Libraries and function blocks

for PC Worx 5 / 6

Rev. 111

August 11, 2020/CSC

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1 General

Control programs are created under the PC Worx or PC WORX EXPRESS environments. The source code can then be divided into programs, blocks and functions by means of logical Program Organization Units (POU). Numerous function blocks are already contained in the editor wizard of the programming environment. Each block is provided with short description and online help. Additional blocks as extension to the input/output terminals or as technology functions are compiled into libraries by Phoenix Contact and can be added to a project if required.

The source code of a library provided by Phoenix Contact is protected, which means that it cannot be viewed.

Libraries from Phoenix Contact can be provided with a setup. A compressed project for PC Worx 5 is stored on the computer during execution of the setup program, which must then be opened. When requested for the target directory for storing the library, the “Library” directory from PC Worx should be selected that is located in the “Documents and Settings\All Users\Documents\PC Worx” directory. The library is automatically converted to the programming environment version used and displayed as a project when opening with PC Worx 5 or 6. The library must be compiled once by the PC Worx version that is used.

Libraries must then be integrated into the user project via the PC Worx project tree. Select the libraries item and add the user library via the context menu.

Individual function blocks from Phoenix Contact such as those from the SQL and SNMP libraries are licensed, which means that a fee is charged for each controller on which licensed blocks are to be used. The blocks check the license stored on the controller during runtime and enable themselves or run for a limited time in demo mode.

The license is stored on the plug-in CF FLASH APPLIC A (Order No. 29 88 793) or SD FLASH APPLIC A (Order No. 29 88 816) modules. In the case of the compact ILC 130 ETH, ILC 150 ETH and ILC 150 GSM/GPRS controllers, the firmware with Version 3.50 or later contains the type APPLIC A license, which means that licensed blocks can run on them without restrictions. Please observe the specified performance data of the controllers in this performance class and check that they are suitable for your application.

2 Libraries

Name	Description	Version	License	PC Worx version
AnalogTechnology	Function blocks for acquisition and evaluation of analog signals. [Analog Technology - PCW_6_AnalogTechnology_7_20190925.msi]	7	None	From 6.30.2519
AsynCom	Function blocks for asynchronous communication for Axioline, INTERBUS and PROFINET. [Function blocks for asynchronous communication for Axioline, INTERBUS and PROFINET. - PCW_6_AsynCom_4_20190218.msi]	4	None	From 6.30.2349
AXL_Analog	Function blocks for acquisition and evaluation of analog signals for the Axioline system. [Function blocks for acquisition and evaluation of analog signals for the Axioline system. - pc_worx_6_x_axl_analog_1_00.exe]	1.00	None	From 6.20.331
AXL_Basic	This function block library provides functions for devices from the Axioline product range. [Function blocks for AXIOLINE devices - PCW_6_AXL_Basic_V1_00.msi]	1.00	None	From 6.30.601
AXL_ComSerial	Function blocks for implementing communication protocols as well as activating communication modules for the Axioline system. [Serial communication using terminals in the Axioline product range – PCW_6_AXL_ComSerial_3_20191204.msi]	3	None	From 6.30.2519
AXL_PM	This library is used to configurate the AXL F PM EF 1F (2702671) module and process the measured data. It is possible to read the process data cyclically or to read additional information of the module on request. [Function blocks for configuration of the AXL F PM EF 1F (2702671) module - PCW_6_AXL_PM_1_20190111.msi]	1	None	From 6.30.2349
AXL_PDI	Function blocks for the Axioline system. [Axioline system - PCW_6_ AXL_PDI_2.msi]	2	None	From 6.30.767
AXL_SGI	This library is used to configurate the AXL F SGI2 1H (2702911) module and to process the measured data. It is possible to read and control the process data cyclically or to read	3	None	From 6.30.2907

	additional values of the module on request via asynchronous communicatiom with AsynCom function blocks. [Function blocks for configuring the AXL F SGI2 1H module (2702911) - PCW_6_ AXL_SGI_3_20200701.msi]			
BuildingAutomation	This library is no longer supported.			
CANbus	Function blocks for support of and communication with the CANbus as well as for CAN-based protocols (CANopen, J1939, etc.). [CANbus -PCW_6_CANbus_3.msi]	4	None	From 6.30.1202
ComSerial	Function blocks for implementing communication protocols as well as activating communication modules. [Serial communication - PCW_6_ComSerial_7_20190801.msi]	7	None	From 6.20.331
ComSiemens	Function blocks for communicating between controllers from Phoenix Contact and Siemens via Ethernet. [Siemens communication - PCW_6_ComSiemens_2.msi]	3	None	From 6.10.200
ControlTechnology	Function blocks for control applications. [Control technology - PCW_6_ControlTechnology_2_20190522.msi]	2	Some function blocks of this library require an APPLIC-A license (see 3.10)	From 6.30.2349
DALI_Basic	Function blocks for communication with the Inline modules IB IL DALI/PWR-PAC, IB IL DALI-PAC, IB IL DALI/MM-PAC. [Function blocks for light control of a DALI system PCW_6_DALI_Basic_3_20200213.msi]	3	None	From 6.30.2907
Datalogger	Function blocks for logging variables to a CSVfile. The library contains several function blocks for each data type that is supported by the data logger. [Function blocks for logging variables to a CSVfile - PCW_6_Datalogger_V1_12.msi]	1.12	None	From 6.10.200
DBFL_SQL	Function blocks as database drivers for MS SQL and MySQL applications. [Database - PCW_6_DBFL_SQL_2_20181011.msi]	2	Some function blocks of this library require an APPLIC-A license (see 3.12)	From 6.30.1202

Drives	Function blocks for power-level terminals from Phoenix Contact. [Motor control - pc_worx_5_x_Drives_1_05.exe]	1.05	None	From 5
EDCL	This library is no longer supported			
EEM	Function blocks for communication with EEM energy meters via Modbus RTU, Modbus TCP or RS232. [Function blocks for communication with electric energy meters (EEM) - pc_worx_6_x_eem_1_00.exe]	1.00	None	From 6.30.767
FileHandling	Function blocks for handling file access. [File I/O - pc_worx_6_x_filehandling_1_00.exe]	1.00	None	From 6.10.169
FunctionModules	Function blocks for acquisition, open and closed-loop control (drivers for position detection terminals for incremental encoders, terminals with counting function or communication with IO-Link devices). [Special function modules - PCW_6_FunctionModules_2_20200720.msi]	2	None	From 6.30.2349
HART_Basic	Function blocks for using the HART modules from Phoenix Contact. [Function blocks for using the HART modules from Phoenix Contact.- PCW_6_HART_Basic_2.msi]	2	None	From 6.10.200
ILCME_MCE	Motion control function blocks for ILC 191 ME. [Motion control function blocks for ILC 191 ME. - pc_worx_6_x_ilcme_mce_1_02.exe]	1.02	None	From 6.30.601
ILCME_ModBus	Modbus function blocks for ILC 191 ME. [ModBus function block for ILC 191 ME - pc_worx_6_x_ilcme_modbus_1_01.exe]	1.01	None	From 6.30.601
InterBus	INTERBUS handling. [INTERBUS - pc_worx_6_x_interbus_1_11.exe]	1.11	None	From 6.10.200
InterBus_PN	INTERBUS handling on a PROFINET proxy. [INTERBUS over PROFINET - pc_worx_6_x_interbus_pn_2_02.exe]	2.02	None	From 6.20
IntrinsicallySafe	Function block for parameterizing and communication of modules which are used in Zone 2 according to EN 60079. [Self-reliant modules - PCW_6_IntrinsicallySafe_2.msi]	2	None	From 6.30.1914
IOL_Basic	The function block enables the asynchronous communication with the	3	None	From

	Phoenix Contact IO-Link modules. [Function block for the asynchronous communication with the Phoenix Contact IO-Link modules - PCW_6_IOL_Basic_3_20190226.msi]			6.30.2349
IT_Library	Function blocks for using IT communication protocols. [Network protocols - PCW_6_IT_Library_8_20200611.msi]	8	None	From 6.30.2907
IT_Security	Function blocks for safe communication. [IT security - pc_worx_5_x_it_security_1_00.exe]	1.00	None	From 5
IP_Com	Function blocks for establishing IP connections via a controller [Function blocks for establishing IP connections - PCW_6_IP_Com_4_20200225.msi]	3	None	From 6.30.2907
Lighting	Function blocks for controlling PLD machine lights. [Library for controlling LED Machine Lights – pc_worx_6_x_lighting_1_01.exe]	1.01	None	From 6.10.200
LMS_Modbus	Function blocks for the Lightning Monitoring System LMS [Function blocks for the LMS lighting monitoring system - pc_worx_6_x_lms_modbus_1_00.exe]	1.00	None	From 6.30.767
MBUS	This library is not supported any more.			
MCE_Library	Function blocks for motion control. [Drive control - PCW_6_MCE_Library_3.msi]	3	None	From 6.30.1202
Modbus	This library is no longer supported			
Modbus_RTU	Function blocks for communication with the controller via Modbus protocol Modbus RTU. [Modbus communication via the Modbus RTU protocol - PCW_6_Modbus_RTU_5_20200611.msi]	5	None	From 6.30.2907
Modbus_TCP	Function blocks for communication with the controller via Modbus protocol Modbus TCP. [Modbus communication via the Modbus TCP protocol - PCW_6_Modbus_TCP_2_20200709.msi]	2	None	From 6.30.2907
OperatorPanel	Function blocks for communication with the operator panel NLC OP2 LCD 076 4X20 [Function blocks for communication with the operator interface NLC OP2 LCD 076 4X20 - pc_worx_6_x_operatorpanel_1_00.exe]	1.00	None	From 6.10.200

PDPI_Basic	P, D, PD, I, PI, PID controllers Self-tuning controllers for temperature control. [Self-tuning controllers (Basic) - pc_worx_6_x_pdpi_basic_2_11.exe]	2.11	Some function blocks of this library require a PDPI-Basic license (see 3.32)	From 6.20.331
PDPI_Pro	P, D, PD, I, PI, PID controllers Self-tuning controllers for special process automation functions. [Self-tuning controllers (Pro) - PCW_6_PDPI_Pro_3_20200220.msi]]	3	Some function blocks of this library require a PDPI-Pro license (see 3.33)	From 6.30.2907
PN_Dev_Diag	Function blocks for handling PROFINET. [PROFINET Device I/O diagnostics - PCW_6_PN_Dev_Diag_4_20200213.msi]	4	None	From 6.30.2907
Positioning	Function blocks for positioning terminals from Phoenix Contact. [Positioning - pc_worx_6_x_positioning_1_11.exe]	1.11	None	From 6.10.200
PowerMeasurement	Function blocks for power measurement terminals from Phoenix Contact. [Power Measurement - PCW_6_PowerMeasurement_3.msi]	3	None	From 6.30.1914
PowerSupplies	Function blocks of the PowerSupplies library process data and states provided by the UPS via PROFINET. [PowerSupplies - PCW_6_PowerSupplies_1.msi]	1	None	From 6.30.767
PROFIdrive	Driver blocks for Profile Drive Technology. [Software drivers for the profiles drive technology - PCW_6_ProfiDrive_2.exe]	2	None	From 6.30.767
RadiolineBasic	Function blocks for the Radioline devices. Using these function blocks, the devices can be controlled or status information can be read. [Function blocks for communication with the Radioline system - PCW_6_RadiolineBasic_20191115.msi]	2	None	From 6.30.1202
RDNCY	Function blocks for handling redundancy systems. [Redundant communication between two controllers - PCW_6_RDNCY_3.msi]	3	None	From 6.10.200

Redundancy_ASR	Function blocks for handling redundancy systems. [Master/slave role of redundant data transmission - pc_worx_6_x_rdncy_asr_1_00.exe]	1.00	None	From 6.00.25
SBT_Technology	Function blocks for a standard controller for startup of the logic modules and for exchanging data between the safe I/O modules and the logic module. [SafetyBridge technology - pc_worx_5_x_sbt_technology_1_08.exe]	1.08	None	From 5
SBT_V3	Function blocks for a standard controller for startup of the logic modules and for exchanging data between the safe I/O modules and the logic module. [Safety Bridge V3 - PCW_6_SBT_V3_4.msi]	4	None	From 6.30.767
SE_MBU_Mbus	Function blocks to drive the Interbus Inline Module IB IL MBUS-PAC (Order number 2701927). The library provides function blocks to read and write data over the M-Bus module. [Mbus-Client - PCW_6_SE_MBU_Mbus_2_2_0_20190111.msi]	2.2.0	None	From 6.30.2349
SNMP	Function blocks for using the Simple Network Management Protocol (SNMP v2c). [Network management(SNMP v2c) - PCW_6_SNMP_3_20200226.msi]	3	None	From 6.30.2907
SNMP3	Function blocks for using the Simple Network Management Protocol (SNMP v3). [Network management(SNMP v3) - pc_worx_5_x_snmp3_2_00.exe]	2.00	Some function blocks of this library require an APPLIC-A license (see 3.44)	From 5
SYS_PLC	Function block library for parameterization of Phoenix Contact PLCs. [System functions for PLC`s) - PCW_6_SYS_PLC_V1_21.msi]	1.21	None	From 6.30.1202
TempConversion	Function blocks for data exchange between controllers and temperature modules from Phoenix Contact. [Acquisition and evaluation of temperature modules - pc_worx_6_x_tempconversion_1_10.exe]	1.10	None	From 6.30.601
TouchDisplay	Function block for parameterizing a HMI. [Touch display - pc_worx_6_x_touchdisplay_1_00.exe]	1.00	None	From 6.10.200

UpsIqBasic	Function blocks for reading basic parameters from uninterruptible power supplies (UPS). [Function blocks for reading basic parameters from uninterruptible power supplies (UPS) - PCW_6_UpsIqBasic_1_05.msi]	1.05	None	ab 6.10.200
WirelessTechnology	Function blocks for controlling Bluetooth and WLAN Ethernet adapters. [Wireless communication - pc_worx_5_x_wirelesstechnology_1_06.exe]	1.06	None	From 5

3 Function blocks

3.1 AnalogTechnology

Block	Description	Version	Article
AI_NORM	Standardization of analog input values for analog modules.	1.03	---
ANL_IL_SGI_2P_EF	Function block for evaluating and parameterizing the IB ILSGI 2P EF module for load cells and force transducers.	4	IB IL SGI 2/P-EF-PAC 2702373
AO_NORM	Standardization of analog output values for analog modules.	2	---
IL_AI_2_SF	Parameterization and control of the IB IL AI2 SF terminal.	1.02	IB IL AI2 SF-PAC 2861302
IL_AI_4_EF	Parameterization and management of the IB IL AI 4/EF INTERBUS Inline terminal.	1.11	IB IL AI 4 EF-PAC 2878447 IB IL AI 4 EF-2MBD-PAC 2878641
IL_AI_4_UI	Parameterization and control of the IB IL AI 4/U-PAC and IB IL AI 4/I-PAC terminal.	1.04	IB IL AI 4 /U-PAC 2700459 IB IL AI 4 /I-PAC 2700458
IL_AI_8	Parameterization and standardization of the IB IL AI 8/SF INTERBUS Inline terminal.	3	IB IL AI 8 /SF-PAC 2861412
IL_AO	Parameterization and operation of the IB IL AO 2 INTERBUS Inline terminal.	2	IB IL AO 2 /U/BP-PAC 2861467 IB IL AO 2 /SF-PAC 2863083
IL_AO_1_SF	Parameterization and control of the IB IL AO1 S/F terminal.	1.00	IB IL AO 1 /SF-PAC 2861315
L_AO_2_UI	Parameterization and control of the IB IL AO1 S/F terminal.	1.02	IB IL AO 2 /UI-PAC 2700775
IL_AO_4_8	Parameterization and standardization of the IB IL AO 4/8/U/BP INTERBUS Inline terminal.	1.12	IB IL AO 4/8 /U/BP-PAC 2861467 IB IL AO 4/8 /U/BP 2MBD-PAC 2878052
IL_SGI_1_CAL	Function block for control and parameterization of the	1.01	IB IL SGI 1 /CAL 2700064

	IL SGI 1/CAL terminal.		
IL_SGI_2F	Function block for control and parameterization of the IL SGI 2F terminal.	1.00	IB IL SGI 2/F-PAC 2878638 IB IL SGI 2/F-2MBD-PAC 2878735
IL_SGI_2P_A	Function block for evaluating and parameterizing the IB IL SGI 2P module for load cells and force transducers.	1.01	IB IL SGI 2/P-PAC 2884907

3.2 Asyn_Com

Block	Description	Version	Article
AsynCom_AXL	Function block for asynchronous communication with Axioline devices.	3	---
AsynCom_IBS	Function block for asynchronous communication with INTERBUS devices.	2	---
AsynCom_PN	Function block for asynchronous communication with PROFINET-devices.	2	---
AsynCom_PN_Info	The function block reads out the list of Node IDs and F destination addresses of all PROFINET IO Devices including the IDs of the slots.	2	---
AsynCom_PN_Get_Idx	The function block searches for the I/O Device (Bus coupler) index of the given Node ID in the in/output arrDeviceAsynCom.	1.00	---
AsynCom_F_2_NodeID	The function block searches for the Node ID of the given F-Destination-Address in the in/output arrDeviceAsynCom.	1.01	---

3.3 AXL_Analog

Block	Description	Version	Article
AXL_Analog_IN	Function block for calculating standardized data values from the process data of the analog input terminals in the Axioline product range.	1.00	AXL AI 8 2688064 AXL F AI4 1H 2688491
AXL_Analog_OUT	Function block for calculating standardized data values from the process data of the analog output terminals in the Axioline product range.	1.00	AXL AO 8 2688080 AXL F AO4 1H 2688527
AXL_RTD	Function block for calculating standardized data values for temperature recording from the process data of the input terminals in the Axioline product range.	1.00	AXL RTD 8 ME 2688190

3.4 AXL_Basic

Block	Description	Version	Article
AXB_HotSwap	Parameterization and restart of the local bus after module replacement in the Axioline local bus	1.00	AXC 1050 2700988

3.5 AXL_ComSerial

Block	Description	Version	Article
AXL_RSUNI_PD	Function block for control and configuration of the AXL F RS UNI 1H terminal.	2	AXL F RS UNI 1 H 2688666

3.6 AXL_PM

Baustein	Beschreibung	Version	Artikel
AXL_PM_AddInfo	This function block is used to read out additional information. It uses the AsynCom library to get the objects and reads them on request.	1	AXL F PM EF 1F (2702671)
AXL_PM_Config	This function block is used to configurate the module.	1	AXL F PM EF 1F (2702671)
AXL_PM_Main	This function block processes the input process data and submits them to the AXL_PM_Values function block. It also controls the EnergyCountControl object of the module.	1	AXL F PM EF 1F (2702671)
AXL_PM_Values	This function block shows the measured values for the selected Phase.	1	AXL F PM EF 1F (2702671)

3.7 AXL_PDI

Block	Description	Version	Article
AXL_PDI_R_W	Function block for PDI services.	2	AXL AI 8 2688064 AXL AO 8 2688080 AXL RTD 8 ME 2688190 AXL DI 16/4 ME 2688145 AXL DO 32/1 ME 2688174 AXL DO 16/3 ME

			2688161 AXL CNT 2/INC 2 ME 2688213
AXL_PDI_AddLabel	Function blocks for electronic rating plates.	1.01	AXL AI 8 2688064 AXL AO 8 2688080 AXL RTD 8 ME 2688190 AXL DI 16/4 ME 2688145 AXL DO 32/1 ME 2688174 AXL DO 16/3 ME 2688161 AXL CNT 2/INC 2 ME 2688213
AXL_PDI_Diag	Function block for diagnostics.	1.01	AXL AI 8 2688064 AXL AO 8 2688080 AXL RTD 8 ME 2688190 AXL DI 16/4 ME 2688145 AXL DO 32/1 ME 2688174 AXL DO 16/3 ME 2688161 AXL CNT 2/INC 2 ME 2688213

3.8 AXL_SGI

Block	Description	Version	Article
AXL_SGI_Main	This function block initializes the module, processes the input process data and submits them to the AXL_SGI_Values function block. The function block also writes data in the output process data.	1	AXL F SGI2 1H (2702911)
AXL_SGI_Control	This function block is used to adjust the module and to read additional vlaues with the AsynCom.	1	AXL F SGI2 1H (2702911)
AXL_SGI_Config	This function block is used to configure the module.	3	AXL F SGI2 1H (2702911)
AXL_SGI_Values	This function block shows the measured values for the selected channel.	1	AXL F SGI2 1H (2702911)

3.9 CANbus

Block	Description	Version	Article
AXL_CAN_COMM	Driver for AXL F CAN Module	3	AXL F CAN
AXL_CAN_Para	Function block for parameterization of the AXL F CAN Module	2	AXL F CAN
AXL_CAN_Para11	Function block for parameterization of the AXL F CAN Module. For filter values in case of usage of 11 bit CAN identifier	2	AXL F CAN
AXL_CAN_Para29	Function block for parameterization of the AXL F CAN Module. For filter values in case of usage of 29 bit CAN identifier.	2	AXL F CAN
IL_DN_RW	Function block for communication between a DeviceNet network with available DeviceNet nodes.	1.00	IB IL CAN-MA-PAC 2700196
IL_CAN_COMM_DEV	Driver block for CANopen devices.	1.00	IB IL CAN-MA-PAC 2700196
IL_NMEA_RD_Multi	Function block for targeted reading of the data of a packet from a multi-packet message.	1.00	IB IL CAN-MA-PAC 2700196
IL_NMEA_RD	Function block for reading the current values from the array of a parameter group.	1.00	IB IL CAN-MA-PAC 2700196
IL_NMEA_WR	Function block that can make up to 8 bytes of data in one node in an NMEA network available to a node in	1.00	IB IL CAN-MA-PAC 2700196

	another NMEA network by entering a CAN ID.		
IL_CAN_COMM	Function block for establishing the connection to the IB IL CAN-MA-PAC module.	2	IB IL CAN-MA-PAC 2700196
IL_CO_DEV_Index	Function block for defining an index (0000-FFFF). So data can be changed between Master and Device (ILC).	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_DEV_Main	This function block is used as CANopen device. Supported are 10 RPDOs and 10 TPDOs. Heartbeat and Node guarding are used for monitoring.	1.10	IB IL CAN-MA-PAC 2700196
IL_CO_DEV_SubIndex	Function block for defining a subindex (1-5). So data can be changed between Master and Device (ILC).	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_EMCY	This function block is waiting for an emergency message. Additional information regarding the emergency message can be obtained from the outputs.	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_NMT_Guard	Function block for changing operating mode of a node.	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_NMT	Function block for determination and configuration operating mode of the CANopen node.	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_NodeGuard	Function block for displaying the current operating mode of a node.	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_NodeInfo	Function block for reading information from a node about Hardware version and Software version of the module, name of the module or serial number of the module.	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_PDO_RD	Function block for receiving PDO messages (e.g., 180 or 700).	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_PDO_WR	Function block for sending PDO messages.	1	IB IL CAN-MA-PAC 2700196
IL_CO_RD_WR	Function block for setting the objects (indexes, subindexes) of a CANopen node.	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_SDO_RD	Function block for reading contents of an index.	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_SDO_WR	Function block for assigning a new value to an index.	1.00	IB IL CAN-MA-PAC 2700196
IL_CO_Search	Searches for available nodes in a CANopen network and displays their device names and node IDs.	1.00	IB IL CAN-MA-PAC 2700196

IL_CO_SYNC	Function block for sending a COB-ID 80 synchronization message.	1.00	IB IL CAN-MA-PAC 2700196
IL_J1939_RD_Multi	Function block for reading the current data of a packet (parameter group) from a multi-packet message.	1.03	IB IL CAN-MA-PAC 2700196
IL_J1939_READ	Function block for reading the current data of a packet (parameter group) from a standard message.	1.03	IB IL CAN-MA-PAC 2700196
IL_J1939_WRITE	Function block for transmitting data to a node in a J1939 network.	1.03	IB IL CAN-MA-PAC 2700196
CAN_TO_AXL_STRUCT	Function block for mapping data from the CN_udt_RxTx structure to the CAN_UDT_DATA structure.	1	IB IL CAN-MA-PAC 2700196 AXL F IF CAN 1H 2702668

3.10 ComSerial

Block	Description	Version	Article
IL_RS232	Function blocks for controlling and configuring the IB IL RS232 PCP terminal.	1.10	IB IL RS232 PAC 2861357
IL_RS232P	Function blocks for controlling and configuring the IB IL RS232 PRO terminal.	3	IB IL RS232 PRO PAC 2878722
IL_RS485	Function blocks for controlling and configuring the IB IL RS485 PCP terminal.	1.10	IB IL RS485/422 PAC 2861933
IL_RS485P	Function blocks for controlling and configuring the IB IL RS485 PRO terminal.	3	IB IL RS485/422 PRO PAC 2863627
IL_RSUNI	Function blocks for controlling and configuring the IB IL RS UNI terminal.	6	IB IL RS UNI PAC 2700893 IB IL RS UNI 2MBD PAC 2701025
IL_RS485_ECO	Function blocks for controlling and configuring the IB IL RS 485-ECO terminal.	7	IB IL RS 485-ECO 2702141
IL_RS232_ECO	Function blocks for controlling and configuring the IB IL RS 232-ECO terminal.	5	IB IL RS 232-ECO 2702795

3.11 ComSiemens

Block	Description	Version	Article
CoSi_ETH_S7_Link	This block manages the TCP/IP connection between the Phoenix PLC and the Siemens PLC.	1.02	--
CoSi_GetSetDint	Set function writes a DINT value into the data buffer. Get function reads a DINT value out of the data buffer.	1.00	--
CoSi_GetSetDword	Set function writes a DWORD value into the data buffer. Get function reads a DWORD value out of the data buffer.	1.00	--
CoSi_GetSetInt	Set function writes an INT value into the data buffer. Get function reads an INT value out of the data buffer.	1.00	--
CoSi_FIFO	This block implements a FIFO (First In First Out) buffer. Data can be stored in a byte array and read out again.	1.00	--

CoSi_GetSetReal	Set function writes a REAL value into the data buffer. Get function reads a REAL value out of the data buffer.	1.00	--
CoSi_GetSetString	Function block for reading and writing a string to the data buffer of the ETH_S7Link block.	1.00	--
CoSi_GetSet_Time	Set function converts a TIME value into the S5TIME data type and writes it into the data buffer. Get function reads an S5TIME value out of the data buffer and converts it into the TIME data type.	1.00	--
CoSi_GetSet_Word	Set function writes a WORD value into the data buffer. Get function reads a WORD value out of the data buffer.	1.00	--
CoSi_JobInterface	This block provides an interface for processing several requests one after the other via the CoSi_JobManager block.	3	--
CoSi_JobManager	This block manages the requests that are sent to the CoSi_ETH_S7_Link block and processes them one after the other.	2	--

3.12 ControlTechnology

Block	Description	Version	Article	APPLIC-A
A2_OF_A3	The function block monitors three signals for equality within a specified rDist tolerance range and outputs the arithmetic mean value of the input signals to the output.	1.01	--	[-]
ADA_PAR	These function blocks and the AG_PAR blocks are mainly intended for a clearly arranged transfer of parameters in the IEC programming language FBD.	1.01	--	[-]
AG_PAR	These function blocks and the ADA_PAR AG_PAR blocks are mainly intended for a clearly arranged transfer of parameters in the IEC programming language FBD.	1.01	--	[-]
ALARM_2Q	Analog amplitude values can be monitored with ALARM_2Q_V1_0x. ALARM_2Q_V1_0x can also be used as a simple two-position controller with hysteresis. A further application would be the extraction of binary signals for working point-dependent parameter switch-over.	1.03	--	[+]
ALARM_4Q	Analog amplitude variables can be monitored with the function block. Two warning and two alarm limits each are available for this purpose. A hysteresis is available as an option.	1.03	--	[+]
B2_OF_B3	B2_OF_B3 is used for combining three binary sensors. A “2 from 3 logic” is implemented for this purpose. B2_OF_B3 is used in error-tolerant systems for evaluation of redundant binary sensors.	1.01	--	[-]
C_N_PAR	The C_N_PAR function block mainly serves the purpose of simplified parameter transfer in the IEC programming language FBD to the C_N function block.	1.01	--	[-]
C_N	The C_N function block implements a touch controller to the nth order. A maximum of	1.03	--	[+]

	ten counters and correspondingly nine denominator coefficients can be parameterized. The 0th denominator coefficient is always “1” by default. A series of various superior control tasks can be performed with the touch controller function block. For example, applications could be deadbeat controllers, minimum variance controllers or pole setting controllers.			
CYCLE	The CYCLE function block continually calculates the current cycle times of the corresponding task.	1.01	--	[-]
DEADBAND_SIM	This function block implements an adjustable dead band without hysteresis.	1.01	--	[-]
DELAY100	DELAY100 is used for simulating delay time processes. The longest possible delay time is shorter than 100 times the tCycle time.	1.02	--	[-]
DELAY20	DELAY20 is used for simulating delay time processes. The longest possible delay time is shorter than 20 times the tCycle time.	1.02	--	[-]
DRIVE_SIM	This function block simulates an actuator motor (i.e., an actuator with I response) with upper limit stop (rUpLim) and lower limit stop (rDownLim) as well as the (rY) output.	1.01	--	[-]
DYN	The function block implements a PDT1, PT1 or DT1 response. It can be used for dynamic processing of signals (for example, disturbance variable connection).	1.03	--	[+]
HOLD	Effect of the hold element is canceled, input value rIN is written to the rOUT output.	1.01	--	[-]
INT_C	The function block can be used as simple I controller or for calculation functions (e.g., for calculating quality values).	1.03	--	[+]
LAG_1ST	The function block implements a delay element of the 1st order with a PT1 transmission function. It can, for example, be used for digital filtering, both individually and cascaded.	1.03	--	[+]

LIMITROC	The MODE_PAR function block mainly serves the purpose of simplified parameter transfer in the IEC programming language FBD to the PID_MODE function block.	1.02	--	[-]
LIMITVAL	The function block limits the analog input sizes to values within a range that is determined by the minimum (rMin) and maximum (rMax) limit value parameters. If the input signal exceeds one of both limits, the relevant alarm signal is set.	1.01	--	[-]
LTR	The function block implements a linear transformation; it can be used for work point shifting and gain correction for example.	1.01	--	[-]
MODE_PAR	The MODE_PAR function block mainly serves the purpose of simplified parameter transfer in the IEC programming language FBD to the PID_MODE function block.	1.01	--	[-]
PAR_PAR	The PAR_PAR function block mainly serves the purpose of simplified parameter transfer in the IEC programming language FBD to the PID_PAR function block.	1.01	--	[-]
PID_ADA	The PID additional controller module is used together with the PID_C or PID_R PID continuous controllers for implementing a controlled adaptation. The function block allows selection of a maximum of four parameter records. By cascading however, a larger number of parameter records is possible.	1.01	--	[-]
PID_C	The function block implements a proportional integral derivative controller with P component, I component and delayed D component including all subtypes (PI, PD, P, and I).	1.23	--	[+]
PID_MAN	The PID additional controller module is used together with the PID_C or PID_R continuous controllers for manual input of values using the “UP” and “DOWN” buttons.	1.01	--	[-]

PID_MODE	The PID additional controller module is used together with the PID_C and PID_R continuous PID controllers for easy input of the wMode control commands.	1.01	--	[-]
PID_PAR	The PID additional controller module is used together with the PID_C PID continuous controller for easy input of the parameterization values.	1.01	--	[-]
PID_R	This function block implements the function of a PID controller with reduced scope of functions compared to the PID_C. The “_R” (reduced) suffix of the function block is the result.	1.04	--	[+]
PID_STAT	The PID additional controller module is used together with the PID_C PID continuous controller for output of the status information (e.g., exceeding setpoint or actual value).	1.01	--	[-]
PID_STR	The PID additional controller module is used together with the PID_C or PID_ADA PID continuous controllers for implementing a controlled adaptation. The function block converts a parameter record that exists in the form of the STR variable into the four controller parameters rGain, tResetTime, tRateTime and tLagTime.	1.01	--	[-]
POL_PAR	The POL_PAR function block mainly serves the purpose of simplified parameter transfer in the IEC programming language FBD to the POLN_N function block.	1.01	--	[-]
POLG_N	The function block simulates non-linear characteristic curves by rectilinear approximations. It can be used for characteristic curve correction of actuator systems, for non-linear feedbacks or nonlinear coupling in controllers.	1.03	--	[+]
POLN_N	The function block implements a polynomial to a maximum of the 9th order It can, for example, be used for characteristic curve correction.	1.03	--	[+]

RECV50	The RECV50 function block is intended for connection to the outputs of the SEND50 function block.	1.01	--	[-]
REV_LOCK	The function block prevents direct switching between OUT1 and OUT2 (intake and return) by adding a waiting time with the length specified in tGap.	1.01	--	[-]
SC_R_R	The function block is used for scaling any REAL-type variables.	1.02	--	[-]
SC_R_W	The function block is used for scaling analog output values. REAL-type values are then converted to the WORD display format of the digital/analog converter periphery.	2	--	[-]
SC_W_R	The function block is used for scaling analog input values. The peripheral values of an analog/digital converter from the WORD display format are then converted to the REAL floating-point format.	2	--	[-]
SEND50	The SEND50 function block serves the purpose of saving 50 consecutive values after activating the memory function using the ENABLE = TRUE condition. The time interval of the saving process between the individual values corresponds exactly to the relevant cycle time difference.	1.01	--	[-]
THREE_C	The THREE_C PID additional controller module is used together with the PID_C or PID_R PID continuous controllers as three-point step controller or as three-point or two-point controller. The THREE_C converts the analog manipulated variable that comes from the PID_C or PID_R in Boolean UP and DOWN impulses.	1.12	--	[-]
THREE	The function block implements a three-point element. Any zero and hysteresis widths can be set with the ON and OFF points. If only one output signal (xOut1 output) is used, the function block can be implemented as two point element.	1.01	--	[-]

TWIN_DRIVE	The twin drive function block serves the purpose of simultaneous control of two actuating drives. The function block therefore makes two outputs available, meaning that two actuating drives working in parallel can be controlled in coordination with each other.	1.01	--	[-]

[+] APPLIC-A license is required // [-] APPLIC-A license is not required

3.13 DALI_Basic

Block	Description	Version	Article
AXL_DALI_InputPD	The AXL_DALI_InputPD does a mapping of the AXL F MA DALI2 1H (2702864) input process data to the DALI_Server function block input process data.	1	AXL F MA DALI2 1H (2702864)
AXL_DALI_OutputPD	The AXL_DALI_OutputPD does a mapping of the DALI_Server function block output process data to the AXL F MA DALI2 1H (2702864) output process data.	1	AXL F MA DALI2 1H (2702864)
DALI_Server	Function block for communicating with the IB IL DALI/PWR-PAC and IB IL DALI-PAC modules.	1.00	IB IL DALI/PWR-PAC 2897813 IB IL DALI-PAC 2897910
DALI_MM_Server	Function block for communicating with the IB IL DALI/MM-PAC modules.	2	IB IL DALI/MM-PAC 2700605
DALI_MM_SensorM2	Function block that works with an MM server block to record the brightness measured by the MSensor02 sensor and to detect a presence.	1.01	---
DALI_HystControl	Function block that works with the M2 sensor and the DimGroup block to regulate the brightness of a room.	1.00	---
DALI_DimT1	Function block for intuitively switching and dimming lights.	1.00	---
DALI_DimGroup	Function block that works with a server block to dim a light group.	1.00	---
DALI_ArcPGroup	Function block for controlling the light intensity of a light group.	1.00	---
DALI_OnOffGroup	Function block for switching a light group on and off.	1.00	---
DALI_SceneGroup	Function block for setting a light scene for a light group.	1.00	---
DALI_Group	Function block that logically combines the DimT1, the DimGroup, the ArcPGroup, the OnOffGroup, and the SceneGroup blocks together.	1.01	---
DALI_Groups	Function block that contains and combines the 16 DALI_Group blocks.	1.01	---
DALI_BalastT1	Works with a server block to determine and output the parameters of a light. Changes to the parameters can be made directly at the block.	1.00	---

DALI_State	Function block for determining the state of all 64 possible devices.	1.01	---

3.14 Datalogger

Block	Description	Version	Article
DataLogger	This FB is used to collect data and convert into a buffer in ASCII format	1.00	--
DataLogBool	This function block is used to log variables of the data type BOOL.	1.00	--
DataLogByte	This function block is used to log variables of the data type BYTE.	1.00	--
DataLogDint	This function block is used to log variables of the data type DINT.	1.00	--
DataLogDword	This function block is used to log variables of the data type DWORD.	1.00	--
DataLogInt	This function block is used to log variables of the data type INT.	1.00	--
DataLogLreal	This function block is used to log variables of the data type LREAL.	1.00	--
DataLogReal	This function block is used to log variables of the data type REAL.	1.00	--
DataLogSint	This function block is used to log variables of the data type SINT.	1.00	--
DataLogStr	This function block is used to log variables of the data type STRING.	1.00	--
DataLogUdint	This function block is used to log variables of the data type UDINT.	1.00	--
DataLogUint	This function block is used to log variables of the data type UINT.	1.00	--
DataLogUsint	This function block is used to log variables of the data type USINT.	1.00	--
DataLogWord	This function block is used to log variables of the data type WORD.	1.00	--
DataLogCSV	This function block is used to store data to the local file system as CSV files.	1.00	--
DataLogFTP	This FB is used to log data to files on FTP Server.	1.00	--
DataLogMsSql	This FB is used to log data into SQL data base.	1.00	--

DI_TimeFormat	This function block is used to generate different time-formats.	1.00	--
DataLogOnEvent	This function block is used to record each cycle one data set in the RAM.	1.00	
DataLogEvCSV	This function block is used to store the logged data from the FB “DataLogOnEvent	1.00	

3.15 DBFL_SQL

Block	Description	Version	Article	APPLIC-A
DBFL_CODE	The block copies 18 strings to the SQL command and adds it to the database.	1.01	---	[-]
DBFL_ComandFiFo	The block stores up to 50 SQL commands.	1.02	---	[-]
DBFL_MySQL_ACCESS	The block allows access to a database which is stored on a MySQL server (Version 4.1 or later).	1.15	---	[+]
DBFL_MySQL_DECODE	The block serves the purpose of evaluating a received table and must be used as a continuation block of DBFL_MySQL_ACCESS block.	2	---	[-]
DBFL_TSQL_ACCESS	This block allows access to a database. The parameters (DB_USER, DB_PASSWORD, IP_PORT, IP_ADDRESS, DB_NAME) required for the connection must be a STRING.	1.16	---	[+]
DBFL_TSQL_DECODE	This block serves the purpose of evaluating the received table and must be used as a continuation block of the DBFL_TSQL_ACCESS block.	1.16	---	[-]

[+] APPLIC-A license is required // [-] APPLIC-A license is not required

3.16 Drives

Block	Description	Version	Article
IL_MOT400	Function block for parameterizing, diagnosing, and controlling Inline 400 motor starters.	1.01	IB IL 400 MLR 1 8A 2727365 IB IL 400 MLR 1 8A 2MBD 2855428 IB IL 400 ELR 1-3A 2727352 IB IL 400 ELR 1 3A 2MBD 2855525 IB IL 400 ELR R 3A 2727378 IB IL 400 ELR R 3A 2MBD 2855130
IL_MLR_R	Function block for parameterizing and controlling motor starters in reversing-load operation.	1.01	IB IL 400 MLR 1 8A 2727365 IB IL 400 MLR 1 8A 2MBD 2855428

3.17 EEM

Block	Description	Version	Article
EEM_Tab1_RTU	Function block for reading and standardizing the data in Table 1 (register addresses C550 – C58C) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab2_RTU	Function block for reading and standardizing the data in Table 2 (register addresses C650 – C690) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab3_RTU	Function block for reading and standardizing the data in Table 3 (register addresses C750 – C795) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab4_RTU	Function block for reading and standardizing the	1.00	EEM-MA250

	data in Table 4 (register addresses C850 – C872) from EMPros 250, 400, and 600		2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab5_RTU	Function block for reading and standardizing the data in Table 5 (register addresses 0370 – 0374) from EMPros 600	1.00	EEM-MA600 2901366
EEM_Tab6_RTU	Function block for reading and standardizing the data in Table 6 (register addresses 0741 – 0743) from EMPros 600	1.00	EEM-MA600 2901366
EEM_Tab7_RTU	Function block for reading and standardizing the data in Table 7 (register addresses C900 – C907) from EMPros 250 and 600	1.00	EEM-MA250 2901363 EEM-MA600 2901366
EEM_Tab8a_RTU	Function block for reading and standardizing the data in Table 8 (register addresses C950 – C959) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab8b_RTU	Function block for reading and standardizing the data in Table 8 (register addresses C95A – CA92) from EMPros 600	1.00	EEM-MA600 2901366
EEM_Tab9_RTU	Function block for reading and standardizing the data in Table 9 (register addresses CB00 – CB03) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab1_TCP	Function block for reading and standardizing the data in Table 1 (register addresses C550 – C58C) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab2_TCP	Function block for reading and standardizing the data in Table 2 (register addresses C650 – C690) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364

			EEM-MA600 2901366
EEM_Tab3_TCP	Function block for reading and standardizing the data in Table 3 (register addresses C750 – C795) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab4_TCP	Function block for reading and standardizing the data in Table 4 (register addresses C850 – C872) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab5_TCP	Function block for reading and standardizing the data in Table 5 (register addresses 0370 – 0374) from EMPros 600	1.00	EEM-MA600 2901366
EEM_Tab6_TCP	Function block for reading and standardizing the data in Table 6 (register addresses 0741 – 0743) from EMPros 600	1.00	EEM-MA600 2901366
EEM_Tab7_TCP	Function block for reading and standardizing the data in Table 7 (register addresses C900 – C907) from EMPros 250 and 600	1.00	EEM-MA250 2901363 EEM-MA600 2901366
EEM_Tab8a_TCP	Function block for reading and standardizing the data in Table 8 (register addresses C950 – C959) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab8b_TCP	Function block for reading and standardizing the data in Table 8 (register addresses C95A – CA92) from EMPros 600	1.00	EEM-MA600 2901366
EEM_Tab9_TCP	Function block for reading and standardizing the data in Table 9 (register addresses CB00 – CB03) from EMPros 250, 400, and 600	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab1ToValues	Function block that converts the	1.00	EEM-MA250

	EEM_UDT_Tab1 input structure into individual output parameters.		2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab2ToValues	Function block that converts the EEM_UDT_Tab2 input structure into individual output parameters.	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab3ToValues	Function block that converts the EEM_UDT_Tab3 input structure into individual output parameters.	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab4ToValues	Function block that converts the EEM_UDT_Tab4 input structure into individual output parameters.	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab5ToValues	Function block that converts the EEM_UDT_Tab5 input structure into individual output parameters.	1.00	EEM-MA600 2901366
EEM_Tab6ToValues	Function block that converts the EEM_UDT_Tab6 input structure into individual output parameters.	1.00	EEM-MA600 2901366
EEM_Tab7ToValues	Function block that converts the EEM_UDT_Tab7 input structure into individual output parameters.	1.00	EEM-MA250 2901363 EEM-MA600 2901366
EEM_Tab8aToValues	Function block that converts the EEM_UDT_Tab8a input structure into individual output parameters.	1.00	EEM-MA250 2901363 EEM-MA400 2901364 EEM-MA600 2901366
EEM_Tab9ToValues	Function block that converts the	1.00	EEM-MA250

	EEM_UDT_Tab9 input structure into individual output parameters.		2901363 EEM-MA400 2901364 EEM-MA600 2901366

3.18 FileHandling

Block	Description	Version	Article
FILE_ReadIni	Function block for reading parameters from a file which corresponds to the structure of a classic settings file.	1.00	---

3.19 FunctionModules

Block	Description	Version	Article
C_COUNT	Function block for parameterization of the IB IL CNT terminal in event counting operating mode.	1.00	IB IL CNT 2836337 IB IL CNT-PAC 2861852 IB IL CNT-2MBD 2855813 IB IL CNT-2MBD-PAC 2862071
C_FREQ	Function block for parameterization of the IB IL CNT terminal in frequency measurement operating mode and cyclic reading out of the measured values.	1.00	IB IL CNT 2836337 IB IL CNT-PAC 2861852 IB IL CNT-2MBD 2855813 IB IL CNT-2MBD-PAC 2862071
C_PULSE	Function block for parameterization of the IB IL CNT terminal in pulse generator operating mode.	1.00	IB IL CNT 2836337 IB IL CNT-PAC 2861852 IB IL CNT-2MBD 2855813 IB IL CNT-2MBD-PAC 2862071
C_TIME	Function block for parameterization of the IB IL CNT terminal in time measurement operating mode and cyclic reading out of the measured values.	1.00	IB IL CNT 2836337 IB IL CNT-PAC 2861852 IB IL CNT-2MBD 2855813 IB IL CNT-2MBD-PAC 2862071

FUM_IL_DI8_S0_CFG	Function block for parameterizing the channels of IB IL DI 8/S0-PAC. Has to be called for every channel.	1.10	IB IL DI 8/S0-PAC 2897020
FUM_IL_DI8_S0_COM	Function block for communication with the module.	1.11	IB IL DI 8/S0-PAC 2897020
FUM_IL_DI8_S0_DATA	Function block for showing the values of a channel. Has to be called for every channel.	1.10	IB IL DI 8/S0-PAC 2897020
FUM_IL_PWM2_Para	Function block for parameterization and scaling of four operating modes of the IB IL PWM/2 terminal.	1.00	IB IL PWM/2 2742612 IB IL PWM/2-PAC 2861632
FUM_IL_PWM2	Function block for the communication between PLC and IB IL PWM/2 terminal.	2	IB IL PWM/2 2742612 IB IL PWM/2-PAC 2861632
FUM_IL_PWM2_Data	Function block for diagnosis information from the IB IL PWM/2 terminal.	2	IB IL PWM/2 2742612 IB IL PWM/2-PAC 2861632
IMP_IN	Function block for parameterization and scaling of position values of the IB IL IMP-IN terminal.	1.00	IB IL IMPULSE-IN 2819231 IB IL IMPULSE-IN-PAC 2861768 IB IL IMPULSE-IN-2MBD 2819817 IB IL IMPULSE-IN-2MBD-PAC 2819804
INC_IN	Function block for parameterization and scaling of position values of the IB IL INC-IN terminal.	1.00	IB IL INC-IN 2819228 IB IL INC-IN-PAC 2861755 IB IL INC-IN-2MBD 2819778 IB IL INC-IN-2MBD-PAC 2819765
INC_DATA	Auxiliary block for assigning structure variables.	1.00	IB IL INC-IN 2819228 IB IL INC-IN-PAC 2861755 IB IL INC-IN-2MBD

			2819778 IB IL INC-IN-2MBD-PAC 2819765
INC_PARA	Auxiliary block for assigning structure variables.	1.00	IB IL INC-IN 2819228 IB IL INC-IN-PAC 2861755 IB IL INC-IN-2MBD 2819778 IB IL INC-IN-2MBD-PAC 2819765
GrayCode_TO_Binary	Converts a value from “binary-reflected gray code” to binary format.	1.00	---
Binary_TO_GrayCode	Converts a value from binary to “binary-reflected gray code” format.	1.00	---
PC_COUNT	Function block for parameterizing the IB IL CNT terminal in the “event counting” operating mode and reading the count cyclically.	1.00	IB IL CNT 2836337 IB IL CNT-PAC 2861852 IB IL CNT-2MBD 2855813 IB IL CNT-2MBD-PAC 2862071
PC_TIME	Function block for parameterizing the IB IL CNT terminal in the “time measurement” operating mode and reading the measured values cyclically.	1.00	IB IL CNT 2836337 IB IL CNT-PAC 2861852 IB IL CNT-2MBD 2855813 IB IL CNT-2MBD-PAC 2862071
IOL_COM	Function block for reading and writing of IO-Link services from IO-Link master or IO-Link devices.	1.00	FLM IOL 4 DI 4 M12 2736990 IB IL 24 IOL 4 DI 12 2692717 AXL E PN IOL8 DI4 M12 6M 2701519

3.20 HART_Basic

Block	Description	Version	Article
HART_ComAI2	Used for communication with the hardware	2	IB IL AI 2-HART-PAC 2862149
HART_Command1	Displays the measured values received on HART command “1”	2	--
HART_Command2	Displays the measured values received on HART command “2”	2	--
HART_Command3	Displays the measured values received on HART command “3”	2	--
HART_PassThrough	Offers the option of sending additional HART commands to any devices	2	--
HART_DecodeDiag	Decodes the diagnostic code of the function blocks	1.00	--

3.21 ILCME_MCE

Block	Description	Version	Article
M191_DRV1	Function block (driver block) for connecting the two pulse direction outputs of the Inline controller to the blocks of the Easy Motion library.	1.02	ILC 191 ME/AN 2700074 ILC 191 ME/INC 2700075
M191_DRV2	Function block (driver block) for connecting the two pulse direction outputs of the Inline controller to the blocks of the Easy Motion library.	1.02	ILC 191 ME/AN 2700074 ILC 191 ME/INC 2700075
M191_HomePARA	This function block is used to parameterize the M191_Home function block.	1.00	---
M191_Home	This function block is used to perform homing.	1.00	---
M191_MoveAbsolute	This function block is used to perform a relative move.	1.00	---
M191_MoveRelative	This function block is used to perform an absolute move.	1.00	---
M191_MoveVelocity	This function block is used to perform a continuous move.	1.00	---
M191_Power	This function block activates or deactivates the	1.00	---

	other function blocks of the Easy Motion library and enables the pulse direction outputs of the Inline controller.		
M191_Reset	This function block acknowledges an axis-related error. The axis is set from “ErrorStop” to the “StandStill” state. All axis-related errors are reset. The outputs of the other function blocks remain unaffected.	1.00	---
M191_Stop	This function block is used to stop a move using a specified deceleration ramp.	1.00	---

3.22 ILCME_ModBus

Block	Description	Version	Article
MB191_485_Para	This auxiliary block is used to parameterize the block for the internal RS-485/RS-422 interface of an ILC 191 ME.	1.00	ILC 191 ME/AN 2700074 ILC 191 ME/INC 2700075
MB191_485_T1	This function block is used to parameterize the internal RS-485/RS-422 interface of an ILC 191 ME.	1.00	ILC 191 ME/AN 2700074 ILC 191 ME/INC 2700075
MB191_RTU_Gateway	This block acts as the gateway and enables communication with Modbus RTU devices.	1.00	---
MB191_RTU_FC1FC2	This block covers Modbus function codes 01 and 02.	1.00	---
MB191_RTU_FC3FC4	This block covers Modbus function codes 03 and 04.	1.01	---
MB191_RTU_FC5_	This block covers Modbus function code 05.	1.00	---
MB191_RTU_FC6	This block covers Modbus function code 06.	1.00	---
MB191_RTU_FC15	This block covers Modbus function code 15.	1.00	---
MB191_RTU_FC16	This block covers Modbus function code 16.	1.00	---
MB191_RTU_FC23	This block covers Modbus function code 23.	1.00	---

3.23 InterBus

Block	Description	Version	Article
IB_Active_InterBus	The function block uses an integer to select which of the four Boolean outputs is set to TRUE.	1.00	---
IB_AutoSWT	The IB_AutoSWT function block is programmed for bus error handling. This function block can acknowledge bus errors or switch off faulty bus devices and enable the bus again immediately.	1.00	---
IB_DevMod	This function block combines the functions of the IB_AutoSWT, IB_WriteConfig, and IB_ReadConfig function blocks.	1.00	---
IB_ReadConfig	The function block IB_ReadConfig is programmed for reading the status information of the individual bus devices.	1.00	---
IB_WriteConfig	The IB_WriteConfig function block controls the status of INTERBUS devices, with the aid of firmware services.	1.00	---
IB_ErrorDescript	The IB_ErrorDescript function block is used for error removal. In the event of an error, the block calls up the description from the user manual.	1.00	---
IB_Log	The IB_Log function block writes error messages to an Excel file that is located on the controller. The last error message is displayed.	1.00	---

3.24 Interbus_PN

Block	Description	Version	Article
IB_AutoSWT_ILC	INTERBUS handling on a PROFINET proxy.	2.00	---
IB_AutoSWT_PN	INTERBUS handling on a PROFINET proxy.	2.01	---
IB_Control_PN	INTERBUS handling on a PROFINET proxy.	2.01	---
IB_DiagReg_PN	INTERBUS handling on a PROFINET proxy.	2.00	---
IB_ErrorCode_PN	INTERBUS handling on a PROFINET proxy.	2.01	---
IB_ReadConfig	INTERBUS handling on a PROFINET proxy.	2.01	---
IB_SendCommand_PN	INTERBUS handling on a PROFINET proxy.	2.00	---

3.25 IntrinsicallySafe

Block	Description	Version	Article
IL_EX_IS_DIO_4	Function block for parameterization and communication management of the IB IL EX-IS DIO 4 /NAM module.	1.01	IB IL EX-IS DIO 4 /NAM-PAC 2869911
IL_EX_IS_AIO4_Data	Function block for parameterization of the IB IL EX-IS AIO 4 /EF module.	1.00	IB IL EX-IS AIO 4 /EF-PAC 2869912
IL_EX_IS_AIO4_Com	Function block for communication management of the IB IL EX-IS AIO 4 /EF module.	1.01	IB IL EX-IS AIO 4 /EF-PAC 2869912
IL_EX_IS_TEMP_4	Function block for parameterization and communication management of the IB IL EX-IS DIO 4 /NAM module. It establishes the communication interface to the IB IL EX-IS TEMP 4 RTD/TC module.	2	IB IL EX-IS DIO 4 /NAM-PAC 2869911 IB IL EX IS TEMP 4 RTD/TC-PAC 2869913

3.26 IOL_Basic

Block	Description	Version	Article
IOL_Com	The block enables the asynchronous communication with the Phoenix Contact IO-Link modules. The function block can be used to write and / or read IO-Link services on the IO-Link-Master or on the IO-Link-Devices.	3	AXL E PN IOL8 DI4 M12 6M 2701519 IB IL 24 IOL 4 DI 12-2MBD-PAC 2692733 IB IL 24 IOL 4 DI 12-PAC 2692717 FLM IOL4 DI4 M12 2736990 IOL MA8 PN DI8 1072838

3.27 IT_Library

Block	Description	Version	Article
DNS	This function block can be used to request the IP address assigned to a host name from a DNS server.	1.12	---
ITL_FTP_FileCopy	This block makes it possible to copy a file between FTP servers.	4	---
ITL_FTP_FileRW	This block allows writing to a file on an FTP server or reading from a file on an FTP server.	3	---
ITL_FTP_Mngt	Management function block for FTP-protocol	3	---
SetClock	Function block for setting the real time clock.	1.00	---
ITL_DHCP_Client	Update of DHCP_Client_V1_18	2.01	---
ITL_SNTP_Client	The SNTP_Client block determines the current time of an (S)NTP server via the SNTP protocol and makes this available at its outputs for further processing.	1.02	---
ITL_SMTP_Client	The Simple Mail Transfer Protocol (SMTP) is a protocol of the Internet protocol family.	2	---
ITL_SNTP_Diag_Info_EN	In case of an error at the	1.00	--

	ITL_SNTP_Client, this block shows the diagnostics of the block as a text in English.		
ITL_SNTP_Diag_Info_DE	In case of an error at the ITL_SNTP_Client, this block shows the diagnostics of the block as a text in German.	1.00	--
ITL_HTTP_Get	This block sends a HTTP Get request to a HTTP Server and receives the response.	2	--
ITL_HTTP_Post	This block sends a HTTP Post request to a HTTP Server and receives the response.	2	--
ITL_HTTP_Decode	This block decodes a byte-array in readable strings. If used with the HTTP_Get or HTTP_Post block, the server response can be decoded directly in plain text.	2	--

3.28 IT_Security

Block	Description	Version	Article
SEC_AES_CFB_Dec	Function block with AES algorithm for symmetrical encryption.	1.00	---
SEC_AES_CFB_Enc	Function block with AES algorithm for symmetrical decryption.	1.00	---
SEC_ AES _Decrypt	Function block with AES algorithm for symmetrical encryption – CFB mode.	1.00	---
SEC_AES_Encrypt	Function block with AES algorithm for symmetrical decryption – CFB mode.	1.00	---
SEC_HMAC_SHA1	Function block for encryption with Secure Hash Algorithm (SHA).	1.00	---
SEC_SHA1	Function block for encryption with Secure Hash Algorithm (SHA).	1.00	---

3.29 IP_Com

Block	Description	Version	Article
IPC_DiagInfo_DE	The function block outputs the diagnostics as a text-based message in German	1.00	-
IPC_DiagInfo_EN	The function block outputs the diagnostics as a text-based message in English	1.00	-
IPC_Socket	This function block manages the socket firmware function blocks.	4	-

3.30 Lighting

Block	Description	Version	Article
PLD_PWM	Function block for parameterizing PLD machine lights via the IB IL PWM/2-PAC Inline function module.	1.01	IB IL PWM/2-PAC 2861632

3.31 LMS_Modbus

Block	Description	Version	Article
LMS_MB_Lightning_Data	Function block for reading lightning strike data on lightning monitoring system (LMS) via MODBUS.	1.00	LMS-S-A-C-3S-ETH 2800618
LMS_MB_MeasurementSet	Function block for changing general and sensor settings on lightning monitoring system (LMS) via MODBUS.	1.00	LMS-S-A-C-3S-ETH 2800618
LMS_MB_NetworkSet	Function block for setting network parameter such as IP address, subnet mask, default gateway and device name on lightning monitoring system (LMS) via MODBUS.	1.00	LMS-S-A-C-3S-ETH 2800618
LMS_MB_SensorStatus	Function block for reading status and LED driving current of sensors connected with lightning monitoring system (LMS) via MODBUS. Furthermore it is possible, to read the status of the system.	1.00	LMS-S-A-C-3S-ETH 2800618
LMS_MB_SystemTime	Function block for setting system time (year, month, day, hour, minute, second) on lightning monitoring system (LMS) via MODBUS.	1.00	LMS-S-A-C-3S-ETH 2800618
LMS_MB_DW_TO_REAL	This function block converts a value as DWORD to REAL in a bitwise manner.	1.00	--
LMS_MB_REAL_TO_DW	This function block converts a 32 bit value as REAL to a DWORD in a bitwise manner	1.00	--

3.32 MCE_Library

Block	Description	Version	Article
MCE_Basic_V2_00			
MCE_Home	MC_Home functionality according to the PLC-OPEN Motion Control Definition	1.01	---
MCE_MoveAbsolute	MC_MoveAbsolute functionality according to the PLC-OPEN Motion Control Definition	1.01	---
MCE_MoveVelocity	MC_MoveVelocity functionality according to the PLC-OPEN Motion Control Definition	1.01	---
MCE_Power	MC_Power functionality according to the PLC-OPEN Motion Control Definition	1.01	---
MCE_Reset	MC_Reset functionality according to the PLC-OPEN Motion Control Definition	1.01	---
MCE_SetPosition	SetPosition functionality according to the PLC-OPEN Motion Control Definition	1.01	---
MCE_Stop	MC_Stop functionality according to the PLC-OPEN Motion Control Definition	1.01	---
MCE_TorqueControl	MC_TorqueControl functionality according to the PLC-OPEN Motion Control Definition	1.00	---
MCE_Com_V2_00			
MCE_ETH_C_DIN66019	The block forms the communication interface between the converter-specific driver block and the Ethernet DIN 66019 protocol.	1.01	---
MCE_C_IB_PCP	The block forms the communication interface between the converter-specific driver block and the PCP protocol.	1.00	---
MCE_Drive_KEBF5_V2_00			
MCE_D_KEBF5_DRV	Reading and writing of converter parameters.	1.01	KEB-F5 converter
MCE_D_KEBF5_FR	Writes the configuration to the converter.	1.01	KEB-F5 converter
MCE_D_KEBF5_IBI32	Writes the input process data to the axis structure.	1.00	KEB-F5 converter
MCE_D_KEBF5_IBO32	Writes the axis structure to the output	1.00	KEB-F5

	process data		converter
MCE_D_KEBF5_IBI48	Writes the input process data to the axis structure.	1.01	KEB-F5 converter
MCE_D_KEBF5_IBO48	Writes the axis structure to the output process data	1.01	KEB-F5 converter
MCE_D_KEBF5_IBOP	Block for transmitting parameters to the converter via INTERBUS.	1.00	KEB-F5 converter
MCE_Util_V2_00			
MCE_U_DEV_Config	The block is used to transmit configuration data to the communication block.	1.00	---
MCE_U_DeviceState	The block outputs the status of the converter in the “Axis” data structure bit by bit.	1.00	---
MCE_U_PROC_Value	The block outputs the status of the converter in the “Axis” data structure bit by bit.	1.00	---
MCE_U_URP	The function block can be used by the user to read parameters from the converter that have not yet been provided.	1.00	---
MCE_U_UWP	The function block can be used by the user to send parameters to the converters which have not yet been provided.	1.00	---
MCE_ILCME_1			
MCE_M191_Config	This block is used to configure the axis. It writes the input parameters into the Axis structure.	1	ILC 191 ME/INC 2700075
MCE_M191_DRV	This axis is used to control the axis, and show diagnosis information.	1	ILC 191 ME/INC 2700075
MCE_M191_FWIF1	This block contains the firmware blocks INC_CNT1 and PULSE_CH1. This block describes the onboard PWM output channel 1 and the onboard INC input channel 1 is queried.	1	ILC 191 ME/INC 2700075
MCE_M191_FWIF2	This block contains the firmware blocks INC_CNT2 and PULSE_CH2. This block describes the onboard PWM output channel 2 and the onboard INC input channel 2 is queried.	1	ILC 191 ME/INC 2700075

MCE_DiagInfo_DE	This block converts the diagnostic information into a text in German.	1	---
MCE_DiagInfo_EN	This block converts the diagnostic information into a text in English.	1	---

3.33 Modbus_RTU

Modbus RTU function blocks

Block	Description	Version	Article
MB_AXL_F_RSUNI_Master	This block runs the sending operations via the AXL F RS UNI 1H module.	2	AXL F RS UNI 1H (2688666)
MB_RTU_FCn	The library contains function blocks for function codes 1, 2, 3, 4, 5, 6, 15, 16, and 23.	7/8	---
MB_RTU_DiagInfo_EN MB_RTU_DiagInfo_DE	This optional function block displays diagnostic messages of the Modbus communication as clear text in English.	3	---
MB_AXL_F_RSUNI_Slave	This block runs the sending operations via the AXL F RS UNI 1H module.	1	AXL F RS UNI 1H (2688666)

Modbus RTU serial driver function blocks

Block	Description	Version	Article
MB_IL_485P_Master	This function block is used to implement a Modbus Master including the respective serial interface	6	IB IL RS 485/422-PRO-PAC (2863627)
MB_IL_232P_Master	This function block is used to implement a Modbus Master including the respective serial interface	6	IB IL RS 232-PRO-PAC (2878722)
MB_IL_232E_Master	This function block is used to implement a Modbus Master for the specified module type.	4	IB IL RS 232-ECO (2702141)
MB_IL_485E_Master	This function block is used to implement a Modbus Master including the respective serial interface	7	IB IL RS 485-ECO (2702795)
MB_IL_UNI07_Master	This function block is used to implement a Modbus Master including the respective serial interface	7	IB IL RS UNI-PAC (2700893)
MB_IL_UNI15_Master	This function block is used to implement a Modbus Master including the respective serial interface	7	IB IL RS UNI-PAC (2700893)
MB_IL_UNI31_Master	This function block is used to implement a Modbus Master including the respective serial interface	7	IB IL RS UNI-PAC (2700893)
MB_IL_232E_Slave	This function block is used to implement a Modbus Slave for the specified module type.	3	IB IL RS 232-ECO (2702141)
MB_IL_485P_Slave	This function block is used to implement a Modbus Slave including the respective serial interface	4	IB IL RS 485/422-PRO-PAC (2863627)
MB_IL_232P_Slave	This function block is used to implement a Modbus Slave including the respective serial interface	4	IB IL RS 232-PRO-PAC (2878722)
MB_IL_UNI07_Slave	This function block is used to implement a Modbus Slave including the respective serial interface	5	IB IL RS UNI-PAC (2700893)
MB_IL_UNI15_Slave	This function block is used to implement a Modbus Slave including the respective	5	IB IL RS UNI-PAC (2700893)

	serial interface		
MB_IL_UNI31_Slave	This function block is used to implement a Modbus Slave including the respective serial interface	5	IB IL RS UNI-PAC (2700893)
MB_IL_485E_Slave	This function block is used to implement a Modbus Slave including the respective serial interface	5	IB IL RS 485-ECO (2702795)
MB_AXL_SE_RS485_Master	This block runs the sending operations via the AXL SE RS485 module.	2	AXL SE RS485 (1088128)
MB_AXL_SE_RS485_Slave	This block runs the sending operations via the AXL SE RS485 module.	1	AXL SE RS485 (1088128)

3.34 Modbus_TCP

Block	Description	Version	Article
MB_TCP_Client	The function block enables communication as client with Modbus TCP devices (server).	1	AXL F RS UNI 1H
MB_TCP_Server	The function block enables communication as a server with a TCP client.	2	AXL F RS UNI 1H
MB_TCP_DiagInfo_EN	This optional function block displays diagnostic messages of the Modbus client as clear text in English.	1	---
MB_TCP_FCn	Function blocks for function codes 1, 2, 3, 4, 5, 6, 15, 16, and 23.	1	---

3.35 OperatorPanel

Block	Description	Version	Article
OP_RS232_Control	Function block for setting baud rate for communication between a controller and operator panel (OP) and establishing a connection to the OP.	1.00	NLC-OP2-LCD-076-4X20 2701945
OP_Write_Strings	Function block for writing up to 8 lines of 20 characters to the screen.	1.00	NLC-OP2-LCD-076-4X20 2701945
OP_Bargraph	Function block for displaying one or two bar graphs.	1.00	NLC-OP2-LCD-076-4X20 2701945
OP_Read_Real	Function block for entering a real value.	1.00	NLC-OP2-LCD-076-4X20 2701945
OP_Read_Time	Function block for entering time values in one of two formats.	1.00	NLC-OP2-LCD-076-4X20 2701945
OP_Backlight	Function block for controlling the illumination in green, red or blue of the display.	1.00	NLC-OP2-LCD-076-4X20 2701945

3.36 PDPI_Basic

Block	Description	Version	Article	PDI-Basic
PDPI_B_Alarm	Function block for representation of alarms.	2.00	---	[-]
PDPI_B_Config	Function block for configuration of the controller.	2.00	---	[-]
PDPI_B_Controller	The PDPI_Controller can be operated as 2-point, 3-point, motor step or continuous controller. It outputs both a continuous, analog signal and a pulse-width-modulated, digital manipulated variable signal separately for heating and cooling (inverse and direct control).	2.11	---	[+]
PDPI_B_OutTunePara	PID parameters of the controller from self-optimization.	2.00	---	[-]
PDPI_B_Para	Function block for parameterizing the controller.	2.00	---	[-]
PDPI_B_Scale	Function for linear scaling of a continuous manipulated variable.	2.00	---	[-]
PDPI_B_State	Controller status.	2.00	---	[-]
PDPI_B_TunePara	PID parameters of the controller.	2.00	---	[-]

[+] PDPI-Basic license is required // [-] PDPI-Basic license is not required

3.37 PDPI_Pro

Block	Description	Version	Article	PDPI-Pro
PDPI_P_Alarm	Function block for representation of alarms.	2.00	---	[-]
PDPI_P_Cascade	The FB PDPI_Cascade_V2 is the link between the output of the master controller (Ctrl_1_Out) and the setpoint input of the slave controller (Ctrl_2_SetPoint).	2.00	---	[-]
PDPI_P_Config	Function block for configuration of the controller.	2.00	---	[-]
PDPI_P_Controller	The PDPI_Controller can be operated as 2-point, 3-point, motor step or continuous controller. It outputs both a continuous, analog signal and a pulse-width-modulated, digital manipulated variable signal separately for heating and cooling (inverse and direct control).	2.11	---	[+]
PDPI_P_HotrunPara	Hot channel controller status.	2.00	---	[-]
PDPI_P_Limit	Setting of the limit value monitoring.	2.00	---	[-]
PDPI_P_OutTunePara	PID parameters of the controller from self-optimization.	2.00	---	[-]
PDPI_P_Para	Parameterization of the controller.	2.00	---	[-]
PDPI_P_Scale	Scaling function	3	---	[-]
PDPI_P_Phasenheber	A phase increase can lead to improvement in some difficult closed-loop control circuits that are prone to instability or strong over or undershooting.	2.00	---	[-]
PDPI_P_State	Controller status.	2.00	---	[-]
PDPI_P_StateHotrun	Hot channel controller status.	2.00	---	
PDPI_P_Switch	If a closed-loop control circuit only has one actuator but two sensors, whereby one of the two sensors should be used according to the operating state, one of the	2.00	---	[-]

	corresponding closed-loop control circuits can be activated via a switching controller. This is possible using the FB PDPI_Switch_V2.			
PDPI_P_TunePara	PID parameters of the controller.	2.00	---	[-]

[+] PDPI-Pro license is required // [-] PDPI-Pro license is not required

3.38 PN_Dev_Diag

Block	Description	Version	Article
PNDD_Status	Function block for cyclically reading diagnostic status and diagnostic messages from PNIO devices.	3	All PNIO devices
PNDD_IL_Diag	The function block checks the status of Inline modules using its node ID. Diagnostic messages of a PROFIsafe module can be acknowledged using this function block.	3	Inline modules
PNFD_IL_Diag	The function block checks the status of safety Inline I/O modules using its PROFIsafe Address. Diagnostic messages of a PROFIsafe module can be acknowledged using this function block.	3	Safety-Inline modules
PNDD_AXL_Diag	The function block checks the status of Axioline modules using its node ID. Diagnostic messages of a PROFIsafe module can be acknowledged using this function block.	3	Axioline modules
PNFD_AXL_Diag	The function block checks the status of safety Axioline I/O modules using its PROFIsafe Address. Diagnostic messages of a PROFIsafe module can be acknowledged using this function block.	3	Safety-Axioline modules

3.39 Positioning

Block	Description	Version	Article
IL_INC	Function block for processing the initialization, parameterization, diagnostics and control of the IB IL INC positioning terminal.	1.00	IB IL INC 2836324
IL_SSI	Function block for Initialization, parameterization, control, and diagnostics of the IB IL SSI positioning terminal.	1.00	IB IL SSI 2836340 IB IL SSI-PAC 2861865 IB IL SSI-2MBD 2855729
IL_SSI_IN	Function block for parameterizing the IB IL SSI-IN terminal	1.04	IB IL SSI-IN 2819309 IB IL SSI-IN-PAC 2819574
RAMP_GENERATOR	This function block makes it possible to achieve any location through a ramping process.	1.00	---

3.40 PowerMeasurement

Block	Description	Version	Article
PM_3P_N_EF	Function block for parameterization and communication with the IB IL PM 3P/N/EF module.	3	IB IL PM 3P/N/EF-PAC 2700965
PM_BasicValue	Function block for representing the basic measured values.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_ConfDataSample	Function block for defining a data record of up to 11 measured values. These values are read via process data.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_ConfigTable	Function block for reading the configuration which applies in the module.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_Configuration	Function block for configuration of the IB IL PM 3P/N/EF module.	1.01	IB IL PM 3P/N/EF-PAC 2700965
PM_Diag	Function block for diagnostics.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_Energy	Function block for representing the energy	1.00	IB IL PM 3P/N/EF-PAC

	measured values.		2700965
PM_ExtendedValue	Function block for representing the extended measured values.	1.01	IB IL PM 3P/N/EF-PAC 2700965
PM_H_Current	Function block for representing the 1st to 31st harmonics of the phase current.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_HD_Voltage	Function block for representing the phase voltage and the proportions of the 2nd to 31st harmonics of the phase voltage based on the fundamental wave.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_IntervalPower	Function block for representing the power profiles.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_MaxBasicValue	Function block for representing the maximum basic measured values.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_MaxExtendedVal	Function block for representing the maximum extended measured values.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_MaxH_Current	Function block for representing the maximum values of the 1st to 31st harmonics of the phase current.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_MaxHD_Voltage	Function block for representing the maximum values of the phase voltage and the proportions of the 2nd to 31st harmonics of the phase voltage based on the fundamental wave.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_MaxPower	Function block for representing the maximum power measured values.	1.02	IB IL PM 3P/N/EF-PAC 2700965
PM_MaxReactivePower	Function block for representing the maximum reactive power measured values and minimum cos(phi).	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_MaxTHD	Function block for representing the maximum values of distortion for voltage and current.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_Power	Function block for representing the power measured values.	1.01	IB IL PM 3P/N/EF-PAC 2700965
PM_ReactivePower	Function block for representing the reactive power measured values and cos(phi).	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_SamplingValue	Function block for representing the sampling values for voltage, current, and real power in the sampling values operating mode.	1.00	IB IL PM 3P/N/EF-PAC 2700965

PM_Select_PCP	Function block for selecting the measured values to be read via PCP in the basic measured values operating mode.	1.01	IB IL PM 3P/N/EF-PAC 2700965
PM_Select_PD	Function block for selecting the measured values to be read via process data in the basic measured values operating mode.	1.02	IB IL PM 3P/N/EF-PAC 2700965
PM_SelectSamp_PD	Function block for selecting the measured values to be read via process data in the sampling values operating mode.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_SetEnergyValue	Function block for reinitializing a power meter	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_Sync1Ph	Function block for representing the measured values for network synchronization, only in the synchronization operating mode.	1.00	IB IL PM 3P/N/EF-PAC 2700965
PM_THD	Function block for representing the distortion for voltage and current.	1.00	IB IL PM 3P/N/EF-PAC 2700965

3.41 PowerSupplies

Block	Description	Version	Article
PS_DcUpsPn_Cyclic	Decodes process data of the QUINT4 DC UPS and provides the most important values to the user	1	QUINT4 DC USV 5A 2906993 QUINT4 DC USV 10A 2907068 QUINT4 DC USV 20A 2907073 QUINT4 DC USV 40A 2907079
PS_DcUpsPn_Param	Acyclic access to parameters of the QUINT4 DC UPS	1	QUINT4 DC USV 5A 2906993 QUINT4 DC USV 10A 2907068 QUINT4 DC USV 20A 2907073 QUINT4 DC USV 40A 2907079
PS_DcUpsPn_Diag	Provides warnings and alarms of the connected QUINT4 DC UPS devices	1	QUINT4 DC USV 5A 2906993 QUINT4 DC USV 10A 2907068 QUINT4 DC USV 20A 2907073 QUINT4 DC USV 40A 2907079

3.42 PROFIdrive

Block	Description	Version	Note
PDRV_ST1	Preparation of Standard Telegram 1 for components according to Application Class 1.	1.00	PROFIdrive profile/Standard Telegrams
PDRV_ST2	Preparation of Standard Telegram 2 for components according to Application Class 1.	1.00	PROFIdrive profile/Standard Telegrams
PDRV_STx_PD_IN	Preparation of IN process data.	1.00	Split array into individual values
PDRV_STx_PD_OUT	Preparation of OUT process data.	1.00	Link individual values to array

PDRV_Param_Read	Send a parameter read request.	1.00	PROFIdrive profile/parameter channel
PDRV_Param_Change	Send a parameter change request.	1.00	PROFIdrive profile/parameter channel
PDRV_Value2xy	Convert data format of the parameter channel to IEC 61131 data type.	1.00	Data formats such as word and string (octet), and byte (description), word, and UINT field type
PDRV_xy2Value	Convert IEC 61131 data type to the data format of the parameter channel.	1.00	Data formats such as word and string (octet), and byte (description), word, and UINT field type
PDRV_CheckChgResp	Check response to write access operations.	1.00	---
PDRV_Param_Diag	Preparation of error numbers for negative response when using the parameter channel.	1.00	Various language versions
PDRV_DiagInfo	Preparation of diagnostic information for the blocks.	1.00	Various language versions
PDRV_PPO6_Control	Converts the control data to output process data	2	---
PDRV_PPO6_Status	Converts input process data to status data	2	---

3.43 RadiolineBasic

Block	Description	Version	Article
RAD_Search_IO	Detecting all the I/O modules in a Radioline network and entering the information in a structure.	2	2901541 RAD-2400-IFS 2904909 RAD-868-IFS 2901540 RAD-900-IFS 2702184 RAD-RS485-IFS
RAD_DIAG	Function block for reading out diagnostic information.	2	2901541 RAD-2400-IFS 2904909 RAD-868-IFS 2901540 RAD-900-IFS 2702184 RAD-RS485-IFS
RAD_DI4	Driver block for RAD-DI4-IFS.	2	2901535 RAD-DI4-IFS
RAD_DI8_STAT	Driver block for RAD-DI8-IFS.	2	2901539 RAD-DI8-IFS
RAD_DI8_CNT	Driver block for RAD-DI8-IFS.	2	2901539 RAD-DI8-IFS
RAD_DOR4	Driver block for RAD-DOR4-IFS.	2	2901536 RAD-DOR4-IFS
RAD_DO8	Driver block for RAD-DO8-IFS.	2	2902811 RAD-DO8-IFS
RAD_AI4	Driver block for RAD-AI4-IFS.	2	2901537 RAD-AI4-IFS
RAD_AO4	Driver block for RAD-AO4-IFS.	2	2901538 RAD-AO4-IFS
RAD_PT100_4	Driver block for RAD-PT100-4-IFS.	2	2904035 RAD-PT100-4-IFS
RAD_DAIO6	Driver block for RAD-DAIO6-IFS.	2	2901533 RAD-DAIO6-IFS
RAD_NAM4	Driver block for RAD-NAM4-IFS.	1	2316275

			RAD-NAM4-IFS
RAD_AI4_U	Driver block for RAD-AI4-IFS.	1	2901537 RAD-AI4-IFS

3.44 RDNCY

Block	Description	Version	Product
RED_TON	This timer implements a switch-on delay.	2.00	All PLCs
RED_TOF	This timer implements a switch-off delay.	2.00	All PLCs
RED_CTU	This counter function block counts up.	1.01	All PLCs
RED_CTD	This counter function block counts down.	1.01	All PLCs
RED_CTUD	This counter function block counts up or down.	1.01	All PLCs
RED_TP	This timer generates a pulse.	3.00	All PLCs
RED_SR	This bistable function block implements the dominant setting of the Q1 output.	2.00	All PLCs
RED_RS	This bistable function block implements the dominant resetting of the Q1 output.	2.00	All PLCs
RED_IP_CONNECT	This IP Connect block establishes a communication connection.	1.00	RFC 460R PN 3TX (2700784)
RED_TON_R	This timer implements a switch-on delay.	1.00	RFC 460R PN 3TX (2700784)
RED_TOF_R	This timer implements a switch-off delay.	1.00	RFC 460R PN 3TX (2700784)

3.45 Redundancy_ASR

Block	Description	Version	Article
RED_ContrRed_3xx	This function block determines the role of master or slave on the primary and backup controllers.	1.00	---
RED_ContrRed_4xx	This function block determines the role of master or slave on the primary and backup controllers.	1.00	---

3.46 SBT_Technology

Block	Description	Version	Article
SBT_IBS_Download	Function block for downloading the configuration and parameter data record of a SAFECONF security program to an LPSDO in an INTERBUS system.	1.04	IB IL 24 LPSDO 8-PAC 2916024
SBT_Operate	Function block for copying process data between the LPSDO and the connected PSDI of the corresponding SafetyBridge island.	1.03	IB IL 24 LPSDO 8-PAC 2916024
SBT_PN_Download	Function block for downloading the configuration and parameter data record of a SAFECONF security program to an LPSDO in a PROFINET system.	1.04	IB IL 24 LPSDO 8-PAC 2916024
SBT_V2_BinFile	Function block for reading in a SAFECONF project.	1.00	IB IL 24 LPSDO 8 V2-PAC 2700606
SBT_V2_IBS_Restart	Function block for restarting the INTERBUS system.	1.00	IB IL 24 LPSDO 8 V2-PAC 2700606
SBT_V2_Operate3	Function block for sending the LPSDO project and exchanging data between the LPSDO and devices.	1.01	IB IL 24 LPSDO 8 V2-PAC 2700606
SBT_V2_Operate5	Function block for sending the LPSDO project and exchanging data between the LPSDO and devices.	1.01	IB IL 24 LPSDO 8 V2-PAC 2700606
SBT_V2_ProjHeader	Function block for itemizing the project data.	1.00	IB IL 24 LPSDO 8 V2-PAC 2700606
SBT_V2_TransTime	Function block for displaying the data transmission time.	1.00	IB IL 24 LPSDO 8 V2-PAC 2700606

3.47 SBT_V3

Block	Description	Version	Article
SBT_V3_Operate	• Operates a safety island • Downloads a SAFECONF project • Monitors the input and output modules	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_CrossComm	The block enables cross communication between the secure islands	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_DataExch	If two islands are connected with different controllers and cross-communication is needed, then the function block is used for data transmission between the master and the slave island.	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_InBuff	The block links up the input process data of the devices (modules).	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_OutBuff	The block links up the output process data of the devices (modules).	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_BinFile	A SAFECONF project can be created as a BIN file, which is saved on the FTP server of the controller. The function block reads the project data and provides the SBT_V3_Operate function block with the data.	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_DiagCode	The block shows the contents of the arr_wSBTdiagCode array. The diagnostics descriptions are in the user manual for the corresponding module.	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_DiagInfo	The converts the diagnostic codes according to the user manuals and outputs these as text.	1	Alle SBT Geräte
SBT_V3_ProjHeader	This block represents the project data from the file (BIN file/POU), and from the downloaded project on the LPSDO, as output parameters.	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625

SBT_V3_TransTime	This block indicates the data transmission time for each satellite (module).	4	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_Tracer	If a communication error occurs, the block represents the last four telegrams between the AXL F LPSDO8/3 1F and the modules.	2	AXL F LPSDO8/3 1F 2702171
SBT_V3_IP_CycCom	The block allows cross communication from LPSDO modules to different controllers.	2	---
SBT_V3_IBS_Restart	The block is used for starting up the INTERBUS in the event of problems when starting up the ILCxxx controller.	2	IB IL 24 LPSDO 8 V3-PAC 2701625
SBT_V3_PS_TO_SBT	The function block allows cross communication between LPSDO and PROFISAFE controller	1	AXL F LPSDO8/3 1F 2702171 IB IL 24 LPSDO 8 V3-PAC 2701625

3.48 SNMP

Block	Description	Version	Article
SNMP_Agent	The SNMP Agent block represents a server that enables access to the information of the control program using the Simple Network Management Protocol (SNMP).	3	---
SNMP_Client	The SNMP Client block is used for communication with a remote SNMP agent.	3	---
SNMP_TRecv	The Trap Receiver block listens to incoming traps, checks them, and transmits the data to the control program. The block supports traps according to protocol Version 2c and can process a lot of additional information, the variable bindings, from the received trap.	3	---
SNMP_TSend	The Trap Sender block allows transmission of alarm messages. The block packages the transmitted data into an SNMP trap according to protocol Version 2c and sends this trap. A lot of additional information, the variable bindings, can be sent with the trap.	3	---
SNMP1_TRecv	The Trap Receiver block listens to incoming messages, checks them, and transmits the data to the control program. Traps based on SNMP v1 that contain multiple variable bindings are supported.	2	---

3.49 SNMP3

Block	Description	Version	Article	APPLIC-A
SNMP3_Agent	The SNMP3 Agent block represents a server that enables access to the information of the control program using the Simple Network Management Protocol (SNMP).	2.00	--	[+]
SNMP3_TRecv	The Trap Receiver block listens to incoming messages via the Simple Network Management Protocol (SNMP), checks them, and transmits the data to the control program.	2.00	--	[+]
SNMP3_TSend	The Trap Sender block allows transmission of alarm messages from the control program via the Simple Network Management Protocol (SNMP).	2.00	--	[+]

[+] APPLIC-A license is required // [-] APPLIC-A license is not required

3.50 SYS_PLC

Block	Description	Version	Article
SYS_BufToString80	This function block converts a byte array containing ASCII characters into a STRING value according to IEC 61131 during one PLC cycle.	1.00	--
SYS_CheckIPv4String	This function block allows user to check IP addresses version 4	1.00	--
SYS_CheckLicense	This function block checks the installed memory card license against the license requirements for the application according to the Phoenix Contact PLC licensing specification.	1.00	--
SYS_CheckVarName	This function block checks whether a given string is a valid variable name according to IEC 61131-3.	1.00	--
SYS_CheckVarValue	This function block checks whether a given string is a valid value according to IEC 61131-3. If the value is valid, the function block returns a datatype number of the detected type.	1.00	--
SYS_CTrig	This function block detects rising and falling edges of the input signal.	1.00	--
SYS_CycleTime	This function block calculates the time between two function block calls of one instance with a resolution of 1 ms. This can be used to detect task cycle times.	1.00	--
SYS_DtDayOfMonth	This function extracts the current day of the month from the Unix time. Unix format: time expired since 1.1.1970, 00:00 in seconds.	1.00	--
SYS_DtDayOfUnixUtc	This function extracts the current day from Unix time. UNIX format: time expired since 1.1.1970 00:00 in seconds.	1.00	--
SYS_DtDayOfWeek	This function resolves the number of the day within the week and returns a value according to ISO 8601.	1.00	--
SYS_DtDayOfYear	This function extracts the current day of the year from the Unix time. Unix format: time	1.00	--

	expired since 1.1.1970, 00:00 in seconds.		
SYS_DtGetMsFromPlcTick	This function blocks returns the elapsed time in milliseconds since last call.	1.00	--
SYS_DtEmulatedRtc	This function block is used to calculate a time stamp included milliseconds.	1.00	--
SYS_DtHourOfDay	This function extracts the current hour of the day from the Unix time. Unix format: time expired since 1.1.1970, 00:00 in seconds.	1.00	--
SYS_DtLeapYear	This function evaluates a given time in Unix time format and determines whether the current year is a leap year.	1.00	--
SYS_DtMinuteOfHour	This function extracts the current minute of an hour from the Unix time. Unix format: time expired since 1.1.1970, 00:00 in seconds.	1.00	--
SYS_DtMonthOfYear	This function extracts the current month of the year from the Unix time. Unix format: time expired since 1.1.1970, 00:00 in seconds.	1.00	--
SYS_DtSecondOfMinute	This function extracts the current second of a minute from the Unix time. Unix format: time expired since 1.1.1970, 00:00 in seconds.	1.00	--
SYS_DtSummerTimeEurope	This function returns TRUE, if daylight saving time is active.	1.00	--
SYS_DtUnixUtcToISO8601	This function block converts a time stamp given in Unix time format to time stamp according ISO 8601 as STRING.	1.00	--
SYS_DtUnixUtcToLocal	This function converts the UTC time into the local time.	1.00	--
SYS_DtUtcToUnixUtc	This function converts the time given by input parameters: Year, Month, Day, Hour, Minute and Second into Unix format time.	1.00	--
SYS_DTWeekOfYear	This function extracts current week of year from Unix timestamp. UNIX time format: time expired since 1.1.1970 00:00 in seconds.	1.00	--
SYS_DtYearOfUnixUtc	This function extracts the current year from	1.00	--

	the Unix time. Unix format: time expired since 1.1.1970, 00:00 in seconds.		
SYS_EventLogData	The SYS_EventLogData function block writes a log entry in the internal buffer of the event logger function block.	1.00	--
SYS_EventLogHeader	The SYS_EventLogHeader function block configures the file header for an event log file.	1.00	--
SYS_EventLogWriter	The SYS_EventLogWriter function block writes the internal buffer of the event logger in a file.	1.00	--
SYS_FileCopy	This function block is creating a copy of an existing file on the local file system of the PLC	2.00	--
SYS_FileGateway	This function block is a universal file system interface.	2.00	--
SYS_FileRemove	This function block deletes a file on the programmable logic controller (PLC).	1.00	--
SYS_FileSize	This function block is used to read the file size in bytes. Please note that if the source file does not exist an empty file is created.	2.00	--
SYS_FilesOfDir	This function block is used to read all file names within a directory.	1.00	--
SYS_FolderMngt	This function block is used to create a folder structure on the file system of the PLC including FTP access rights.	1.00	--
SYS_GetDatatypeID	This function block returns the internal data type ID for non-generic IEC 61131 data types.	1.00	--
SYS_GetVar	This function block returns an IEC 61131-compliant string containing the variable value of a named variable.	1.00	--
SYS_IEEE_ToLReal	This function block converts IEEE float variables into IEC 61131 LREAL variables.	1.00	--
SYS_IEEE_ToReal	This function block converts IEEE float variables into IEC 61131 REAL variables.	1.00	--
SYS_IPv4ToString	This function block allows user to convert IP	1.00	--

	addresses version 4 given as DWORD to STRING.		
SYS_LRealTo_IEEE	This function block converts IEC 61131 LREAL variables into IEEE float variables.	1.00	--
SYS_PlcCtrl	Function block for the parameterization of PLCs.	2.00	--
SYS_PlcExternalCard	This function block allows user to enable external card.	1.00	--
SYS_PlcFlahCardInfo	This function block allows user to read information about flash card.	1.00	--
SYS_PlcFormatRamDisk	Function block for formatting the RAM disk (virtual HDD within the RAM) on programmable logic controllers (PLCs).	1.00	--
SYS_PlcFtp	Function block for activating/deactivating the FTP server on PLCs.	1.00	--
SYS_PlcFwUpdate	Function block for performing firmware updates on PLCs.	1.00	--
SYS_PlcGetNetloadSet	This function block allows user to read netload limiter settings of available network adapter(s) on the programmable logic controller (PLC).	1.00	--
SYS_PlcGetNetworkSet	This function block allows user to get current network settings such as: Number of network adapters, IP address (IPv4/IPv6), Subnet mask (IPv4/IPv6), Gateway IP address (IPv4/IPv6), MAC address for desired network adapter.	1.00	--
SYS_PlcGetPNctrlStat	This function block allows user to read status of Profinet controller on programmable logic controller (PLC).	1.00	--
SYS_PlcGetPNdevStat	This function block allows user to read state of Profinet device on programmable logic controller (PLC).	1.00	--
SYS_PlcGetRTC	This function block allows user to read real time clock (RTC) on programmable logic controller (PLC).	1.00	--
SYS_PlcGetSntpStat	This function block reads current configuration of SNTP client on the	1.00	--

	programmable logic controller (PLC).		
SYS_PlcGetSystemInfo	This function block allows user to read system information of programmable logical controller (PLC).	1.00	--
SYS_HmiService	This function block allows user to send firmware services via WEB HMI using special codes onto programmable logic controller (PLC).	1.00	--
SYS_PlcHttp	Function block for activating/deactivating the HTTP server on PLCs.	1.00	--
SYS_PlcLogNetloadSet	This function block allows user to activate logging of netload limiter settings for available network adapter(s) on the programmable logic controller (PLC).	1.00	--
SYS_PlcLogNetloadStat	This function block allows user to activate logging of netload limiter statistics for available network adapter(s) on the programmable logic controller (PLC).	1.00	--
SYS_PlcNetloadLimiter	Function block is used for limiting the network load and consequently avoiding an overload on programmable logical controllers (PLCs).	1.00	--
SYS_PlcNetloadStat	Function block for reading of network load statistics of available network adapters on programmable logical controllers (PLC).	1.00	--
SYS_PlcNetworkSet	Function block for changing a saved network setting on programmable logic controllers (PLC).	1.00	--
SYS_PlcProfiNetCtrl	This function block allows user to disable/enable ProfiNet controller instance.	1.00	--
SYS_PlcProfiNetDevice	This function block allows user to disable/enable ProfiNet device instance.	1.00	--
SYS_PlcRedResetError	This function block allows user to reset last error on redundant programmable logic controller (PLC). This function is only available on RFC460R.	1.00	
SYS_PlcReset	Function block for resetting programmable logic controllers (PLC).	1.00	--

SYS_PlcSetPnDevNetAd	This function block allows user to define, which network interface of the programmable logic controller (PLC) is used by its PROFINET IO device.	1.00	--
SYS_PlcSetNetPNdev	This function block sets the network interface for the PROFINET IO device on programmable logic controller (PLC), provided PLC supports multiple network interfaces.	1.00	--
SYS_PlcSetRTC	This function block allows user to set real time clock on programmable logical controller (PLC).	1.00	--
SYS_PlcSnmp	Function block for activating/deactivating a SNMP server on programmable logic controllers (PLC).	1.00	--
SYS_PlcSntpClient	Function block for parameterization and activation of the SNTP client on programmable logic controllers (PLC).	1.00	--
SYS_PlcSwitchRole	Function block for switching the redundancy role on programmable logic controllers (PLC).	1.00	--
SYS_RealTo_IEEE	This function block converts IEC 61131 REAL variables into IEEE float variables.	1.00	--
SYS_SetVar	This function block writes an IEC 61131-compliant string containing the variable value to a named variable.	1.00	--
SYS_SPlcGetCycleTime	This function block allows the user to read the cycle time on a safety programmable logic controller (SPLC). This function is only available for RFC470S controllers.	1.00	--
SYS_SPlcSetCycleTime	This function block allows the user to set the cycle time on a safety programmable logical controller (SPLC). This function is only available for RFC 470S controllers.	1.00	--
SYS_StringToIPv4	This function block allows user to convert IP addresses version 4 given as STRING to DWORD.		
SYS_StringToLower	This function block converts upper case letters of a string to lower case letters.	1.00	--

SYS_StringToTime	This function block converts an IEC 61131 time string value to the TIME data type of the runtime environment.	1.00	--
SYS_StringToUpper	This function block converts lower case letters of a string to upper case letters.	1.00	--
SYS_VerToNum	Function block for extracting and copying of version numbers of a version string into a double word variable.	1.00	--

3.51 TempConversion

Block	Description	Version	Article
IL_TEMP_8_UTH_RTD	The function block simplifies the readout of measured values and the writing of the cold junction value. In addition, diagnostic messages, fault codes, terminal firmware, as well as the parameterization of the individual channels are displayed.	1.00	IB IL TEMP 8 UTH/RTD-PAC 2701000
IL_TEMP_2_xxx_Para	Function block for the parameterization and operation of the IB IL TEMP 2 RTD and IB IL TEMP 2 UTH Inline modules.	1.00	IB IL TEMP 2 RTD 2726308 IB IL TEMP 2 UTH-PAC 2861386
IL_TEMP_2_xxx	Function block for the parameterization and operation of the IB IL TEMP 2 RTD and IB IL TEMP 2 UTH Inline modules.	1.10	IB IL TEMP 2 RTD 2726308 IB IL TEMP 2 UTH-PAC 2861386
IL_TEMP_4_8_RTD	Function block for the parameterization and operation of the IB IL TEMP 4/8 RTD and IB IL TEMP 4/8 RTD EF Inline modules.	2.25	IB IL TEMP 4/8 RTD-PAC 2863915 IB IL TEMP 4/8 RTD/EF-PAC 2897402
IL_TEMP_HEI_ChConf	Function block for the parameterization and operation of the IB IL TEMP 8 UTH HEI 1 DO8, IB IL TEMP 4 UTH HEI 1 DO4, and IB IL TEMP 6 RTD HEI 1 DO6 Inline modules.	1.00	IB IL TEMP 8 UTH HEI 1 DO8 IB IL TEMP 4 UTH HEI 1 DO4 IB IL TEMP 6 RTD HEI 1 DO6
IL_TEMP_HEI_ChVal	Function block for the channel selection of the IB IL TEMP 8 UTH HEI 1 DO8, IB IL TEMP 4 UTH HEI 1 DO4, and IB IL TEMP 6 RTD HEI 1 DO6 Inline modules.	1.00	IB IL TEMP 8 UTH HEI 1 DO8 IB IL TEMP 4 UTH HEI 1 DO4 IB IL TEMP 6 RTD HEI 1 DO6
IL_TEMP_HEI_Server	Function block for reading the communication structure.	1.00	IB IL TEMP 8 UTH HEI 1 DO8 IB IL TEMP 4 UTH HEI 1 DO4 IB IL TEMP 6 RTD HEI 1 DO6
IL_TempCon_C	Non-editable function block for cyclically reading the values of the IB IL TEMPCON RTD/UTH temperature controller terminal.	1.00	IB IL TEMPCON RTD/UTH
IL_TempCon_Conf	Editable function block for cyclically reading the values of the IB IL TEMPCON RTD/UTH temperature controller terminal.	1.00	IB IL TEMPCON RTD/UTH
IL_TempCon_P	Non-editable function block for	1.00	IB IL TEMPCON RTD/UTH

	parameterization of the IB IL TEMPCON RTD/UTH temperature controller terminal.		
IL_TempCon_Para	Editable function block for parameterization of the IB IL TEMPCON RTD/UTH temperature controller terminal.	1.00	IB IL TEMPCON RTD/UTH
IL_TempCon	Function block for implementing communication between the controller and the IB IL TEMPCON RTD/UTH temperature controller terminal.	1.00	IB IL TEMPCON RTD/UTH

3.52 TouchDisplay

Block	Description	Version	Article
TD_1030T	Function block for the visualization and parameterization of the Minitouch TD 1030T.	1.00	TD 1030T 2701257

3.53 UpsIqBasic

Block	Description	Version	Article
Upslq_Tcp	Function block for reading basic parameters from QUINT UPS and TRIO UPS devices via a connection to a controller's Ethernet interface and a COMSERVER.	1.04	2320212 QUINT-UPS/24DC/24DC/5 2320225 QUINT-UPS/24DC/24DC/10 2320238 QUINT-UPS/24DC/24DC/20 2320241 QUINT-UPS/24DC/24DC/40 2320254 QUINTUPS/24DC/24DC/5/1.3AH 2320267 QUINTUPS/24DC/24DC/10/3.4AH 2320270 QUINT-UPS/1AC/1AC/500VA 2866611 TRIO-UPS/1AC/24DC/5
Upslq_Uni	Function block for reading basic parameters from QUINT UPS IQ and TRIO UPS devices via a connection to the IB IL RS-UNI Inline terminal.	1.05	2320212 QUINT-UPS/24DC/24DC/5 2320225 QUINT-UPS/24DC/24DC/10 2320238 QUINT-UPS/24DC/24DC/20 2320241 QUINT-UPS/24DC/24DC/40 2320254 QUINTUPS/24DC/24DC/5/1.3AH 2320267 QUINTUPS/24DC/24DC/10/3.4AH 2320270 QUINT-UPS/1AC/1AC/500VA 2866611 TRIO-UPS/1AC/24DC/5
Upslq_Onboard	Function block for reading basic	1.04	2320212

	parameters from QUINT UPS and TRIO UPS devices via a connection to a controller's RS-232 onboard interface.		QUINT-UPS/24DC/24DC/5 2320225 QUINT-UPS/24DC/24DC/10 2320238 QUINT-UPS/24DC/24DC/20 2320241 QUINT-UPS/24DC/24DC/40 2320254 QUINTUPS/24DC/24DC/5/1.3AH 2320267 QUINTUPS/24DC/24DC/10/3.4AH 2320270 QUINT-UPS/1AC/1AC/500VA 2866611 TRIO-UPS/1AC/24DC/5

3.54 WirelessTechnology

Block	Description	Version	Article
FL_BT_EPA	Function block for handling communication between the controller and the FL BT EPA.	1.04	FL BT EPA 2692788
FL_BT_Diag	Function block for additional diagnostics.	1.00	FL BT EPA 2692788
FL_BT_Security	Function block for setting the security parameters of the FL BT EPA module.	1.00	FL BT EPA 2692788
FL_BT_COEX_WLAN	Settings to optimize parallel operation of WLAN and Bluetooth can be made using this function block.	1.10	FL BT EPA 2692788
FL_BT_Connection	Function block for connecting the FL BT EPA module to a wireless device.	1.00	FL BT EPA 2692788
FL_WLAN_EPA	Function block for handling communication between the controller and the FL WLAN EPA device.	1.04	FL WLAN EPA 2692791
FL_WLAN_Diag	Function block for additional diagnostics.	1.00	FL WLAN EPA 2692791
FL_WLAN_Security	Function block for setting the security parameters of the FL WLAN EPA module.	1.00	FL WLAN EPA 2692791
FL_WLAN_Setting	Function block for general configuration of the FL WLAN EPA module.	1.00	FL WLAN EPA 2692791
FL_WLAN_Connection	Function block for connecting the FL WLAN EPA module to a wireless device.	1.00	FL WLAN EPA 2692791
BT_FL_MOD_IO_AP	Function block for the Modbus access point.	1.10	FL BT MOD IO AP 2884758
BT_FLM_DIO_8_8	Function block for the Fieldline Bluetooth device.	1.01	FLM BT DIO 8/8 M12 2736767
BT_FLM_DI_16	Function block for the Fieldline Bluetooth device.	1.00	FLM BT DI 16 M12 2693208
BT_ILB_ADIO_2_2	Function block for the Inline Block Bluetooth device.	1.01	ILB BT ADIO 2/2/16/16 2884282
BT_FL_MOD_IO_DIAG	Function block for additional diagnostics.	1.10	FL BT MOD IO AP 2884758

			FLM BT DIO 8/8 M12 2736767 FLM BT DI 16 M12 2693208 ILB BT ADIO 2/2/16/16 2884282