

Secure guidance for axes 1-6...

Solutions for robots...

机器人解决方案 ... 适用于1-6轴的安全引导 ...





中国（上海）自由贸易试验区德堡路11号
46号厂房A部
电话:021-5130 3100
传真:021-5130 3200
邮编:200131
邮箱:cnmaster@igus.net

www.igus.com.cn

适用于6轴机器人...

Products for 6-axis robots...

3-6轴

triflex® RS 伸缩系统

triflex® RSP 伸缩系统

triflex® RSE 伸缩系统

triflex® RSE 直线伸缩系统

带碳纤维棒的triflex® R 机器人

triflex® 拖链

Axes 3-6

triflex® RS system

triflex® RSP system

triflex® RSE system

triflex® RSE linear

triflex® R fibre-rod module

triflex® chain loop

2-3轴

适用于所有拖链类型

Axes 2-3

All chain types possible!

1轴

TC拖链

旋转臂

环形拖链

Axis 1

twisterchain®

Swivel bracket

Loop

7轴

例如: E4.1系列拖链

Axis 7

e.g. E4.1 energy chain



移动供能更便捷...

Secure energy supply made easy...

- triflex® R-TRC

封闭式设计-可用于最大的防护性保护

Enclosed version – for maximum protection

- triflex® R-TRE

方便型设计-简单快速的填充管线

Easy design – for simple and fast filling

- triflex® R-TRL

自重轻-高性价比，且快速安装

Light version – cost-effective and quickly fitted

- triflex® R-TRLF

自重轻-高性价比，且快速填充

Light version – cost-effective and quickly filled

- triflex® R-TRCF

封闭式设计-可完全开启

Enclosed version – completely openable



triflex® R-TRC



triflex® R-TRE



triflex® R-TRL



triflex® R-TRLF



triflex® R-TRCF

适用于1轴/twisterchain®的 解决方案...

Solution for: Axis 1 / twisterchain® ...

- 用于1轴的额外供电系统
- 旋转角度可达 540°
- 模块化的导槽系统
- 可从拖链的两侧开启
- 有4种尺寸的内高可供选择：28mm 到 56mm
- 内宽： 50 - 200mm
- 模块化的内部分隔
- 旋转速度可达 4 m/s
- 适用于多数的机器人配置

- External energy supply to axis 1
- Rotation angle up to 540°
- Modular guide trough system
- e-chain® openable from both sides
- 4 inner heights from 28mm to 56mm
- Inner widths from 50 to 200mm
- Modular interior separation
- For rotational speeds up to 4 m/s
- Can be configured for many robots

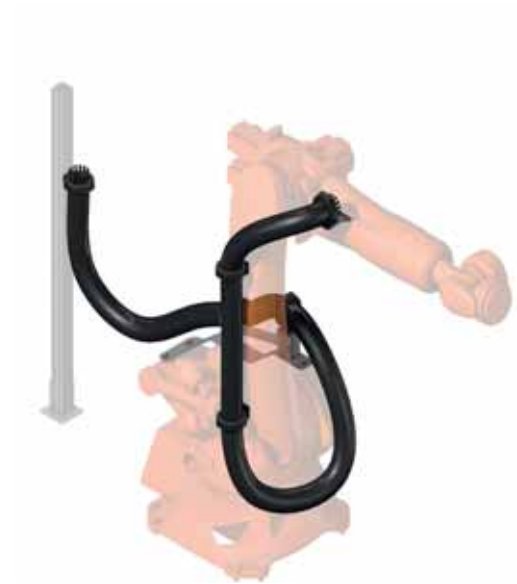


适用于1轴 / 旋转臂的解决方案...

Solution for: Axis 1 / Swivel arm...

- 易于连接机器人
- 高性价比
- 旋转角度可达 270°
- 节省空间
- 适用于多数机器人
- 广泛的产品范围

- Simple attachment to the robot
- Cost-effective
- Rotation angle up to 270°
- Space-saving
- Available for many robots
- No limitation of the range



适用于1轴 / 3 轴的解决方案...

Solution for: Axis 1 / Loop on axis 3...

- 高性价比
- 快速简单的安装
- 无偏转角度
- 较短的电缆长度
- 部分产品范围

- Cost-effective
- Simple and quick installation
- No deflection
- Short cable lengths
- Possible limitation of the range



适用于2-3轴 / 侧向安装的 解决方案...

Solution for: Axes 2-3 / lateral connection...

- 适用于TRL / TRLF / TRE / TRC / TRCF 系列
- 连接板适用于市场上常见的机器人
- 电缆易填充
- 可直接安装在 twisterchain® 上或通过1轴安装
- 拖链根据机器人的运动轨迹而运动

- TRL / TRLF / TRE / TRC / TRCF are possible
- Adapter plates for numerous robot models
- Easy installation of harnessed cables
- Further installation in twisterchain® or through axis 1
- e-chain® follows the movement of the robot



适用于3-6轴/RS伸缩系统的 解决方案...

Solution for: Axes 3-6 / RS System...

- 带碳纤维棒的伸缩系统
- 适用于TRE 和TRC系列
- 避免机器人的头部缠绕
- 连接板适用于市面上常见机器人的尺寸
- 可配套相应盖板
- 固定的伸缩力

- Retraction system with fibre rods
- Can be used with TRE and TRC versions
- Prevents loop formation on the robot arm
- Adapter plates for all common robot models
- Additional attachments possible using cover
- Defined retraction force



适用于3-6轴/RSP伸缩系统的 解决方案...

Solution for: Axes 3-6 / RSP system...

- 气动伸缩系统
- 适用于 TRC / TRE / TRCF系列
- 尺寸为 60-125
- 可调节的伸缩力
- 直线型伸缩系统
- 适用于高伸缩力

- Retraction system with pneumatic cylinder
- Can be used with TRC / TRE / TRCF
- Sizes 60-125
- Retraction force is adjustable
- Retraction force is almost linear
- For high retraction forces



适用于尺寸为40/50, 3-6 轴 /RSE伸缩系统的解决方案...

Solution for: Axes 3-6 / RSE system 40/50...

- 带弹性绳的伸缩系统
- 与RSP伸缩系统相似的导轨
- 适用于TRC/TRE系列
- 适用于尺寸为 40/50
- 适用于小型机器人
- 重量仅有1.8kg
- 紧凑型设计

- Retraction system with elastomer bands
- Guide roller like the RSP
- Can be used with TRC/TRE
- For sizes 40/50
- For small robots
- Weighs only 1.8kg
- Compact design



适用于3-6轴 / RSE 直线 系统的解决方案...

Solution for: Axes 3-6 / RSE system linear...

- 带弹性绳的伸缩系统
- 适用于TRE, TRC 和TRCF 系列
- 尺寸为 40, 50, 60, 70, 85, 100
- 高性价比
- 节省空间
- 安装简单

- Retraction system with elastomer bands
- Can be used for TRE, TRC and TRCF versions
- Sizes 40, 50, 60, 70, 85, 100
- Cost-effective
- Space-saving
- Simple installation



适用于3-6轴/带碳纤维棒 的解决方案...

Solution for: Axes 3-6 / Fibre-rod module...

- 适用于TRC 和TRE 系列
- 高性价比
- 无偏转角度
- 易安装
- 易调节
- 接头位置可调节

- Can be used with TRC and TRE chain
- Cost-effective
- No deflection
- Easy installation
- Easy to adjust
- Fully adjustable mounting bracke



适用于3-6轴/TR系统的解决方案...

Solution for: Axes 3-6 / TR chain loop...

- 适用于 TRE / TRC / TRCF 系统
 - 高性价比
 - 无偏转角度
 - 易安装
 - 接头位置可调节
 - 适用于简单运动
-
- Can be used with TRE / TRC / TRCF
 - Cost-effective
 - No deflection
 - Easy installation
 - Fully adjustable mounting bracket
 - For simple movements





高柔性电缆 chainflex® CF ROBOT ... chainflex® CF ROBOT ...

- 可扭转的机器人电缆
- 混合电缆，控制电缆，动力电缆，伺服电缆
总线电缆，数据电缆，光缆
- 常备库存
- 适用于室内和室外环境，抗紫外线
- 完全耐油
- 特别适用于机器人和三维运动的应用
- 通过UL/CSA认证
- 经测试，可在线计算电缆的使用寿命

- Twistable robot cables
- Hybrid cables, control cables, motor cables, servo
cables, bus cables, data cables, fibre optic cables
- Available from stock
- Indoor and outdoor applications, UV resistant
- Almost unlimited resistance to oil
- Especially suitable for robots and 3D movements
- UL/CSA approval
- Tested and online service life calculation

高柔性电缆chainflex® - 概览...

chainflex® - overview...

控制电缆

Control cables



数据电缆

Data cables



光纤电缆

Fibre Optic Cables



混合电缆

Hybrid cables



高柔性电缆chainflex® - 概览...

chainflex® - overview...

测试系统电缆



Measuring system cables

总线电缆



Bus cables

动力电缆



Motor cables

特制电缆



Special cables

系统选型...

1轴 / twisterchain

- 适合机器人周围充足空间
- 适用于大量电缆的填充
- 适用于旋转角度 $> 270^\circ$ 的1轴机器人
- 适用于7轴机器人

1轴

- 适用于小的旋转角度小于 180° ，1轴
- 用于细电缆的场合
- 机器人后侧有足够的安装空间
- 适用于简单的解决方案

1轴 / 摆动臂

- 适用于旋转角度可达 270° 的1轴机器人
- 适用于可兼容的机器人
- 7轴机器人的应用

Selection - Which system?

Axis 1 / twisterchain

- When there is space around the robot
- For high cable fills
- For rotation angles $> 270^\circ$ on axis 1
- For applications with axis 7

Axis 1 / loop

- For small angles of rotation axis 1 up to 180°
- For small ranges
- When there is sufficient space behind the robot
- Upon request for a very simple solution

Axis 1 / Pivot arm

- For angles of rotation up to 270° on axis 1
- When using a compatible robot
- Also possible for applications with axis 7 travel

系统选型...

2-3轴 / TRL

- 适用于高性价比的解决方案
- 易于填充

2-3轴 / TRLF

- 适用于大尺寸的电缆
- 横杆易打开的拖链系统
- 需要更高强度拖链的情况

2-3轴 TRLF/TRE/TRCF

- 使用合适的拖链在机器人前方的轴上
- 根据需求，选择一个系列的拖链

Selection- Which system?

Axes 2-3 / TRL

- Upon request for a cost-effective solution
- Upon request for a simple filling

Axes 2-3 / TRLF

- When filling with large cable diameters
- If required, the "flip-open" crossbar system
- If required, higher strength

Axes 2-3 TRLF/TRE/TRCF

- When using the appropriate e-chain® on the front robot axes
- Upon request, only one type of chain in use

系统选型...

3-6轴 / RS 伸缩系统

- 标准型 - 适合于所有的应用
- 适用于脏污环境
- 还有封闭式的版本

3-6轴 / RSP 伸缩系统

- 可调节的伸缩力
- 直线伸缩力
- 弯曲半径支架(带滚轮)
- 更大的伸缩力

3-6轴 / RSE伸缩系统 (U型)

- 适用于拖链尺寸为40/50
- 适用于小型机器人
- 弯曲半径支架 (带滚轮)
- 适用于紧凑的尺寸

Axes 3-6 / RSE 伸缩系统 (直线型)

- 适用于无偏转角度的系统
- 适用于较短长度的电缆
- 适用于简单安装
- 适用于狭小的安装空间

Selection - Which system?

Axes 3-6 / RS system

- For standard applications
- For dirty environments
- Available as covered version

Axes 3-6 / RSP system

- Adjustable retraction force
- Virtually linear retraction force
- Bend radius support (roller)
- Large retraction forces

Axes 3-6 / RSE system (deflection)

- For chain size 40/50
- For small robots
- Bend radius support (roller)
- For compact dimensions

Axes 3-6 / RSE system (linear)

- For systems without deflection
- For short cable lengths
- For very simple installations
- In tight installation space

系统选型...

3-6轴 / 带碳纤维棒

- 便捷的解决方案
- 无偏转角度
- 适用于6轴运动：最大旋转角度为 $\pm 180^\circ$
- 适用于5轴运动：最大旋转角度为 0° - $+90^\circ$

3-6轴 / triflex® R 适用于TRE, TRC, TRCF系列

- 简单型的解决方案
- 高性价比的解决方案
- 适用于多种应用
- 适用于简单运动
- 有足够运动空间的情况

Selection - Which system?

Axes 3-6 / fibre-rod module

- If you want a very light solution
- Without deflection
- For axis 6 motion: max. $\pm 180^\circ$
- For axis 5 motion: max. 0° to $+90^\circ$

Axes 3-6 / triflex® R chain loop TRE, TRC, TRCF

- Upon request for a very simple solution
- Upon request for the most cost-effective solution
- Possible for many applications
- For small movements
- When there is enough space in the application

在线配置...

Online Configurator...



The advertisement features a large smartphone screen displaying the IGUS QuickRobot online configurator. The screen shows a 3D model of an orange and white industrial robotic arm. To the right of the arm, there is a technical diagram of a cable with dimensions (4.0, 6.0, 8.0) and a list of components including a cable, a cable car, and a cable support. Below the screen, the website addresses www.igus.com.cn/quickrobot... and igus.eu/quickrobot... are displayed. A QR code is located in the bottom right corner of the screen. The background of the advertisement is a blurred image of a factory setting.

/9001:2015
/16949:2016

igus®拖链、电缆和线束以及塑料滑动轴承，通过了
ISO 9001:2015和IATF 16949:2016认证。

/newsletter

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中国（上海）自由贸易试验区德堡路11号46号厂房
A部位
邮编:200131
电话:021-5130 3100
传真:021-5130 3200
邮箱:cnmaster@igus.net

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