
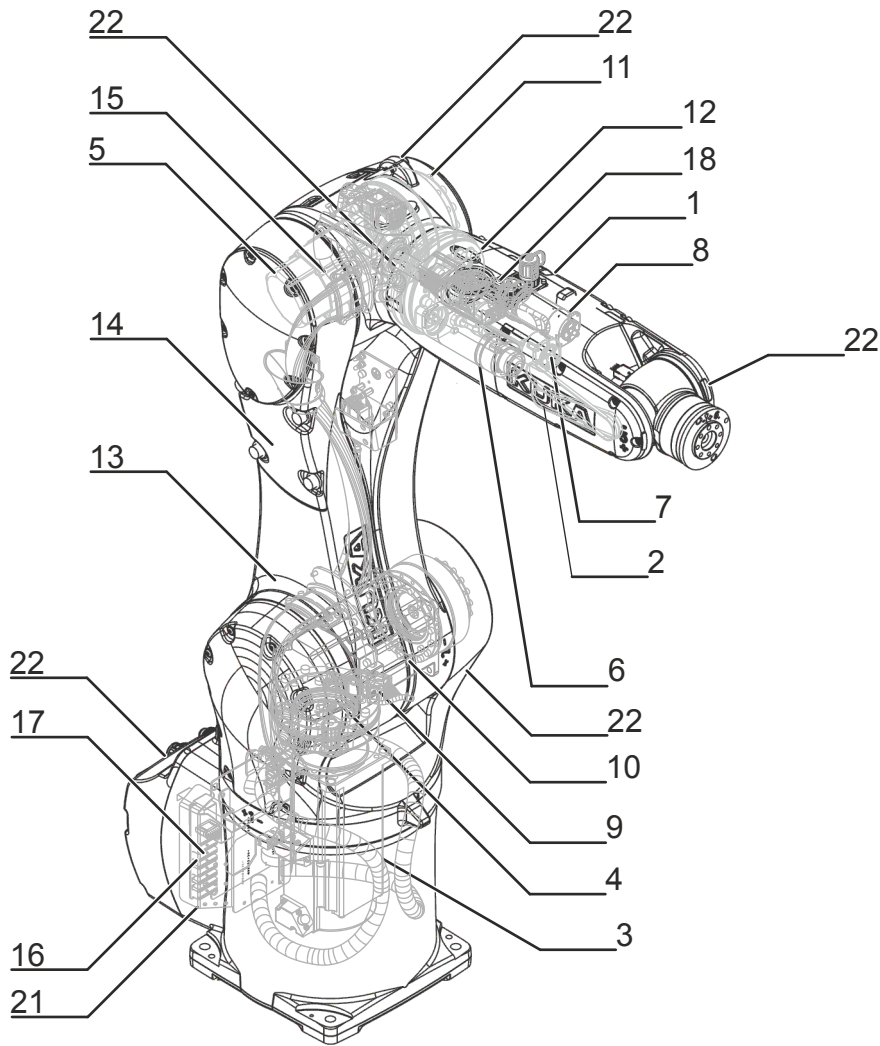


KUKA | Xpert

Identification number: AR6390

货号	0000-210-360
材料状态	60 - 客户服务
制造商	KUKA Roboter
产品图片	

Spare parts



Spare parts graphic – schematic representation

Pos.	Article number	Designation	Component
1	0000-234-069	SPP swivel housing assy. ZH10 R1100(wgg)	In-line wrist
2	0000-217-683	SPP wrist belt set	Toothed belt
3	0000-214-830	SPP motor MG_35_84_25 (without grease)	Motor A1
4	0000-217-583	SPP motor MG_20_84_45 (w/o G/A)	Motor A2

Pos.	Article number	Designation	Component
5	0000-217-612	SPP motor MG_12_58_60 (w/o G/A)	Motor A3
6	0000-217-686	SPP wrist Motor A4 assy. (wgg)	Motor A4
7	0000-217-684	SPP wrist Motor A5 assy.	Motor A5
8	0000-217-685	SPP wrist Motor A6 assy.	Motor A6
9	0000-233-627	SPP main axis gear A1;KR10 (w/o gr/ad)	Gear A1
10	0000-233-628	SPP main axis gear A2;KR10 (w/o gr/ad)	Gear A2
11	0000-233-629	SPP main axis gear A3;KR10 (w/o gr/ad)	Gear A3
12	0000-217-687	SPP wrist gearbox axis 4 (wgg)	Gear A4
13	0000-217-615	SPP support bearing A2 (wgg)	
14	0000-217-616	SPP support bearing A3 (wgg)	
15	0000-234-068	SPP robot cable set (wgg) KR10 R1100	Cable set
16	0000-232-698	SPP RDC (Agilus)	RDC
17	0000-232-700	SPP Electronic Data Storage (Agilus)	EDS
18	0000-217-676	SPP Ventile assy. (wgg)	
19	0000-217-678	SPP wrist I / O interface (wgg)	
20	0000-217-681	SPP wrist ethercat interface (wgg)	
21	0000-232-699	SPP I/O modul	
22	0000-200-304	Mini gauge cartridge	Mastering cartridge A1 Mastering cartridge A2 Mastering cartridge A3 Mastering cartridge A4 Mastering cartridge A5

Export to Excel 

Maintenance information

Toothed belt tension

Toothed belt tension inline wrist	
A5	205 ± 5 Hz
A6	205 ± 5 Hz

技术数据

基本数据

	KR 10 R1100 sixx
轴数	6
可控制的轴数	6
工作空间体积	5.2 m ³
位姿重复精度 (ISO 9283)	± 0.03 mm
重量	约 55 kg
额定负荷	5 kg
最大运动范围	1101 mm
防护等级 (IEC 60529)	IP54
机器人腕部防护等级 (IEC 60529)	IP54
噪声等级	< 70 dB (A)
安装位置	地面
占地面积	320 mm x 320 mm
运动系统安装面布孔图	C246
允许倾角	-
标准色	底座： 黑色 (RAL 9011); 活动部件： 库卡橙色 2567; 第 2 轴盖板： 黑色 (RAL 9011)
控制系统	KR C4 smallsize-2; KR C4 compact
变压器名称	KR C4: KR10R1100 C4SR FLR

环境条件

湿度等级 (EN 60204)	-
环境条件分类 (EN 60721-3-3)	3K3
环境温度	
运行时	5 °C 至 45 °C (278 K 至 318 K)
仓储和运输时	-40 °C 至 60 °C (233 K 至 333 K)

轴参数

运动范围	
A1	±170 °
A2	-190 ° / 45 °
A3	-120 ° / 156 °
A4	±185 °
A5	±120 °
A6	±350 °
额定负载时的速度	
A1	300 °/s
A2	225 °/s
A3	225 °/s
A4	381 °/s
A5	311 °/s
A6	492 °/s

负载能力

额定负荷	5 kg
最大负载能力	10 kg
法兰 Ix 额定质量转动惯量	0.045 kgm ²
底座的额定附加负载	0 kg
底座的最大附加负载	-
转盘的额定附加负载	0 kg
旋转机构的最大附加负载	1 kg
大臂的额定附加负载	0 kg
大臂的最大附加负载	1 kg
小臂的额定附加负载	0 kg
小臂的最大附加负载	2 kg
最大总负载	10 kg
负载重心额定距离	
Lxy	100 mm
Lz	80 mm

地基负载

纵向动力 F(v)	
F(v 正常)	697 N
F(vmax)	1297 N
横向动力 F(h)	
F(h 正常)	1223 N
F(hmax)	1362 N
倾覆力矩 M(k)	
M(k 正常)	788 Nm
M(kmax)	1152 Nm
轴 2 转矩 M(r)	
M(r 正常)	367 Nm
M(rmax)	880 Nm

垂直力 $F(v)$ 、水平力 $F(h)$ 、倾斜力矩 $M(k)$ 、轴 1 的转矩 $M(r)$

Process forces

Process forces are forces that are exerted on the robot in a defined manner by an external influence. Causes include pressing processes and machining tasks carried out by the robot. The process forces that the robot can withstand depend to a very great degree on the robot position, payload, direction and duration of action. For this reason, it is not possible for a simple limit value to be specified for permissible process forces.

Permissible process torques are therefore specified for all axes of the robot. These values indicate the torque that each robot axis can withstand on a sustained basis as a result of external forces.

The following load torques must not be exceeded:

A1	200 Nm
A2	205 Nm
A3	135 Nm
A4	20 Nm
A5	20 Nm
A6	16 Nm

Flange loads

Flange loads

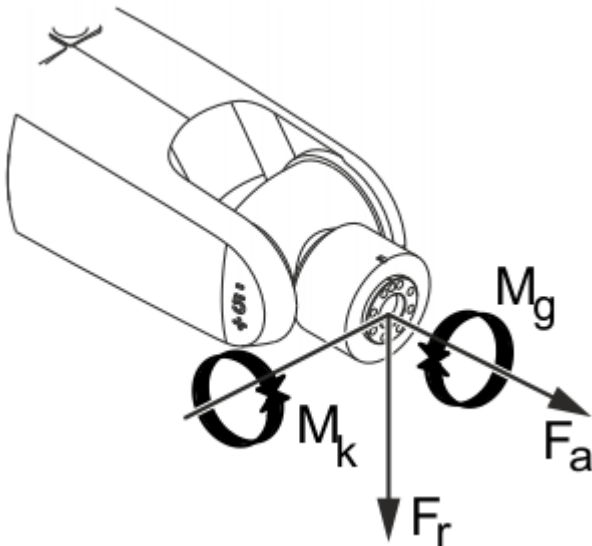
Due to the motion of the payload (e.g. tool) mounted on the robot, forces and torques act on the mounting flange. These forces and torques depend on the motion profile as well as the mass, load center of gravity and mass moment of inertia of the payload.

The specified values refer to nominal payloads at the nominal distance and do not include safety factors. It is imperative for the load data to be entered in the robot controller. The robot controller takes the payload into consideration during path planning. A reduced payload does not necessarily result in lower forces and torques.

The values are guide values determined by means of trial and simulation and refer to the most heavily loaded machine in the robot family. The actual forces and torques may differ due to internal and external influences on the mounting flange or a different point of application. It is therefore advisable to determine the exact forces and torques where necessary on site under the real conditions of the actual robot application.

The operating values may occur permanently in the normal motion profile. It is advisable to rate the tool for its fatigue strength.

The EMERGENCY STOP values may arise in the event of an Emergency Stop situation of the robot. As these should only occur very rarely during the service life of the robot, a static strength verification is usually sufficient.



Flange loads

Flange loads during operation	
F(a)	399 N
F(r)	475 N

M(k)	49 Nm
M(g)	45 Nm
Flange loads in the case of EMERGENCY STOP	
F(a)	544 N
F(r)	669 N
M(k)	82 Nm
M(g)	113 Nm

Axial force $F(a)$, radial force $F(r)$, tilting torque $M(k)$, torque about mounting flange $M(g)$

轨迹精度

线性运动的轨迹精度:

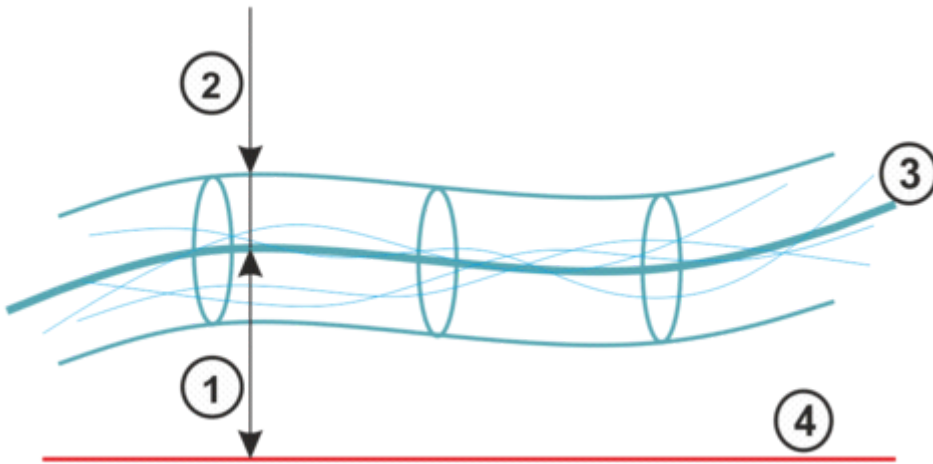
LIN 轨迹绝对精度 (ISO 9283)	$\pm 1.6 \text{ mm}$
SLIN 轨迹绝对精度 (ISO 9283)	$\pm 0.9 \text{ mm}$
轨迹重复精度 线性 (ISO 9283)	$\pm 0.2 \text{ mm}$

该数据针对的是 0.8 m/s 的参考速度。

圆周运动的轨迹精度:

CIRC 轨迹绝对精度 (ISO 9283)	$\pm 1.2 \text{ mm}$
SCIRC 轨迹绝对精度 (ISO 9283)	$\pm 0.8 \text{ mm}$
圆周轨道重复精度 (ISO 9283)	$\pm 0.2 \text{ mm}$

该数据针对的是 0.4 m/s 的参考速度。



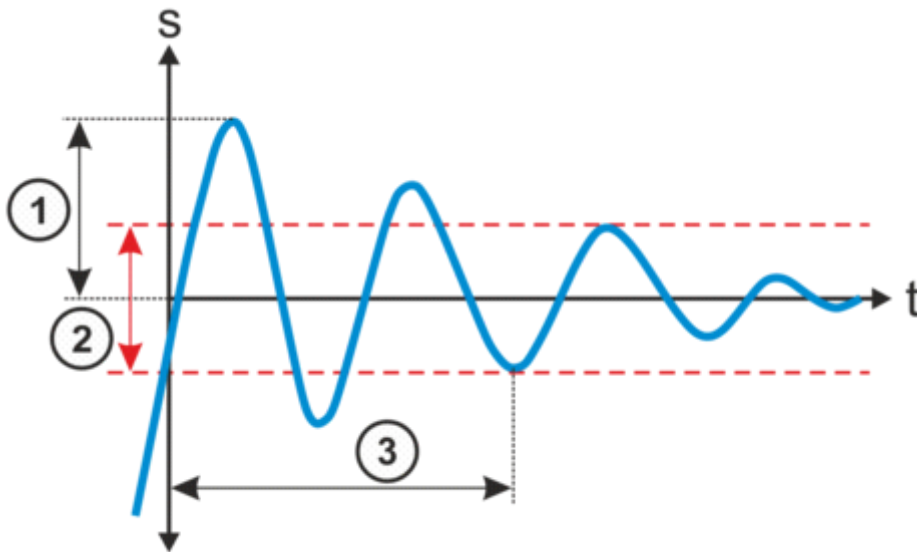
轨迹精度

1	轨迹绝对精度	3	运行轨迹的平均值
2	轨迹重复精度	4	编程的轨迹

- 轨迹精度表示机器人在编程的轨迹上运动的能力。
- 轨迹重复精度表示 10 个运行轨迹与运行轨迹平均值的偏差。

超调状态

振幅	0.3 mm
定位时间	0.2 s



超调状态

1	超调振幅	3	定位时间
2	公差范围		

- 超调振幅影响机器人在特定位置执行受控的精确暂停的能力。
- 定位时间表示机器人在特定位置上停止的速度。

更多的信息

- 给出的数据基于 ISO 9283，并使用 Krypton/Metris 的基于摄像机的系统测得。因此重复精度被定义为 3 sigma 值。
- 所有数值均以额定负载测得。

关税信息

统计货号	84795000
原产地	DE
制造商	KUKA ROBOTER
重量	55 kg

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- > **KR 10 R1100 sixx** 带有如下的工具 (14)
 - > **KR 10 R1100 sixx** 有以下选项 (15)
 - > **KR 10 R1100 sixx** 带有如下的标准组件 (2)
 - > **KR 10 R1100 sixx** 需要 (11)
 - > **KR 10 R1100 sixx** 带有如下的备件 (22)