ABB Safety Configuration Report

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

1. General Information

Created by:	Admin
Creation date:	2021-10-18T14:21:49.183957-04:00
System name:	CRB15000_5_95
Configuration version:	1.05.00
Controller image version:	1.05.03
Checksum:	602BC89D1BB4D5253EA1466951501857D59AB45A809D9DAFE171F5D1C50A89B4
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: -50.000 mm y: -50.000 mm z: 50.000 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 - Cyclic Brake Check

CBC: Inactivated

Drive Module 1 Configuration - Tools

Tools - Tool

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

Tool - Speed Supervision Points (Flange Coordinates)

Number	X	Y	Z

Tool - Tool Geometries

Tool Geometries Verified: _____

Tool Verified: _____

Drive Module 1 Configuration - Safe Zones

Safe Zones - Safe_Zone

Tool speed supervision priority
Normal

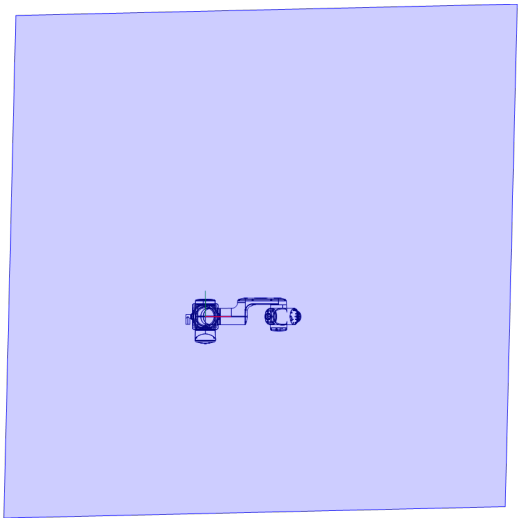
Safe_Zone - Coordinates

Top	Bottom
2000.000 mm	0.000 mm

Vertices

Number	X	Y
1	-1291.423 mm	-1289.855 mm
2	1923.267 mm	-1216.913 mm
3	2000.000 mm	2000.000 mm
4	-1214.690 mm	1927.059 mm

Safe_Zone - Floor plan



Safe_Zone Verified: _____

2.2 Stop Configurations

ProtectiveStop

Mode	Stop category
Auto	Category1Stop

ProtectiveStop Verified: _____

ExternalEmergencyStop

Stop category
Category1Stop

ExternalEmergencyStop Verified: _____

InternalEmergencyStop

Stop category
Category1Stop

InternalEmergencyStop Verified: _____

3. Safe I/O Configuration

3.1 Global Signals

Name	Type	Default
AutomaticMode	BOOL	0
DriveEnable	BOOL	0
DriveEnableFeedback	BOOL	0
EmergencyStopActivated	BOOL	0
EnableSwitch	BOOL	0
ExternalEmergencyStopStatus	BOOL	0
LocalEmergencyStopStatus	BOOL	0
ManualFullSpeedMode	BOOL	0
ManualMode	BOOL	0
ProtectiveStop	BOOL	0
SafetyEnable	BOOL	1

3.2 Networks

Feedback

Feedback - Devices

SC_Feedback_Dev

Devices - Signals

Signals - Output

Name	Type	Default	Offset
AutomaticMode	BOOL	0	0
DriveEnable	BOOL	0	1
DriveEnableFeedback	BOOL	0	2
EmergencyStopActivated	BOOL	0	3
EnableSwitch	BOOL	0	4
ExternalEmergencyStopStatus	BOOL	0	5
LocalEmergencyStopStatus	BOOL	0	6
ManualFullSpeedMode	BOOL	0	7
ManualMode	BOOL	0	8
ProtectiveStop	BOOL	0	9
SafetyEnable	BOOL	1	10

ScLocIO

3.3 Function Mappings

Function	Signal	Mandatory	Description
AutomaticMode	AutomaticMode	true	
DriveEnable	DriveEnable	true	
LocalEmergencyStopStatus	LocalEmergencyStopStatus	true	
ManualMode	ManualMode	true	
ManualFullSpeedMode	ManualFullSpeedMode	true	

3. Safe I/O Configuration

Function	Signal	Mandatory	Description
SafetyEnable	SafetyEnable	true	
ExternalPowerControlActive	ExternalPowerControlActive	true	
ExternalPowerControlFeedback	ExternalPowerControlFeedback	true	
DriveEnableFeedback	DriveEnableFeedback	true	
ProtectiveStop	ProtectiveStop	true	
EnableSwitch	EnableSwitch	true	
EmergencyStopActivated	EmergencyStopActivated	true	
ExternalEmergencyStopStatus	ExternalEmergencyStopStatus	true	

4. Combinatorial Logic Configuration

4.1 Pre Logic

Name	Expression

4.2 Post Logic

Name	Expression

Complete functionality verified and tested

Date	Signature