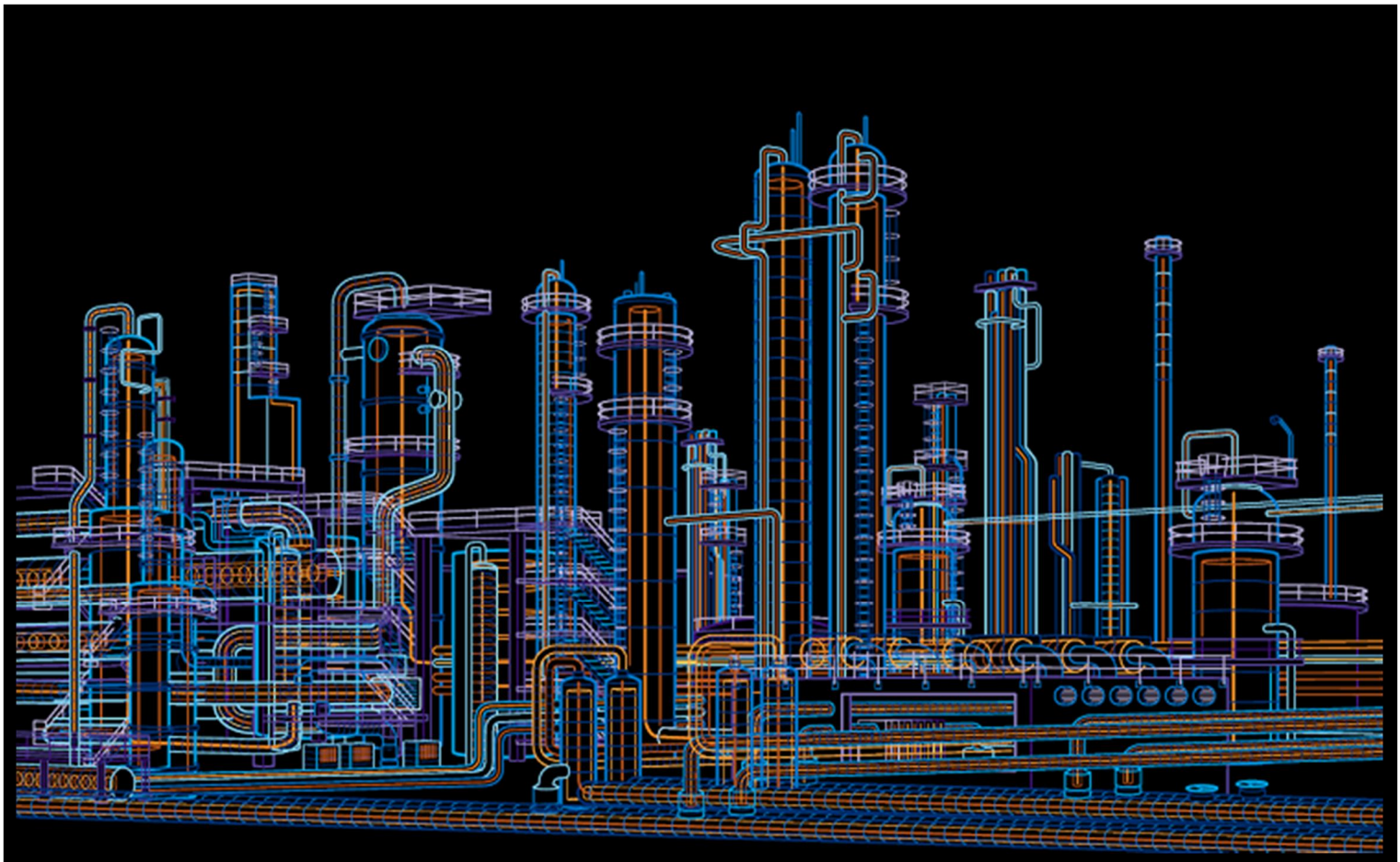


System 800xA
PC Toolkit Library for Melody
Human System Interface - Binary
User Manual

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).

Notice

This document contains information about one or more ABB products and may include a description of or a reference to one or more standards that may be generally relevant to the ABB products. The presence of any such description of a standard or reference to a standard is not a representation that all of the ABB products referenced in this document support all of the features of the described or referenced standard. In order to determine the specific features supported by a particular ABB product, the reader should consult the product specifications for the particular ABB product.

ABB may have one or more patents or pending patent applications protecting the intellectual property in the ABB products described in this document.

The information in this document is subject to change without notice and should not be construed as a commitment by ABB. ABB assumes no responsibility for any errors that may appear in this document.

In no event shall ABB be liable for direct, indirect, special, incidental or consequential damages of any nature or kind arising from the use of this document, nor shall ABB be liable for incidental or consequential damages arising from use of any software or hardware described in this document.

This document and parts thereof must not be reproduced or copied without written permission from ABB, and the contents thereof must not be imparted to a third party nor used for any unauthorized purpose.

The software described in this document is furnished under a license and may be used, copied, or disclosed only in accordance with the terms of such license.

Trademarks

All rights to copyrights, registered trademarks, and trademarks reside with their respective owners.

Copyright © 2015 by ABB. All Rights Reserved

® Registered Trademark of ABB.

Release: 2015-11-10

Document Number: 3BDA033444-600

Table of contents

Human System Interface (Classic Style) 5

1. BINMON - Binary Monitor 5

1.1 Faceplate elements 7
1.1.1 binmon_FE_MainX PG2 (X=1,2,3) 7
1.1.2 binmon_FE_Config PG2 8
1.2 Indicators 9
1.3 Aspect Links 9
1.4 Faceplate Buttons 9
1.5 Graphic Elements 9

2. Operable Binary Flag 12

2.1 Faceplate elements 14
2.1.1 obf_FE_Main PG2 14
2.1.2 obf_FE_Trend PG2 15
2.1.3 obf_FE_Config PG2 16
2.2 Indicators 17
2.3 Aspect Links 17
2.4 Faceplate Buttons 18
2.5 Graphic Elements 18

3. Calendar And Timer 19

3.1 Faceplate elements 21
3.1.1 caltimer_FE_Main PG2 21
3.1.2 caltimer_FE_Config PG2 22
3.2 Indicators 23
3.3 Aspect Links 24
3.4 Faceplate Buttons 24
3.5 Graphic Elements 24

Human System Interface (High Performance Style) 25

4. BINMON - Binary Monitor 25

4.1 Faceplate elements 27
4.1.1 binmon_FE_HPHMI_Mainx (x=1,2,3) 27
4.1.2 binmon_FE_HPHMI_Config 28
4.2 Indicators 29
4.3 Aspect Links 29
4.4 Faceplate Buttons 29
4.5 Graphic Elements 30

5. Operable Binary Flag 35

5.1 Faceplate elements 37
5.1.1 obf_FE_HPHMI_Main 37
5.1.2 obf_FE_HPHMI_Trend 38
5.1.3 obf_FE_HPHMI_Config 39
5.2 Indicators 40
5.3 Aspect Links 40
5.4 Faceplate Buttons 40
5.5 Graphic Elements 41

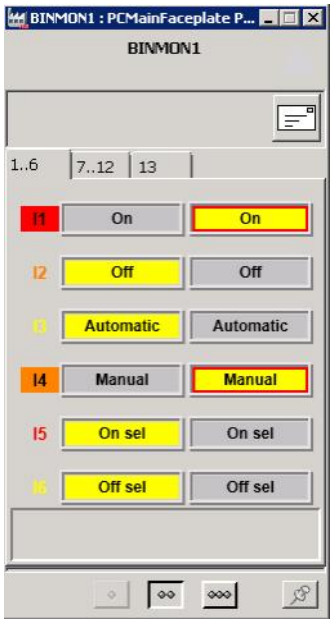
6. Calendar And Timer 43

6.1 Faceplate elements 45

6.1.1 caltimer_FE_HPHMI_Main PG2 45
6.1.2 caltimer_FE_HPHMI_Config PG2 46
6.2 Indicators 47
6.3 Aspect Links 47
6.4 Faceplate Buttons 48
6.5 Graphic Elements 48

Human System Interface (Classic Style)

1. BINMON - Binary Monitor



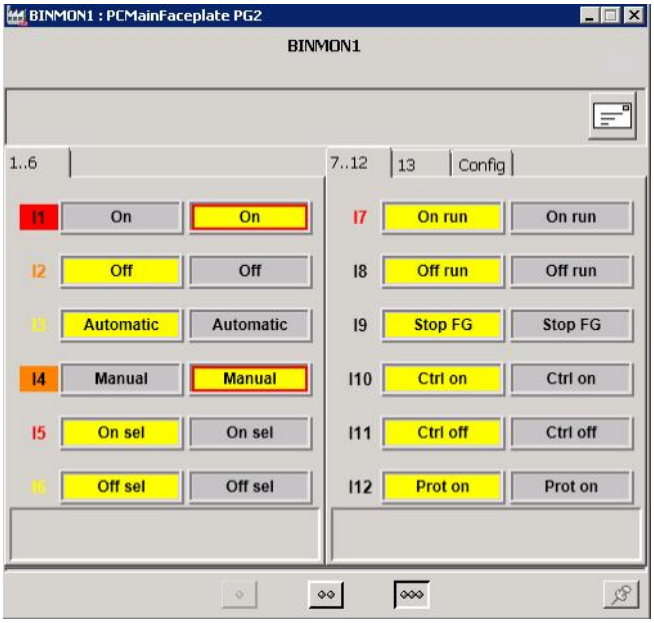


Figure: 1-1 Main View *Figure: 1-2 Extended View*

Basic information

Name:	**PCMainFaceplate**
Description:	PC MainFaceplate
Connect type:	Melody AC870P
Object type:	Binary Monitor
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	1	1
MaxNoOfIndicatorsRerRow	6	12
MaxNoOfButtonRows	0	0
MaxNoOfButtonPerRow	6	12

Table: 1-3 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	binmon_FE_Main1 PG2	1	NLSID_PC_Tab_01_06	EveryOne
Main	binmon_FE_Main2 PG2	1	NLSID_PC_Tab_08_12	EveryOne
Main	binmon_FE_Main3 PG2	1	13	EveryOne
Ext	binmon_FE_Main1 PG2	1	NLSID_PC_Tab_01_06	EveryOne
Ext	binmon_FE_Main2 PG2	2	NLSID_PC_Tab_08_12	EveryOne
Ext	binmon_FE_Main3 PG2	2	13	EveryOne
Ext	binmon_FE_Config PG2	2	NLSID_PC_Config	EveryOne

Table: 1-4 Faceplate Aspect names

1.1 Faceplate elements

1.1.1 binmon_FE_MainX PG2 (X=1,2,3)

These are main views for Binary Monitor object type faceplate. Each tab consists of 6 binary indicators (tab Main3 has only one indicator). Binary states together with corresponding alarm state are presented as 2 text boxes with change of fill color.

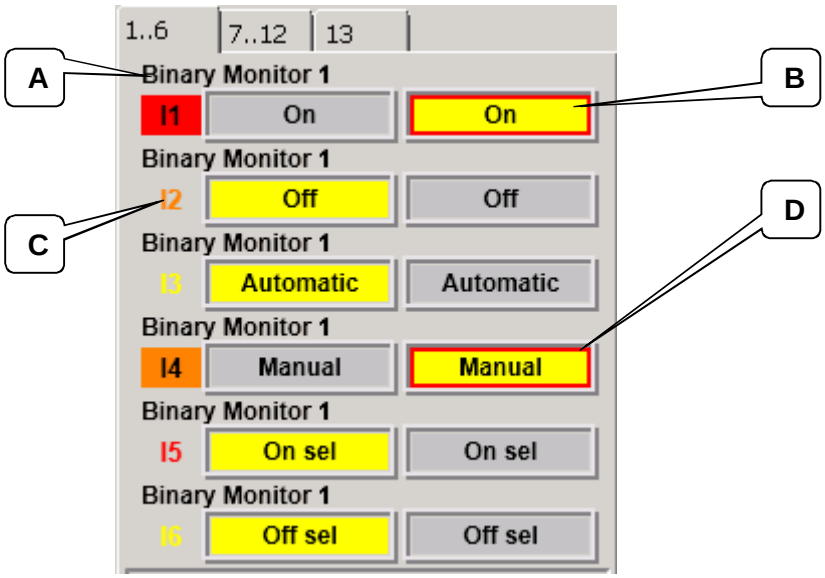


Figure: 1-3 Main Tab

ID	Comment	Property
A	Signal description of input number ***X***	I***X***/DESCRIPTION
B	Active state of input number ***X*** is highlighted by yellow color	I***X***/SIG Text 0: I***X***/SIG0 Text 1: I***X***/SIG1
C	Button text describes the input number Button background color changes to alarm color when alarm for corresponding input ***X*** is active	I***X***/ALARM I***X***/PRI
D	Active alarm state of input number ***X*** is highlighted by red frame	I***X***/ALARM

Table: 1-5 Classic Faceplate Main tab Description

1.1.2 binmon_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.

There is no Operation Lock Functionality available for Binary Monitor type.

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

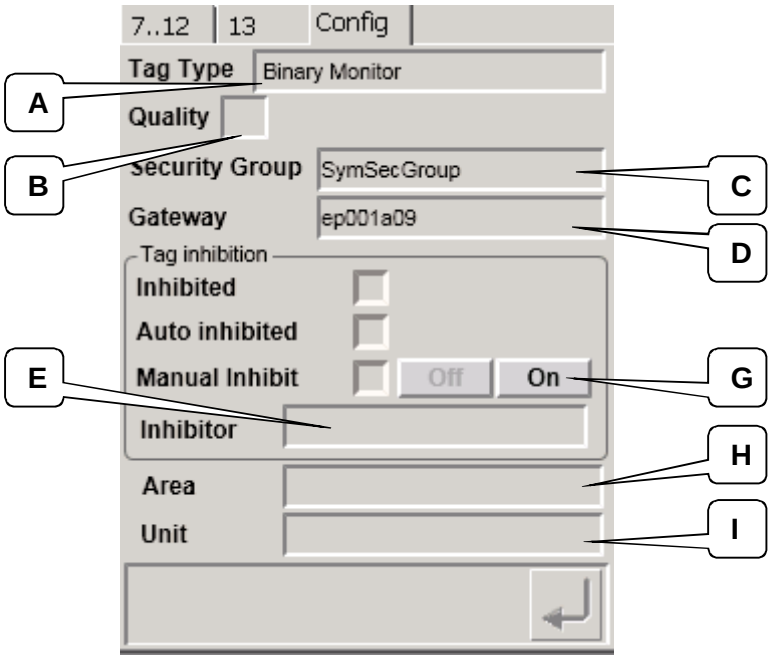


Figure: 1-4 Config Tab

ID	Comment	Property
A	Text describing the type of the tag	TYPE
B	Character which is providing Melody quality information	QUALITY
C	Text describing the Melody security group to which this tag belongs	SECNAME
D	Text describing the Melody gateway to which this tag belongs	GATEWAY
E	Rectangle indicators are showing inhibition status (Yellow color = On), Buttons allow to manually inhibit the tag	INHB INHBAUTO INHBMAN
F	Information about inhibitor	INHBTAG
G	Text describing Melody area to which tag belongs	AREA
H	Text describing Melody unit to which tag belongs	UNIT

Table: 1-6 Classic Faceplate Config tab Description

1.2 Indicators

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Operator note available		-	-	11

Table: 1-7 Indicators

1.3 Aspect Links

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

Table: 1-8 Aspect Links

1.4 Faceplate Buttons

There are no faceplate buttons for this type.

1.5 Graphic Elements

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

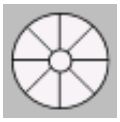
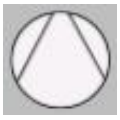
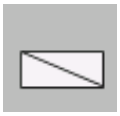
Standard properties

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

Property	Data type	Default value	Description
YPos	Float	-	Y position of the upper left corner of the element

Table: 1-9 Standard Properties for all Graphic Elements

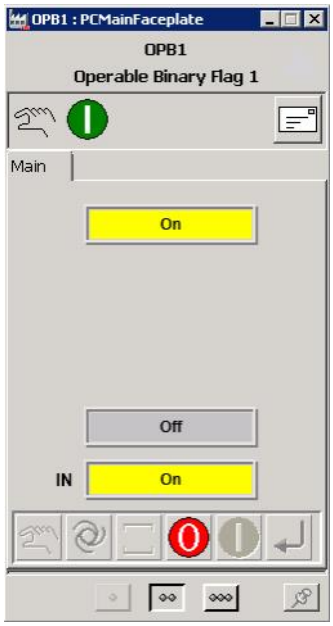
Graphic Elements based on Melody object type Binary Monitor

Example	Graphic Element Name	Description
	binmon_i1_noAlarm_text_PG2	Value Text Box for binary values, but without alarm indication.
	binmon_i1_text_PG2 to binmon_i13_text_PG2	Value Text Box for binary values
	binmon_text_2bit_I1I2_PG2 binmon_text_2bit_I3I4_PG2 binmon_text_2bit_I5I6_PG2 binmon_text_2bit_I7I8_PG2	2 Bit Value Text Box for binary values, that supports up to four different text definitions.
	binmon_text_4bit_I1_I4_PG2 binmon_text_4bit_I5_I8_PG2	4 Bit Value Text Box for binary values, that supports up to 16 different text definitions.
	binmon_i1_3way_valve_PG2	Mode icon Three-way-valve
	binmon_i1_bucket_wheel_PG2	Mode icon Bucket Wheel
	binmon_i1_com_PG2	Mode icon Compressor
	binmon_i1_fan_PG2	Mode icon Fan
	binmon_i1_flap_PG2 to binmon_i5_flap_PG2	Mode icon Flap

Example	Graphic Element Name	Description
	binmon_i1_engine_PG2	Mode icon Engine/Motor
	binmon_i1_pump_PG2 binmon_i2_pump_PG2 binmon_i3_pump_PG2	Mode icon Pump
	binmon_i1_valve_PG2 binmon_i2_valve_PG2	Mode icon Valve
	binmon_i1_arrow_PG2	Mode icon Arrow (without Alarm- and Signal Indication)
	binmon_i1_lamp_PG2	Mode icon Lamp (without Alarm- and Signal Indication)

Table: 1-10 Melody Binary Monitoring GE

2. Operable Binary Flag



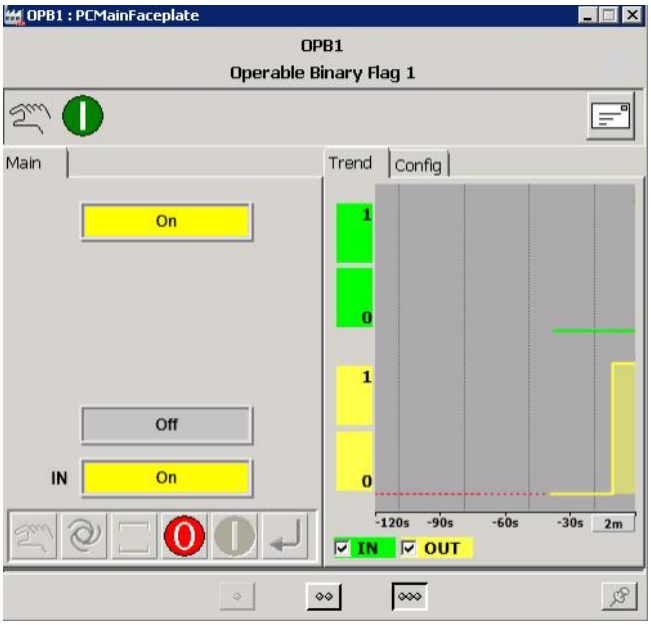


Figure: 2-1 Main View *Figure: 2-2 Extended View*

Basic information

Name:	**PCMainFaceplate**
Description:	PC MainFaceplate
Connect type:	Melody AC870P
Object type:	Operable Binary Flag
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
Reduced View	Not available

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	obf_FE_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	obf_FE_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	obf_FE_Trend PG2	2	NLSID_PC_Trend	EveryOne
Ext	obf_FE_Config PG2	2	NLSID_PC_Config	EveryOne

Table: 2-4 Faceplate Aspect names

2.1 Faceplate elements

2.1.1 obf_FE_Main PG2

This is main view for Operable Binary Flag object type faceplate. Binary states are presented as 2 text boxes with change of fill color.

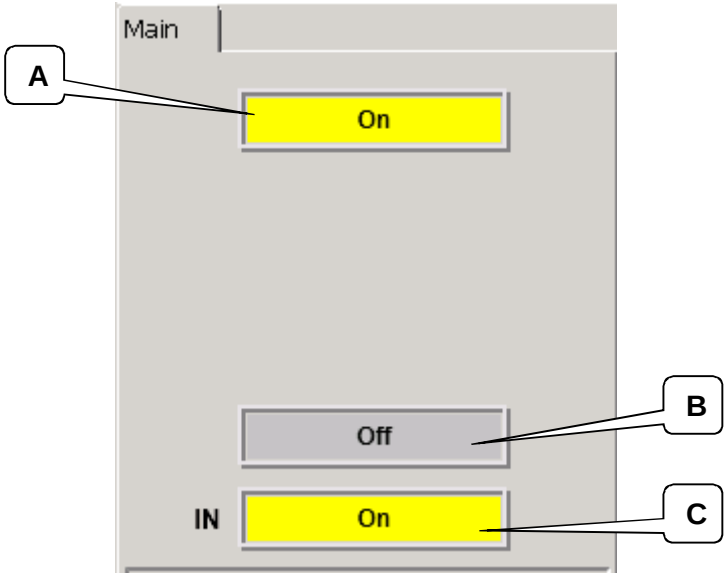


Figure: 2-3 Main Tab

ID	Comment	Property
A	Binary state 1	E1/SIG Text: I1/SIG1
B	Binary state 0	E0/SIG Text: I1/SIG0
C	State of input	I2/SIG

Table: 2-5 Classic Faceplate Main tab Description

2.1.2 obf_FE_Trend PG2

This is trend view for Operable Binary Flag object type faceplate. Input value trend may become invisible depending on configuration in Composer.

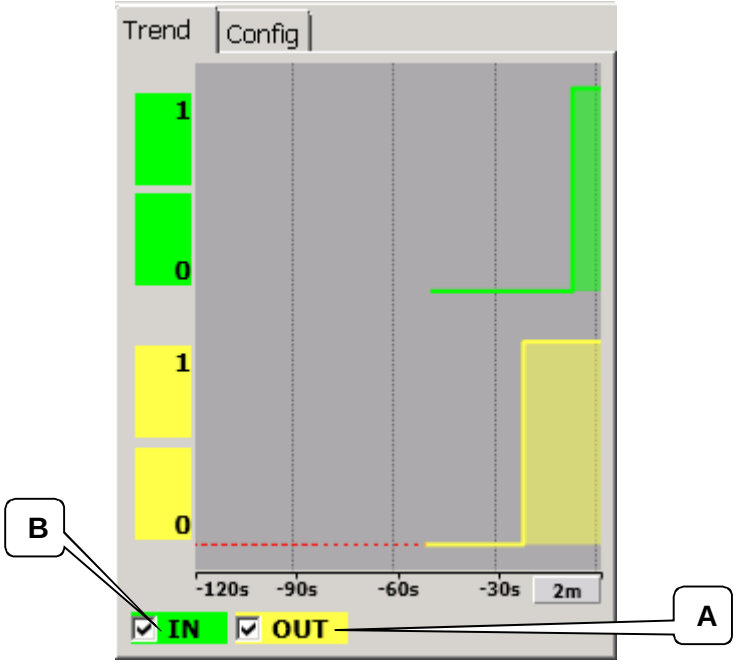


Figure: 2-4 Trend Tab

ID	Comment	Property
A	Curve for output signal (“OUT”)	E1/SIG
B	If used then curve and checkbox for input signal are also shown (“IN”)	I2/SIG

Table: 2-6 Classic Faceplate Trend tab Description

2.1.3 obf_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.

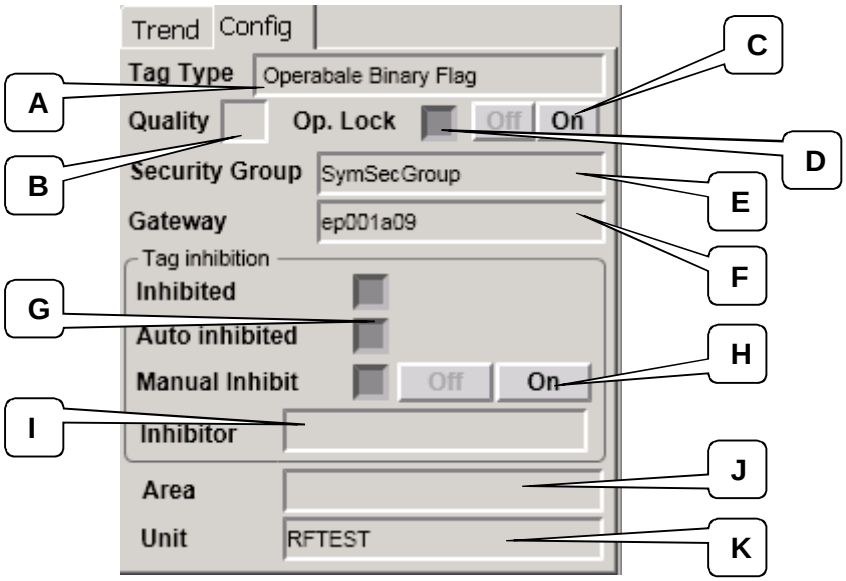


Figure: 2-5 Classic Faceplate Config Tab

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	OPL/SIG
D	Binary indicator Yellow color: Op. Lock is On Gray color: Op. Lock is Off	OPL/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
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: 2-7 Classic Faceplate Config tab Description

2.2 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 state	E0/SIG	-	2	2
	On state	E1/SIG	-	2	2
	Auto command 1	SET/SIG and SETD/SIG	-	3	3
	Interlock 1	not R1/SIG	-	3	3
	Auto command 0	RES/SIG and RESD/SIG	-	4	4
	Interlock 0	not R0/SIG	-	4	4
	Operator Lock	OPL/SIG	-	5	9
	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 0	CMD0/SIG	-	4	4
	Set command 1	CMD1/SIG	-	5	5
	Apply the selected action	-	-	6	12

Table: 2-10 Faceplate Buttons

2.5 Graphic Elements

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

3. Calendar And Timer

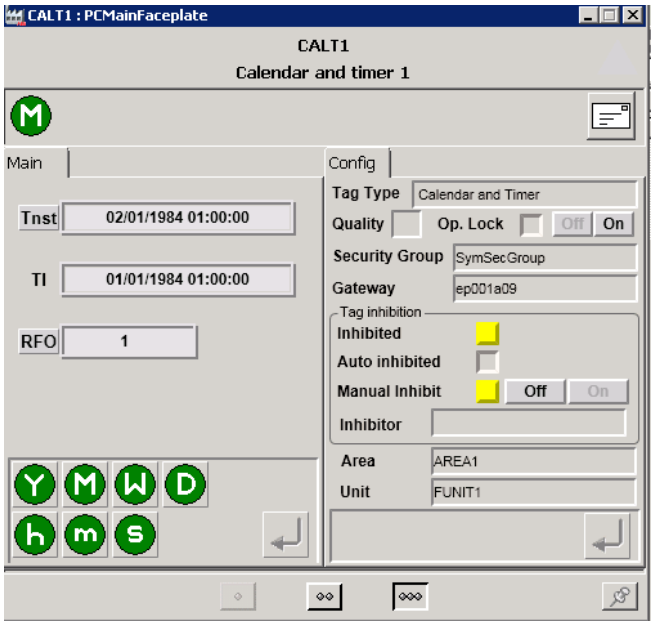


Figure: 3-1 Main View *Figure: 3-2 Extended View*

Basic information

Name:	PCMainFaceplate
Description:	PC MainFaceplate
Connect type:	Melody AC870P
Object type:	Calendar And Timer
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	1	1
MaxNoOfIndicatorsRerRow	6	12
MaxNoOfButtonRows	0	0
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	caltimer_FE_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	caltimer_FE_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	caltimer_FE_Config PG2	2	NLSID_PC_Config	EveryOne

Table: 3-4 Faceplate Aspect names

3.1 Faceplate elements

3.1.1 caltimer_FE_Main PG2

This is main view for Calendar And Timer object type faceplate. Operator input is possible based on configuration and access rights.

Figure: 3-3 Main Tab

ID	Comment	Property
A	New start time	TONO/SIG
B	Last start time	TSON/SIG
C	Number of repeats before output is set	RFO/SIG

Table: 3-5 Classic Faceplate Main tab Description

3.1.2 caltimer_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.

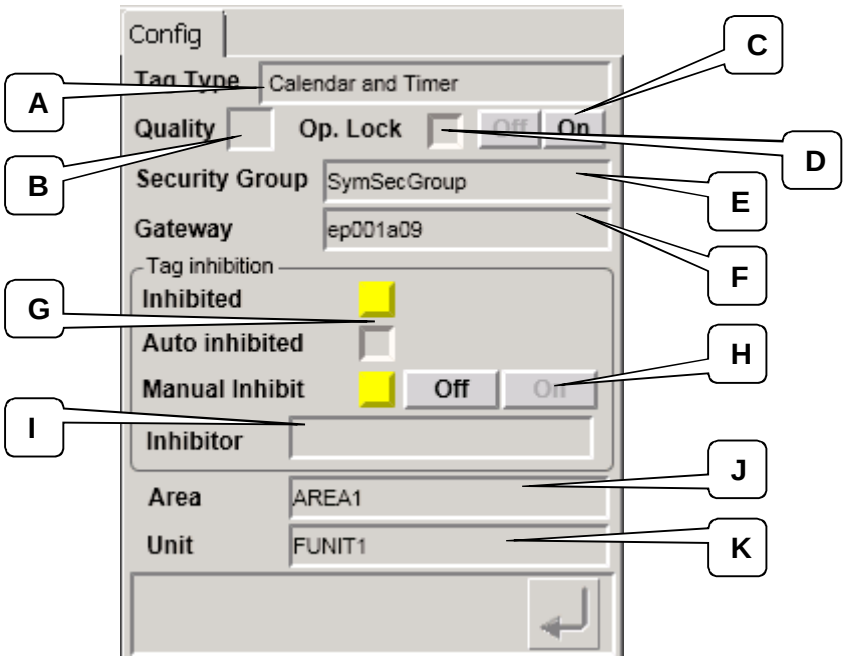


Figure: 3-4 Classic Faceplate Config Tab

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	AKO/SIG 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: 3-6 Classic Faceplate Config tab Description

3.2 Indicators

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Off State	no repeat signal	-	1	1
	Yearly repeat	YRPO/SIG	-	1	1
	Monthly repeat	MRPO/SIG	-	1	1
	Weekly repeat	WRPO/SIG	-	1	1
	Daily repeat	DRPO/SIG	-	1	1
	Hourly repeat	HRPO/SIG	-	1	1
	Minutes repeat	MIRPO/SIG	-	1	1
	Seconds repeat	SRPO/SIG	-	1	1
	Output state on	O/SIG	-	2	2
	Repeat function active	REP/SIG	-	3	3
	Fault	DI/SIG	-	4	4
	Operator Lock	AKO/SIG	-	5	9
	Operator note available		-	-	11

Table: 3-7 Indicators

3.3 Aspect Links

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

Table: 3-8 Aspect Links

3.4 Faceplate Buttons

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Set Yearly repeat	YRPO/SIG	-	1	1
	Set Monthly repeat	MRPO/SIG	-	2	2
	Set Weekly repeat	WRPO/SIG	-	3	3
	Set Daily repeat	DRPO/SIG	-	4	4
	Set Hourly repeat	HRPO/SIG	-	7	7
	Set Minutes repeat	MIRPO/SIG	-	8	8
	Set Seconds repeat	SRPO/SIG	-	9	9
	Apply the selected action	-	-	12	12

Table: 3-9 Faceplate Buttons

3.5 Graphic Elements

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

Human System Interface (High Performance Style)

4. BINMON - Binary Monitor

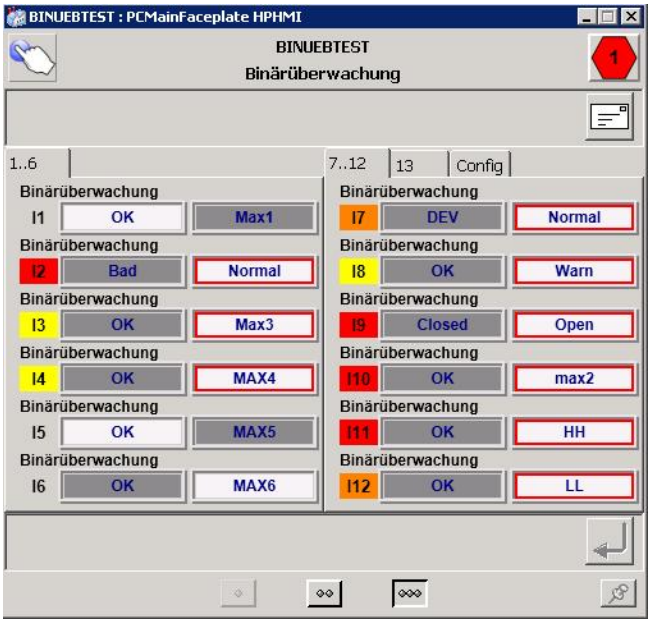


Figure: 4-1 Main View *Figure: 4-2 Extended View*

Basic information

Name:	**PCMainFaceplate HPHMI**
Description:	PC HPHMI Main Faceplate
Connect type:	Melody AC870P
Object type:	Binary Monitor
Library:	PCHighPerformanceHMILib 1.0-0
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
Reduced View	Not available

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	binmon_FE_HPHMI_Main1	1	NLSID_PC_Tab_01_06	EveryOne
Main	binmon_FE_HPHMI_Main2	1	NLSID_PC_Tab_08_12	EveryOne
Main	binmon_FE_HPHMI_Main3	1	13	EveryOne
Ext	binmon_FE_HPHMI_Main1	1	NLSID_PC_Tab_01_06	EveryOne
Ext	binmon_FE_HPHMI_Main2	2	NLSID_PC_Tab_08_12	EveryOne
Ext	binmon_FE_HPHMI_Main3	2	13	EveryOne
Ext	binmon_FE_HPHMI_Config	2	NLSID_PC_Config	EveryOne

Table: 4-4 Faceplate Aspect names

4.1 Faceplate elements

4.1.1 binmon_FE_HPHMI_Mainx (x=1,2,3)

These are main views for Binary Monitor object type faceplate. Each tab consists of 6 binary indicators (tab Main3 has only one indicator). Binary states together with corresponding alarm state are presented as 2 text boxes with change of fill color.

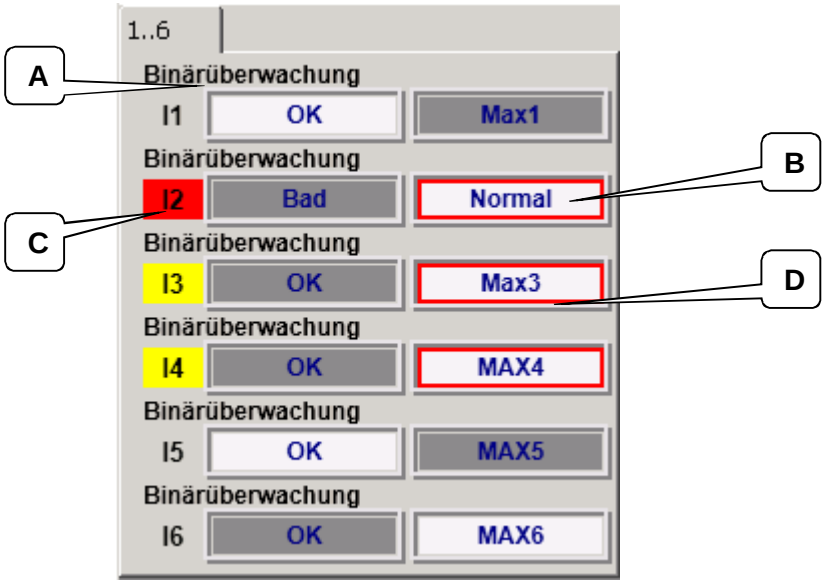


Figure: 4-3 Main Tab

ID	Comment	Property
A	Signal description of input number ***X***	I***X***/DESCRIPTION
B	Active state of input number ***X*** is highlighted by white color	I***X***/SIG Text 0: I***X***/SIG0 Text 1: I***X***/SIG1
C	Button text describes the input number Button background color changes to alarm color when alarm for corresponding input ***X*** is active	I***X***/ALARM I***X***/PRI
D	Active alarm state of input number ***X*** is highlighted by red frame	I***X***/ALARM

Table: 4-5 HPHMI Faceplate Main tab Description

4.1.2 binmon_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.

There is no Operation Lock functionality available for this object.

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

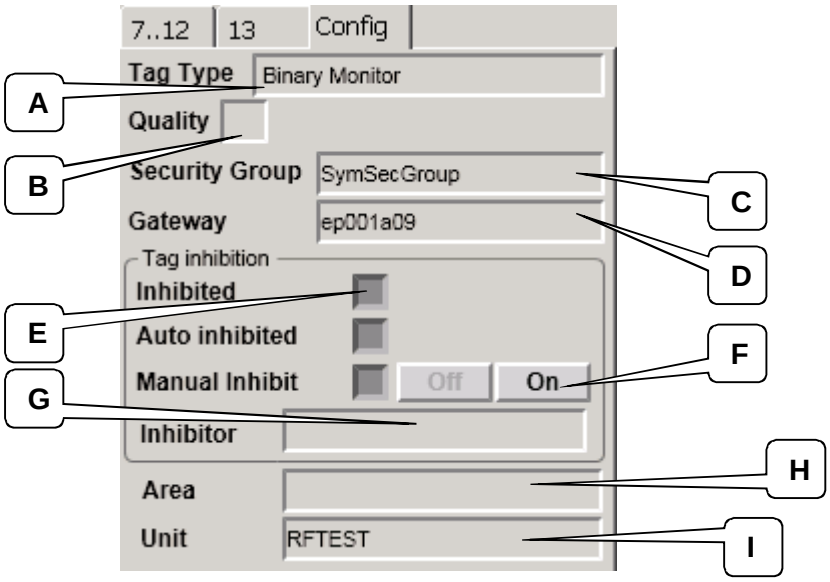


Figure: 4-4 HPHMI Faceplate Config Tab

ID	Comment	Property
A	Text describing the type of the tag	TYPE
B	Character which is providing Melody quality information	QUALITY
C	Text describing the Melody security group to which this tag belongs	SECNAME
D	Text describing the Melody gateway to which this tag belongs	GATEWAY
E	Binary indicators are showing inhibition status (white color = On)	INHB INHBAUTO INHBMAN
F	Buttons allow to manually inhibit the tag	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: 4-6 HPHMI Faceplate Config tab Description

4.2 Indicators

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Operator note available		-	-	11

Table: 4-7 Indicators

4.3 Aspect Links

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

Table: 4-8 Aspect Links

4.4 Faceplate Buttons

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Apply the selected action	-	-	6	12

Table: 4-9 Faceplate Buttons

4.5 Graphic Elements

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

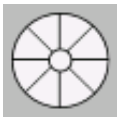
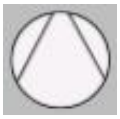
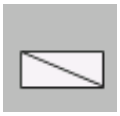
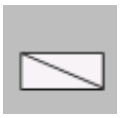
Standard properties

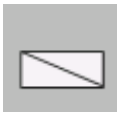
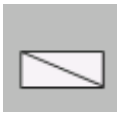
Property	Data type	Default value	Description
EnableInput	Boolean	True	Enables input handling of the element, if false the element it self can't selected.
Name	String	-	Name of the element instance in a graphic display. Is set automatically by the Graphics Builder (Name of the element + index).
Rotation	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

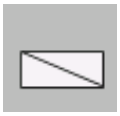
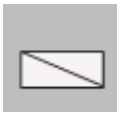
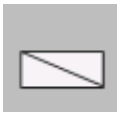
Table: 4-10 Standard Properties for all Graphic Elements

Graphic Elements based on Melody object type Binary Monitor

Example	Graphic Element Name	Description
	binmon_HPHMI_AlarmInd	Alarm indication
	binmon_HPHMI_i1_3way_valve	Three-way valve icon based on binary signal (signal I1)
	binmon_HPHMI_i1_arrow	Arrow icon based on binary signal (signal I1)

Example	Graphic Element Name	Description
	binmon_HPHMI_i1_bucket_wheel	Bucket wheel icon based on binary signal (signal I1)
	binmon_HPHMI_i1_com	Compressor icon based on binary signal (signal I1)
	binmon_HPHMI_i1_engine	Engine icon based on binary signal (signal I1)
	binmon_HPHMI_i1_fan	Fan icon based on binary signal (signal I1)
	binmon_HPHMI_i1_flap	Flap icon based on binary signal (signal I1)
	binmon_HPHMI_i1_lamp	Lamp icon based on binary signal (signal I1)
	binmon_HPHMI_i1_noAlarm_text	Binary text indication (signal I1)
	binmon_HPHMI_i1_pump	Pump icon based on binary signal (signal I1)
	binmon_HPHMI_i1_text	Binary text indication (signal I1)
	binmon_HPHMI_i1_valve	Valve icon based on binary signal (signal I1)
	binmon_HPHMI_i2_flap	Flap icon based on binary signal (signal I2)

Example	Graphic Element Name	Description
	binmon_HPHMI_i2_pump	Pump icon based on binary signal (signal I2)
	binmon_HPHMI_i2_text	Binary text indication (signal I2)
	binmon_HPHMI_i2_valve	Valve icon based on binary signal (signal I2)
	binmon_HPHMI_i3_flap	Flap icon based on binary signal (signal I3)
	binmon_HPHMI_i3_pump	Pump icon based on binary signal (signal I3)
	binmon_HPHMI_i3_text	Binary text indication (signal I3)
	binmon_HPHMI_i3_valve	Valve icon based on binary signal (signal I3)
	binmon_HPHMI_i4_flap	Flap icon based on binary signal (signal I4)
	binmon_HPHMI_i4_pump	Pump icon based on binary signal (signal I4)
	binmon_HPHMI_i4_text	Binary text indication (signal I4)
	binmon_HPHMI_i4_valve	Valve icon based on binary signal (signal I4)

Example	Graphic Element Name	Description
	binmon_HPHMI_i5_flap	Flap icon based on binary signal (signal I5)
	binmon_HPHMI_i5_pump	Pump icon based on binary signal (signal I5)
	binmon_HPHMI_i5_text	Binary text indication (signal I5)
	binmon_HPHMI_i5_valve	Valve icon based on binary signal (signal I5)
	binmon_HPHMI_i6_flap	Flap icon based on binary signal (signal I6)
	binmon_HPHMI_i6_pump	Pump icon based on binary signal (signal I6)
	binmon_HPHMI_i6_text	Binary text indication (signal I6)
	binmon_HPHMI_i6_valve	Valve icon based on binary signal (signal I6)
	binmon_HPHMI_i7_flap	Flap icon based on binary signal (signal I7)
	binmon_HPHMI_i7_pump	Pump icon based on binary signal (signal I7)
	binmon_HPHMI_i7_text	Binary text indication (signal I7)

Example	Graphic Element Name	Description
	binmon_HPHMI_i7_valve	Valve icon based on binary signal (signal I7)
	binmon_HPHMI_i8_text	Binary text indication (signal I8)
	binmon_HPHMI_i9_text	Binary text indication (signal I9)
	binmon_HPHMI_i10_text	Binary text indication (signal I10)
	binmon_HPHMI_i11_text	Binary text indication (signal I11)
	binmon_HPHMI_i12_text	Binary text indication (signal I12)
	binmon_HPHMI_i13_text	Binary text indication (signal I13)

Table: 4-11 Melody Binary Monitoring GE

5. Operable Binary Flag

Figure: 5-1 Main View

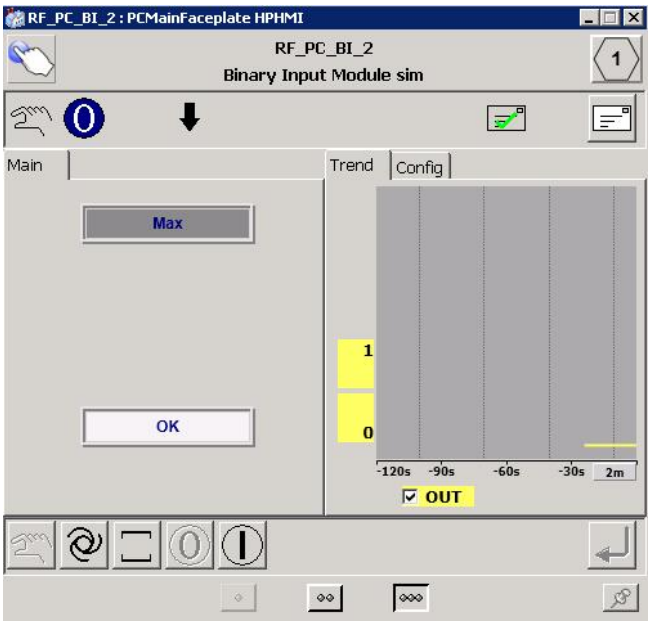


Figure: 5-2 Extended View

Basic information

Name:	PCMainFaceplate HPHMI
Description:	PC HPHMI Main Faceplate
Connect type:	Melody AC870P
Object type:	Operable Binary Flag
Library:	PCHighPerformanceHMILib 1.0-0
Min. required 800xA version:	SV5.1RevA
Graphics Builder version:	PG2

Table: 5-1 Basic Information

Layout

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

Table: 5-2 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: 5-3 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	obf_FE_HPHMI_Main	1	NLSID_PC_Main	EveryOne
Ext	obf_FE_HPHMI_Main	1	NLSID_PC_Main	EveryOne
Ext	obf_FE_HPHMI_Trend	2	NLSID_PC_Trend	EveryOne
Ext	obf_FE_HPHMI_Config	2	NLSID_PC_Config	EveryOne

Table: 5-4 Faceplate Aspect names

5.1 Faceplate elements

5.1.1 obf_FE_HPHMI_Main

This is main view for Operable Binary Flag object type faceplate. Binary states are presented as 2 text boxes with change of fill color.

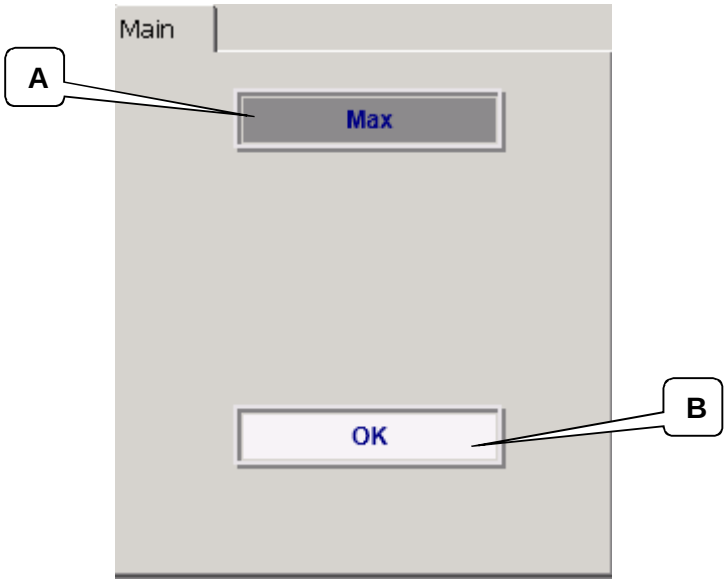


Figure: 5-3 Main Tab

ID	Comment	Property
A	Binary state 1	E1/SIG Text: I1/SIG1
B	Binary state 0	E0/SIG Text: I1/SIG0

Table: 5-5 HPHMI Faceplate Main tab Description

5.1.2 obf_FE_HPHMI_Trend

This is trend view for Operable Binary Flag object type faceplate.

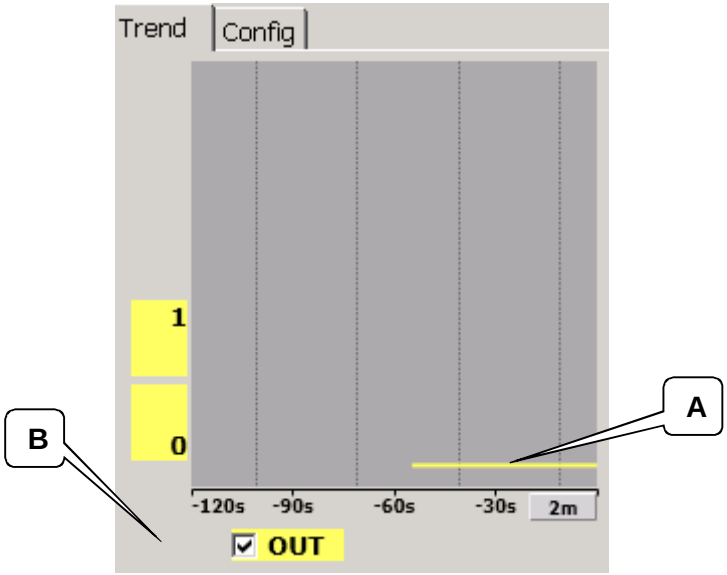


Figure: 5-4 Trend Tab

ID	Comment	Property
A	Curve for output signal (“OUT”)	E1/SIG
B	If used then curve and checkbox for input signal are also shown (“IN”)	I2/SIG

Table: 5-6 HPHMI Faceplate Trend tab Description

5.1.3 obf_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.

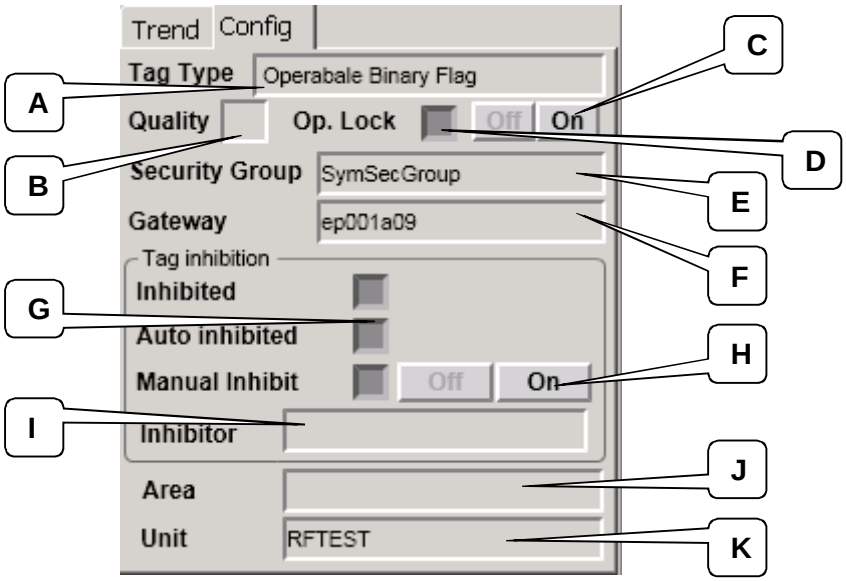


Figure: 5-5 HPHMI Faceplate Config Tab

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	OPL/SIG
D	Binary indicator White color: Op. Lock is On Gray color: Op. Lock is Off	OPL/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: 5-7 HPHMI Faceplate Config tab Description

5.2 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 state	E0/SIG	-	2	2
	On state	E1/SIG	-	2	2
	Auto command 1	SET/SIG and SETD/SIG	-	3	3
	Interlock 1	not R1/SIG	-	3	3
	Auto command 0	RES/SIG and RESD/SIG	-	4	4
	Interlock 0	not R0/SIG	-	4	4
	Operator Lock	OPL/SIG	-	5	9
	Operator note available		-	-	11

Table: 5-8 Indicators

5.3 Aspect Links

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

Table: 5-9 Aspect Links

5.4 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 0	CMD0/SIG	-	4	4
	Set command 1	CMD1/SIG	-	5	5
	Apply the selected action	-	-	6	12

Table: 5-10 Faceplate Buttons

5.5 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: 5-11 Standard Properties for all Graphic Elements

Graphic Elements based on Melody object type Operable Binary Flag

Example	Graphic Element Name	Description
	opb_HPHMI_AlarmInd	Alarm indication
	opb_HPHMI_text	Binary text indication (signal E0,E1)

Table: 5-12 Melody operable Binary Flag GE

6. Calendar And Timer

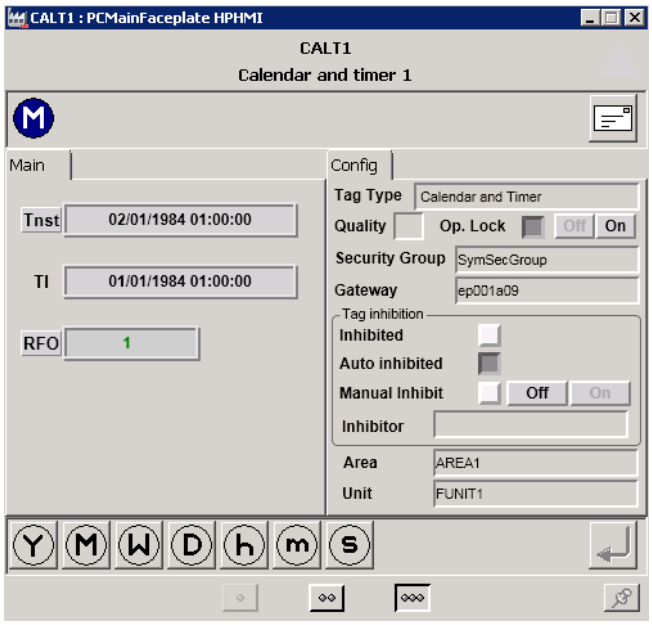


Figure: 6-1 Main View *Figure: 6-2 Extended View*

Basic information

Name:	PCMainFaceplate HPHMI
Description:	PC HPHMI MainFaceplate
Connect type:	Melody AC870P
Object type:	Calendar And Timer
Library:	-
Min. required 800xA version:	SV5.1RevA
Graphics Builder version:	PG2

Table: 6-1 Basic Information

Layout

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

Table: 6-2 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: 6-3 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	caltimer_FE_HPHMI_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	caltimer_FE_HPHMI_Main PG2	1	NLSID_PC_Main	EveryOne
Ext	caltimer_FE_HPHMI_Config PG2	2	NLSID_PC_Config	EveryOne

Table: 6-4 Faceplate Aspect names

6.1 Faceplate elements

6.1.1 caltimer_FE_HPHMI_Main PG2

This is main view for Calendar And Timer object type faceplate. Operator input is possible based on configuration and access rights.

Figure: 6-3 Main Tab

ID	Comment	Property
A	New start time	TONO/SIG
B	Last start time	TSON/SIG
C	Number of repeats before output is set	RFO/SIG

Table: 6-5 HPHMI Faceplate Main tab Description

6.1.2 caltimer_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.

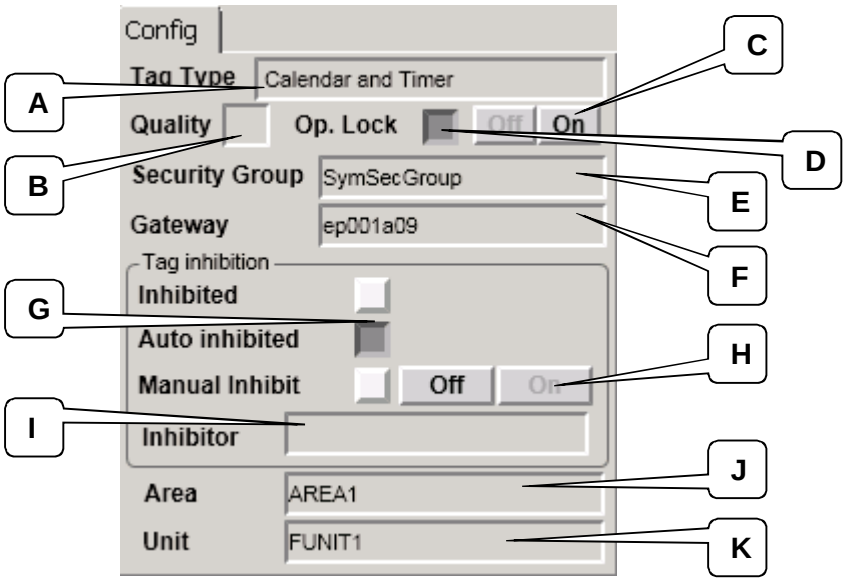


Figure: 6-4 HPHMI Faceplate Config Tab

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	AKO/SIG AKOR/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

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

Table: 6-6 HPHMI Faceplate Config tab Description

6.2 Indicators

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
	Off State	no repeat signal	-	1	1
	Yearly repeat	YRPO/SIG	-	1	1
	Monthly repeat	MRPO/SIG	-	1	1
	Weekly repeat	WRPO/SIG	-	1	1
	Daily repeat	DRPO/SIG	-	1	1
	Hourly repeat	HRPO/SIG	-	1	1
	Minutes repeat	MIRPO/SIG	-	1	1
	Seconds repeat	SRPO/SIG	-	1	1
	Output state on	O/SIG	-	2	2
	Repeat function active	REP/SIG	-	3	3
	Fault	DI/SIG	-	4	4
	Operator Lock	AKO/SIG	-	5	9
	Operator note available		-	-	11

Table: 6-7 Indicators

6.3 Aspect Links

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

Table: 6-8 Aspect Links

6.4 Faceplate Buttons

Icon	Description	Property (Value)	Position		
			Red	FP	Ext
Y	Set Yearly repeat	YRPO/SIG	-	1	1
M	Set Monthly repeat	MRPO/SIG	-	2	2
W	Set Weekly repeat	WRPO/SIG	-	3	3
D	Set Daily repeat	DRPO/SIG	-	4	4
h	Set Hourly repeat	HRPO/SIG	-	7	6
m	Set Minutes repeat	MIRPO/SIG	-	8	6
s	Set Seconds repeat	SRPO/SIG	-	9	7
↵	Apply the selected action	-	-	12	12

Table: 6-9 Faceplate Buttons

6.5 Graphic Elements

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

3BDA033444-600 Germany 2015-11-10

Copyright © 2003-2015 by ABB. All Rights Reserved
® Registered Trademark of ABB.
™ Trademark of ABB.

BU Oil, Gas and Petrochemical
Frankfurt, Germany
www.abb.com/Chemicals