KUKA

Robot controller
_KR C5 micro

KR C5 micro
_the heartbeat of future production

Maximum performance, connectivity and flexibility in the smallest of spaces: that is the new KR C5 micro controller for small robots. The KR C5 controller generation from KUKA is programmed for the future. For instance, the KR C5 micro unites robot, PLC, motion and safety control in an ultra-compact housing with a volume of just 16 l.

Highlights of the KR C5 micro

- Seamless integration into the KUKA portfolio due to optimal software and robot compatibility
- Minimized energy consumption
- Space-saving due to compact hardware footprint
- Maximum performance and availability

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Smaller, more flexible, smarter. Developed as an open and flexible platform with no compromises, the KR C5 micro represents the next quantum leap in robot control. The controller can not only be seamlessly integrated into existing automation landscapes, for example, but can also easily take on current KR C4 applications as a "functional twin". Furthermore, applications can be implemented quickly because the supported KUKA software products are functionally identical to the KR C4 controller series. Even today, the KR C5 micro already supports a large number of current field bus standards for cell and line integration on a PROFINET and EtherCAT basis. At the same time, the KR C5 micro is equipped with the necessary hardware resources and flexible I/O ports in order to adapt quickly to future tasks and standards as well.

New System Software KSS 8.7 – fully compatible with KSS 8.6
The new System Software KSS 8.7 is functionally identical to KSS 8.6 and features identical software applications and technologies.

Intuitive KUKA smartPAD control
The KR C5 micro can be easily and intuitively operated using the pluggable KUKA smartPAD.

Ready for use worldwide
The KR C5 micro meets all globally relevant ISO standards and speaks 25 languages – including the major Asian ones.

Interfaces / front

Ethernet & EtherCAT ports KSI / KEI / 2 x KSB / 3 x KLI / KONI	4 safe inputs: external E-STOP, operator safety, operator safety ack., 1 reserved
24 V power in (external supply for IOs)	External enabling
24 V power out (from external supply)	1 safe output: local E-STOP
16 digital inputs (npn / pnp)	Axis motors and brakes
16 digital outputs (npn / pnp)	2 USB ports
3 fast measurement inputs	SSD slot
1 UL lamp	Display port
Data & 24 V to robot	SD card future use

Interfaces / rear

Power supply
24 V battery / external
24 V daisy chain

Features

Power supply
Intermediate circuit
Drive units (6 axes)
Embedded computer with safety controller
Ethernet interfaces
Digital IO interfaces
Discrete safety signals
Active cooling

Technical data

Power supply	AC 200 V–240 V 1-phase 50 Hz–60 Hz 2-phase (with grounded neutral)
Axes	6 axes / 3 x 12 A + 3 x 5 A
CPU architecture	Intel X86 (Main CPU)
Storage internal	60 Gbyte (SSD M.2)
Dimensions (w x h x d)	300 mm x 134 mm x 392 mm (without attachments and without bases)
Weight	9.8 kg
Protection class	IP 20
Multiple line integration options	Digital IO: 16-In / 16-Out (pnp or npn) EtherCAT (KUKA Extension Bus) PROFINET + PROFIsafe (PROFIsafe upcoming later) EthernetIP + CIP Safety (upcoming later)
Ambient temperature during operation	0 °C–45 °C
Safety	ISO 10218-1 Industrial robots ISO 13849-1 Cat. 3 / Performance Level d
Certification	UL / CSA (upcoming later)

Including accessories

KUKA smartPAD
External battery box
Plug package
Mounting brackets
Power cable

www.kuka.com/contacts