

ABB Safety Configuration Report

A detailed description of functions and validation procedures can be found in the SafeMove application manual.

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1. General Information

Created by:	Safety User
Creation date:	2020-11-17T14:50:45.5339169+01:00
System name:	C1_R1_RW6-11
Configuration version:	1.03.01
Controller image version:	1.03.03
Checksum:	DA3D93929E9272CA0C194690E01E831E1073A6DB0469B33953DEE01A7EC40EC8
Protected elements checksum:	F1945CD6C19E56B3C1C78943EF5EC18116907A4CA1EFC40A57D48AB1DB7ADFC5

2. Safety Configuration

2.1 Drive Modules

Drive Module 1 Configuration

Max speed manual mode
250.000 mm/s

Drive Module 1 Configuration - ROB_1

Safe brake ramp start speed offset	Elbow offset	Baseframe
100.000 mm/s	x: -120.000 mm y: 0.000 mm z: 320.000 mm	Position x: 0.000 mm y: 0.000 mm z: 0.000 mm Orientation x: 0.000 deg y: 0.000 deg z: 0.000 deg

ROB_1 - Upper Arm Geometries

Upper Arm Geometries Verified: _____

Drive Module 1 Configuration - Synchronization

Activation	Synchronization status
Software synchronization	No signal

Synchronization - Sync position

Joint	position
1	0.000 deg
2	0.000 deg
3	0.000 deg
4	0.000 deg
5	0.000 deg
6	0.000 deg

Synchronization Verified: _____

Drive Module 1 Configuration - Tools

Tools - t_A057_ClayTool02

Activation	Active status	TCP	Orientation
Permanently active	No signal	x: 0.000 mm y: 0.000 mm z: 354.000 mm	x: 0.000 deg y: 0.000 deg z: 0.000 deg

t_A057_ClayTool02 - Speed Supervision Points (Flange Coordinates)

Number	X	Y	Z
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2. Safety Configuration

t_A057_ClayTool02 - Tool Geometries

Tool Geometries - Capsule_1

Type	Radius	Start	End
Capsule	120.000 mm	x: 0.000 mm y: 0.000 mm z: 0.000 mm	x: 0.000 mm y: 0.000 mm z: 300.000 mm

Tool Geometries Verified: _____

t_A057_ClayTool02 Verified: _____

Drive Module 1 Configuration - Safe Zones

Safe Zones - Safe_Zone

Tool speed supervision priority
Normal

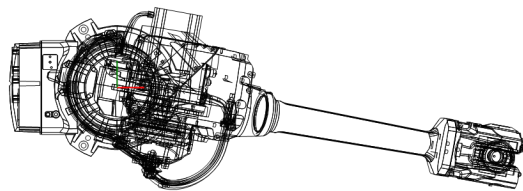
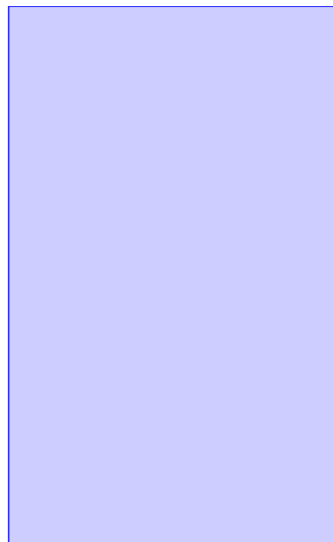
Safe_Zone - Coordinates

Top	Bottom
360.000 mm	80.000 mm

Vertices

Number	X	Y
1	-2072.000 mm	-1006.000 mm
2	-852.000 mm	-1006.000 mm
3	-852.000 mm	1006.000 mm
4	-2072.000 mm	1006.000 mm

Safe_Zone - Floor plan



Safe_Zone - Tool Speed Supervisions

Tool Speed Supervisions - Safe_Zone_TSP

Activation	Function active status	Violation stop category	Violation signal
Permanently active	No signal	Category1Stop	No signal
Max speed			
250.000 mm/s			

2. Safety Configuration

Safe_Zone Verified: _____

Drive Module 1 Configuration - Global Axis Speed Supervisions

Global Axis Speed Supervisions - Global_ASP

Activation	Function active status	Violation stop category	Violation signal
Permanently active	No signal	Category1Stop	No signal

Global_ASP - Speed limits

Joint	Min speed	Max speed
1	0.000 deg/s	29.000 deg/s
2	0.000 deg/s	17.000 deg/s
3	0.000 deg/s	20.000 deg/s
4	0.000 deg/s	20.000 deg/s
5	0.000 deg/s	32.000 deg/s
6	0.000 deg/s	30.000 deg/s

Global_ASP Verified: _____

Drive Module 1 Configuration - Global Tool Speed Supervisions

Global Tool Speed Supervisions - Global_TSP

Activation	Function active status	Violation stop category	Violation signal
Permanently active	No signal	Category1Stop	No signal
Max speed			
650.000 mm/s			

Global_TSP Verified: _____

3. Safe I/O Configuration

3.1 Global Signals

Name	Type	Default
SafetyEnable	BOOL	1
AutomaticMode	BOOL	0
ManualMode	BOOL	0
ManualFullSpeedMode	BOOL	0
DriveEnable	BOOL	0
DriveEnableFeedback	BOOL	0
LocalEmergencyStopStatus	BOOL	0
ExternalPowerControlActive	BOOL	0
ExternalPowerControlFeedback	BOOL	0

3.2 Networks

Feedback

Feedback - Signals

Signals - Output

Name	Type	Default	Offset
SafetyEnable	BOOL	1	0
AutomaticMode	BOOL	0	1
ManualMode	BOOL	0	2
ManualFullSpeedMode	BOOL	0	3
DriveEnable	BOOL	0	4
DriveEnableFeedback	BOOL	0	5
LocalEmergencyStopStatus	BOOL	0	6
ExternalPowerControlActive	BOOL	0	7
ExternalPowerControlFeedback	BOOL	0	8

3.3 Function Mappings

Function	Signal	Mandatory	Description
AutomaticMode	AutomaticMode	true	
DriveEnable	DriveEnable	true	
LocalEmergencyStopStatus	LocalEmergencyStopStatus	true	
ManualMode	ManualMode	true	
ManualFullSpeedMode	ManualFullSpeedMode	true	
SafetyEnable	SafetyEnable	true	
ExternalPowerControlActive	ExternalPowerControlActive	true	
ExternalPowerControlFeedback	ExternalPowerControlFeedback	true	
DriveEnableFeedback	DriveEnableFeedback	true	

4. Combinatorial Logic Configuration

4.1 Pre Logic

Name	Expression
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4.2 Post Logic

Name	Expression
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Complete functionality verified and tested

_____	_____
Date	Signature