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:	Safety User
Creation date:	2020-10-08T12:46:34.0585252+02:00
System name:	C1_R1_RW6-11
Configuration version:	1.03.01
Controller image version:	1.03.03
Checksum:	057ED200E6C49CC277C94149677BB14FC2E4F3B3C664D08F415B3C70DC6024D9
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_Prism

Activation	Active status	TCP	Orientation
Permanently active	No signal	x: 111.624 mm y: 17.600 mm z: 189.561 mm	x: 0.000 deg y: 0.000 deg z: 0.000 deg

t_A057_ClayTool02_Prism - Speed Supervision Points (Flange Coordinates)

Number	X	Y	Z

t_A057_ClayTool02_Prism - Tool Geometries

Tool Geometries - Capsule

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_Prism 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
500.000 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

4.2 Post Logic

Name	Expression

Complete functionality verified and tested

Date	Signature