Ethernet

Cables up to CAT7

www.igus.eu/chainflex-ethernet

chainflex®

cable works

Cost down ...

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World premiere
CAT7 for Torsion

CFROBOT8.052 CAT7
PUR Bus cable, twistable

For all data volumes and types of movement ...

Networking your machine with chainflex® Ethernet cables.

In this excerpt from our catalogue range you will find the right Ethernet solution for every type of motion. We have prepared for you a wide range of products sold by the metre and a wide variety of cables with connectors. That you obtain all cables with a guarantee of 36 months and up to 10 million double strokes is natural for chainflex and for you, a matter of great safety.

We support you in three aspects in the crosslinking of the machine with Ethernet cables that have been developed, manufactured and tested for high quality:

1. For your system, we offer Ethernet cables from CAT5 to CAT7 so that you have the right solution for all data volumes. With that you can safely use Bus systems such as Ethernet/IP, Profinet, EtherCAT, Sercos and many other derivatives. Due to the individual gradation of classes, very large savings options or opportunities arise due to a trendsetting cabling of the system.

2. By taking into account your individual, mechanical stress in your application, we enable more customised solutions. Thus there are cable series for large and small bending radii for linear movements in energy chains or torsional movements on the robot. We can offer you a reasonably priced PVC solution, an oil-resistant PUR cable or a solution with highly abrasion-resistant TPE. Also, special requests for long travels or high tensile strength versions for hanging applications or rolling solutions are a standard business for us.

3. The third major advantage we can offer you is the various ways in which you can use the cables. We deliver on drums or in coils of your desired length, of course, without any cutting costs. If it helps, we attach connectors and mark the cable as it is important for you. We do this from a quantity of 1 and would be happy to use your individual measurements and designs. Of course you can also have your Ethernet cable in the complete system with chain and attachment part. Tell us how you would like it and we shall deliver what you want.

Our online tools also enable you to reduce process costs. igus® delivers from stock in 24-48 hours! Also, see our website.

www.chainflex.eu/ethernet

... Service life up

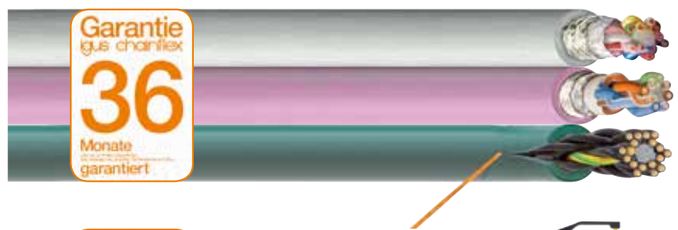
The cheapest Ethernet cable that is guaranteed to work.

The selection table for the largest range of flexible Ethernet cables

Electrical performance

	PVC 15 x d	PVC oil-res. 12.5 x d	iguPUR 15 x d	PUR 12.5 x d	TPE UL 10 x d	TPE Hal 10 x d	Torsion ± 180°/m	High-tensile 50 m freely hanging
CAT7 10 GBit 600 MHz		NEW page 6 chainflex® CFBUS.PVC.052		NEW page 12 chainflex® CFBUS.PUR.052	chainflex® CFBUS.052 page 16		NEW page 22 chainflex® CFROBOT8.052	
CAT6A 10 GBit 500 MHz		chainflex® CFBUS.PVC.050 page 6		chainflex® CFBUS.PUR.050 page 12	chainflex® CFBUS.050 page 16		NEW page 22 chainflex® CFROBOT8.050	
CAT6 1 GBit 250 MHz		NEW page 6 chainflex® CFBUS.PVC.049		NEW page 12 chainflex® CFBUS.PUR.049	NEW page 16 chainflex® CFBUS.049		NEW page 22 chainflex® CFROBOT8.049	
CAT5e 1 GBit 100 MHz	chainflex® CF888.045 page 4	chainflex® CFBUS.PVC.045 page 6	chainflex® CF898.045 page 10	chainflex® CFBUS.PUR.045 page 12	chainflex® CFBUS.045 page 16	chainflex® CF14.01.04.02. CAT5 page 20	chainflex® CFROBOT8.045 page 22	chainflex® CFSPECIAL. 182,045 page 24
Profinet 100 MBit 100 MHz	chainflex® CF888.060 page 4	chainflex® CFBUS.PVC.060 page 6	chainflex® CF898.060 page 10	chainflex® CFBUS.PUR.060 page 12	chainflex® CFBUS.060 page 16		chainflex® CFROBOT8.060 page 22	
CAT5 100 MBit 100 MHz		chainflex® CFBUS.PVC.040 page 6		chainflex® CFBUS.PUR.040 page 12	chainflex® CFBUS.040 page 16	chainflex® CF14.02.02.02.CAT5 page 20		

Mechanical performance



HIghly flexible chainflex® cables
- 1,244 cables from stock
- Tested in seven jacket materials
- No cutting costs, from 1 m
- 36 months or 10 million double strokes guarantee*
- Approvals and certificates

Harnessed cables readycable®
- New: More than 400 harnessed Ethernet cables
- In seven jacket materials
- 36 months or 10 million double strokes guarantee*
- Shipped in 24h**
- In desired length, with centimetre accuracy

Assembled e-chainsystems® readychain®
- Customised and ready to connect according to your specifications
- From the base solution to complex systems
- Optional with assembly rack
- From batch size 1 to series production
- Assembly service by experts

* Depending on what happens first. Up to 5 million double strokes for the highly affordable chainflex® M cables. The number of double strokes depends on installation and cable quality. This is described in the current catalogue, in the data sheets and in the service life calculator at www.igus.de/chainflexlife.

** Delivery time means time until shipping of goods.

PVC Bus cable | CF888

- For flexing applications
- PVC outer jacket
- Shielded
- Flame-retardant

Image exemplary.

Class 3.1.1.1

Requirements	Low	1	2	**3**	4	5	6	7 highest
Travel distance	Unsupported	**1**	2	3	4	5	6	400 m +
Oil-resistance	none	**1**	2	3	4	highest		
Torsion	none	**1**	2	3	±180°			

Lead-free Following 2011/65/EC (RoHS-II)

CE Following 2006/95/EC

Dynamic information

Bend radius — **e-chain®** minimum 15 x d; **flexible** minimum 12 x d; **fixed** minimum 8 x d

Temperature — **e-chain®** +5 °C to +70 °C; **flexible** -5 °C to +70 °C (following EN 60811-504); **fixed** -15 °C to +70 °C (following DIN EN 50305)

v max. — **unsupported** 3 m/s

a. max. 20m/s²

Travel distance Unsupported travel distances.

Cable structure

Conductor Conductor consisting of bare copper wires (following EN 60228).

Core insulation According to bus specification

Core stranding According to bus specification

Core identification According to bus specification ▶ Schedule delivery programm

Overall shield Braiding made of tinned copper wires. Coverage approx. 60% optical.

Outer jacket Low-adhesion mixture on the basis of PVC, adapted to suit the requirements in e-chains®.
Colour: Red lilac (similar to RAL 4001)

Electrical information

Nominal voltage 50 V

Testing voltage 500 V

Properties and approvals

Flame-retardant According to IEC 60332-1-2, CEI 20-35, VW-1, FT-1

Silicone-free Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).

UL/CSA Style Style 1598 and 2571, 30V, 80°C

EAC Certified according to no. TC RU C-DE.ME77.B.01559

CTP Certified according to no. C-DE.PB49.B.00449

Guaranteed lifetime according to guarantee conditions (chainflex® catalogue page 22-25)

Double strokes*				1 million	3 million	5 million
Temperature, from/to [°C]	v max. [m/s] Unsupported	a. max. [m/s²]	Travel distance [m]	*R* min. [factor x d]	*R* min. [factor x d]	*R* min. [factor x d]
+5 / +15	3	20	≤ 10	17.5	18.5	19.5
+15 / +60				15	16	17
+60 / +70				17.5	18.5	19.5

* Higher number of double strokes possible - please ask for your individual calculation.

Typical application areas

- For flexible duty use
- Without influence of oil
- Preferably indoor applications
- Especially for unsupported travels
- Wood/stone processing, packaging industry, supply systems, handling, adjusting equipment

Delivery program Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
Ethernet CAT5e				
CF888.045	(4x(2x0.14))C	7.5	27	68
Profinet				
CF888.060	(4x0.34)C	7.0	27	58

[16] Colour outer jacket: Yellow-green (RAL 6018)
Other types available on request.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G= with green-yellow earth core **x=** without earth core

Delivery program Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
Ethernet CAT5e			
CF888.045	100	(4x(2x0.14))C	white-green/green, white-orange/orange, white-blue/blue, white-brown/brown
Profinet			
CF888.060	100	(4x0.38)C	white, orange, blue, yellow (star-quad stranding)

EPLAN download, configurators ▶ www.igus.eu/CF888

1,244 types from stock no cutting costs ...
... no minimum order quantity ... *(up to 10 cuts of the same types)

36 months guarantee on every chainflex® cable ...
... up to 10 mio. double strokes guaranteed ...

New!

PVC Bus cable | CFBUS.PVC

- For medium duty applications
- PVC outer jacket
- Shielded
- Oil-resistant
- Flame-retardant

CAT7-Ethernet for the e-chain®

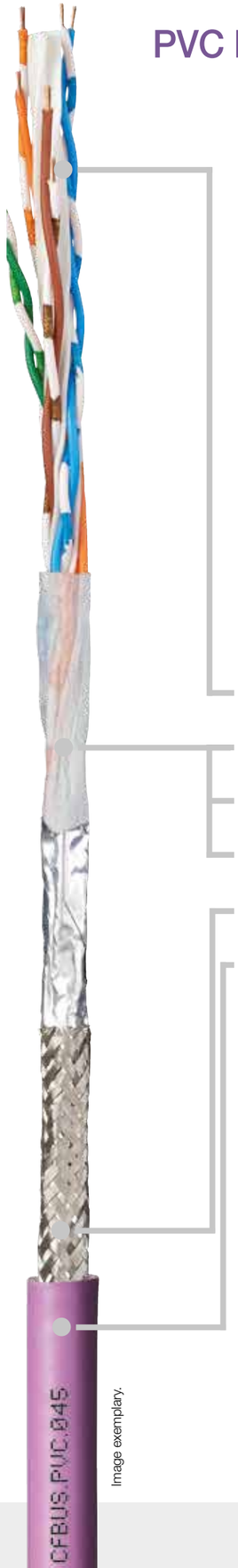


Image exemplary.

Dynamic information

Bend radius	e-chain®	minimum 12.5 x d
	flexible	minimum 10 x d
	fixed	minimum 7 x d
Temperature	e-chain®	+5 °C to +70 °C
	flexible	-5 °C to +70 °C (following EN 60811-504)
	fixed	-15 °C to +70 °C (following DIN EN 50305)
v max.	unsupported	3 m/s
	gliding	2 m/s
a. max.		30m/s²
Travel distance		Unsupported travel distances and up to 20 m for gliding applications, Class 3

Cable structure

Conductor	Stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228).
Core insulation	According to bus specification
Core stranding	According to bus specification
Core identification	According to bus specification ▶ Schedule delivery program
Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage approx. 55% linear, approx. 80% optical.
Outer jacket	Low-adhesion, oil-resistant mixture on the basis of PVC, adapted to suit the requirements in e-chains® (following DIN VDE 0281 Part 13). Colour: Red lilac (similar to RAL 4001)

Electrical information

Nominal voltage	50 V
Testing voltage	500 V

EPLAN download, configurators ▶ www.igus.eu/CFBUSPVC

1,244 types from stock no cutting costs ...
... no minimum order quantity ... *(up to 10 cuts of the same types)

Class 4.3.2.1

Requirements	Low	1	2	3	**4**	5	6	7	highest
Travel distance	Unsupported	1	2	**3**	4	5	6		400 m +
Oil-resistance	none	1	**2**	3	4				highest
Torsion	none	**1**	2	3					±180°

CFBUS.PVC
PVC
12.5 x d

Properties and approvals

UV-resistance	Medium
Oil-resistance	Oil-resistant (following DIN EN 50363-4-1), Class 2
Flame-retardant	According to IEC 60332-1-2, CEI 20-35, FT-1, VW-1
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
UL/CSA	Style 1598 and 2571, 30 V, 80 °C
NFPA	Following NFPA 79-2012 chapter 12.9
EAC	Certified according to no. TC RU C-DE.ME77.B.01218
CTP	Certified according to no. C-DE.PB49.B.00416
CEI	Following CEI 20-35
Lead-free	Following 2011/65/EC (RoHS-II)
Clean room	According to ISO Class 1. Outer jacket material complies with CF240.02.24, tested by IPA according to standard 14644-1
CE	Following 2006/95/EC

Guaranteed lifetime according to guarantee conditions (chainflex® catalogue page 22-25)

Double strokes*					5 million	7.5 million	10 million
Temperature, from/to [°C]	v max. [m/s] unsupported	v max. [m/s] gliding	a. max. [m/s²]	Travel distance [m]	*R* min. [factor x d]	*R* min. [factor x d]	*R* min. [factor x d]
+5 / +15	3	2	30	≤ 20	15	16	17
+15 / +60					12.5	13.5	14.5
+60 / +70					15	16	17

* Higher number of double strokes possible - please ask for your individual calculation.

Typical application areas

- For medium duty applications
- Light oil influence
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Unsupported travel distances and up to 20 m for gliding applications
- Bus connection cable for machining units/machine tools, handling, indoor cranes

36 months guarantee on every chainflex® cable ...
... up to 10 mio. double strokes guaranteed ...

PVC Bus cable | CFBUS.PVC

New!

Class 4.3.2.1

Requirements	Low	1	2	3	**4**	5	6	7 highest
Travel distance	Unsupported	1	2	**3**	4	5	6	400 m +
Oil-resistance	none	1	**2**	3	4	highest		
Torsion	none	**1**	2	3	±180°			

CFBUS.PVC
PVC
12.5 x d

Image exemplary.

	Delivery program Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]	Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
	Ethernet/CAT5					**Ethernet/CAT5**			
EtherCAT	**CFBUS.PVC.040** [2)]	(4x0.25)C	6.5	30	69	**CFBUS.PVC.040** [2)]	100	(4x0.25)C	white, green, brown, yellow (star-quad stranding)
	Ethernet/CAT5e					**Ethernet/CAT5e**			
	CFBUS.PVC.045	(4x(2x0.15))C	7.5	35	69	**CFBUS.PVC.045**	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
	Ethernet/CAT6					**Ethernet/CAT6**			
New	**CFBUS.PVC.049**	(4x(2x0.15))C	7.5	35	69	**CFBUS.PVC.049**	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange,white-green/green, white-brown/brown
	Ethernet/CAT6$_A$					**Ethernet/CAT6$_A$**			
	CFBUS.PVC.050	4x(2x0.20)C	9.5	69	124	**CFBUS.PVC.050**	100	4x(2x0.20)C	white/blue, white/orange, white/green, white/brown
	Ethernet/CAT7					**Ethernet/CAT7**			
New	**CFBUS.PVC.052**	(4x(2x0.15)C)C	9.5	89	136	**CFBUS.PVC.052**	100	(4x(2x0.15)C)C	white/blue, white/orange, white/green, white/brown
	Profinet					**Profinet**			
EtherCAT	**CFBUS.PVC.060**	(4x0.38)C	7.0	35	69	**CFBUS.PVC.060**	100	(4x0.38)C	white, orange, blue, yellow (star-quad stranding)

[16)] Colour outer jacket: Yellow-green (RAL 6018)
The chainflex® types marked with (2) are cables designed as a star-quad.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G= with green-yellow earth core **x=** without earth core

Order example: CFBUS.PVC.045 – In your desired length (0.5 m steps)
CFBUS.PVC chainflex® series .045 Code bus type

Online order ▶ www.chainflex.eu/CFBUSPVC

Delivery time 24h or today.
Delivery time means time until shipping of goods.

EPLAN download, configurators ▶ www.igus.eu/CFBUSPVC

Image exemplary.

iguPUR Bus cable | CF898

- For flexing applications
- iguPUR outer jacket
- Shielded
- Oil-resistant
- Flame-retardant

Dynamic information

	Bend radius	**e-chain®**	minimum 15 x d
		flexible	minimum 12 x d
		fixed	minimum 8 x d
	Temperature	**e-chain®**	-20 °C to +80 °C
		flexible	-40 °C to +80 °C (following EN 60811-504)
		fixed	-50 °C to +80 °C (following DIN EN 50305)
	v max.	**unsupported**	3 m/s
	a. max.		20m/s²
	Travel distance		Unsupported travel distances.

Cable structure

Conductor	Conductor consisting of bare copper wires (following EN 60228).
Core insulation	According to bus specification
Core stranding	According to bus specification
Core identification	According to bus specification ▶ Schedule delivery programm
Overall shield	Braiding made of tinned copper wires. Coverage approx. 60% optical.
Outer jacket	Low-adhesion mixture on the basis of iguPUR, adapted to suit the requirements in e-chains®. Colour: Red lilac (similar to RAL 4001)

Electrical information

Nominal voltage	50 V
Testing voltage	500 V

Properties and approvals

UV-resistance	Medium
Flame-retardant	According to IEC 60332-1-2, CEI 20-35, FT-1, VW-1
Oil-resistance	Oil-resistant (following DIN EN 50363-10-2)
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).
UL/CSA	Style 1589 and 20236, 30V, 80°C

Class 3.1.3.1

Requirements	Low	1	2	**3**	4	5	6	7	highest
Travel distance	Unsupported	**1**	2	3	4	5	6		400 m +
Oil-resistance	none	1	2	**3**	4				highest
Torsion	none	**1**	2	3					±180°

EAC	Certified according to no. TC RU C-DE.ME77.B.01559
CTP	Certified according to no. C-DE.PB49.B.00449
Lead-free	Following 2011/65/EC (RoHS-II)
DESINA	According to VDW, DESINA standardisation
CE	Following 2006/95/EC

Guaranteed lifetime according to guarantee conditions (chainflex® catalogue page 22-25)

Double strokes*				1 million	3 million	5 million
Temperature, from/to [°C]	v max. [m/s] unsupported	a. max. [m/s²]	Travel distance [m]	*R* min. [factor x d]	*R* min. [factor x d]	*R* min. [factor x d]
-20 / -10	3	20	≤ 10	17.5	18.5	19.5
-10 / +70				15	16	17
+70 / +80				17.5	18.5	19.5

* Higher number of double strokes possible - please ask for your individual calculation.

Typical application areas

- For flexible duty use
- With influence of oil
- Indoor and outdoor applications without direct sun radiation
- Especially for unsupported travels
- Machining units/machine tools, low temperature applications

Delivery program Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
Ethernet CAT5e				
CF898.045	(4x(2x0.14))C	7.5	27	64
Profinet				
CF898.060	(4x0.34)C	7.0	27	60

[16] Colour outer jacket: Yellow-green (RAL 6018)
Other types available on request.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G= with green-yellow earth core **x=** without earth core

Delivery program Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
Ethernet CAT5e			
CF898.045	100	(4x(2x0.14))C	white-green/green, white-orange/orange, white-blue/blue, white-brown/brown
Profinet			
CF898.060	100	(4x0.38)C	white, orange, blue, yellow (star-quad stranding)

1,244 types from stock no cutting costs ...
... no minimum order quantity ... *(up to 10 cuts of the same types)

36 months guarantee on every chainflex® cable ...
... up to 10 mio. double strokes guaranteed ...

New!

PUR Bus cable | CFBUS.PUR

CAT7-Ethernet for the e-chain®

- For medium duty applications
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Notch-resistant
- PVC-free/halogen-free
- Flame-retardant
- Hydrolysis and microbe-resistant

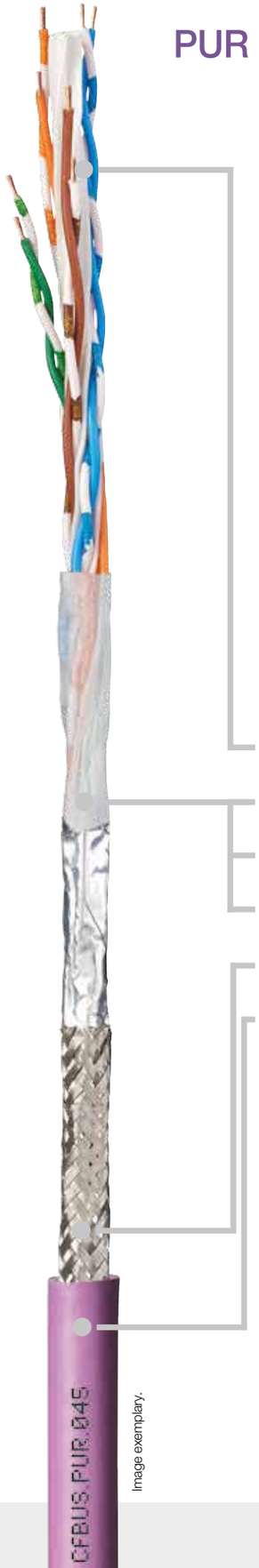


Image exemplary.

Dynamic information

Bend radius	**e-chain®**	minimum 12.5 x d
	flexible	minimum 10 x d
	fixed	minimum 7 x d
Temperature	**e-chain®**	-20 °C to +70 °C
	flexible	-40 °C to +70 °C (following EN 60811-504)
	fixed	-50 °C to +70 °C (following DIN EN 50305)
v max.	**unsupported**	3 m/s
	gliding	2 m/s
a. max.		30m/s²
Travel distance		Unsupported travel distances and up to 20 m for gliding applications, Class 3

Cable structure

Conductor	Stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228).
Core insulation	According to bus specification
Core stranding	According to bus specification
Core identification	According to bus specification ▶ Schedule delivery program
Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage approx. 55% linear, approx. 80% optical.
Outer jacket	Low-adhesion, highly abrasion-resistant mixture on the basis of PUR, adapted to suit the requirements in e-chains® (following DIN VDE 0282 Part 10). Colour: Red lilac (similar to RAL 4001)

Electrical information

Nominal voltage	50 V
Testing voltage	500 V

EPLAN download, configurators ▶ www.igus.eu/CFBUSPUR

1,244 types from stock no cutting costs ...
... no minimum order quantity ... *(up to 10 cuts of the same types)

Class 4.3.3.1

Requirements	Low	1	2	3	**4**	5	6	7	highest
Travel distance	Unsupported	1	2	**3**	4	5	6		400 m +
Oil-resistance	none	1	2	**3**	4				highest
Torsion	none	**1**	2	3					±180°

CFBUS.PUR
PUR
12.5 x d

Properties and approvals

UV-resistance	Medium
Oil-resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
Offshore	MUD-resistant following NEK 606 - status 2009
Flame-retardant	According to IEC 60332-1-2, CEI 20-35, FT-1, VW-1
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
Halogen-free	Following EN 50267-2-1
UL/CSA	Style 1598 and 20236, 30 V, 80 °C
NFPA	Following NFPA 79-2012 chapter 12.9
GL	Certified according to GL type testing – Certificate no.: 61 937-14 HH
EAC	Certified according to no. TC RU C-DE.ME77.B.01218
CTP	Certified according to no. C-DE.PB49.B.00416
CEI	Following CEI 20-35
Lead-free	Following 2011/65/EC (RoHS-II)
Cleanroom	According to ISO Class 1. Outer jacket material complies with CF77.UL.05.12.D, tested by IPA according to standard 14644-1
DESINA	According to VDW, DESINA standardisation
CE	Following 2006/95/EC

Guaranteed lifetime according to guarantee conditions (chainflex® catalogue page 22-25)

Double strokes*					5 million	7.5 million	7.5 mio.
Temperature, from/to [°C]	v max. [m/s] unsupported	v max. [m/s] gliding	a. max. [m/s²]	Travel distance [m]	*R* min. [factor x d]	*R* min. [factor x d]	*R* min. [factor x d]
-20 / -10					15	16	17
-10 / +60	3	2	30	≤ 20	12.5	13.5	14.5
+60 / +70					15	16	17

* Higher number of double strokes possible - please ask for your individual calculation.

Typical application areas

- For medium duty applications
- Almost unlimited resistance to oil
- Indoor and outdoor applications without direct sun radiation
- Unsupported travel distances and up to 20 m for gliding applications
- Bus connection cable for machining units/machine tools, low-temperature applications

36 months guarantee on every chainflex® cable ...
... up to 10 mio. double strokes guaranteed ...

PUR Bus cable | CFBUS.PUR

New!

Class 4.3.3.1

Requirements	Low	1	2	3	**4**	5	6	7	highest
Travel distance	Unsupported	1	2	**3**	4	5	6		400 m +
Oil-resistance	none	1	2	**3**	4				highest
Torsion	none	**1**	2	3					±180°

CFBUS.PUR
PUR
12.5 x d

Image exemplary.

	Delivery program Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]	Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
	Ethernet/CAT5					**Ethernet/CAT5**			
EtherCAT	**CFBUS.PUR.040** [2]	(4x0.25)C	6.5	30	68	**CFBUS.PUR.040** [2]	100	(4x0.25)C	white, green, brown, yellow (star-quad stranding)
	Ethernet/CAT5e					**Ethernet/CAT5e**			
	CFBUS.PUR.045	(4x(2x0.15))C	7.5	35	68	**CFBUS.PUR.045**	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange,white-green/green, white-brown/brown
	Ethernet/CAT6					**Ethernet/CAT6**			
New	**CFBUS.PUR.049**	(4x(2x0.15))C	7.5	35	68	**CFBUS.PUR.049**	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange,white-green/green, white-brown/brown
	Ethernet/CAT6$_A$					**Ethernet/CAT6$_A$**			
	CFBUS.PUR.050	4x(2x0.20)C	9.5	69	122	**CFBUS.PUR.050**	100	4x(2x0.20)C	white/blue, white/orange, white/green, white/brown
	Ethernet/CAT7					**Ethernet/CAT7**			
New	**CFBUS.PUR.052**	(4x(2x0.15)C)C	9.5	89	129	**CFBUS.PUR.052**	100	(4x(2x0.15)C)C	white/blue, white/orange, white/green, white/brown
EtherCAT	**Profinet**					**Profinet**			
	CFBUS.PUR.060	(4x0.38)C	7.0	35	66	**CFBUS.PUR.060**	100	(4x0.38)C	white, orange, blue, yellow (star-quad stranding)

[16] Colour outer jacket: Yellow-green (RAL 6018)
The chainflex® types marked with ([2]) are cables designed as a star-quad.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G= with green-yellow earth core **x=** without earth core

Order example: CFBUS.PUR.050 – In your desired length (0.5 m steps)
CFBUS.PUR chainflex® series .050 Code bus type

Online order ▶ www.chainflex.eu/CFBUSPUR

Delivery time 24h or today.
Delivery time means time until shipping of goods.

EPLAN download, configurators ▶ www.igus.eu/CFBUSPUR

New!

TPE Bus cable | CFBUS

Image exemplary.

- For extremely heavy duty applications
- TPE outer jacket
- Shielded
- Oil-resistant
- Bio-Oil-resistant
- Flame-retardant
- Hydrolysis-/microbe-resistant

Dynamic information

Bend radius	**e-chain®**	▶ Schedule delivery program
	flexible	minimum 8 x d
	fixed	minimum 5 x d
Temperature	**e-chain®**	-35 °C to +70 °C
	flexible	-45 °C to +70 °C (following EN 60811-504)
	fixed	-50 °C to +70 °C (following DIN EN 50305)
v max.	**unsupported**	10 m/s
	gliding	6 m/s
a. max.		100m/s²
Travel distance		Unsupported travel distances and up to 400 m for gliding applications, Class 6

Cable structure

Conductor	Stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228).
Core insulation	According to bus specification
Core stranding	According to bus specification
Core identification	According to bus specification ▶ Schedule delivery program
Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.
Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical.
Outer jacket	Low-adhesion mixture on the basis of TPE, especially abrasion resistant and highly flexible, adapted to suit the requirements in e-chains®. Colour: Red lilac (similar to RAL 4001)

Electrical information

Nominal voltage	50 V
Testing voltage	500 V

Properties and approvals

UV-resistance	Medium
Oil-resistance	Oil-resistant (following EN 60811-404), bio-oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4

EPLAN download, configurators ▶ www.igus.eu/CFBUS

Class 6.6.4.1

Requirements	Low 1 2 3 4 5 **6** 7 highest
Travel distance	Unsupported 1 2 3 4 5 **6** 400 m +
Oil-resistance	none 1 2 3 **4** highest
Torsion	none **1** 2 3 ±180°

Flame-retardant	According to IEC 60332-1-2, CEI 20-35, FT-1, VW-1
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
UL/CSA	▶ Schedule delivery program
NFPA	Following NFPA 79-2012 chapter 12.9
GL	Certified according to GL type testing – Certificate no.: 61 937-14 HH
EAC	Certified according to no. TC RU C-DE.ME77.B.01218
CTP	Certified according to no. C-DE.PB49.B.00416
CEI	Following CEI 20-35
Lead-free	Following 2011/65/EC (RoHS-II)
Cleanroom	According to ISO Class 1. Outer jacket material complies with CF34.UL.25.04.D, tested by IPA according to standard 14644-1
DESINA	According to VDW, DESINA standardisation
CE	Following 2006/95/EC

Guaranteed lifetime according to guarantee conditions (chainflex® catalogue page 22-25)

Double strokes*					5 million	7.5 million	10 million
Temperature, from/to [°C]	v max. [m/s] unsupported	v max. [m/s] gliding	a. max. [m/s²]	Travel distance [m]	*R* min. [factor x d]	*R* min. [factor x d]	*R* min. [factor x d]
Part No. CFBUS.001-.045							
-35 / -25					12.5	13.5	14.5
-25 / +60	10	6	100	≤ 400	10	11	12
+60 / +70					12.5	13.5	14.5
Part No. CFBUS.050-.070							
-35 / -25					15	16	17
-25 / +60	10	6	100	≤ 400	12.5	13.5	14.5
+60 / +70					15	16	17

* Higher number of double strokes possible - please ask for your individual calculation.

Typical application areas

- For extremely heavy duty applications
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications without direct sun radiation
- Unsupported travel distances and up to 400 m for gliding applications
- Bus connection cable for storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, indoor cranes, low-temperature applications

TPE Bus cable | CFBUS

New!

Class 6.6.4.1

Requirements	Low	1	2	3	4	5	**6**	7 highest
Travel distance	Unsupported	1	2	3	4	5	**6**	400 m +
Oil-resistance	none	1	2	3	**4**	highest		
Torsion	none	**1**	2	3	±180°			

CFBUS
TPE
10-12.5 x d

Image exemplary.

	Delivery program Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]	Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
	Ethernet/CAT5 (Bend radius min. 10 x d) Style 10138/21235, 300 V, 80 °C					**Ethernet/CAT5**			
EtherCAT	**CFBUS.040** [2]	(4x0.25)C	7.0	35	66	**CFBUS.040** [2]	100	(4x0.25)C	white, green, brown, yellow (star-quad stranding)
	Ethernet/CAT5e (Bend radius min. 10 x d) Style 10138/21235, 300 V, 80 °C					**Ethernet/CAT5e**			
	CFBUS.045	(4x(2x0.15))C	8.5	44	88	**CFBUS.045**	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
	Ethernet/CAT6 (minimum bend radius 10 x d) Style 1589/21371, 30 V, 80°C					**Ethernet/CAT6**			
New	**CFBUS.049**	(4x(2x0.15))C	8.5	44	87	**CFBUS.049**	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
	Ethernet/CAT6$_A$ (minimum bend radius 12.5 x d) Style 1589/21371, 30 V, 80°C					**Ethernet/CAT6$_A$**			
	CFBUS.050	(4x(2x0.15)C)C	10.5	87	139	**CFBUS.050**	100	(4x(2x0.15)C)C	white/blue, white/orange, white/green, white/brown
	Ethernet/CAT7 (minimum bend radius 12.5 x d) Style 1589/21371, 30 V, 80°C					**Ethernet/CAT7**			
New	**CFBUS.052**	(4x(2x0.15)C)C	10.5	94	142	**CFBUS.052**	100	(4x(2x0.15)C)C	white/blue, white/orange, white/green, white/brown
	Profinet					**Profinet**			
EtherCAT	**CFBUS.060**	(4x0.38)C	7.5	41	75	**CFBUS.060**	100	(4x0.38)C	white, orange, blue, yellow (star-quad stranding)

[4] manufactured without inner jacket
The chainflex® types marked with ([2]) are cables designed as a star-quad.
Other types available on request.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G= with green-yellow earth core **x=** without earth core

Order example: CFBUS.052 – In your desired length (0.5 m steps)
CFBUS chainflex® series .052 Code bus type

Online order ▶ www.chainflex.eu/CFBUSPUR

Delivery time 24h or today.
Delivery time means time until shipping of goods.

EPLAN download, configurators ▶ www.igus.eu/CFBUS

TPE Bus cable | CF14.CAT5

Image exemplary.

- **Ethernet special cable for heavy duty use**
- **TPE outer jacket**
- **Oil-resistant**
- **Bio-Oil-resistant**
- **PVC-free/halogen free**
- **UV resistant**
- **Hydrolysis-/microbe-resistant**

Dynamic information

Bend radius	**e-chain®**	minimum 10 x d
	flexible	minimum 8 x d
	fixed	minimum 5 x d
Temperature	**e-chain®**	-35 °C to +70 °C
	flexible	-50 °C to +70 °C (following EN 60811-504)
	fixed	-55 °C to +70 °C (following DIN EN 50305)
v max.	**unsupported**	10 m/s
	gliding	6 m/s
a. max.		100m/s²
Travel distance		Unsupported travel distances and up to 400 m for gliding applications, Class 6

Cable structure

Conductor	19-wire conductor consisting of bare copper wires in especially bending-resistant braiding quality.
Core insulation	Special PP-isolation mixture.
Core stranding	2 cores each stranded in pairs with short pitch lengths, core pairs also stranded with short pitch lengths.
Core identification	Colour code in accordance with DIN 47100
Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.
Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical.
Outer jacket	Low-adhesion mixture on the basis of TPE, especially abrasion resistant and highly flexible, adapted to suit the requirements in e-chains®. Colour: Red lilac (similar to RAL 4001)

Electrical information

Nominal voltage	50 V
Testing voltage	500 V

Properties and approvals

UV-resistance	Medium
Oil-resistance	Oil-resistant (following DIN EN 60811-2-1), bio-Oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4

EPLAN download, configurators ▶ www.igus.eu/CF14

Class 6.6.4.1

Requirements	Low 1 2 3 4 5 **6** 7 highest
Travel distance	Unsupported 1 2 3 4 5 **6** 400 m +
Oil-resistance	none 1 2 3 **4** highest
Torsion	none **1** 2 3 ±180°

Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
Halogen-free	Following EN 50267-2-1
EAC	Certified according to no. TC RU C-DE.ME77.B.01218
Lead-free	Following 2011/65/EC (RoHS-II)
Clean room	According to ISO Class 1. Outer jacket material complies with CF9.15.07, tested by IPA according to standard 14644-1
DESINA	According to VDW, DESINA standardisation
CE	Following 2006/95/EC

Guaranteed lifetime according to guarantee conditions (chainflex® catalogue page 22-25)

Double strokes*					5 million	7.5 million	10 million
Temperature, from/to [°C]	v max. [m/s] unsupported	v max. [m/s] gliding	a. max. [m/s²]	Travel distance [m]	*R* min. [factor x d]	*R* min. [factor x d]	*R* min. [factor x d]
-35 / -25	10	6	100	≤ 400	12.5	13.5	14.5
-25 / +60					10	11	12
+60 / +70					12.5	13.5	14.5

* Higher number of double strokes possible - please ask for your individual calculation.

Typical application areas

- For extremely heavy duty applications
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications without direct sun radiation
- Unsupported travel distances and up to 400 m for gliding applications
- Ethernet cable for storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, indoor cranes, low-temperature applications

Delivery program Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
Ethernet/CAT5/GigE				
CF14.01.04.02.CAT5	(4x(2x0.15))C	8.5	44	82
CF14.02.02.02.CAT5 [2)]	(4x0.25)C	7.5	35	60

The chainflex® types marked with [2)] are cables designed as a star-quad.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G= with green-yellow earth core **x=** without earth core

Part No. **Ethernet/CAT5/GigE**	Characteristic wave impedance approx. [Ω]	Core group	Colour code
CF14.01.04.02.CAT5	100	(4x(2x0.15))C	white/brown, green/yellow, grey/pink, blue/red
CF14.02.02.02.CAT5 [2)]	100	(4x0.25)C	white, green, brown, yellow (star-quad stranding)

New!

PUR Bus cable, twistable | CFROBOT8

- For twistable applications
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Notch-resistant
- Flame-retardant
- Hydrolysis and microbe-resistant

World premiere!
CAT5e to CAT7
for Torsion

Dynamic information

Bend radius	**twisted**	minimum 10 x d
	flexible	minimum 8 x d
	fixed	minimum 5 x d
Temperature	**twisted**	-25 °C to +70 °C
	flexible	-40 °C to +70 °C (following EN 60811-504)
	fixed	-50 °C to +70 °C (following DIN EN 50305)
v max. twisted		180°/s
a max. twisted		60°/s²
Travel		Robots and motions in 3D area, Class 1
Torsion		± 180°, with 1 m cable length

Cable structure

Conductor	Stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228).
Core insulation	According to bus specification
Core stranding	According to bus specification
Core identification	According to bus specification ▶ Schedule delivery program
Intermediate layer	Foil taping over the external layer.
Overall shield	Torsion resistant tinned braided copper shield. Coverage approx. 80% optical.
Outer jacket	Low-adhesion, highly abrasion resistant mixture on the basis of PUR, adapted to suit the requirements in e-chains®. Colour: Steel blue (similar to RAL 5011)

Electrical information

Nominal voltage	50 V
Testing voltage	500 V

Properties and approvals

UV-resistance	Highest
Oil-resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
Flame-retardant	According to IEC 60332-1-2, CEI 20-35, FT1
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

Class 6.1.3.3

Requirements	Low 1 2 3 4 5 **6** 7 highest
Travel distance	Unsupported **1** 2 3 4 5 6 400 m +
Oil-resistance	none 1 2 **3** 4 highest
Torsion	none 1 2 **3** ±180°

CFROBOT8
PUR
± 180°

UL/CSA	**≤ 0,25 mm²:** Style 1589 and 20236, 30 V, 80 °C **> 0,25 mm²:** Style 1589 and 20963, 30 V, 80 °C
EAC	Certified according to no. TC RU C-DE.ME77.B.01218
CTP	Certified according to no. C-DE.PB49.B.00416
CEI	Following CEI 20-35
Lead-free	Following 2011/65/EC (RoHS-II)
Clean room	According to ISO Class 1. Outer jacket material complies with CF27.07.05.02.01.D, tested by IPA according to standard 14644-1
CE	Following 2006/95/EC

Guaranteed lifetime according to guarantee conditions (chainflex® catalogue page 22-25)

Cycles *			5 million	7.5 million	10 million
Temperature, from/to [°C]	v max. [°/s] twisted	a max. [°/s] twisted	Torsion max. [°/m]	Torsion max. [°/m]	Torsion max. [°/m]
-25 / -15	180	60	±150	±90	±30
-15 / +60			±180	±120	±60
+60 / +70			±150	±90	±30

* Higher number of cycles possible - please ask for your individual calculation.

Typical application areas

- For extremely heavy duty applications with torsion movements
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV resistant
- Especially for robots and movements in the 3D range
- Robots, handling, lead screw drives

	Delivery program Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
	CFROBOT8.045 (CAT5e)	4x(2x0.14)C	8.5	39	69
New	**CFROBOT8.049 (CAT6)**	4x(2x0.14)C	8.5	38	68
New	**CFROBOT8.050 (CAT6$_A$)**	4x(2x0.15)C	10.5	54	127
New	**CFROBOT8.052 (CAT7)**	4x(2x0.15)C	10.5	55	129
	CFROBOT8.060 (Profinet)	(2x(2x0.34))C	8.5	36	70

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G= with green-yellow earth core **x=** without earth core

Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
CFROBOT8.045 (CAT5e)	100	(4x(2x0.14)C)	white-green/green, white-orange/orange, white-blue/blue, white-brown/brown
CFROBOT8.049 (CAT6)	100	(4x(2x0.14)C)	white-green/green, white-orange/orange, white-blue/blue, white-brown/brown
CFROBOT8.050 (CAT6$_A$)	100	4x(2x0.15)C	white-green/green, white-orange/orange, white-blue/blue, white-brown/brown
CFROBOT8.052 (CAT7)	100	4x(2x0.15)C	white-green/green, white-orange/orange, white-blue/blue, white-brown/brown
CFROBOT8.060 (Profinet)	100	(2x(2x0.34))C	white/blue, yellow/orange

PUR Bus cable | CFSPECIAL.182

Image exemplary.

- For increased tensile load
- PUR outer jacket
- Shielded
- PVC-free/halogen-free
- Oil-resistant and coolant-resistant
- Notch-resistant
- Flame-retardant
- Hydrolysis and microbe-resistant

Dynamic information

Bend radius	**e-chain®**	min. 10 x d
	flexible	min. 8 x d
	fixed	min. 5 x d
Temperature	**e-chain®**	-25 °C to +80 °C
	flexible	-40 °C to +80 °C (following EN 60811-504)
	fixed	-50 °C to +80 °C (following DIN EN 50305)
v max.	**unsupported**	10 m/s
	gliding	6 m/s
a. max.		100 m/s²
Travel		For hanging applications up to 50 m

Cable structure

Conductor	Stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228).
Core insulation	According to bus specification
Core stranding	According to bus specification
Core identification	According to bus specification. ▶ Schedule delivery program
1. Inner jacket	TPE mixture adapted to suit the requirements in hanging applications.
Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70 %, optical approx. 90 %
2. Inner jacket	PUR mixture adapted to suit the requirements in e-chains®.
Armour	High tensile-strength aramide braid embedded in the outer jacket.
Outer jacket	Low-adhesion mixture on the basis of PUR, highly abrasion- and bending-resistant, adapted to suit the requirements in hanging applications (following EN 50363-10-2). Colour: Jet black (similar to RAL 9005)

Electrical information

Nominal voltage	50 V
Testing voltage	500 V

EPLAN download, configurators ▶ www.igus.eu/CFSP1

Properties and approvals

UV-resistance	Highest
Oil-resistance	Oil-resistant (following DIN EN 50363-10-2)
Offshore	MUD-resistant following NEK 606 - status 2009
Flame-retardant	Flame-retardant (according to IEC 60332-1-2, CEI 20-35, FT-1, VW-1)
Silicone-free	Free from substances that impair the wetting of paint (based on PV 3.10.7 – status 1992).
Halogen-free	following DIN EN 50267-2-1
UL/CSA	Style 10138, 300 V, 80 °C
NFPA	Following NFPA 79-2012 chapter 12.9
Lead-free	Following 2011/65/EC (RoHS-II)
CE	Following 2006/95/EC

Typical application areas

- For increased tensile load
- Almost unlimited resistance to oil
- For hanging applications up to 50 m
- Storage and retrieval units, hanging control units and lifts

Delivery program Part No.	Jacket material	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
Ethernet/CAT5					
CFSPECIAL.182.045	**PUR**	(4x(2x0.15))C	9.5	44	140

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G= with green-yellow earth core **x=** without earth core

Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
Ethernet/CAT5			
CFSPECIAL.182.045	100	(4x2x0.15)C	white-green/green, white-orange/orange, white-blue/blue, white-brown/brown

1,244 types from stock no cutting costs ...
... no minimum order quantity ... *(up to 10 cuts of the same types)

36 months guarantee on every chainflex® cable ...
... up to 10 mio. double strokes guaranteed ...

Network

Harnessed Ethernet cables

Harnessed CAT5 cables

● Technical information **PVC** ▶ Page 6
● Technical information **PUR** ▶ Page 12
● Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Harting CAT5 connector				
PVC	CAT9311001	(4x0.25)C	6.5	12.5
PUR	CAT9411001	(4x0.25)C	6.5	12.5
TPE	CAT9511001	(4x0.25)C	7.0	10
Harting CAT5 connector				
PVC	CAT9311002	(4x0.25)C	6.5	12.5
PUR	CAT9411002	(4x0.25)C	6.5	12.5
TPE	CAT9511002	(4x0.25)C	7.0	10

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

Harnessed CAT5e cables

- Technical information **PVC** ▶ Page 4+6
- Technical information **iguPUR** ▶ Page 10
- Technical information **PUR** ▶ Page 12+22
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Telegärtner CAT6$_A$ connector				
PVC	CAT9121002	(4x(2x0.14))C	7.5	15
PVC, oil-resistant	CAT9321002	(4x(2x0.15))C	7.5	12.5
iguPUR	CAT9221002	(4x(2x0.14))C	7.5	15
PUR	CAT9421002	(4x(2x0.15))C	7.5	12.5
PUR-ROBOT	CAT9621002	4x(2x0.14)C	8.5	10
PUR-SPECIAL	CAT9721001	(4x(2x0.15))C	9.5	12.5
TPE	CAT9521002	(4x(2x0.15))C	8.5	10
Harting CAT6$_A$ connector				
PVC	CAT9121003	(4x(2x0.14))C	7.5	15
PVC, oil-resistant	CAT9321003	(4x(2x0.15))C	7.5	12.5
iguPUR	CAT9221003	(4x(2x0.14))C	7.5	15
PUR	CAT9421003	(4x(2x0.15))C	7.5	12.5
PUR-ROBOT	CAT9621003	4x(2x0.14)C	8.5	10
PUR-SPECIAL	CAT9721002	(4x(2x0.15))C	9.5	12.5
TPE	CAT9521003	(4x(2x0.15))C	8.5	10
Telegärtner CAT6 connector				
PVC	CAT9121004	(4x(2x0.14))C	7.5	15
PVC, oil-resistant	CAT9321004	(4x(2x0.15))C	7.5	12.5
iguPUR	CAT9221004	(4x(2x0.14))C	7.5	15
PUR	CAT9421004	(4x(2x0.15))C	7.5	12.5
PUR-ROBOT	CAT9621004	4x(2x0.14)C	8.5	10
PUR-SPECIAL	CAT9721003	(4x(2x0.15))C	9.5	12.5
TPE	CAT9521004	(4x(2x0.15))C	8.5	10
Telegärtner CAT6 / CAT6$_A$ connector				
PVC	CAT9121005	(4x(2x0.14))C	7.5	15
PVC, oil-resistant	CAT9321005	(4x(2x0.15))C	7.5	12.5
iguPUR	CAT9221005	(4x(2x0.14))C	7.5	15
PUR	CAT9421005	(4x(2x0.15))C	7.5	12.5
PUR-ROBOT	CAT9621005	4x(2x0.14)C	8.5	10
PUR-SPECIAL	CAT9721004	(4x(2x0.15))C	9.5	12.5
TPE	CAT9521005	(4x(2x0.15))C	8.5	10

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

Harnessed CAT5e cables

- Technical information **PVC** ▶ Page 4+6
- Technical information **iguPUR** ▶ Page 10
- Technical information **PUR** ▶ Page 12+22
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Telegärtner CAT6 connector (RJ45/M12 x-coded)				
PVC	CAT9121006	(4x(2x0.14))C	7.5	15
PVC, oil-resistant	CAT9321006	(4x(2x0.15))C	7.5	12.5
iguPUR	CAT9221006	(4x(2x0.14))C	7.5	15
PUR	CAT9421006	(4x(2x0.15))C	7.5	12.5
PUR-ROBOT	CAT9621006	4x(2x0.14)C	8.5	10
PUR-SPECIAL	CAT9721005	(4x(2x0.15))C	9.5	12.5
TPE	CAT9521006	(4x(2x0.15))C	8.5	10
Telegärtner CAT6$_A$ connector (M12 x-coded)				
PVC	CAT9121007	(4x(2x0.14))C	7.5	15
PVC, oil-resistant	CAT9321007	(4x(2x0.15))C	7.5	12.5
iguPUR	CAT9221007	(4x(2x0.14))C	7.5	15
PUR	CAT9421007	(4x(2x0.15))C	7.5	12.5
PUR-ROBOT	CAT9621007	4x(2x0.14)C	8.5	10
PUR-SPECIAL	CAT9721006	(4x(2x0.15))C	9.5	12.5
TPE	CAT9521007	(4x(2x0.15))C	8.5	10
Phoenix Contact CAT6$_A$ connector				
PVC	CAT9121010	(4x(2x0.14))C	7.5	15
PVC, oil-resistant	CAT9321010	(4x(2x0.15))C	7.5	12.5
iguPUR	CAT9221010	(4x(2x0.14))C	7.5	15
PUR	CAT9421010	(4x(2x0.15))C	7.5	12.5
PUR-ROBOT	CAT9621010	4x(2x0.14)C	8.5	10
TPE	CAT9521010	(4x(2x0.15))C	8.5	10
Phoenix Contact CAT6$_A$ connector (M12 x-coded)				
PVC	CAT9121013	(4x(2x0.14))C	7.5	15
PVC, oil-resistant	CAT9321013	(4x(2x0.15))C	7.5	12.5
iguPUR	CAT9221013	(4x(2x0.14))C	7.5	15
PUR	CAT9421013	(4x(2x0.15))C	7.5	12.5
PUR-ROBOT	CAT9621013	4x(2x0.14)C	8.5	10
PUR-SPECIAL	CAT9721011	(4x(2x0.15))C	9.5	12.5
TPE	CAT9521013	(4x(2x0.15))C	8.5	10

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

Harnessed CAT5e cables

● Technical information **PVC** ▶ Page 6

● Technical information **PUR** ▶ Page 12

Delivery program Straight (PVC/PUR/PUR-ROBOT/TPE) 4/8 poles

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	ø [mm]	Bend radius
Harting CAT5 connector				
TPE	CAT9040001	(2x(2x0.25))C	7.0	12.5 x d
Harting CAT5e connector				
PVC, oil-resistant	CAT9340020	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240020	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440020	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040020	(4x(2x0.15))C	8.0	12.5 x d
Yamaichi CAT5 connector				
PVC, oil-resistant	CAT9340060	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240060	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440060	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040060	(4x(2x0.15))C	8.0	12.5 x d
Phoenix Contact CAT5e connector				
PVC, oil-resistant	CAT9340100	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240100	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440100	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040100	(4x(2x0.15))C	8.0	12.5 x d
Yamaichi CAT5 connector in Hummel housing				
PVC, oil-resistant	CAT9340140	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240140	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440140	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040140	(4x(2x0.15))C	8.0	12.5 x d
Yamaichi CAT5 connector in Hummel housing				
PVC, oil-resistant	CAT9340180	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240180	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440180	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040180	(4x(2x0.15))C	8.0	12.5 x d

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Network CAT5

Harnessed CAT5e cables

● Technical information **PUR-ROBOT** ▶ Page 22

● Technical information **TPE** ▶ Page 16

Delivery program Cross-Over (PVC/PUR/PUR-ROBOT/TPE) 8 poles

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	ø [mm]	Bend radius
Hirose CAT5e connector				
PVC, oil-resistant	CAT9340040	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240040	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440040	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040040	(4x(2x0.15))C	8.0	12.5 x d
Yamaichi CAT5 connector				
PVC, oil-resistant	CAT9340080	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240080	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440080	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040080	(4x(2x0.15))C	8.0	12.5 x d
Phoenix Contact CAT5e connector				
PVC, oil-resistant	CAT9340120	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240120	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440120	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040120	(4x(2x0.15))C	8.0	12.5 x d
Yamaichi CAT5 connector in Hummel housing				
PVC, oil-resistant	CAT9340160	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240160	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440160	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040160	(4x(2x0.15))C	8.0	12.5 x d
Yamaichi CAT5 connector in Hummel housing				
PVC, oil-resistant	CAT9340200	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240200	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440200	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040200	(4x(2x0.15))C	8.0	12.5 x d

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT5e cables PVC
all with Hirose CAT5e connectors

● Technical information **PVC**, oil-resistant
▶ Page 6

Connector 1	Connector 2	Connector 3	Connector 4	Connector 5
L angle curve lower	L angle curve above	T angle curve outer	T angle curve inward	straight

Delivery program Straight (PVC) 8 poles

Delivery program Part No.	Harnessing with connector combination		Number of cores and conductor nominal cross section [mm²]	ø [mm]	Bend radius
CAT9340380	1	2	(4x(2x0.15))C	7.0	12.5 x d
CAT9340540	1	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9340560	1	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9340320	1	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9340360	2	1	(4x(2x0.15))C	7.0	12.5 x d
CAT9340340	2	2	(4x(2x0.15))C	7.0	12.5 x d
CAT9340500	2	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9340520	2	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9340300	2	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9340440	3	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9340480	3	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9340400	3	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9340460	4	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9340420	4	5	(4x(2x0.15))C	7.0	12.5 x d
Delivery program Cross-Over (PVC) 8 poles					
CAT9340390	1	2	(4x(2x0.15))C	7.0	12.5 x d
CAT9340550	1	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9340570	1	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9340330	1	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9340370	2	1	(4x(2x0.15))C	7.0	12.5 x d
CAT9340350	2	2	(4x(2x0.15))C	7.0	12.5 x d
CAT9340510	2	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9340530	2	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9340310	2	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9340450	3	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9340490	3	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9340410	3	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9340470	4	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9340430	4	5	(4x(2x0.15))C	7.0	12.5 x d

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT5e cables PUR
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● Technical information **PUR**
▶ Page 12

Connector 1	Connector 2	Connector 3	Connector 4	Connector 5
L angle curve lower	L angle curve above	T angle curve outer	T angle curve inward	straight

Delivery program Straight (PVC) 8 poles

Delivery program Part No.	Harnessing with connector combination		Number of cores and conductor nominal cross section [mm²]	ø [mm]	Bend radius
CAT9240380	1	2	(4x(2x0.15))C	7.0	12.5 x d
CAT9240540	1	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9240560	1	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9240320	1	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9240360	2	1	(4x(2x0.15))C	7.0	12.5 x d
CAT9240340	2	2	(4x(2x0.15))C	7.0	12.5 x d
CAT9240500	2	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9240520	2	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9240300	2	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9240440	3	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9240480	3	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9240400	3	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9240460	4	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9240420	4	5	(4x(2x0.15))C	7.0	12.5 x d
Delivery program Cross-Over (PUR) 8 poles					
CAT9240390	1	2	(4x(2x0.15))C	7.0	12.5 x d
CAT9240550	1	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9240570	1	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9240330	1	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9240370	2	1	(4x(2x0.15))C	7.0	12.5 x d
CAT9240350	2	2	(4x(2x0.15))C	7.0	12.5 x d
CAT9240510	2	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9240530	2	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9240310	2	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9240450	3	3	(4x(2x0.15))C	7.0	12.5 x d
CAT9240490	3	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9240410	3	5	(4x(2x0.15))C	7.0	12.5 x d
CAT9240470	4	4	(4x(2x0.15))C	7.0	12.5 x d
CAT9240430	4	5	(4x(2x0.15))C	7.0	12.5 x d

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT5e cables PUR-ROBOT
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● Technical information **PUR-ROBOT**
▶ Page 22

Connector 1	Connector 2	Connector 3	Connector 4	Connector 5
L angle curve lower	L angle curve above	T angle curve outer	T angle curve inward	straight

Delivery program straight (PUR-ROBOT) 8 poles

Delivery program Part No.	Harnessing with connector combination		Number of cores and conductor nominal cross section [mm²]	ø [mm]	Bend radius
CAT9440380	1	2	(4x(2x0.15)C)	8.5	10 x d
CAT9440540	1	3	(4x(2x0.15)C)	8.5	10 x d
CAT9440560	1	4	(4x(2x0.15)C)	8.5	10 x d
CAT9440320	1	5	(4x(2x0.15)C)	8.5	10 x d
CAT9440360	2	1	(4x(2x0.15)C)	8.5	10 x d
CAT9440340	2	2	(4x(2x0.15)C)	8.5	10 x d
CAT9440500	2	3	(4x(2x0.15)C)	8.5	10 x d
CAT9440520	2	4	(4x(2x0.15)C)	8.5	10 x d
CAT9440300	2	5	(4x(2x0.15)C)	8.5	10 x d
CAT9440440	3	3	(4x(2x0.15)C)	8.5	10 x d
CAT9440480	3	4	(4x(2x0.15)C)	8.5	10 x d
CAT9440400	3	5	(4x(2x0.15)C)	8.5	10 x d
CAT9440460	4	4	(4x(2x0.15)C)	8.5	10 x d
CAT9440420	4	5	(4x(2x0.15)C)	8.5	10 x d
Delivery program Cross-Over (PUR-ROBOT) 8 poles					
CAT9440390	1	2	(4x(2x0.15)C)	8.5	10 x d
CAT9440550	1	3	(4x(2x0.15)C)	8.5	10 x d
CAT9440570	1	4	(4x(2x0.15)C)	8.5	10 x d
CAT9440330	1	5	(4x(2x0.15)C)	8.5	10 x d
CAT9440370	2	1	(4x(2x0.15)C)	8.5	10 x d
CAT9440350	2	2	(4x(2x0.15)C)	8.5	10 x d
CAT9440510	2	3	(4x(2x0.15)C)	8.5	10 x d
CAT9440530	2	4	(4x(2x0.15)C)	8.5	10 x d
CAT9440310	2	5	(4x(2x0.15)C)	8.5	10 x d
CAT9440450	3	3	(4x(2x0.15)C)	8.5	10 x d
CAT9440490	3	4	(4x(2x0.15)C)	8.5	10 x d
CAT9440410	3	5	(4x(2x0.15)C)	8.5	10 x d
CAT9440470	4	4	(4x(2x0.15)C)	8.5	10 x d
CAT9440430	4	5	(4x(2x0.15)C)	8.5	10 x d

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT5e cables TPE
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● Technical information **TPE**
▶ Page 16

Connector 1	Connector 2	Connector 3	Connector 4	Connector 5
L angle curve lower	L angle curve above	T angle curve outer	T angle curve inward	straight

Delivery program straight (TPE) 8 poles

Delivery program Part No.	Harnessing with connector combination		Number of cores and conductor nominal cross section [mm²]	ø [mm]	Bend radius
CAT9040380	1	2	(4x(2x0.15))C	8.0	12.5 x d
CAT9040540	1	3	(4x(2x0.15))C	8.0	12.5 x d
CAT9040560	1	4	(4x(2x0.15))C	8.0	12.5 x d
CAT9040320	1	5	(4x(2x0.15))C	8.0	12.5 x d
CAT9040360	2	1	(4x(2x0.15))C	8.0	12.5 x d
CAT9040340	2	2	(4x(2x0.15))C	8.0	12.5 x d
CAT9040500	2	3	(4x(2x0.15))C	8.0	12.5 x d
CAT9040520	2	4	(4x(2x0.15))C	8.0	12.5 x d
CAT9040300	2	5	(4x(2x0.15))C	8.0	12.5 x d
CAT9040440	3	3	(4x(2x0.15))C	8.0	12.5 x d
CAT9040480	3	4	(4x(2x0.15))C	8.0	12.5 x d
CAT9040400	3	5	(4x(2x0.15))C	8.0	12.5 x d
CAT9040460	4	4	(4x(2x0.15))C	8.0	12.5 x d
CAT9040420	4	5	(4x(2x0.15))C	8.0	12.5 x d
Delivery program Cross-Over (TPE) 8 poles					
CAT9040390	1	2	(4x(2x0.15))C	8.0	12.5 x d
CAT9040550	1	3	(4x(2x0.15))C	8.0	12.5 x d
CAT9040570	1	4	(4x(2x0.15))C	8.0	12.5 x d
CAT9040330	1	5	(4x(2x0.15))C	8.0	12.5 x d
CAT9040370	2	1	(4x(2x0.15))C	8.0	12.5 x d
CAT9040350	2	2	(4x(2x0.15))C	8.0	12.5 x d
CAT9040510	2	3	(4x(2x0.15))C	8.0	12.5 x d
CAT9040530	2	4	(4x(2x0.15))C	8.0	12.5 x d
CAT9040310	2	5	(4x(2x0.15))C	8.0	12.5 x d
CAT9040450	3	3	(4x(2x0.15))C	8.0	12.5 x d
CAT9040490	3	4	(4x(2x0.15))C	8.0	12.5 x d
CAT9040410	3	5	(4x(2x0.15))C	8.0	12.5 x d
CAT9040470	4	4	(4x(2x0.15))C	8.0	12.5 x d
CAT9040430	4	5	(4x(2x0.15))C	8.0	12.5 x d

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT5e cables

● Technical information **PVC** ▶ Page 6
● Technical information **PUR** ▶ Page 12
● Technical information **PUR-ROBOT** ▶ Page 22
● Technical information **TPE** ▶ Page 16

Delivery program connection cable (PVC/PUR/PUR-ROBOT/TPE)

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	ø [mm]	Bend radius
Hirose CAT5e- / Intercontec connector				
PVC, oil-resistant	CAT9340800	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240800	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440800	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040800	(4x(2x0.15))C	8.0	12.5 x d

Delivery program extension cable (PVC/PUR/PUR-ROBOT/TPE)

Intercontec connector				
PVC, oil-resistant	CAT9340810	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240810	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440810	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040810	(4x(2x0.15))C	8.0	12.5 x d

Delivery program termination Cable (PVC/PUR/PUR-ROBOT/TPE)

Intercontec- / Hirose CAT5e connector				
PVC, oil-resistant	CAT9340820	(4x(2x0.15))C	7.0	12.5 x d
PUR	CAT9240820	(4x(2x0.15))C	7.0	12.5 x d
PUR-ROBOT	CAT9440820	(4x(2x0.15)C)	8.5	10 x d
TPE	CAT9040820	(4x(2x0.15))C	8.0	12.5 x d

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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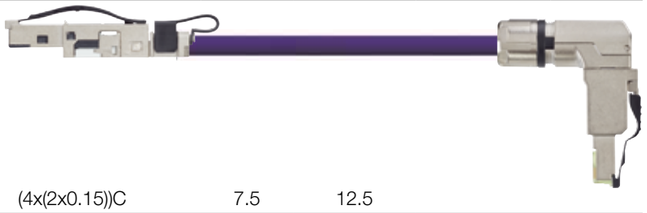
Harnessed CAT6 cables

● Technical information **PVC** ▶ Page 6
● Technical information **PUR** ▶ Page 12
● Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Telegärtner CAT6$_A$ connector				
PVC, oil-resistant	CAT9331002	(4x(2x0.15))C	7.5	12.5
PUR	CAT9431002	(4x(2x0.15))C	7.5	12.5
TPE	CAT9531002	(4x(2x0.15))C	8.5	10
Harting CAT6 connector				
PVC, oil-resistant	CAT9331003	(4x(2x0.15))C	7.5	12.5
PUR	CAT9431003	(4x(2x0.15))C	7.5	12.5
TPE	CAT9531003	(4x(2x0.15))C	8.5	10
Telegärtner CAT6 connector				
PVC, oil-resistant	CAT9331004	(4x(2x0.15))C	7.5	12.5
PUR	CAT9431004	(4x(2x0.15))C	7.5	12.5
TPE	CAT9531004	(4x(2x0.15))C	8.5	10
Telegärtner CAT6 connector (RJ45/M12 x-coded)				
PVC, oil-resistant	CAT9331005	(4x(2x0.15))C	7.5	12.5
PUR	CAT9431005	(4x(2x0.15))C	7.5	12.5
TPE	CAT9531005	(4x(2x0.15))C	8.5	10
Telegärtner CAT6 / CAT6$_A$ connector				
PVC, oil-resistant	CAT9331006	(4x(2x0.15))C	7.5	12.5
PUR	CAT9431006	(4x(2x0.15))C	7.5	12.5
TPE	CAT9531006	(4x(2x0.15))C	8.5	10

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT6 cables

- Technical information **PVC** ▶ Page 6
- Technical information **PUR** ▶ Page 12
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Phoenix Contact CAT6$_A$ connector				
PVC, oil-resistant	CAT9331009	(4x(2x0.15))C	7.5	12.5
PUR	CAT9431009	(4x(2x0.15))C	7.5	12.5
TPE	CAT9531009	(4x(2x0.15))C	8.5	10
Phoenix Contact CAT6$_A$ connector				
PVC, oil-resistant	CAT9331012	(4x(2x0.15))C	7.5	12.5
PUR	CAT9431012	(4x(2x0.15))C	7.5	12.5
TPE	CAT9531012	(4x(2x0.15))C	8.5	10

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT6 cables TPE

- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	ø [mm]	Bend radius
Delivery program straight (TPE) 8 poles				
Hirose CAT5e connector				
TPE	CAT9040600	(4x(2x0.14)C)C	10.0	12.5 x d
Phoenix Contact CAT6 connector				
TPE	CAT9040640	(4x(2x0.14)C)C	10.0	12.5 x d
Harting CAT6$_A$ connector				
TPE	CAT9040680	(4x(2x0.14)C)C	10.0	12.5 x d
Delivery program Cross-Over (TPE) 8 poles				
Hirose CAT5e connector				
TPE	CAT9040620	(4x(2x0.14)C)C	10.0	12.5 x d
Phoenix Contact CAT6 connector				
TPE	CAT9040660	(4x(2x0.14)C)C	10.0	12.5 x d
Harting CAT6$_A$ connector				
TPE	CAT9040700	(4x(2x0.14)C)C	10.0	12.5 x d
Delivery program M12 x-coded connector (TPE)				
Telegärtner CAT6$_A$ connector				
TPE	CAT9040760	(4x(2x0.14)C)C	10.0	12.5 x d
Telegärtner CAT6$_A$ connector				
TPE	CAT9040720	(4x(2x0.14)C)C	10.0	12.5 x d

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
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Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT6A cables

- Technical information **PVC** ▶ Page 6
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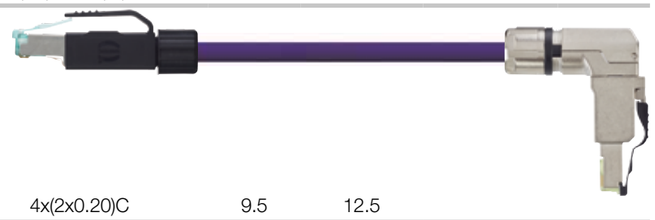
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Telegärtner CAT6A connector				
PUR-ROBOT	CAT9641001	4x(2x0.15)C	10.5	10
TPE	CAT9541001	(4x(2x0.15)C)C	10.5	12.5
Harting CAT6A connector				
PUR-ROBOT	CAT9641002	4x(2x0.15)C	10.5	10
TPE	CAT9541002	(4x(2x0.15)C)C	10.5	12.5
Telegärtner CAT6A connector				
PVC, oil-resistant	CAT9341004	4x(2x0.20)C	9.5	12.5
PUR	CAT9441004	4x(2x0.20)C	9.5	12.5
PUR-ROBOT	CAT9641003	4x(2x0.15)C	10.5	10
TPE	CAT9541003	(4x(2x0.15)C)C	10.5	12.5
Telegärtner CAT6A connector				
PVC, oil-resistant	CAT9341005	4x(2x0.20)C	9.5	12.5
PUR	CAT9441005	4x(2x0.20)C	9.5	12.5
PUR-ROBOT	CAT9641004	4x(2x0.15)C	10.5	10
TPE	CAT9541004	(4x(2x0.15)C)C	10.5	12.5
Telegärtner CAT6A connector				
PVC, oil-resistant	CAT9341006	4x(2x0.20)C	9.5	12.5
PUR	CAT9441006	4x(2x0.20)C	9.5	12.5
PUR-ROBOT	CAT9641005	4x(2x0.15)C	10.5	10
TPE	CAT9541005	(4x(2x0.15)C)C	10.5	12.5

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
G= with green-yellow earth core **x=** without earth core

Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

Network
CAT6A

Harnessed CAT6A cables

- Technical information **PVC** ▶ Page 6
- Technical information **PUR** ▶ Page 12+22
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Phoenix Contact CAT6A connector (M12 x-coded)				
PVC, oil-resistant	CAT9341010	4x(2x0.20)C	9.5	12.5
PUR	CAT9441010	4x(2x0.20)C	9.5	12.5
PUR-ROBOT	CAT9641009	4x(2x0.15)C	10.5	10
TPE	CAT9541009	(4x(2x0.15)C)C	10.5	12.5

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
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Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed CAT7 cables

- Technical information **PUR** ▶ Page 12
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Telegärtner CAT7 Connecting module				
PUR-ROBOT	CAT9651001	4x(2x0.15)C	10.5	10
TPE	CAT9551001	(4x(2x0.15)C)C	10.5	12.5
Telegärtner CAT6$_A$ connector				
PUR-ROBOT	CAT9651002	4x(2x0.15)C	10.5	10
TPE	CAT9551002	(4x(2x0.15)C)C	10.5	12.5
Harting CAT6$_A$ connector				
PUR-ROBOT	CAT9651003	4x(2x0.15)C	10.5	10
TPE	CAT9551003	(4x(2x0.15)C)C	10.5	12.5
Telegärtner CAT6$_A$ connector				
PUR-ROBOT	CAT9651004	4x(2x0.15)C	10.5	10
TPE	CAT9551004	(4x(2x0.15)C)C	10.5	12.5
Telegärtner CAT6$_A$ connector				
PUR-ROBOT	CAT9651005	4x(2x0.15)C	10.5	10
TPE	CAT9551005	(4x(2x0.15)C)C	10.5	12.5

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
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Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Network
CAT7

Harnessed CAT7 cables

- Technical information **PUR** ▶ Page 12
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Phoenix Contact CAT6$_A$ connector (M12 x-coded)				
PUR-ROBOT	CAT9651009	4x(2x0.15)C	10.5	10
TPE	CAT9551009	(4x(2x0.15)C)C	10.5	12.5
Module PS-Tera/ Connector PS-Tera				
PUR-ROBOT	CAT9651010	4x(2x0.15)C	10.5	10
TPE	CAT9551010	(4x(2x0.15)C)C	10.5	12.5
Connector PS-Tera/ Connector PS-Tera				
PUR-ROBOT	CAT9651011	4x(2x0.15)C	10.5	10
TPE	CAT9551011	(4x(2x0.15)C)C	10.5	12.5

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Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed Profinet cables

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- Technical information **iguPUR** ▶ Page 10
- Technical information **PUR** ▶ Page 12+22
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Yamaichi Profinet connector				
PVC	CAT9161001	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361001	(4x0.38)C	7.0	12.5
iguPUR	CAT9261001	(4x0.38)C	7.0	15
PUR	CAT9461001	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661001	(2x(2x0.34))C	8.5	10
TPE	CAT9561001	(4x0.38)C	7.5	12.5
Harting Profinet connector				
PVC	CAT9161002	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361002	(4x0.38)C	7.0	12.5
iguPUR	CAT9261002	(4x0.38)C	7.0	15
PUR	CAT9461002	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661002	(2x(2x0.34))C	8.5	10
TPE	CAT9561002	(4x0.38)C	7.5	12.5
Harting Profinet connector				
PVC	CAT9161003	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361003	(4x0.38)C	7.0	12.5
iguPUR	CAT9261003	(4x0.38)C	7.0	15
PUR	CAT9461003	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661003	(2x(2x0.34))C	8.5	10
TPE	CAT9561003	(4x0.38)C	7.5	12.5
Telegärtner Profinet connector				
PVC	CAT9161004	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361004	(4x0.38)C	7.0	12.5
iguPUR	CAT9261004	(4x0.38)C	7.0	15
PUR	CAT9461004	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661004	(2x(2x0.34))C	8.5	10
TPE	CAT9561004	(4x0.38)C	7.5	12.5

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits. Images exemplary.
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Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Network Profinet

Harnessed Profinet cables

- Technical information **PVC** ▶ Page 4+6
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- Technical information **PUR** ▶ Page 12+22
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Telegärtner Profinet connector				
PVC	CAT9161005	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361005	(4x0.38)C	7.0	12.5
iguPUR	CAT9261005	(4x0.38)C	7.0	15
PUR	CAT9461005	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661005	(2x(2x0.34))C	8.5	10
TPE	CAT9561005	(4x0.38)C	7.5	12.5
Telegärtner Profinet connector/M12 Profinet connector (x-coded)				
PVC	CAT9161006	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361006	(4x0.38)C	7.0	12.5
iguPUR	CAT9261006	(4x0.38)C	7.0	15
PUR	CAT9461006	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661006	(2x(2x0.34))C	8.5	10
TPE	CAT9561006	(4x0.38)C	7.5	12.5
Telegärtner M12 Profinet connector (x-coded)				
PVC	CAT9161007	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361007	(4x0.38)C	7.0	12.5
iguPUR	CAT9261007	(4x0.38)C	7.0	15
PUR	CAT9461007	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661007	(2x(2x0.34))C	8.5	10
TPE	CAT9561007	(4x0.38)C	7.5	12.5
Telegärtner and Binder Profinet connector (d-coded)				
PVC	CAT9161008	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361008	(4x0.38)C	7.0	12.5
iguPUR	CAT9261008	(4x0.38)C	7.0	15
PUR	CAT9461008	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661008	(2x(2x0.34))C	8.5	10
TPE	CAT9561008	(4x0.38)C	7.5	12.5

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Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Harnessed Profinet cables

- Technical information **PVC** ▶ Page 4+6
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- Technical information **PUR** ▶ Page 12+22
- Technical information **TPE** ▶ Page 16

Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Telegärtner and Binder Profinet connector (RJ45/M12 d-coded)				
PVC	CAT9161009	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361009	(4x0.38)C	7.0	12.5
iguPUR	CAT9261009	(4x0.38)C	7.0	15
PUR	CAT9461009	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661009	(2x(2x0.34))C	8.5	10
TPE	CAT9561009	(4x0.38)C	7.5	12.5
Phoenix Contact Profinet connector				
PVC	CAT9161012	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361012	(4x0.38)C	7.0	12.5
iguPUR	CAT9261012	(4x0.38)C	7.0	15
PUR	CAT9461012	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661012	(2x(2x0.34))C	8.5	10
TPE	CAT9561012	(4x0.38)C	7.5	12.5
Phoenix Contact Profinet connector (x-coded)				
PVC	CAT9161014	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361014	(4x0.38)C	7.0	12.5
iguPUR	CAT9261014	(4x0.38)C	7.0	15
PUR	CAT9461014	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661014	(2x(2x0.34))C	8.5	10
TPE	CAT9561014	(4x0.38)C	7.5	12.5
Siemens Profinet connector				
PVC	CAT9161015	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361015	(4x0.38)C	7.0	12.5
iguPUR	CAT9261015	(4x0.38)C	7.0	15
PUR	CAT9461015	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661015	(2x(2x0.34))C	8.5	10
TPE	CAT9561015	(4x0.38)C	7.5	12.5

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Harnessing **RJ45 on both ends** ▶ TIA56A
Harnessing **one end RJ45/one end M12 x-coded** ▶ TIA56B

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Network Profinet

Harnessed Profinet cables

- Technical information **PVC** ▶ Page 4+6
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Jacket	igus® Part No.	Number of cores and conductor nominal cross section [mm²]	Ø [mm]	Bend radius
Siemens Profinet connector				
PVC	CAT9161016	(4x0.38)C	7.0	15
PVC, oil-resistant	CAT9361016	(4x0.38)C	7.0	12.5
iguPUR	CAT9261016	(4x0.38)C	7.0	15
PUR	CAT9461016	(4x0.38)C	7.0	12.5
PUR-ROBOT	CAT9661016	(2x(2x0.34))C	8.5	10
TPE	CAT9561016	(4x0.38)C	7.5	12.5

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Harnessing **RJ45 on both ends** ▶ TIA56A
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