flexible) + Type C (highly flexible) Cat 5e for use on moving parts and in cable carriers. The cables listed here correspond to the PROFinet classifications Type B and Type C for moving cables and are designed to withstand mechanical loads.

کابل پروفینت (Type C) دو زوج سوپر افشان با روکش پلی اورتان ساخت شرکت هلوکیبل

Part Number: 800655

کابل پروفینت با کد: 800655