# dress packs and cables for robots nessed



chainflex® readycable®



	Cable ty	pe	Page
Dress packs for robots			
	readychain® Robot	Harnessed dress packs for welding robots	545
Harnessed cables for ro	obots		
	readycable <sup>®</sup> 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 <sup>®</sup> 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		
13 6 1-	readycable® AIDA	Harnessed cables according to AIDA specifications	562

Guarantee igus chainflex

Guarantee
igus chainflex

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Guarantee
igus chainflex

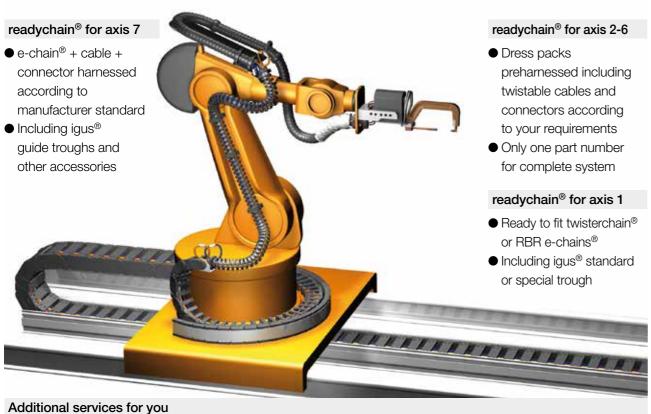
Guarantee
igus chainflex

igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

# readychain® Robot

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

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



- Survey of existing systems on your robot by our sales engineers
- Optional system guarantee
- Worldwide readychain<sup>®</sup> 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/ auickrobot

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.

# triflex® readychain® dress packs

### Product range dress packs for welding robots

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, including mounting brackets
- Welding cable (2x35mm<sup>2</sup> + 1x25mm<sup>2</sup>) including multicontact TSB and TSS welding connector
- Control cable (18x0.75mm<sup>2</sup> + 5x0.75mm<sup>2</sup>) including rectangular connector on both ends
- Welding control cable (5x2x0.5mm²) including rectangular connector on both ends
- 3x hoses DN12 red, green, blue including fixture at both ends

### Welding axis 3-6

(1 m projection/side + 1 m e-chain® for each)



RRC.S.002

### Consisting of:

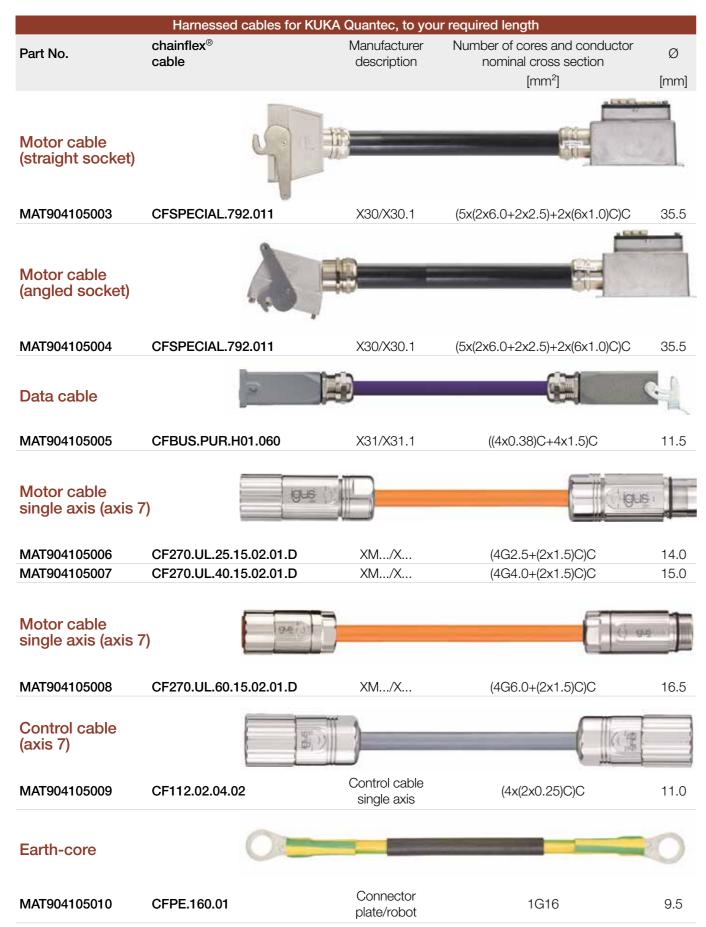
- 1m TRC.85.135.0 including protectors and mounting brackets
- Welding cable (2x35mm<sup>2</sup> + 1x25mm<sup>2</sup>) including multicontact TSB and TSS welding connector
- Control cable (18x0.75mm<sup>2</sup> + 5x0.75mm<sup>2</sup>) including round connector and rectangular connector
- Welding control cable (5x2x0.5mm²) including rectangular connector on both ends
- 3x hoses DN12 red, green, blue including fixture at both ends

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



546

### Harnessed cables for robots **KUKA Quantec**



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





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

### Harnessed cables for robots **KUKA Fortec**

	Harnessed cables for	KUKA Fortec, to your	required length	
Part No.	chainflex <sup>®</sup> cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
			[mm <sup>2</sup> ]	[mm]
Motor cable (angled socket)				
	40	V.		
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			
Data cable				-
MAT904105005	CFBUS.PUR.H01.060	X31/X31.1	((4x0.38)C+4x1.5)C	11.5
Motor cable	igue	135	The live in	
single axis (axis			- Ger	
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)		(i) q.	9 1 1
MAT904105008	CF270.UL.60.15.02.01.D	XM/X	(4G6.0+(2x1.5)C)C	16.5
		***	(13.0.0.1(20,0)	
Control cable (axis 7)	4, )			
,				
MAT904105013	CF112.02.04.02	Control cable single axis	(4x(2x0.25)C)C	11.0
Earth-core				
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**

Robot KUKA Fortec

	Direct connection cables for KUP	KA Fortec, to your required length	
Part No.	chainflex <sup>®</sup> cable	Number of cores and conductor nominal cross section	Ø
		[mm²]	[mm]
Motor cable (direct connection	n cable)		
MAT904141228	CFSPECIAL.792.014	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
MAT904141229	CFSPECIAL.792.013	((6x1.5)C+3x(3x4)+1G6)C	28.0
Signal cable (direct connection	n cable)		2
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





# Direct connection cables for robots **KUKA Titan**

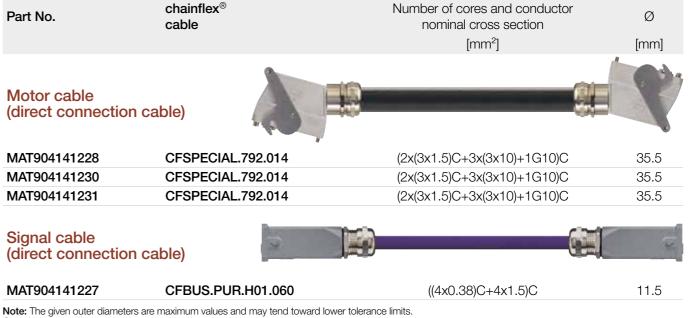
	Harnessed cables for		•	
Part No.	chainflex <sup>®</sup> cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
			[mm²]	[mm]
			-	
Motor cable (angled socket)				
angled socker)	.40		January	
MAT904105011	CFSPECIAL.792.014	X30.1/X30.1.1	(2x(3x1.5)C+3x(3x10)+1G10)C	35.5
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			0
Jata Gabic				
MAT904105005	CFBUS.PUR.H01.060	X31/X31.1	((4x0.38)C+4x1.5)C	11.5
Motor cable	ios to			-
single axis (axis	s 7)		( ) gus	
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	9.6/01		Flor	
single axis (axis	57)			
MAT904105008	CF270.UL.60.15.02.01.D	XM/X	(4G6.0+(2x1.5)C)C	16.5
Control cable	apir	W .		
(axis 7)	(B), (2)			
MAT904105013	CF112.02.04.02	Control cable	(4x(2x0.25)C)C	11.0
		single axis		
Earth-core				
MAT904105010	CFPE.160.01	Connector plate/robot	1G16	9.5

Harnessed cables for robots

**KUKA Titan** 

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 KUKA Titan, to your required length

G = with green-yellow earth core <math>x = without earth coreigus® GmbH defines cable length as entire length including connectors or open harnessing. ▶ Page 915

chainflex®





## Harnessed cables for robots

Fanuc M-900iB

		or Fanuc M-900iB, to you	ır required length	
Part No.	chainflex® cable	Manufacturer description	Number of cores and conductor nominal cross section [mm²]	Ø [mm]
		-	[111111]	[111111]
Motor cable	i- <del></del> /			EB
(Extension cable	e axis 7)	1		
MAT904117141	CFSPECIAL.792.015	RM1.2	(7x(6x2.0))C	36.5
Motor cable		5-3		
(Extension cable	e axis 7)			却
MAT904117142	CFSPECIAL.792.015	RM2.2	(7x(6x2.0))C	36.5
Pulse encoder		123		0
(Extension cable	e axis 7)	2		
MAT904117143	CFSPECIAL.792.016	RP1.2	(5x(4x0.25)+10x(3x0.75))C	26.5
Earth-core (Extension cable	e axis 7)			
MAT904117144	CFPE.160.01	Earth-core	1G16	9.5
Earth-core				
(Extension cable	e axis 7)			
MAT904117145	CFPE.60.01	Earth-core	1G6.0	7.0
				83
Motor cable single axis (axis	. 7)		_	
omgic axio (axio		3		N.
MAT904117146	CF270.UL.60.15.02.01.D	RM7.2	(4G6.0+(2x1.5)C)C	16.5
Pulse encoder single axis (axis	7)			
		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 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 M-900iB



	Direct confidential capies for Fana	o m eee. e year required length	
Part No.	chainflex <sup>®</sup> cable	Number of cores and conductor nominal cross section	Ø
		[mm²]	[mm]
Motor cable (direct connection	n cable)		
MAT904141222	CFSPECIAL.792.015	(7x(6x2.0))C	36.5
MAT904141223	CFSPECIAL.792.015	(7x(6x2.0))C	36.5
Pulse encoder (direct connection	n cable)		0
MAT904141224	CFSPECIAL.792.016	(5x(4x0.25)+10x(3x0.75))C	26.5

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

# Harnessed cables for robots

Fanuc R-2000iC

	Harnessed cables fo	r Fanuc R-2000iC, to yo	ur required length	
Part No.	chainflex <sup>®</sup> cable	Manufacturer description	Number of cores and conductor nominal cross section [mm²]	Ø [mm]
		*C50*	[111111]	נווווון
Motor cable (Extension cabl	le axis 7)			GE
MAT904117141	CFSPECIAL.792.015	RM1.2	(7x(6x2.0))C	36.5
Pulse encoder (Extension cabl	le axis 7)			
MAT904117143	CFSPECIAL.792.016	RP1.2	(5x(4x0.25)+10x(3x0.75))C	26.5
Earth-core (Extension cabl	le axis 7)			0
MAT904117144	CFPE.160.01	Earth-core	1G16	9.5
Earth-core (Extension cabl	le axis 7)			-0
MAT904117145	CFPE.60.01	Earth-core	1G6.0	7.0
Motor cable single axis (axis	s 7)			
MAT904117146	CF270.UL.60.15.02.01.D	RM7.2	(4G6.0+(2x1.5)C)C	16.5
Pulse encoder single axis (axis	s 7)			2 1
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 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

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 R-2000iC

	Direct connection cables for Fanu	c R-2000iC, to your required length	
Part No.	chainflex <sup>®</sup> cable	Number of cores and conductor nominal cross section	Ø
		[mm²]	[mm]
Motor cable (direct connectio	n cable)		
MAT904141222	CFSPECIAL.792.015	(7x(6x2.0))C	36.5
Pulse encoder (direct connectio	n cable)		
MAT904141224	CFSPECIAL.792.016	(5x(4x0.25)+10x(3x0.75))C	26.5

556

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

Harnesse			IRB 7600, to your desired length	
Part No.	chainflex <sup>®</sup> cable	Manufacturer description	Number of cores and conductor nominal cross section	Ø
	Cable	description	[mm <sup>2</sup> ]	[mm]
		l.	F 1	J.
		F   -		153
Power cable				43
				1
MAT904128539	CFSPECIAL.792.012	R1MP	(18G2.5)C	25.5
			( / -	
		and the same of th		<b>= A /88</b>
Signal cable				
MAT904128540	CF211.PUR.02.06.02	R1.SMB	(6x(2x0.25))C	9.0
Power cable		5-3		1800
		4		12.0
MAT904128547	CF270.UL.40.15.02.02.0	)	(4G4.0+2x(2x1.5)C)C	17.0
Resolver cable		5.4	X.	
				,
MAT904128548	CF211.PUR.02.03.02		(3x(2x0.25))C	7.0
Couth cour		^		
Earth-core (Extension cable	e axis 7)			
	•			
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

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

ABB IRB 6620, IRB 6640, IRB 6650S, IRB 7600





### Harnessed cables for robots **ABB IRB 6700**



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

Robot **ABB IRB** 6700

**ABB IRB 6700** 



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

### Harnessed cables for robots **ABB IRB 8700**

	Harnessed cables	s for ABB IRB 8700, to you	r desired length	
Part No.	chainflex <sup>®</sup> cable	Manufacturer description	Number of cores and conductor nominal cross section [mm²]	Ø [mm]
		-	[11111]	
Power cable				13
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				9.0
MAT904128547	CF270.UL.40.15.02.02	.D	(4G4.0+2x(2x1.5)C)C	17.0
Resolver cable			N N	
MAT904128548	CF211.PUR.02.03.02		(3x(2x0.25))C	7.0
Earth-core (Extension cable	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 <math>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** 



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





### Cables according to AIDA specifications\*

\* AIDA = **A**utomatisierungs**I**nitiative **D**eutscher **A**utomobilhersteller (Automation

Initiative of German Domestic Automobile manufacturers)

Technical information on cable quality:

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

Hari	nessed cables a	ccording to AIDA specifica	tions, to your required length	
Part No.	Robot axis	chainflex <sup>®</sup> cable	Number of cores and conductor nominal cross section	Ø
			[mm²]	[mm]
AIDA Profinet – RJ45 F AIDA Profinet – RJ45 F		-		
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				L
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				(( >)
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				L
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

<sup>1)</sup> Offer made only after technical clarification of the application

EPLAN download, configurators ► www.igus.eu/AIDA



\* AIDA = **A**utomatisierungs**I**nitiative **D**eutscher **A**utomobilhersteller (Automation

Initiative of German Domestic Automobile manufacturers)

Technical information on cable quality:

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

Part No.	Robot axis	chainflex <sup>®</sup> cable	Number of cores and conductor nominal cross section	Ø
			[mm²]	[mm
AIDA Profinet – RJ45 S AIDA Profinet – RJ45 F				
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				
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			<b>E</b>	( N
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			<b></b>	((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		(6)		
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				
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

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





New

**AIDA** 

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