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Contents

1 Introduction

The option “RoboTeam Standard Interface” makes it possible to connect several KR C2 edition2005 control cabinets. The control cabinets of the cooperating robots are connected to one another using a RoboTeam connecting cable. One talks of cooperation between robots when their continuous path motions are synchronized, or synchronized and geometrically coordinated. The controllers each have their own network connection which is used to exchange all required data in real time.

1.1 Use

The network connection of the control cabinets of the cooperating robots is made via a standard switch. The time pulse from the host controller, the ESC safety signals and the switch signals for the robot drives are transferred with the RoboTeam connecting cable. The free RoboTeam connector ports of the control cabinets must be jumpered with the respective terminating resistors X270 and X271. The shared pendant (KCP2-SP) allows the operator control, programming and configuration of several robot controllers in the RoboTeam group using a single KCP.
The ESC-CI board is used. The interface is also equipped with two Ethernet interfaces.

The option “RoboTeam Standard Interface” provides the following functions:

- Network connection for cooperating robots
- Ethernet Windows
- Ethernet Real Time

1.2 Configuration

The basic cabinet is the KR C2 edition2005. Therefore this documentation only describes the differences from the standard cabinet.

The RoboTeam interface includes the following hardware components:

- Shared pendant (KCP2-SP)
- RoboTeam OUT connector X270 in the connection panel
- RoboTeam IN connector X271 in the connection panel
- Ethernet connector X17 (X217 DC)
- Ethernet X18 (X218 DC)
- CI3 Tech
- MFC3 Tech

Not included in scope of supply of the interface:

- RoboTeam connecting cable
- X271 terminating resistor RoboTeam IN
- X270 terminating resistor RoboTeam OUT
- Ethernet switch

2 Safety

2.1 Fundamentals

Warning!
Failure to observe these safety instructions could result in injury or a fatal accident and/or damage to the robot system or other property!

- All pertinent safety regulations as well as the booklet [Safety and Installation Instructions] are to be observed when working on the system.
- The KUKA safety chapter [KRC Safety, General] is supplied with the robot system and must be read and understood before commencing work.
- The safety instructions in the KR C2 edition2005 Operating Handbook must be observed.
- Before connection, testing and installation work, always refer to the accompanying circuit diagram.

2.2 Additional information “RoboTeam Standard Interface”

- Installation, exchange and service work on this option or individual components thereof may be performed only by qualified personnel specially trained for this purpose and acquainted with the risks involved.