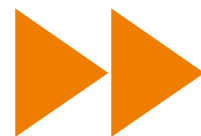


# Robotics

Harnessed hose packages  
and cables for robots



## Chainflex® ReadyCable®



page

### Hose packages for robots



ReadyChain® Robot Harnessed hose packages for welding robots

532

### Harnessed cables for axis 7 on robots



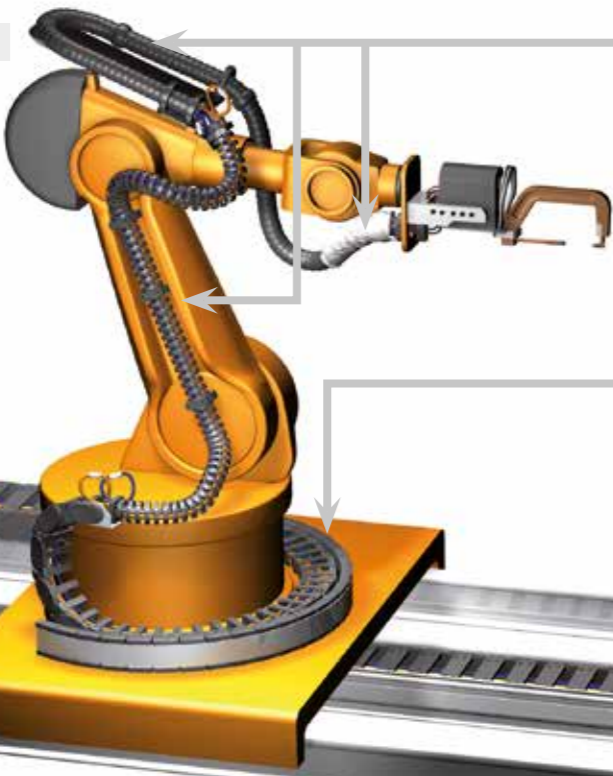
CFSPECIAL-792 Harnessed connecting cables for KUKA robots

534

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

**ReadyChain® for axis 7**

- E-Chain® + cable + connector harnessed according to manufacturer standard
- Inclusive igus® guide troughs and other accessories



**ReadyChain® for axis 2-6**

- Cable packages pre-harnessed inclusive torsionable cables and connectors according to your requirements
- Only one part number for complete system

**ReadyChain® for axis 1**

- Ready to fit Twisterchain® or RBR E-Chains®
- Inclusive igus® standard- or special trough

**Additional services for you**

- Survey of existing systems on your robot by our sales engineers
- Optional system guarantee
- Worldwide readychain® specialists and 11 production sites for fast maintenance and spare part support

**Moving energy made easy – even with 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.com/quickrobot](http://www.igus.com/quickrobot)

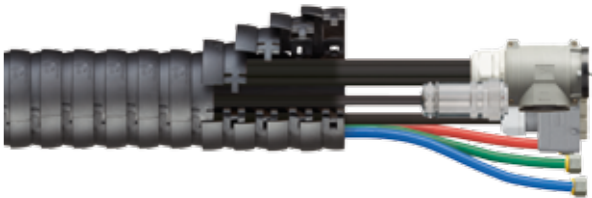
All igus® robotic components are tested in our laboratory and have already been reliably used in applications for many years. Our primary aim is to design a reliable overall energy supply system for your robot. We do not simply focus on mechanical protection but instead look at the entire application 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® hose packages**

Delivery program hose packages for welding robots	
Product range	Equipment hose package
Part No.	

**Welding axis 1-3**

(1 m breakout/side + 1 m E-Chain® for each)



**RRC-S-001**

- Consisting of:
- 1 m TRCF-85-135-0, including mounting brackets
  - Welding cable (2x35 mm² + 1x25 mm²) including multi-contact TSB and TSS welding connector
  - Control cable (18x0.75 mm² + 5x0.75 mm²) including rectangular connector on both ends
  - Welding control cable (5x2x0.5 mm²) including rectangular connector on both ends
  - 3x hoses - DN12 red, green, blue - including fixture on both ends

**Welding axis 3-6**

(1 m breakout/side + 1 m E-Chain® for each)








**RRC-S-002**

- Consisting of:
- 1 m TRC-85-135-0 including protectors and mounting brackets
  - Welding cable (2x35 mm² + 1x25 mm²) including multi-contact TSB and TSS welding connector
  - Control cable (18x0.75 mm² + 5x0.75 mm²) including round connector and rectangular connector
  - Welding control cable (5x2x0.5 mm²) including rectangular connector on both ends
  - 3x hoses - DN12 red, green, blue - including fixture on both ends







# PUR Control cable | CFSPECIAL.792

- PUR outer jacket
- Shielded
- Oil and coolant-resistant
- Hydrolysis and microbe-resistant
- PVC and halogen-free
- Notch-resistant
- Flame retardant



### Dynamic information

	<b>Bending radius</b>	<b>E-Chain®</b>	min. 10 x d
		<b>flexible</b>	min. 8 x d
		<b>fixed</b>	min. 5 x d
	<b>Temperature</b>	<b>E-Chain®</b>	-13°F to 176°F (-25°C to 80°C)
		<b>flexible</b>	-40°F to 176°F (-40°C to 80°C)
		<b>fixed</b>	-58°F to 176°F (-50°C to 80°C)
	<b>v max.</b>	<b>unsupported</b>	9,84 ft/s (3 m/s)
	<b>a. max.</b>	<b>gliding</b>	6,56 ft/s (2 m/s)
	<b>Travel distance</b>	Unsupported travel distances and up to 328ft (100m) for gliding applications, Class 5	



### Cable structure

	<b>Conductors</b>	Fine-wired stranded conductor consisting of bare copper wires (following DIN EN 60228).
	<b>Conductor insulation</b>	Mechanically high-quality TPE mixture.
	<b>Color code</b>	According to bus specification.
	<b>Inner jacket</b>	TPE mixture adapted to suit the requirements in E-Chains®.
	<b>Overall shield</b>	Bending-resistant braiding made of tinned copper wires.
	<b>Outer jacket</b>	Low-adhesion mixture on the basis of PUR, adapted to suit the requirements in e-chains® (following DIN VDE 0282 Part 10). Color: Jet black (similar to RAL 9005)

### Electrical information

	<b>Nominal voltage</b>	1000 V
	<b>Test voltage</b>	4000 V (following DIN EN 50396)



### Properties and approvals

	<b>UV resistance</b>	High
	<b>Oil resistance</b>	Oil-resistant (following DIN EN 50363-10-2), Class 3
	<b>Offshore</b>	MUD-resistant following NEK 606 - status 2009
	<b>Flame-retardant</b>	According to IEC 60332-1-2, CEI 20-35, FT1, VW-1
	<b>Silicone-free</b>	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	<b>Halogen-free</b>	Following EN 50267-2-1
	<b>UL/CSA</b>	Style 10258 and 20234, 1000 V, 80 °C
	<b>NFPA</b>	Following NFPA 79-2012 chapter 12.9
	<b>CEI</b>	Following CEI 20-35
	<b>Lead free</b>	Following 2011/65/EC (RoHS-II)
	<b>CE</b>	Following 2006/95/EC

### Typical application areas

- Secure E-Chain® cable for KUKA robots

### Delivery program connecting cables (PUR) for KUKA robots

Base article	Product range Part No.	Number of Conductors and rated cross section [mm²]	Outer diameter		Bend radius
			[in]	[mm]	
	CFSPECIAL-792-011 MAT90489759	(2x(6x1.0)C +5x(2x2.5+2x6.0))C	1.40	35.5	7.5
	CFSPECIAL-792-011 MAT90489760	(2x(6x1.0)C +5x(2x2.5+2x6.0))C	1.40	35.5	7.5

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

36 months guarantee on every chainflex® cable ...  
... up to 10 million cycles guaranteed ...