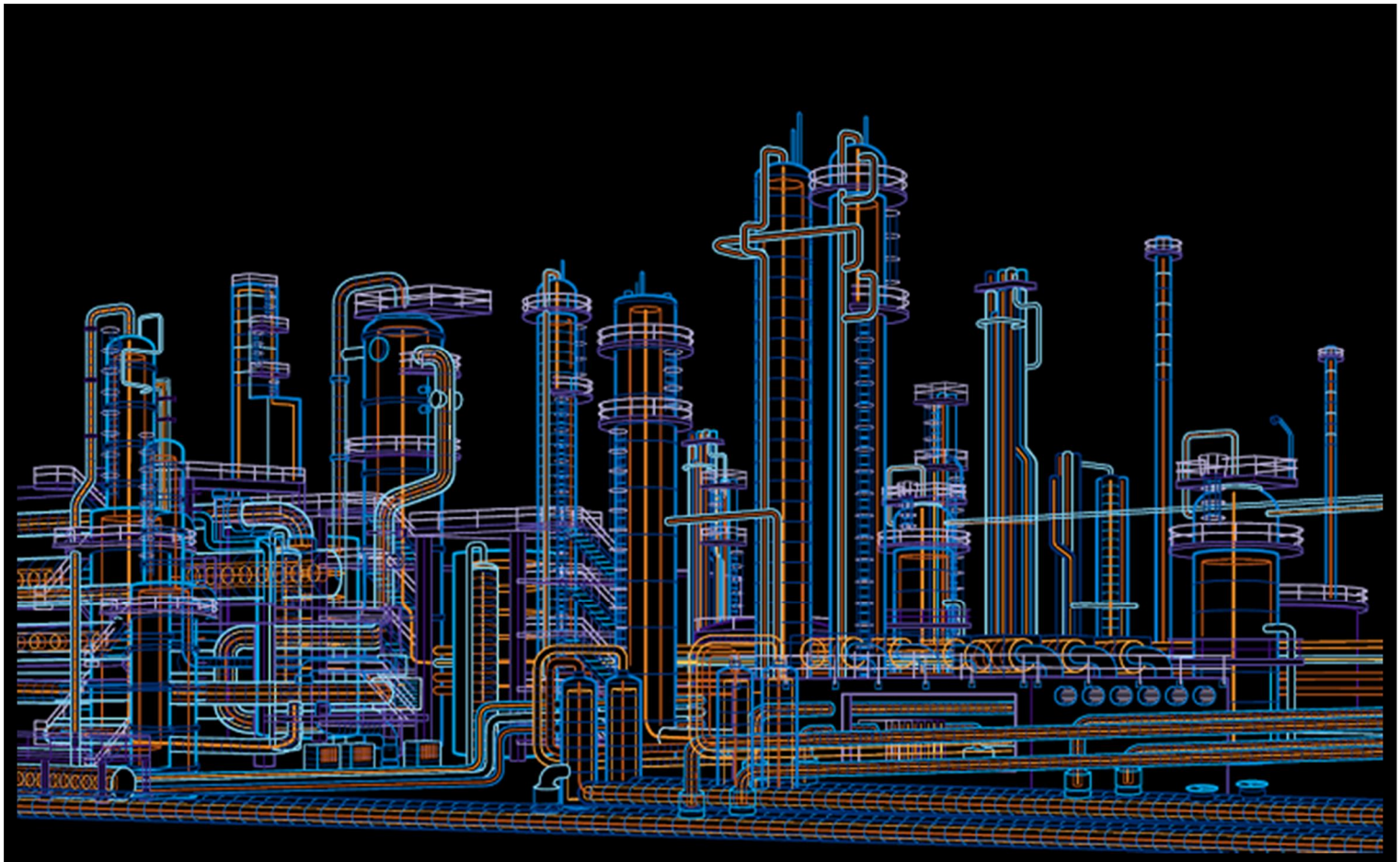

System 800xA
PC Toolkit Library for Melody Human System Interface - IDF User Manual

System Version 6.0

Power and productivity
for a better world™

Purpose

The purpose of this document is to describe the Human System Interface with Faceplates and Graphic Elements of the System 800xA with connectivity to Melody/AC870P. All elements are part of an 800xA System Extension, which will be used mainly in the Petrochemical Industry but also in other Process industries. This document defines the ABB Control System standards for the Human Machine Interface (HMI).

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Release: 2015-11-10

Document Number: 3BDA033448-600

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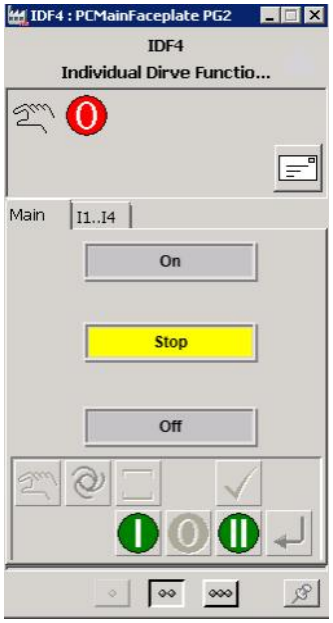
Human System Interface (Classic Style)

1. IDF – Individual Drive Function



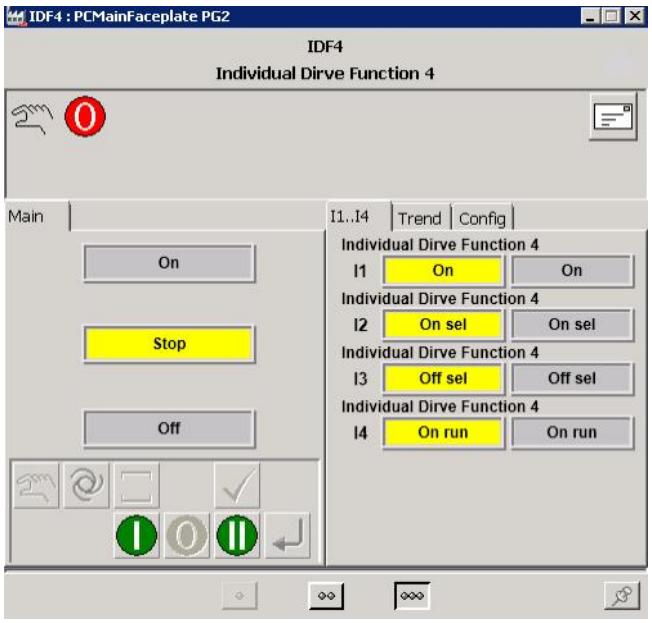


Figure: 1-1 Main View *Figure: 1-2 Extended View*

Basic information

Name:	**PCMainFaceplate**
Description:	PC MainFaceplate
Connect type:	Melody AC870P
Object type:	Individual Drive Function
Library:	-
Min. required 800xA version:	SV5.1RevA
Graphics Builder version:	PG2

Table: 1-1 Basic Information

Layout

Parameter	**Value**
Update rate (ms)	1000
Default view	Faceplate
Faceplate orientation	Horizontal

Table: 1-2 Layout information

Sizing information

Parameter in pixels	Main View	Ext. View
Width	250 px	500 px
Height	424 px	424 px
MaxNoOfIndicatorRows	2	2
MaxNoOfIndicatorsRerRow	6	12
MaxNoOfButtonRows	0	0
MaxNoOfButtonPerRow	6	12

Table: 1-3 Sizing Information

Elements

View	Aspect	Tab	NLS-ID	User role
Main	idf_FE_Main PG2	1	NLSID_PC_Main	EveryOne
Main	idf_FE_Binary PG2	1	NLSID_PC_I1_I4	EveryOne
Ext	idf_FE_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	idf_FE_BinaryExt PG2	2	NLSID_PC_I1_I4	EveryOne
Ext	idf_FE_Trend PG2	2	NLSID_PC_Trend	EveryOne
Ext	idf_FE_Config_ext PG2	2	NLSID_PC_Config	EveryOne

Table: 1-4 Faceplate Aspect names

1.1 Faceplate elements

1.1.1 idf_FE_Main PG2

This is the main view for the Individual Drive Function object type faceplate. It presents the overview of the end position status.

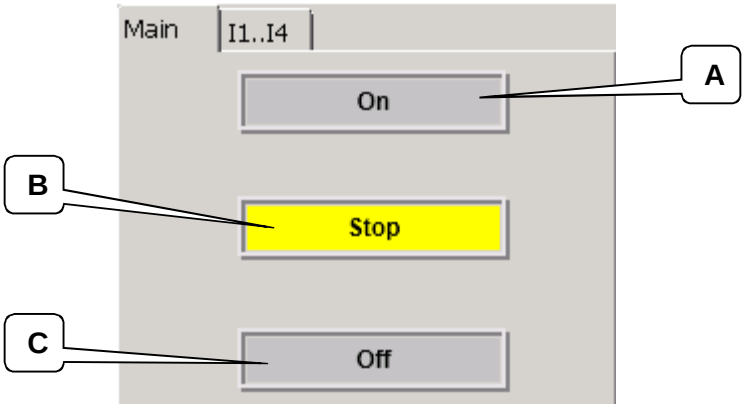


Figure: 1-3 Main Tab

ID	Comment	Property
A	Indication of “On” state (yellow color means active state)	State: E1/SIG
B	Indication of “Stop” state (yellow color means active state), visible only when configured	State: STP/SIG
C	Indication of “Off” state (yellow color means active state)	State: E0/SIG

Table: 1-5 Classic Faceplate Main tab Description

1.1.2 idf_FE_Binary PG2, idf_FE_BinaryExt PG2

This is the binary input view for the Individual Drive Function object type faceplate.

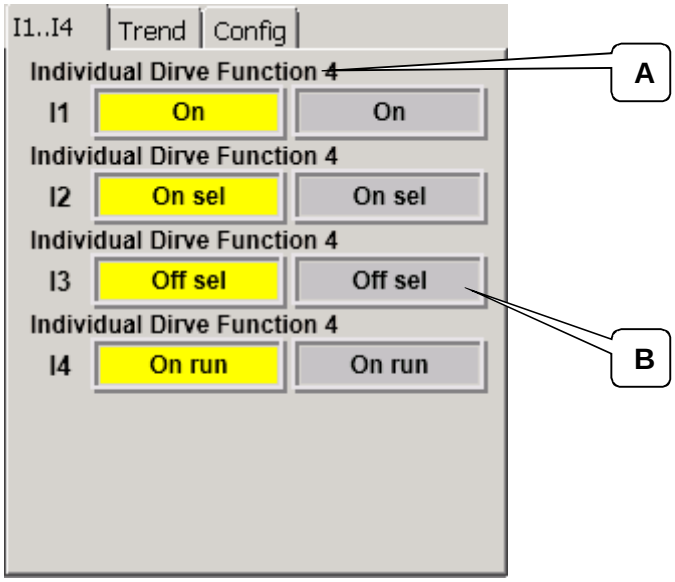


Figure: 1-4 Binary Tab

ID	Comment	Property
A	Description of binary signal (***X***=1..4)	I***X***/DESCRIPTION
B	State of binary signal (***X***=1..4)	I***X***/SIG

Table: 1-6 Classic Faceplate Binary tab Description

1.1.3 idf_FE_Trend PG2

This is the trend view for the Individual Drive Function object type faceplate.

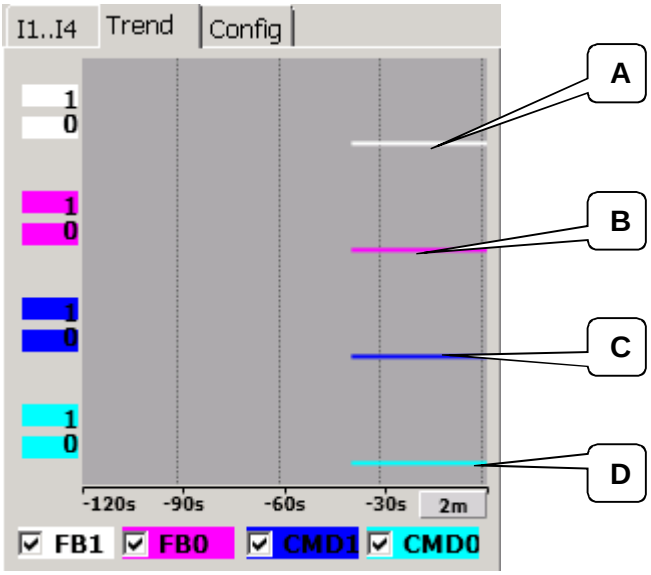


Figure: 1-5 Trend Tab

ID	Comment	Property
A	Feedback 1 curve (“E1” label)	FB1/SIG
B	Feedback 0 curve (“E0” label)	FB0/SIG
C	Command 1 curve (“CMD1” label)	CMD1/SIG
D	Command 0 curve (“CMD0” label)	CMD0/SIG

Table: 1-7 Classic faceplate Trend tab Description

1.1.4 idf_FE_Config PG2

Operation Lock and Manual Inhibit Write Permissions

The Melody faceplates' configuration tab allows checking **Operation Lock** in order to inhibit operator inputs. All buttons will be grayed out. Refer to document 3BDA033456R51xx Installation and Configuration in order to change the default write permission.

Manual Inhibit can be selected to manually inhibit all alarms of this Melody tag.

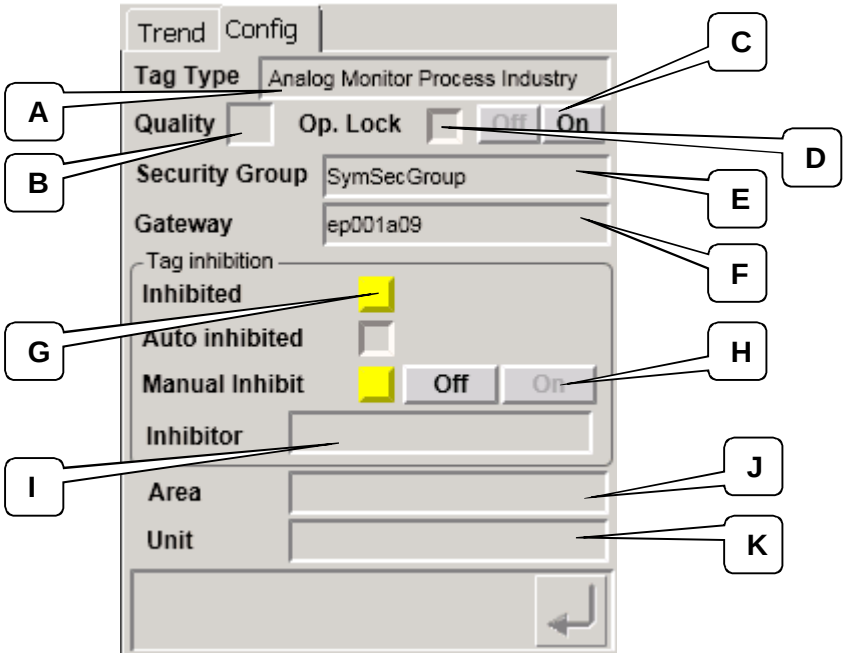


Figure: 1-6 Config Tab

ID	Comment	Property
A	Text describing the type of the tag	TYPE
B	Character which is providing Melody quality information	QUALITY
C	Buttons allow to switch Operating Lock on and off	On: AKO/SIG Off: AKOR/SIG
D	Binary indicator Yellow color: Op. Lock is On Gray color: Op. Lock is Off	AKO/SIG
E	Text describing the Melody security group to which this tag belongs	SECNAME
F	Text describing the Melody gateway to which this tag belongs	GATEWAY
G	Binary indicators are showing inhibition status (Yellow color = On)	INHB INHBAUTO INHBMAN

ID	Comment	Property
H	Buttons allow to manually inhibit the tag	INHBMAN
I	Information about inhibitor	INHBTAG
J	Text describing Melody area to which tag belongs	AREA
K	Text describing Melody unit to which tag belongs	UNIT

Table: 1-8 Classic Faceplate Config tab Description

1.2 Indicators

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Automatic mode set	not MAN/SIG	1	1	1
	Manual mode set	MAN/SIG	1	1	1
	Automatic mode locked	not MAN/SIG and LOCK/SIG	1	1	1
	Manual mode locked	MAN/SIG and LOCK/SIG	1	1	1
	Off/Stop state	(not STP/SET and CMD0/SIG and E0/SIG) or (STP/SET and STP/SIG)	2	2	2
	On/On1 state	(STP/SET and CMD0/SIG and E0/SIG) or (not STP/SET and CMD1/SIG and E1/SIG)	2	2	2
	On2 state	STP/SET and CMD1/SIG and E1/SIG	2	2	2
	Going Off state	(not STP/SET and CMD0/SIG and not E0/SIG)	2	2	2
	Going to On/On1 state	(not STP/SET and CMD1/SIG and not E1/SIG) or (STP/SET and CMD0/SIG and not E0/SIG)	2	2	2
	Going to On2 state	STP/SET and CMD1/SIG and not E1/SIG	2	2	2
	Protective action 1	P1/SIG	3	3	3
	Protective action 0	P0/SIG	3	3	3
	Protective action	STP/SET and P0/SIG and P1/SIG	3	3	3
	Auto command 1	IC1/SIG	4	4	4

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Interlock 1	not R1/SIG	4	4	4
	Blocked pos 1	BLK1/SIG	5	5	5
	Blocked pos 0	BLK0/SIG	5	5	5
	Error	ERR/SIG	6	6	6
	External error	EER/SIG	6	6	6
	Fault action active	ERI/SIG	6	6	6
	Local intervention	LI/SIG	7	7	7
	Operation inhibited	INHI/SIG or OPHP/SIG	7	7	13
	Forced	(STP/SET and STP/SIG:QS=”&”) or E0/SIG:QS=”&” or E1/SIG:QS=”&”	8	8	14
	Test mode	TEST/SIG	8	8	14
	Run time error pos 1	RF1/SIG	9	9	15
	Run time error pos 0	RF0/SIG	9	9	15
	End position error pos 1	EF1/SIG	9	9	15
	End position error pos 0	EF0/SIG	9	9	15
	Auto command 0	IC0/SIG	10	10	16
	Interlock 0	not R0/SIG	10	10	16
	Operator lock	OPL/SIG	11	11	10
	Operator note available		-	-	11

Table: 1-9 Indicators

1.3 Aspect Links

Icon	Description	Aspect	Position		
			Red	FP	Ext
	Operator note	Operator note	12	12	12

Table: 1-10 Aspect Links

1.4 Faceplate Buttons

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Set manual mode	MAN/SIG	1	1	1
	Set automatic mode	AUT/SIG	2	2	2
	Set/Reset operation mode lock	LOCK/SIG	3	3	3
	Acknowledge error	ACK/SIG	5	5	5
	Set command Off (1 direction IDF)	CMD0/SIG	10	10	10
	Set command On (1 direction IDF)	CMD1/SIG	11	11	11
	Set command On1 (2 direction IDF)	CMD0/SIG	9	9	9
	Set command Stop (2 direction IDF)	STP/SIG	10	10	10
	Set command On2 (2 direction IDF)	CMD1/SIG	11	11	11
	Set command -	CMD-/SIG	10	10	11
	Set command +	CMD+/SIG	10	10	11
	Apply the selected action	-	12	12	12

Table: 1-11 Faceplate Buttons

1.5 Graphic Elements

The following Graphic Elements have the following standard properties and enumeration.

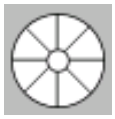
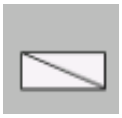
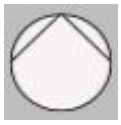
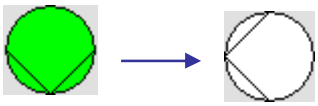
Standard properties

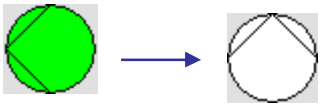
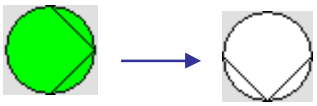
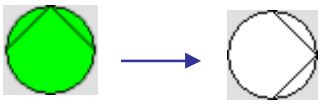
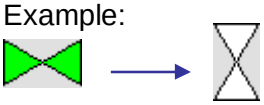
Property	Data type	Default value	Description
EnableInput	Boolean	True	Enables input handling of the element, if false the element it self can't selected.
Name	String	-	Name of the element instance in a graphic display. Is set automatically by the Graphics Builder (Name of the element + index).
Rotation	Rotation	0	Rotation angle
SubscriptionRate	Integer	0	Update rate for all properties subscribed for
Transform	Transform	Empty	Enables animation like scaling, moving and rotation. It is intended only for dynamic values.
Visible	Boolean	True	Visibility of the element in the graphic display.
XPos	Float	-	X position of the upper left corner of the element
YPos	Float	-	Y position of the upper left corner of the element

Table: 1-12 Standard Properties for all Graphic Elements

Graphic Elements based on Melody object type INDIVIDUAL DRIVE FUNCTION

Example	Graphic Element Name	Description
	idf_cmd0_op_PG2	„OFF" command. Push button with apply.
	idf_cmd0_op_1step_PG2	„OFF" command. Push button without apply.
	idf_cmd1_op_PG2	„ON" command. Push button with apply.
	idf_cmd1_op_1step_PG2	„ON" command. Push button without apply.

Example	Graphic Element Name	Description
	idf_cmd0_1_op_text_pg2	Command button “OFF/ON” with text. Push button with apply.
	idf_cmd0_op_text	Command button “OFF” with text. Push button with apply.
	idf_cmd1_op_text_pg2	Command button “ON” with text. Push button with apply.
	idf_3way_valve_PG2	Mode icon Three-way-valve
	idf_bucket_wheel_PG2	Mode icon Bucket Wheel
	idf_com_PG2	Mode icon Compressor
	idf_engine_PG2	Mode icon Engine/Motor
	idf_fan_PG2	Mode icon Fan
	idf_flap_PG2	Mode icon Flap
	idf_pump_PG2	Mode icon Pump
	idf_pump_bottom_rot_PG2	Mode icon Pump that rotates when switched on or off. The orientation is to bottom when running and to left if not running. Example: 

Example	Graphic Element Name	Description
	idf_pump_left_rot_PG2	Mode icon Pump that rotates when switched on or off. The orientation is to left when running and to top if not running. Example: 
	idf_pump_right_rot_PG2	Mode icon Pump that rotates when switched on or off. The orientation is to the right when running and to the bottom if not running. Example: 
	idf_pump_top_rot_PG2	Mode icon Pump that rotates when switched on or off. The orientation is to the top when running and to the right if not running. Example: 
	idf_valve _PG2	Mode icon Valve
	idf_valve_hor_rot_PG2	Mode icon Valve that rotates when switched on or off. The orientation is horizontal when open and vertical if closed. Example: 
	idf_valve_vert_rot_PG2	Mode icon Valve that rotates when switched on or off. The orientation is vertical when open and horizontal if closed. Example:

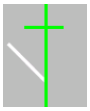
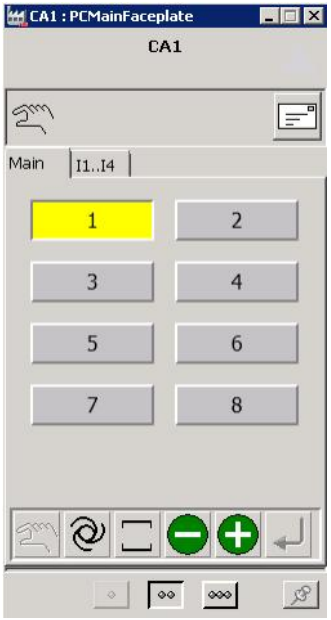
Example	Graphic Element Name	Description
	idf_return_PG2	Mode icon Return
	idf_switch_PG2	Mode icon Switch
	idf_mode_PG2	Mode icon showing the current drive function operating mode like manual and automatic
	idf_mode_extended_PG2	Like idf_mode but with extended information: or or
	idf_mode_extended_horizontal_PG2	Extended information are right displayed
	idf_interlock_PG2	Calls up the interlock display of the IDF. Is only visible when: - Protect 0 or Protect 1 - IDF Zero State (e.g. closed) and not release 1 - IDF One State (e.g. open) and not release 0
	idf_text_PG2	Value Text Box for binary values: IsOn, IsOff, IsGoingOn, IsGoingOff and IsStopped.
	idf_text_2bit_I1I2_PG2	2 Bit Value Text Box for binary values (I1 and I2), that supports up to four different text definitions.
	idf_i1_text_PG2	Value Text Box for binary value I1
	idf_i2_text_PG2	Value Text Box for binary value I2
	idf_i3_text_PG2	Value Text Box for binary value I3
	idf_i4_text_PG2	Value Text Box for binary value I4

Table: 1-13 Melody IDF GE

2. COA – Change-Over Automatic



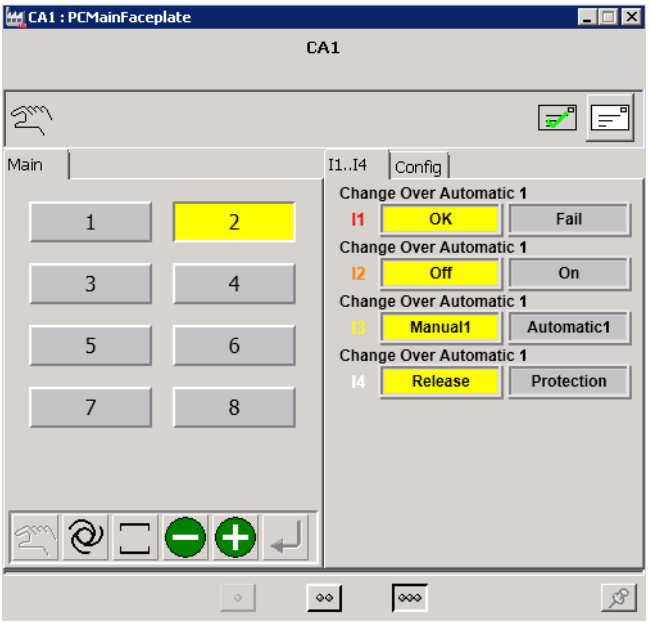


Figure: 2-1 Main View *Figure: 2-2 Extended View*

Basic information

Name:	**PCMainFaceplate**
Description:	PC MainFaceplate
Connect type:	Melody AC870P
Object type:	Change-Over Automatic
Library:	-
Min. required 800xA version:	SV5.1RevA
Graphics Builder version:	PG2

Table: 2-1 Basic Information

Layout

Parameter	**Value**
Update rate (ms)	1000
Default view	Faceplate
Faceplate orientation	Horizontal

Table: 2-2 Layout information

Sizing information

Parameter in pixels	Main View	Ext. View
Width	250 px	500 px
Height	424 px	424 px
MaxNoOfIndicatorRows	1	1
MaxNoOfIndicatorsRerRow	6	12
MaxNoOfButtonRows	0	0
MaxNoOfButtonPerRow	6	12

Table: 2-3 Sizing Information

Indicator and button icons are displayed on dedicated positions. Position 1 is the upper left corner. Position 12 is the lower right corner. Position 0 is not shown.

Elements

View	Aspect	Tab	NLS-ID	User role
Main	coa_FE_Main PG2	1	NLSID_PC_Main	EveryOne
Main	coa_FE_Binary PG2	1	NLSID_PC_I1_I4	EveryOne
Ext	coa_FE_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	coa_FE_Binary PG2	2	NLSID_PC_I1_I4	EveryOne
Ext	coa_FE_Config PG2	2	NLSID_PC_Config	EveryOne

Table: 2-4 Faceplate Aspect names

2.1 Faceplate elements

2.1.1 coa_FE_Main PG2

This is the main view for the Change-Over Automatic object type faceplate. It presents change over status between 2 to 8 individual drive functions. Status is presented via operable buttons.

Visibility of controls depends on relevant '/SET' signal.

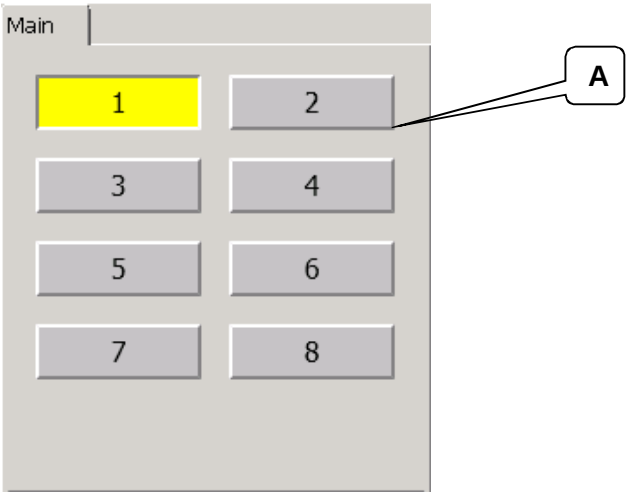


Figure: 2-3 Main Tab

ID	Comment	Property
A	Indication of "On" state (yellow color means active state). Pressing button sets active unit.	State: PU*x*/SIG Visible: Pu*x*/SET *x* = number 1 to 8

Table: 2-5 Classic Faceplate Main tab Description

2.1.2 coa_FE_Binary PG2, coa_FE_BinaryExt PG2

This is overview of binary inputs for Change-Over Automatic object type faceplate.

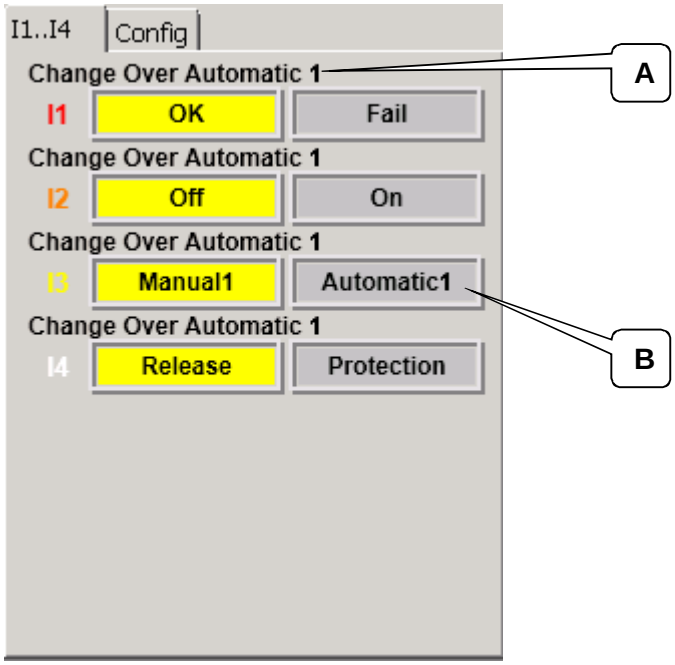


Figure: 2-4 Binary Tab

ID	Comment	Property
A	Description of binary signal (***X***=1..4)	I***X***/DESCRIPTION
B	State of binary signal (***X***=1..4)	I***X***/SIG

Table: 2-6 Classic Faceplate Binary tab Description

2.1.3 coa_FE_Config PG2

Operation Lock and Manual Inhibit Write Permissions

The Melody faceplates' configuration tab allows checking **Operation Lock** in order to inhibit operator inputs. All buttons will be grayed out. Refer to document 3BDA033456R51xx Installation and Configuration in order to change the default write permission.

Manual Inhibit can be selected to manually inhibit all alarms of this Melody tag.

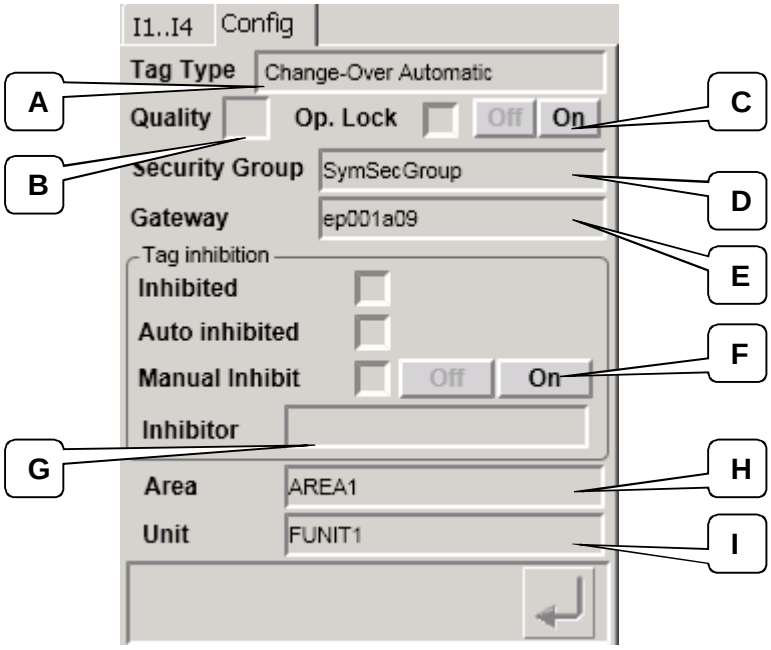


Figure: 2-5 Config Tab

ID	Comment	Property
A	Text describing the type of the tag	TYPE
B	Character which is providing Melody quality information	QUALITY
C	Buttons allow to switch Operating Lock on and off	OPL/SIG
D	Text describing the Melody security group to which this tag belongs	SECNAME
E	Text describing the Melody gateway to which this tag belongs	GATEWAY
F	Buttons allow to manually inhibit the tag Indications of tag inhibition (Yellow fill color - inhibited)	INHB INHBAUTO INHBMAN
G	Information about inhibitor	INHBTAG
H	Text describing Melody area to which tag belongs	AREA

ID	Comment	Property
I	Text describing Melody unit to which tag belongs	UNIT

Table: 2-7 Classic Faceplate Config tab Description

2.2 Indicators

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Automatic mode set	AUT/SIG	-	1	1
	Manual mode set	MAN/SIG	-	1	1
	Automatic mode locked	AUT/SIG and LOCK/SIG	-	1	1
	Manual mode locked	MAN/SIG and LOCK/SIG	-	1	1
	Inhibited	INHI/SIG	-	2	2
S<A	SP < Actual value	SLEA/SIG	-	3	3
S>A	SP > Actual value	SGRA/SIG	-	3	3
	Disturbed	ER/SIG	-	4	4
Poff	First up unit off	PUOFF/SIG	-	4	4
	Operator Lock active	OPL/SIG	-	5	10
	Operator note available		-	-	11

Table: 2-8 Indicators

2.3 Aspect Links

Icon	Description	Aspect	Position		
			Red	FP	Ext
	Operator note	Operator note	-	6	12

Table: 2-9 Aspect Links

2.4 Faceplate Buttons

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Set manual mode	MAN/SIG	-	1	1
	Set automatic mode	AUT/SIG	-	2	2
	Set/Reset operation mode lock	LOCK/SIG	-	3	3
	Set command -, Switch to previous unit	CMD-/SIG	-	4	4
	Set command , Switch to next unit	CMD+/SIG	-	5	5
	Apply the selected action	-	-	6	6

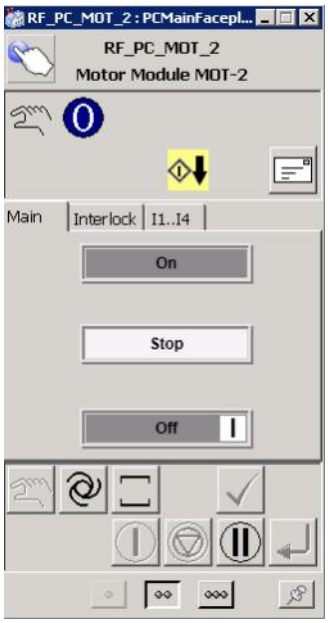
Table: 2-10 Faceplate Buttons

2.5 Graphic Elements

There are no available graphic elements for this object type.

Human System Interface (High Performance Style)

3. IDF – Individual Drive Function



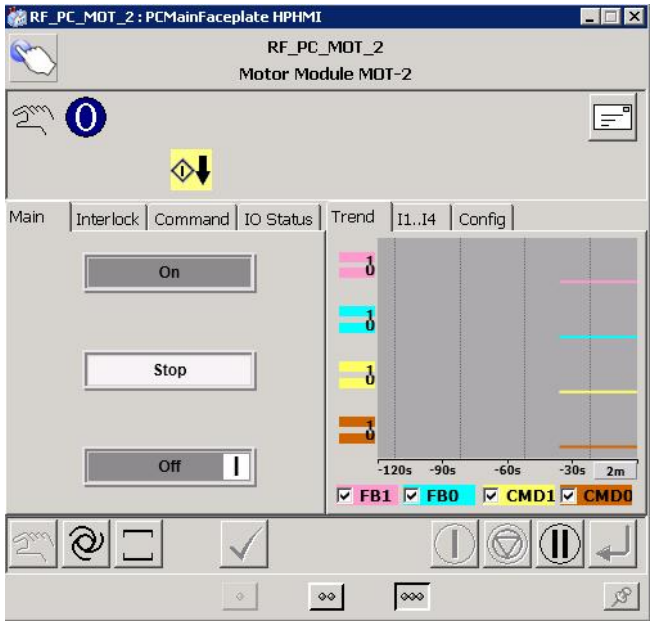


Figure: 3-1 Main View *Figure: 3-2 Extended View*

Basic information

Name:	**PCMainFaceplate HPHMI**
Description:	PC HPHMI Main Faceplate
Connect type:	Melody AC870P
Object type:	Individual Drive Function
Library:	-
Min. required 800xA version:	SV5.1RevA
Graphics Builder version:	PG2

Table: 3-1 Basic Information

Layout

Parameter	**Value**
Update rate (ms)	1000
Default view	Faceplate
Faceplate orientation	Horizontal
Reduced View	Not available

Table: 3-2 Layout information

Sizing information

Parameter in pixels	Main View	Ext. View
Width	250 px	500 px
Height	424 px	424 px
MaxNoOfIndicatorRows	2	2
MaxNoOfIndicatorsRerRow	6	12
MaxNoOfButtonRows	2	1
MaxNoOfButtonPerRow	6	12

Table: 3-3 Sizing Information

Indicator and button icons are displayed on dedicated positions. Position 1 is the upper left corner. Position 12 is the lower right corner. Position 0 is not shown.

Elements

View	Aspect	Tab	NLS-ID	User role
Main	idf_FE_HPHMI_Main	1	NLSID_PC_Main	EveryOne
Main	idf_FE_HPHMI_Interlock	1	NLSID_PC_Mel_Interlock	EveryOne
Main	idf_FE_HPHMI_Binary	1	NLSID_PC_I1_I4	EveryOne
Ext	idf_FE_HPHMI_Main_ext	1	NLSID_PC_Main	EveryOne
Ext	idf_FE_HPHMI_Interlock_ext	1	NLSID_PC_Mel_Interlock	EveryOne
Ext	idf_FE_HPHMI_Command	1	NLSID_PC_Mel_Command	EveryOne
Ext	idf_FE_HPHMI_Status	1	NLSID_PC_Mel_IOStatus	EveryOne
Ext	idf_FE_HPHMI_Trend	1	NLSID_PC_Mel_Trend	EveryOne
Ext	idf_FE_HPHMI_Binary_ext	1	NLSID_PC_I1_I4	EveryOne
Ext	idf_FE_HPHMI_Config_ext	2	NLSID_PC_Config	EveryOne

Table: 3-4 Faceplate Aspect names

3.1 Faceplate elements

3.1.1 idf_FE_HPHMI_Main, idf_FE_HPHMI_Main_ext

This is the main view for the Individual Drive Function object type faceplate. It presents the overview of the end position status.

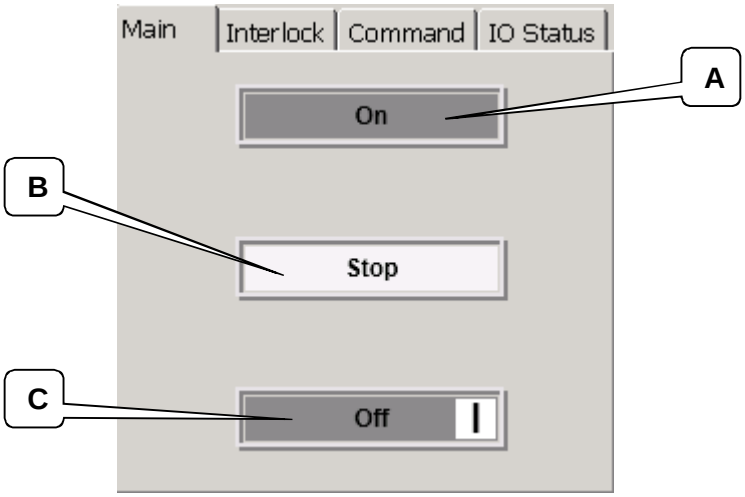


Figure: 3-3 Main Tab

ID	Comment	Property
A	Indication of “On” state (white color means active state)	State: E1/SIG
B	Indication of “Stop” state (white color means active state), visible only when configured	State: STP/SIG
C	Indication of “Off” state (white color means active state)	State: E0/SIG

Table: 3-5 HPHMI Faceplate Main tab Description

3.1.2 idf_FE_HPHMI_Interlock, idf_FE_HPHMI_Interlock_ext

This is the Interlock status view for the Individual Drive Function object type faceplate. All buttons link to IDF Viewer aspect.

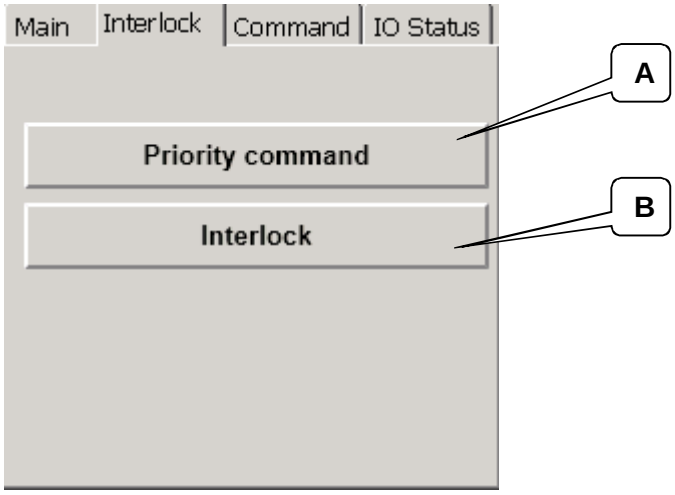


Figure: 3-4 HPHMI Faceplate Interlock Tab

ID	Comment	Property
A	Indication of active priority command	P0/SIG || P1/SIG
B	Indication of active interlock condition	!R0/SIG || !R1/SIG

Table: 3-6 HPHMI Faceplate Interlock tab Description

3.1.3 idf_FE_HPHMI_Command

This is the auto command status view for the Individual Drive Function object type faceplate.

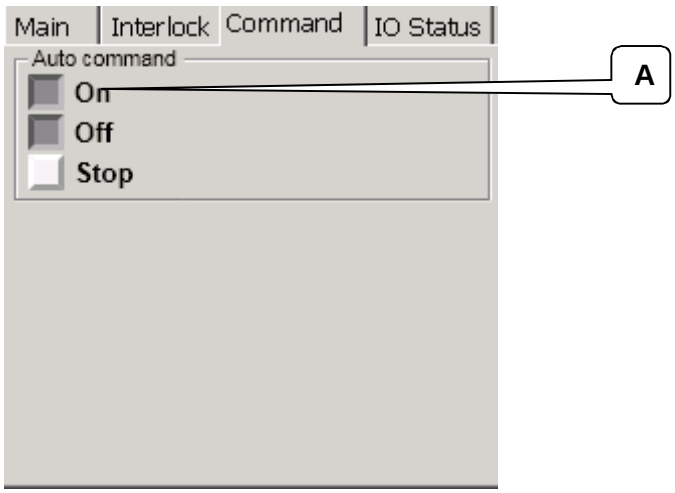


Figure: 3-5 HPHMI Faceplate Command Tab

ID	Comment	Property
A	Indication of auto command	On: IC1/SIG Off: IC0/SIG Stop: STP/SIG

Table: 3-7 HPHMI Faceplate Command tab Description

3.1.4 idf_FE_HPHMI_Status

This is the output and feedback status view for the Individual Drive Function object type faceplate.

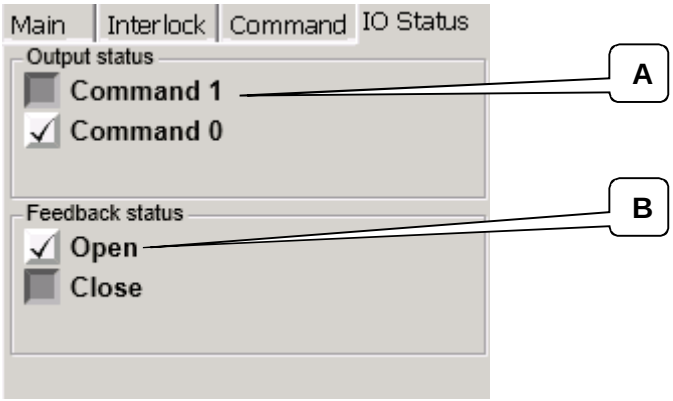


Figure: 3-6 HPHMI Faceplate Status Tab

ID	Comment	Property
A	Indication of active command	Command 1: CMD1/SIG Command 0: CMD0/SIG
B	Active feedback status	On: E1/SIG Off: E0/SIG

Table: 3-8 HPHMI Faceplate Status tab Description

3.1.5 idf_FE_HPHMI_Trend

This is the trend view for the Individual Drive Function object type faceplate.

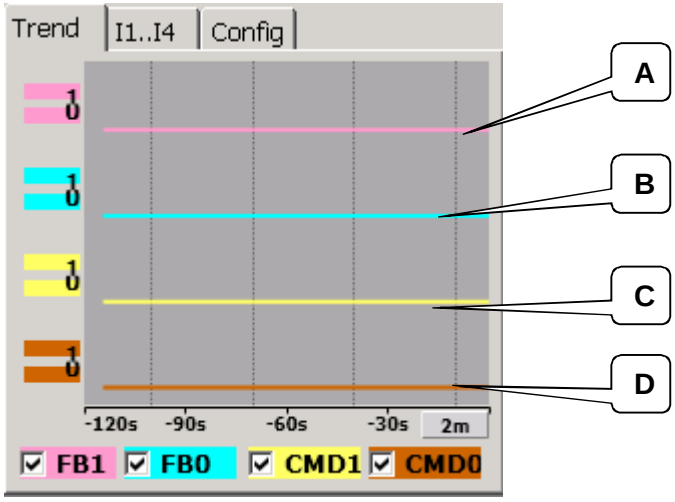


Figure: 3-7 HPHMI Faceplate Trend Tab

ID	Comment	Property
A	Feedback 1 curve (“FB1” label)	FB1/SIG
B	Feedback 0 curve (“FB0” label)	FB0/SIG
C	Command 1 curve (“CMD1” label)	CMD1/SIG
D	Command 0 curve (“CMD0” label)	CMD0/SIG

Table: 3-9 HPHMI Faceplate Trend tab Description

3.1.6 idf_FE_HPHMI_Binary, idf_FE_HPHMI_Binary_ext

This is the binary input view for the Individual Drive Function object type faceplate.

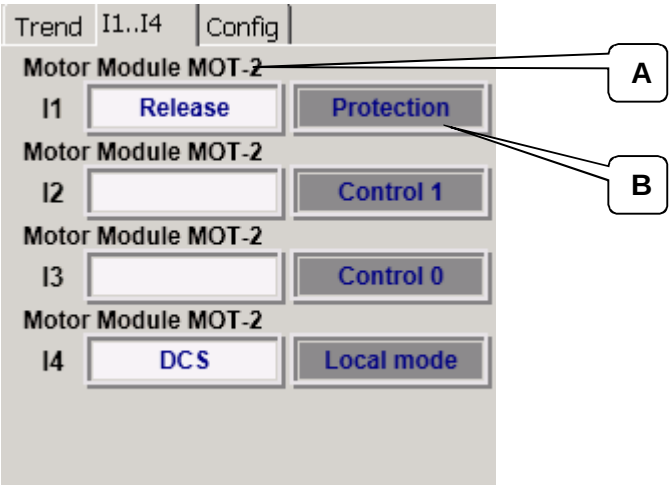


Figure: 3-8 HPHMI Faceplate Binary Tab

ID	Comment	Property
A	Description of binary signal (***X***=1..4)	I***X***/DESCRIPTION
B	State of binary signal (***X***=1..4)	I***X***/SIG

Table: 3-10 HPHMI Faceplate Binary tab Description

3.1.7 idf_FE_HPHMI_Config

Operation Lock and Manual Inhibit Write Permissions

The Melody faceplates' configuration tab allows checking **Operation Lock** in order to inhibit operator inputs. All buttons will be grayed out. Refer to document 3BDA033456R51xx Installation and Configuration in order to change the default write permission.

Manual Inhibit can be selected to manually inhibit all alarms of this Melody tag.

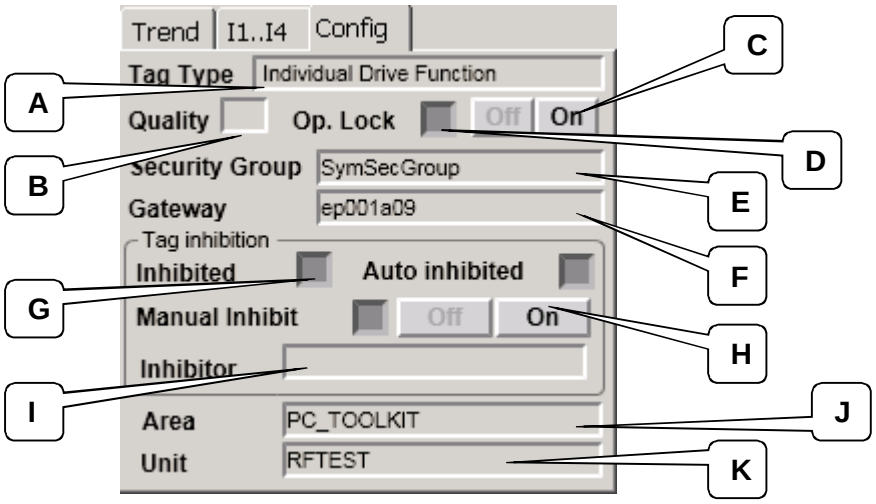


Figure: 3-9 HPHMI Faceplate Config Tab

ID	Comment	Property
A	Text describing the type of the tag	TYPE
B	Character which is providing Melody quality information	QUALITY
C	Buttons allow to switch Operating Lock on and off	Off: AKOR/SIG On: AKO/SIG
D	Binary indicator White color: Op. Lock is On Gray color: Op. Lock is Off	AKO/SIG
E	Text describing the Melody security group to which this tag belongs	SECNAME
F	Text describing the Melody gateway to which this tag belongs	GATEWAY
G	Binary indicators are showing inhibition status (white color = On)	INHB INHBAUTO INHBMAN
H	Buttons allow to manually inhibit the tag	INHBMAN
I	Information about inhibitor	INHBTAG
J	Text describing Melody area to which tag belongs	AREA

ID	Comment	Property
K	Text describing Melody unit to which tag belongs	UNIT

Table: 3-11 HPHMI Faceplate Config tab Description

3.2 Indicators

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Automatic mode set	not MAN/SIG	-	1	1
	Manual mode set	MAN/SIG	-	1	1
	Automatic mode locked	not MAN/SIG and LOCK/SIG	-	1	1
	Manual mode locked	MAN/SIG and LOCK/SIG	-	1	1
	Off/Stop state	(not STP/SET and CMD0/SIG and E0/SIG) or (STP/SET and STP/SIG)	-	2	2
	On/On1 state	(STP/SET and CMD0/SIG and E0/SIG) or (not STP/SET and CMD1/SIG and E1/SIG)	-	2	2
	On2 state	STP/SET and CMD1/SIG and E1/SIG	-	2	2
	Going Off state	(not STP/SET and CMD0/SIG and not E0/SIG)	-	2	2
	Going to On/On1 state	(not STP/SET and CMD1/SIG and not E1/SIG) or (STP/SET and CMD0/SIG and not E0/SIG)	-	2	2
	Going to On2 state	STP/SET and CMD1/SIG and not E1/SIG	-	2	2
	Protective action 1	P1/SIG	-	3	3
	Protective action 0	P0/SIG	-	3	3
	Protective action	STP/SET and P0/SIG and P1/SIG	-	3	3
	Auto command 1	IC1/SIG	-	4	4
	Interlock 1	not R1/SIG	-	4	4
	Blocked pos 1	BLK1/SIG	-	5	5
	Blocked pos 0	BLK0/SIG	-	5	5

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Error	ERR/SIG	-	6	6
	External error	EER/SIG	-	6	6
	Fault action active	ERI/SIG	-	6	6
	Local intervention	LI/SIG	-	7	7
	Operation inhibited	INHI/SIG or OPHP/SIG	-	7	13
	Forced	(STP/SET and STP/SIG:QS="&") or E0/SIG:QS="&" or E1/SIG:QS="&"	-	8	14
	Test mode	TEST/SIG	-	8	14
	Run time error pos 1	RF1/SIG	-	9	15
	Run time error pos 0	RF0/SIG	-	9	15
	End position error pos 1	EF1/SIG	-	9	15
	End position error pos 0	EF0/SIG	-	9	15
	Auto command 0	IC0/SIG	-	10	16
	Interlock 0	not R0/SIG	-	10	16
	Operator lock	OPL/SIG	-	11	10
	Operator note available		-	-	11

Table: 3-12 Indicators

3.3 Aspect Links

Icon	Description	Aspect	Position		
			Red	FP	Ext
	Operator note	Operator note	-	12	12

Table: 3-13 Aspect Links

3.4 Faceplate Buttons

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Set manual mode	MAN/SIG	-	1	1
	Set automatic mode	AUT/SIG	-	2	2
	Set command Off (1 direction IDF)	CMD0/SIG	-	10	10
	Set command On (1 direction IDF)	CMD1/SIG	-	11	11
	Set command On1 (2 direction IDF)	CMD0/SIG	-	9	9
	Set command Stop (2 direction IDF)	STP/SIG	-	10	10
	Set command On2 (2 direction IDF)	CMD1/SIG	-	11	11
	Set command -	CMD-/SIG	-	10	11
	Set command +	CMD+/SIG	-	10	11
	Set/Reset operation mode lock	LOCK/SIG	-	3	3
	Acknowledge error	ACK/SIG	-	5	5
	Apply the selected action	-	-	6	12

Table: 3-14 Faceplate Buttons

3.5 Graphic Elements

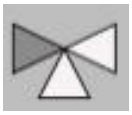
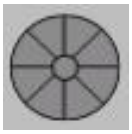
The following Graphic Elements have the following standard properties and enumeration.

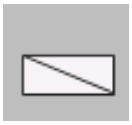
Standard properties

Property	Data type	Default value	Description
EnableInput	Boolean	True	Enables input handling of the element, if false the element it self can't selected.
Name	String	-	Name of the element instance in a graphic display. Is set automatically by the Graphics Builder (Name of the element + index).
Rotation	Rotation	0	Rotation angle
SubscriptionRate	Integer	0	Update rate for all properties subscribed for
Transform	Transform	Empty	Enables animation like scaling, moving and rotation. It is intended only for dynamic values.
Visible	Boolean	True	Visibility of the element in the graphic display.
XPos	Float	-	X position of the upper left corner of the element
YPos	Float	-	Y position of the upper left corner of the element

Table: 3-15 Standard Properties for all Graphic Elements

Graphic Elements based on Melody object type INDIVIDUAL DRIVE FUNCTION

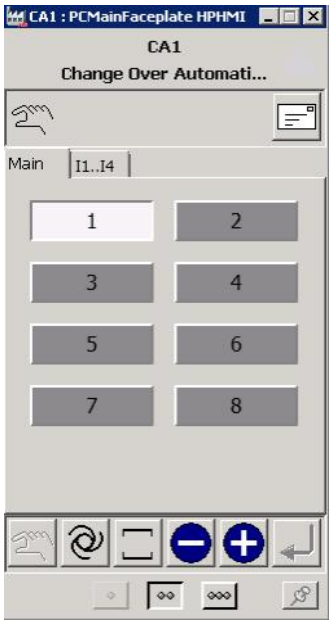
Example	Graphic Element Name	Description
	idf_HPHMI_AlarmInd	Alarm indication
	idf_HPHMI_3wayvalve	Three-way valve symbol
	idf_HPHMI_bucketwheel	Bucket-wheel symbol

Example	Graphic Element Name	Description
	idf_HPHMI_comp	Compressor symbol
	idf_HPHMI_engine	Engine symbol
	idf_HPHMI_fan	Fan symbol
	idf_HPHMI_flap	Flap symbol
	idf_HPHMI_i1_text	Text indication based on signal I1
	idf_HPHMI_i2_text	Text indication based on signal I2
	idf_HPHMI_i3_text	Text indication based on signal I3
	idf_HPHMI_i4_text	Text indication based on signal I4
	idf_HPHMI_pump	Pump symbol
	idf_HPHMI_return	Return symbol
	idf_HPHMI_text	IDF text indication
	idf_HPHMI_valve	Valve symbol

Example	Graphic Element Name	Description
	idf_HPHMI_mode	Operating mode indication
	idf_HPHMI_mode_extended	Extended operating mode indication
	idf_HPHMI_mode_extended_ horizontal	Operating mode indication
	idf_HPHMI_interlock	Interlock indication

Table: 3-16 Melody IDF GE

4. COA – Change-Over Automatic



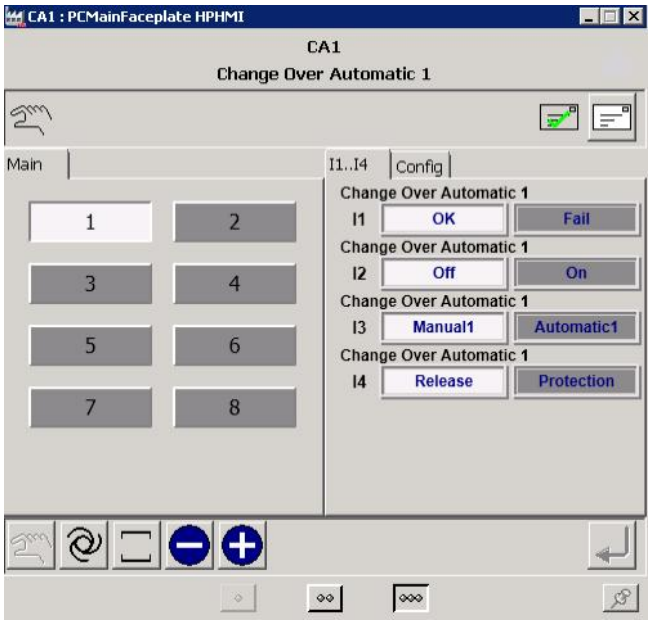


Figure: 4-1 Main View *Figure: 4-2 Extended View*

Basic information

Name:	**PCMainFaceplate HPHMI**
Description:	PC HPHMI MainFaceplate
Connect type:	Melody AC870P
Object type:	Change-Over Automatic
Library:	-
Min. required 800xA version:	SV5.1RevA
Graphics Builder version:	PG2

Table: 4-1 Basic Information

Layout

Parameter	**Value**
Update rate (ms)	1000
Default view	Faceplate
Faceplate orientation	Horizontal

Table: 4-2 Layout information

Sizing information

Parameter in pixels	Main View	Ext. View
Width	250 px	500 px
Height	424 px	424 px
MaxNoOfIndicatorRows	1	1
MaxNoOfIndicatorsRerRow	6	12
MaxNoOfButtonRows	1	1
MaxNoOfButtonPerRow	6	12

Table: 4-3 Sizing Information

Indicator and button icons are displayed on dedicated positions. Position 1 is the upper left corner. Position 12 is the lower right corner. Position 0 is not shown.

Elements

View	Aspect	Tab	NLS-ID	User role
Main	coa_FE_HPHMI_Main PG2	1	NLSID_PC_Main	EveryOne
Main	coa_FE_HPHMI_Binary PG2	1	NLSID_PC_I1_I4	EveryOne
Ext	coa_FE_HPHMI_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	coa_FE_HPHMI_BinaryExt PG2	2	NLSID_PC_I1_I4	EveryOne
Ext	coa_FE_HPHMI_Config PG2	2	NLSID_PC_Config	EveryOne

Table: 4-4 Faceplate Aspect names

4.1 Faceplate elements

4.1.1 coa_FE_HPHMI_Main PG2

This is the main view for the Change-Over Automatic object type faceplate. It presents change over status between 2 to 8 individual drive functions. Status is presented via operable buttons.

Visibility of controls depends on relevant '/SET' signal.

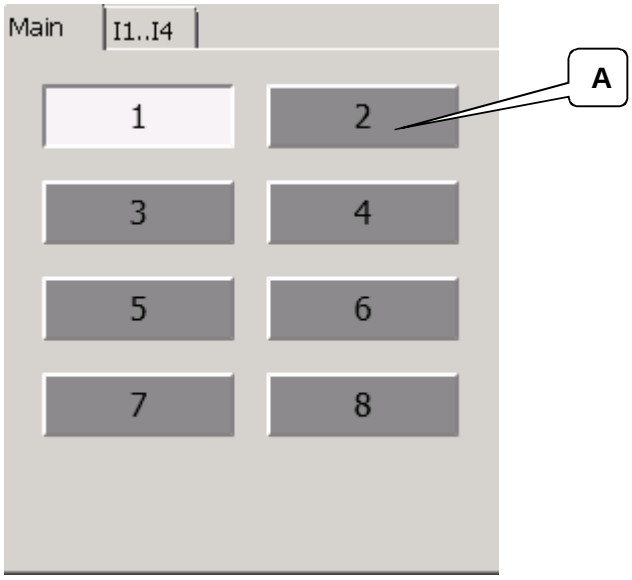


Figure: 4-3 Main Tab

ID	Comment	Property
A	Indication of "On" state (yellow color means active state). Pressing button sets active unit.	State: PU*x*/SIG Visible: PU*x*/SET *x* = number 1 to 8

Table: 4-5 HPHMI Faceplate Main tab Description

4.1.2 coa_FE_HPHMI_Binary PG2, coa_FE_HPHMI_BinaryExt PG2

This is overview of binary inputs for Change-Over Automatic object type faceplate.

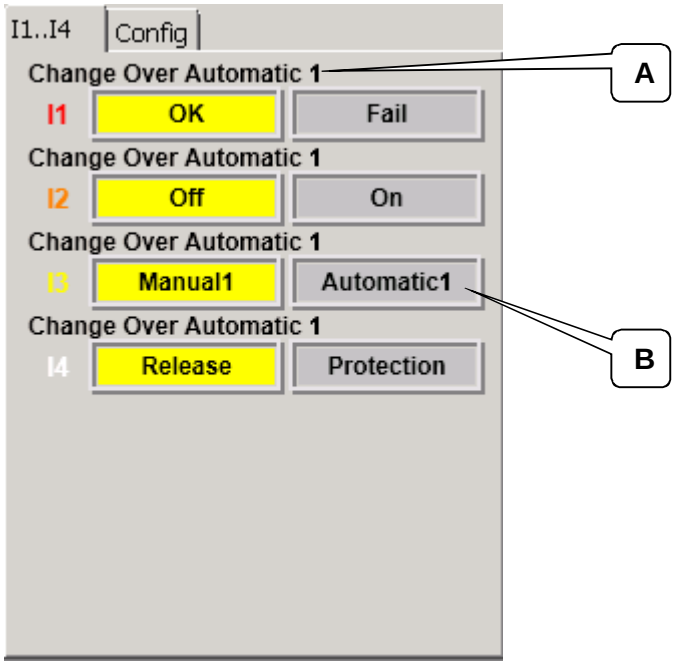


Figure: 4-4 Binary Tab

ID	Comment	Property
A	Description of binary signal (***X***=1..4)	I***X***/DESCRIPTION
B	State of binary signal (***X***=1..4)	I***X***/SIG

Table: 4-6 HPHMI Faceplate Binary tab Description

4.1.3 coa_FE_HPHMI_Config PG2

Operation Lock and Manual Inhibit Write Permissions

The Melody faceplates' configuration tab allows checking **Operation Lock** in order to inhibit operator inputs. All buttons will be grayed out. Refer to document 3BDA033456R51xx Installation and Configuration in order to change the default write permission.

Manual Inhibit can be selected to manually inhibit all alarms of this Melody tag.

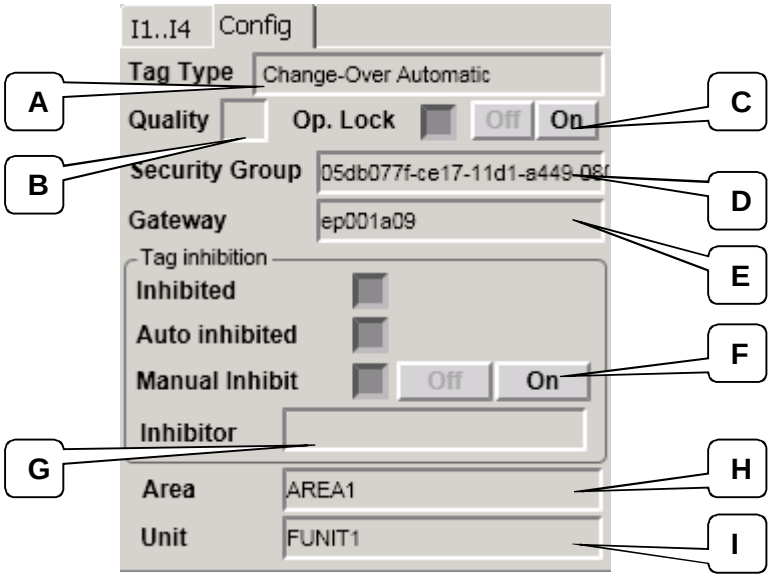


Figure: 4-5 Config Tab

ID	Comment	Property
A	Text describing the type of the tag	TYPE
B	Character which is providing Melody quality information	QUALITY
C	Buttons allow to switch Operating Lock on and off	OPL/SIG
D	Text describing the Melody security group to which this tag belongs	SECNAME
E	Text describing the Melody gateway to which this tag belongs	GATEWAY
F	Buttons allow to manually inhibit the tag Indications of tag inhibition (White fill color - inhibited)	INHB INHBAUTO INHBMAN
G	Information about inhibitor	INHBTAG
H	Text describing Melody area to which tag belongs	AREA
I	Text describing Melody unit to which tag belongs	UNIT

Table: 4-7 HPHMI Faceplate Config tab Description

4.2 Indicators

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Automatic mode set	AUT/SIG	-	1	1
	Manual mode set	MAN/SIG	-	1	1
	Automatic mode locked	AUT/SIG and LOCK/SIG	-	1	1
	Manual mode locked	MAN/SIG and LOCK/SIG	-	1	1
	Inhibited	INHI/SIG	-	2	2
S<A	SP < Actual value	SLEA/SIG	-	3	3
S>A	SP > Actual value	SGRA/SIG	-	3	3
	Disturbed	ER/SIG	-	4	4
Poff	First up unit off	PUOFF/SIG	-	4	4
	Operator Lock active	OPL/SIG	-	5	10
	Operator note available		-	-	11

Table: 4-8 Indicators

4.3 Aspect Links

Icon	Description	Aspect	Position		
			Red	FP	Ext
	Operator note	Operator note	-	6	12

Table: 4-9 Aspect Links

4.4 Faceplate Buttons

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Set manual mode	MAN/SIG	-	1	1
	Set automatic mode	AUT/SIG	-	2	2
	Set/Reset operation mode lock	LOCK/SIG	-	3	3
	Set command -, Switch to previous unit	CMD-/SIG	-	4	4
	Set command , Switch to next unit	CMD+/SIG	-	5	5
	Apply the selected action	-	-	6	6

Table: 4-10 Faceplate Buttons

4.5 Graphic Elements

There are no available graphic elements for this object type.

3BDA033448-600 Germany 2015-11-10

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