

KUKA College_Certificate

Safety start-up
KUKA.SafeOperation V3.x

Marko Nikolic

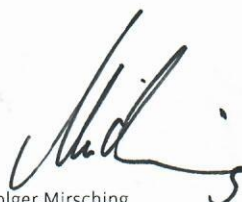
- Controller type KR C4
- Duration: 14-Aug-2017 - 16-Aug-2017
- Training location: KUKA College Braunschweig

We confirm authenticity of this certificate by the following code: 63GE1-YHE

Braunschweig, 16 August 2017



Florian Runge
Team Leader College



Holger Mirsching
Trainer KUKA College

KUKA College: Topics covered in the training from 14-Aug-2017 to 16-Aug-2017

Safety start-up

KUKA.SafeOperation V3.x Controller type KR C4

Participant: Marko Nikolic

- SafeOperation safety
- SafeOperation 3.x overview
 - Variants and functions
 - Functional principle, designated use and connections
 - Safe robot retraction
 - User group selection for SafeOperation
- Activating SafeOperation functionality
- Programming the mastering test
- Programming the brake test
- Configuring and testing all safety parameters in practice
 - Defining safety tools
 - Defining a cell area
 - Activating the override reduction
 - Defining cartesian monitoring spaces
 - Activating reference stop
 - Defining axis-specific monitoring spaces
 - Defining cartesian velocity monitoring
 - Defining axis-specific velocity monitoring
 - Defining standstill monitoring
- Creating a safety configuration with WorkVisual
 - Importing and exporting a safety configuration
 - Deploying a project to the KR C4 controller
- Defining the interface to a safety-PLC
- Defining system variables for SafeOperation
- SafeOperation Diagnosis overview
 - Starting diagnostic monitor
 - Evaluating operation messages with SafeOperation