

## Connection of EKS-084750 to FANUC CNC



## Components/modules used

### EUCHNER

Description	Order no./ item designation
Electronic-Key-System EKS with serial interface RS232/RS422	084750 / EKS-A-ISX-G01-ST09/03

Tip: More information and downloads about the above mentioned EUCHNER products can be found at [www.EUCHNER.de](http://www.EUCHNER.de). Simply enter the order number into the search field.

### Other

Description	Order no.
Serial cable	A66L-0001-0284#10P(#28AWG x 10)
Connector (CNC)	HONDA TSUSHIN PCR-E20FA (Connector) KOGYO: PCR-V20LA (Case) Fujitsu Component: FCN-247J020-G/E (Connector) FCN-240C020-Y/S (Case) Molex: 52622-2011 (Connector) 52624-2015 (Case)
Connector (EKS)	D-SUB, 9-Pin, Male
Supported CNC	FANUC Series 30i/31i/32i/35i-MODEL B 30i/31i-LB, 30i/31i-PB, 0i-F, 0i-PF, Power Motion i-A

## Terminals on each device

CNC

JD56A, JD36A/JD54			
1	RD	11	SD
2	0V	12	0V
3	DR	13	ER
4	0V	14	0V
5	CS	15	RS
6	0V	16	0V
7	CD	17	
8	0V	18	
9		19	
10		20	

RFID reader

EKS-A-ISX-G01-ST09/03

1		6	
2	TxD	7	
3	RxD	8	OUT
4		9	
5	GND		



Maximum cable length:  
5m



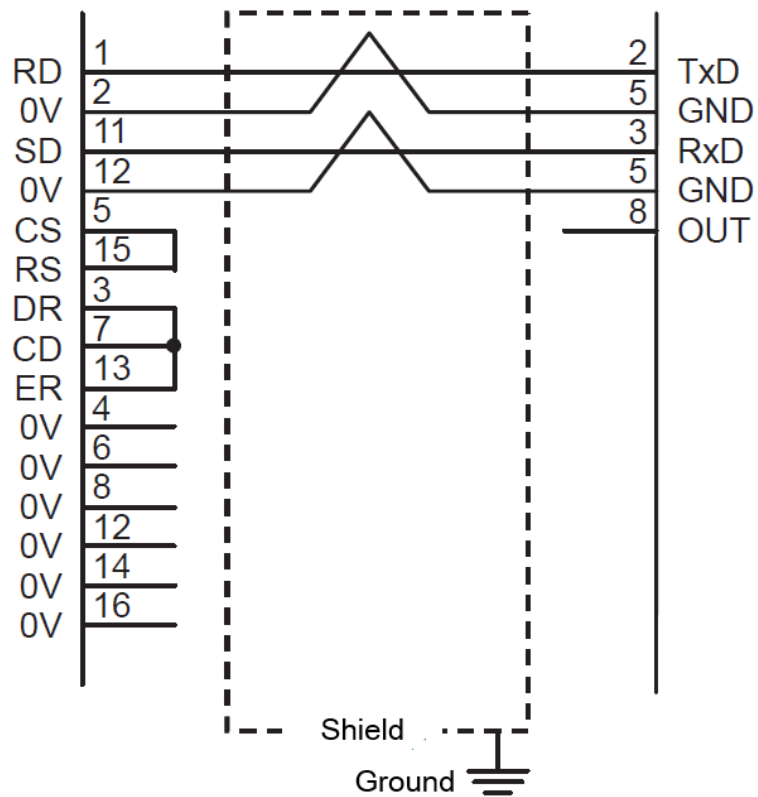
Important!

Please don't use terminals that don't have the assignment.

## Wiring-diagramm

JD56A, JD36A/JD54

D-SUB 9



## Application Support

If questions concerning this example remain open, please contact FANUC.

## **Important note – please observe carefully!**

This document is intended for a design engineer who possesses the requisite knowledge in safety engineering and knows the applicable standards, e.g. through training for qualification as a safety engineer. Only with the appropriate qualification is it possible to integrate the introduced example into a complete safety chain.

The example represents only part of a complete safety chain and does not fulfill any safety function on its own. In order to fulfill a safety function, the energy switch-off function for the hazard location and the software within the safety evaluation must also be considered, for example.

The introduced applications are only examples for solving certain safety tasks for protecting safety doors. The examples cannot be comprehensive due to the application-dependent and individual protection goals within a machine/installation.

### **If questions concerning this example remain open, please contact us directly.**

In accordance with Machinery Directive 2006/42/EC, the design engineer of a machine or installation is obligated to perform a risk assessment and take measures to reduce the risk. When doing this, the engineer must comply with the applicable national and international standards. Standards generally represent the current state of the art. Therefore, the design engineer should continuously inform himself about changes in the standards and adapt his considerations to them. Relevant standards include EN ISO 13849 and EN 62061. This application must be regarded only as assistance for the considerations about safety measures.

The design engineer of a machine/installation has the obligation to assess the safety technology him/herself. The examples must not be used for assessment, because only a small excerpt of a complete safety function was considered in terms of safety engineering here.

In order to be able to use the safety switch applications correctly on safety doors, it is indispensable to observe the standards EN ISO 13849-1, EN ISO 14119 and all relevant C-standards for the respective machine type. Under no circumstances does this document replace the engineer's own risk assessment, and it cannot serve as the basis for a fault assessment.

Particularly in case of fault exclusion, it must be noted that this can be performed only by the design engineer of a machine or installation and requires a reason. General fault exclusion is not possible. More information about fault exclusion can be found in EN ISO 13849-2.

Changes to products or within assemblies from third-party suppliers used in this example can lead to the function no longer being ensured or the safety assessment having to be adapted. In any event, the information in the operating instructions on the part of EUCHNER, as well as on the part of third-party suppliers, must be used as the basis before this application is integrated into an overall safety function. If contradictions should arise between the operating instructions and this document, please contact us directly.

### **Use of brand names and company names**

All brand names and company names stated are the property of the related manufacturer. They are used only for the clear identification of compatible peripheral devices and operating environments in relation to our products.