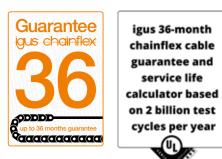




chainflex[®] readycable[®]

Cable type			Page	
Dress packs for robots				
	readychain® Robot	Harnessed dress packs for welding robots	545	_
Harnessed cables for ro	obots			
	readycable [®] Kuka	Harnessed cables for KUKA robots	546	
	readycable [®] Fanuc	Harnessed cables for Fanuc robots	552	
	readycable® ABB	Harnessed cables for ABB robots	556	_
Direct connection cable	es for robots			
	readycable [®] Kuka	Direct connection cables for KUKA robots	547	_
	readycable® Fanuc	Direct connection cables for Fanuc robots	553	
	readycable® ABB	Direct connection cables for ABB robots	557	_
Cables according to All	DA specifications			
-1	readycable® AIDA	Harnessed cables according to AIDA specifications	562	New



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

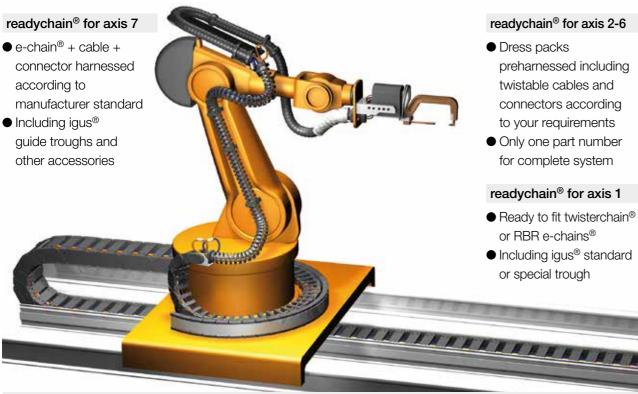
543

readychain® Robot

Ready-to-install harnessed e-chain systems[®] for robots

triflex[®] readychain[®] dress packs

Assembled energy supply systems, connectors and cables from igus[®]. Everything from a single source. Directly from the manufacturer. Quick delivery to your robot, delivered in 1-10 days



Additional services for you

- Survey of existing systems on your robot by our sales engineers
- Optional system guarantee

544

• Worldwide readychain[®] specialists and 11 production sites for fast maintenance and spare part support

Moving energy made easy - even for robot applications

The modular igus® robot construction kit comprises over 5,000 different items. We can offer you the optimum, customised solution for almost any robot application. Our "Quick Robot" online tool can be used to create the ideal configuration in seconds - try it for yourself: www.igus.eu/ quickrobot

All igus® robotic components are tested in our laboratory and have already been reliably used in real applications for many years. Our primary aim is to design a reliable energy supply system for your robot. We do not simply focus on mechanical protection but instead look at the entire application including the cables that have been specially developed for use on the robot. We will gladly find a solution for your application too - and look forward to receiving your enquiry.

Product	t range dress packs fo
Product range Part No.	Dress pack
Welding axis 1-3 (1 m projection/side + 1 m e-chain [®] for each)	
RRC.S.001	Consisting of: - 1m TRLF.85.135.0, - Welding cable (2x35 multicontact TSB ar - Control cable (18x0), rectangular connect - Welding control cab rectangular connect - 3x hoses - DN12 rec
Welding axis 3-6 (1 m projection/side + 1 m e-chain [®] for each)	
RRC.S.002	Consisting of: - 1m TRC.85.135.0 ir - Welding cable (2x35 multicontact TSB ar

rectangular connector on both ends

igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ▶ Page 915





r welding robots



- including mounting brackets 5mm² + 1x25mm²) including and TSS welding connector).75mm² + 5x0.75mm²) including ctor on both ends ble (5x2x0.5mm²) including ctor on both ends
- ed, green, blue including fixture at both ends



- including protectors and mounting brackets 5mm² + 1x25mm²) including multicontact TSB and TSS welding connector - Control cable (18x0.75mm² + 5x0.75mm²) including round connector and rectangular connector - Welding control cable (5x2x0.5mm²) including
- 3x hoses DN12 red, green, blue including fixture at both ends

Harnessed cables for robots KUKA Quantec

Part No.	chainflex [®]	Manufacturer	Number of cores and conductor	Ø
	cable	description	nominal cross section [mm ²]	[mm
Motor cable (straight socket)		17		
MAT904105003	CFSPECIAL.792.011	X30/X30.1	(5x(2x6.0+2x2.5)+2x(6x1.0)C)C	35.5
Motor cable (angled socket)				
MAT904105004	CFSPECIAL.792.011	X30/X30.1	(5x(2x6.0+2x2.5)+2x(6x1.0)C)C	35.5
Data cable	1			4
MAT904105005	CFBUS.PUR.H01.060	X31/X31.1	((4x0.38)C+4x1.5)C	11.5
Motor cable single axis (axis	7)	B	Gen	S.I
MAT904105006 MAT904105007	CF270.UL.25.15.02.01.D CF270.UL.40.15.02.01.D	XM/X XM/X	(4G2.5+(2x1.5)C)C (4G4.0+(2x1.5)C)C	14.0 15.0
Motor cable single axis (axis	7)	3		aj -
MAT904105008	CF270.UL.60.15.02.01.D	XM/X	(4G6.0+(2x1.5)C)C	16.5
Control cable (axis 7)	23			
MAT904105009	CF112.02.04.02	Control cable single axis	(4x(2x0.25)C)C	11.0
Earth-core	0			0
MAT904105010	CFPE.160.01	Connector plate/robot	1G16	9.5

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Direct connection cables for robots KUKA Quantec

	Direct connectio	n cables for KUKA (
Part No.	chainflex [®] cable	
Motor cable (direct connection	ı cable)	
MAT904141225	CFSPECIAL	.792.011
Motor cable (direct connection	ı cable)	
MAT904141226	CFSPECIAL	.792.011
Signal cable (direct connection	ı cable)	2
MAT904141227	CFBUS.PUF	R.H01.060

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ► Page 915



Robot KUKA Quantec



Harnessed cables for robots KUKA Fortec

	Harnessed cables for			
Part No.	chainflex [®] cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
	Cabic	description	[mm ²]	[mm]
Motor cable (angled socket)				
MAT904105011	CFSPECIAL.792.014	X30.1/X30.1.1	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
MAT904105012	CFSPECIAL.792.013	X30.4/X30.4.1	((6x1.5)C+3x(3x4)+1G6)C	28.0
Data cable	2			4
MAT904105005	CFBUS.PUR.H01.060	X31/X31.1	((4x0.38)C+4x1.5)C	11.5
Motor cable single axis (axis	7)	B		
MAT904105006	CF270.UL.25.15.02.01.D	XM/X	(4G2.5+(2x1.5)C)C	14.0
MAT904105007	CF270.UL.40.15.02.01.D	XM/X	(4G4.0+(2x1.5)C)C	15.0
Motor cable single axis (axis	7)	0	6.9	ŋ
MAT904105008	CF270.UL.60.15.02.01.D	XM/X	(4G6.0+(2x1.5)C)C	16.5
Control cable (axis 7)	() B			
MAT904105013	CF112.02.04.02	Control cable single axis	(4x(2x0.25)C)C	11.0
Earth-core				0
MAT904105010	CFPE.160.01	Connector plate/robot	1G16	9.5

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ► Page 915

Direct connection cables for robots KUKA Fortec

	Direct connection cables for KUKA
Part No.	chainflex [®] cable
Motor cable (direct connection	cable)
MAT904141228	CFSPECIAL.792.014
MAT904141229	CFSPECIAL.792.013
Signal cable (direct connection	cable)
MAT904141227	CFBUS.PUR.H01.060

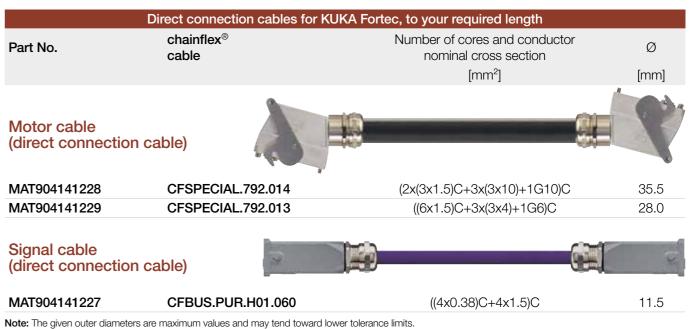
G = with green-yellow earth core x = without earth core

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Robot KUKA Fortec



igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ▶ Page 915

Harnessed cables for robots **KUKA** Titan

	Harnessed cables for	-		
Part No.	chainflex [®] cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
	Cable	description	[mm ²]	[mm]
Motor cable (angled socket)				
		1		
MAT904105011	CFSPECIAL.792.014	X30.1/X30.1.1	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
MAT904105014	CFSPECIAL.792.014	X30.2/X30.2.1	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
MAT904105015	CFSPECIAL.792.014	X30.3/X30.3.1	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
Data cable	3			4
MAT904105005	CFBUS.PUR.H01.060	X31/X31.1	((4x0.38)C+4x1.5)C	11.5
Motor cable single axis (axis	s 7)	B	(igu	5-1
MAT904105006	CF270.UL.25.15.02.01.D	XM/X	(4G2.5+(2x1.5)C)C	14.0
MAT904105007	CF270.UL.40.15.02.01.D	XM/X	(4G4.0+(2x1.5)C)C	15.0
Motor cable single axis (axis	s 7)	0		9
MAT904105008	CF270.UL.60.15.02.01.D	XM/X	(4G6.0+(2x1.5)C)C	16.5
Control cable (axis 7)	8. D			
MAT904105013	CF112.02.04.02	Control cable single axis	(4x(2x0.25)C)C	11.0
Earth-core				0
MAT904105010	CFPE.160.01	Connector plate/robot	1G16	9.5

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ► Page 915

Direct connection cables for robots KUKA Titan

	Direct connection cables for KU	KA Titan, to your required length	
Part No.	chainflex [®] cable	Number of cores and conductor nominal cross section [mm ²]	Ø [mm]
Motor cable (direct connectio	n cable)		Y
MAT904141228	CFSPECIAL.792.014	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
MAT904141230	CFSPECIAL.792.014	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
MAT904141231	CFSPECIAL.792.014	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
Signal cable (direct connectio	n cable)		e e
MAT904141227	CFBUS.PUR.H01.060	((4x0.38)C+4x1.5)C	11.5

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits. G = with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ► Page 915

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Robot KUKA Titan

Harnessed cables for robots Fanuc M-900iB

	abainflay®	or Fanuc M-900iB, to you	Number of cores and conductor	
Part No.	chainflex [®] cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
	Cable	description	[mm ²]	[mm
		<u></u>		
Motor cable	a a v i a 7			SH
(Extension cable	e axis 7)	1		
MAT904117141	CFSPECIAL.792.015	RM1.2	(7x(6x2.0))C	36.
Mataraabla		5-3		
Motor cable (Extension cable	e axis 7)			罪
•				
MAT904117142	CFSPECIAL.792.015	RM2.2	(7x(6x2.0))C	36.8
Pulse encoder				0
(Extension cable	e axis 7)	12-51		-
MAT904117143	CFSPECIAL.792.016	RP1.2	(5x(4x0.25)+10x(3x0.75))C	26.5
		1 II 1.2	(0)(1)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)	20.0
Earth-core				0
(Extension cable	e axis 7)			
MAT904117144	CFPE.160.01	Earth-core	1G16	9.5
Earth-core (Extension cable	a axis 7		Contraction of the local data	20
(Extension cable	e axis 7)			
MAT904117145	CFPE.60.01	Earth-core	1G6.0	7.0
				6
Motor cable		1 10		- An
single axis (axis	; 7)	2 alm		-
				10.0
MAT904117146	CF270.UL.60.15.02.01.D	RM7.2	(4G6.0+(2x1.5)C)C	16.5
				2 1
Pulse encoder single axis (axis	; 7)	F		and the second se
	- /		The second se	
MAT904117147	CF240.PUR.03.03	RP7.2	(3x0.34)C	5.0

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Direct connection cables for robots Fanuc M-900iB

Part No.	chainflex [®] cable	Number of cores and conductor nominal cross section	Ø	
		[mm²]	[mm]	
Motor cable (direct connection	n cable)			
MAT904141222	CFSPECIAL.792.015	(7×(6×2.0))C	36.5	
MAT904141223	CFSPECIAL.792.015	(7x(6x2.0))C	36.5	
Pulse encoder (direct connectior	n cable)			

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits. G = with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. Page 915

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ► Page 915



Robot Fanuc M-900iB

Harnessed cables for robots Fanuc R-2000iC

	Harnessed cables for	Fanuc R-2000iC, to yo	ur required length	
Part No.	chainflex [®] cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
			[mm ²]	[mm]
		N-S		
Motor cable (Extension cable	e axis 7)			H.
MAT904117141	CFSPECIAL.792.015	RM1.2	(7x(6x2.0))C	36.5
Pulse encoder (Extension cable	e axis 7)			(M
MAT904117143	CFSPECIAL.792.016	RP1.2	(5x(4x0.25)+10x(3x0.75))C	26.5
Earth-core	(0
(Extension cable	e axis 7)			
MAT904117144	CFPE.160.01	Earth-core	1G16	9.5
Earth-core (Extension cable	e axis 7)	0		0
MAT904117145	CFPE.60.01	Earth-core	1G6.0	7.0
				8
Motor cable single axis (axis	7)		<	
MAT904117146	CF270.UL.60.15.02.01.D	RM7.2	(4G6.0+(2x1.5)C)C	16.5
Pulse encoder single axis (axis	7)	6		9
MAT904117147	CF240.PUR.03.03	RP7.2	(3x0.34)C	5.0

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.

G = with green-yellow earth core \mathbf{x} = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. Page 915

Direct connection cables for robots Fanuc R-2000iC

Direct connecti	ion cables for Fanuc R
chainflex [®] cable	
n cable)	
CFSPECIA	AL.792.015
on cable)	
CFSPECIA	AL.792.016
	chainflex® cable on cable) CFSPECIA

G = with green-yellow earth core \mathbf{x} = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. Page 915

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Robot Fanuc R-2000iC



(5x(4x0.25)+10x(3x0.75))C

olerance limits.

Harnessed cables for robots ABB IRB 6620, IRB 6640, IRB 6650S, IRB 7600

Harnesse	d cables for ABB IRB 66	20, IRB 6640, IRB 6650S,	IRB 7600, to your desired length	
Part No.	chainflex [®] cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
		_	[mm ²]	[mm]
Power cable				
MAT904128539	CFSPECIAL.792.012	R1MP	(18G2.5)C	25.5
Signal cable			ŝ.	
MAT904128540	CF211.PUR.02.06.02	R1.SMB	(6x(2x0.25))C	9.0
Power cable				14
MAT904128547	CF270.UL.40.15.02.02.	D	(4G4.0+2x(2x1.5)C)C	17.0
Resolver cable			\$	
MAT904128548	CF211.PUR.02.03.02		(3x(2x0.25))C	7.0
Earth-core (Extension cable	e axis 7)	0		
MAT904117144	CFPE.160.01	Earth-core	1G16	9.5

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.

 \mathbf{G} = with green-yellow earth core \mathbf{x} = without earth core

igus® GmbH defines cable length as entire length including connectors or open harnessing. ▶ Page 915

Direct connection cables for robots ABB IRB 6620, IRB 6640, IRB 6650S, IRB 7600

Direct connec	tion cable for ABB	IRB 6620, IRB 664
Part No.	chainflex [®] cable	
Motor cable (direct connection	n cable)	
MAT904141219	CFSPECIAL.	792.012
Signal cable (direct connection	n cable)	
MAT904141220	CF211.PUR.0)2.06.02

G = with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ► Page 915



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(6x(2x0.25))C 9.0

tolerance limits.

Harnessed cables for robots **ABB IRB 6700**

	Harnessed cables	s for ABB IRB 6700, to you	ır desired length	
Part No.	chainflex [®] cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
			[mm ²]	[mm]
Power cable				ALA
MAT904128539	CFSPECIAL.792.012	R1MP	(18G2.5)C	25.5
Signal cable				
MAT904128541	CF211.PUR.02.06.02	R1.SMB	(6x(2x0.25))C	9.0
Power cable				8-0
MAT904128547	CF270.UL.40.15.02.02.I	ס	(4G4.0+2x(2x1.5)C)C	17.0
Resolver cable			新	
MAT904128548	CF211.PUR.02.03.02		(3x(2x0.25))C	7.0
Earth-core (Extension cable	e axis 7)	0		0
MAT904117144	CFPE.160.01	Earth-core	1G16	9.5

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

igus® GmbH defines cable length as entire length including connectors or open harnessing. ► Page 915

Direct connection cables for robots ABB IRB 6700

	Direct connectio	n cable for ABB IR
Part No.	chainflex [®] cable	
Motor cable (direct connection	n cable)	
MAT904141219	CFSPECIAL.	792.012
Signal cable (direct connection	n cable)	8
MAT904141221	CF211.PUR.0	2.06.02

G = with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ▶ Page 915

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(6x(2x0.25))C 9.0

olerance limits.

Harnessed cables for robots **ABB IRB 8700**

	Harnessed cables	s for ABB IRB 8700, to you	r desired length	
Part No.	chainflex [®] cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
			[mm²]	[mm]
Power cable				A.A.
MAT904128542	CFSPECIAL.792.012	R1MP-A	(18G2.5)C	25.5
MAT904128543	CFSPECIAL.792.012	R1MP-B	(18G2.5)C	25.5
Signal cable				
MAT904128541	CF211.PUR.02.06.02	R1.SMB	(6x(2x0.25))C	9.0
Power cable				ind .
MAT904128547	CF270.UL.40.15.02.02	.D	(4G4.0+2x(2x1.5)C)C	17.0
Resolver cable			利	
MAT904128548	CF211.PUR.02.03.02		(3x(2x0.25))C	7.0
Earth-core (Extension cable	e axis 7)	0		
MAT904117144	CFPE.160.01	Earth-core	1G16	9.5

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.

G = with green-yellow earth core x = without earth core igus® GmbH defines cable length as entire length including connectors or open harnessing. ► Page 915

Direct connection cables for robots ABB IRB 8700

	Direct connection	cable for ABB IRB 8700, to
Part No.	chainflex [®] cable	Num
Motor cable (direct connection	n cable)	
MAT904145759	CFSPECIAL.79	92.012
MAT904145760	CFSPECIAL.79	92.012
Signal cable (direct connection	n cable)	
MAT904141221	CF211.PUR.02	2.06.02
Note: The given outer diamete	rs are maximum values and n	nay tend toward lower tolerance limits.

 \mathbf{G} = with green-yellow earth core \mathbf{x} = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ▶ Page 915

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Igus:



9.0



(6x(2x0.25))C

Cables according to AIDA specifications*

* AIDA = AutomatisierungsInitiative Deutscher Automobilhersteller (Automation Initiative of German Domestic Automobile manufacturers)

Technical information on cable quality:

CFBUS.PUR	CFLK	CF77.UL.D	CF211.PUR
from page 192	from page 212	from page 100	from page 150

Har	nessed cables a	ccording to AIDA specificat	tions, to your required length	
Part No.	Robot axis	chainflex [®] cable	Number of cores and conductor nominal cross section	Ø
			[mm ²]	[mm]
AIDA Profinet – RJ45 I AIDA Profinet – RJ45 I		-		
MAT904117091	Axis 7	CFBUS.PUR.060	(4x0.38)C	7.0
MAT904117095	Axis 1-6	CFROBOT8.060	(2x(2x0.34))C	8.5
AIDA Profinet FOC/ AIDA Profinet FOC		4		Ŀ
MAT904117092	Axis 7	CFLK.L1.02	1x980/1,000µm	7.0
upon request 1)	Axis 1-6	CFLK.L1.02	1x980/1,000µm	7.0
AIDA Power Pin/ AIDA Power Pin			8	100
MAT904117093	Axis 7	CF77.UL.25.05.D	5G2.5	10.5
MAT904117097	Axis 1-6	CF77.UL.25.05.D	5G2.5	10.5
AIDA Signal Pin/ AIDA Signal Pin				
MAT904117094	Axis 7	CF211.PUR.05.05.02	(5x(2x0.5))C	10.5
MAT904117098	Axis 1-6	CFROBOT3.05.05.02	(5x(2x0.5))C	12.5

¹⁾ Offer made only after technical clarification of the application

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits. G =with green-yellow earth core x = without earth core igus[®] GmbH defines cable length as entire length including connectors or open harnessing. \blacktriangleright Page 915

Cables according to AIDA specifications*

* AIDA = AutomatisierungsInitiative Deutscher Automobilhersteller (Automation Initiative of German Domestic Automobile manufacturers) Technical information on cable quality:

	in on cable quality.	
CFBUS.PUR	CFLK	CF77.UL.D
from page 192	from page 212	from page 100

Part No.	Robot axis	chainflex [®] cable	Number of cores and conductor nominal cross section	Ø
			[mm ²]	[mm]
AIDA Profinet – RJ45 S AIDA Profinet – RJ45 F			C.	
MAT904152118	Axis 7	CFBUS.PUR.060	(4x0.38)C	7.0
MAT904152121	Axis 1-6	CFROBOT8.060	(2x(2x0.34))C	8.5
AIDA Profinet – RJ45 S AIDA Profinet – RJ45 S				(0)
MAT904151684	Axis 7	CFBUS.PUR.060	(4x0.38)C	7.0
MAT904151687	Axis 1-6	CFROBOT8.060	(2x(2x0.34))C	8.5
AIDA Power Socket/ AIDA Power Pin			E	1 and the
MAT904152119	Axis 7	CF77.UL.25.05.D	5G2.5	10.0
MAT904152122	Axis 1-6	CF77.UL.25.05.D	5G2.5	10.0
AIDA Power Socket/ AIDA Power Socket				(j)
MAT904151685	Axis 7	CF77.UL.25.05.D	5G2.5	10.0
MAT904151688	Axis 1-6	CF77.UL.25.05.D	5G2.5	10.0
AIDA Signal Socket/ AIDA Signal Pin				
MAT904152120	Axis 7	CF211.PUR.05.05.02	5x(2x0.5))C	11.0
MAT904152123	Axis 1-6	CFROBOT3.05.05.02	5x(2x0.5))C	11.0
AIDA Signal Socket/ AIDA Signal Socket			01	(()
MAT904151686	Axis 7	CF211.PUR.05.05.02	5x(2x0.5))C	11.0
MAT904151689	Axis 1-6	CFROBOT3.05.05.02	5x(2x0.5))C	11.0

G = with green-yellow earth core x = without earth core

igus[®] GmbH defines cable length as entire length including connectors or open harnessing. ▶ Page 915

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New

CF211.PUR

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