

Totally Integrated Automation Portal						
--------------------------------------	--	--	--	--	--	--

PLC_1 [CPU 1212C AC/DC/Rly]

PLC_1					
General\Project information					
Name	PLC_1	Author	Lenovo	Comment	
Slot	1	Rack	0		
General\Catalog information					
Short designation	CPU 1212C AC/DC/Rly	Description	Work memory 75 KB; 120/240VAC power supply with DI8 x 24VDC SINK/ SOURCE, DQ6 x relay and AI2 on board; 4 high-speed counters (ex- pandable with digital signal board) and 4 pulse outputs on board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 2 signal mod- ules for I/O expansion; 0.04 ms/1000 instructions; PROFINET interface for programming, HMI and PLC to PLC communication	Article number	6ES7 212-1BE40-0XB0
Firmware version	V4.2				
General\Identification & Maintenance					
Plant designation		Location identifier		Installation date	2025-02-10 02:18:35.180
Additional informa- tion					
General\Checksums					
Text lists	FA 70 E8 75 1D 5A 8E 29	Software	55 F8 B3 BA AB 36 7D 10		
PROFINET interface [X1]\General					
Name	PROFINET interface_1	Author	Lenovo	Comment	
PROFINET interface [X1]\General\Project information					
Name	DI 8/DQ 6_1	Comment		Name	AI 2_1
Comment		Name	DQ 4x24VDC_1	Comment	
PROFINET interface [X1]\General\Catalog information					
Short designation	DQ4 signal board (200 kHz)	Description	Signal board DQ4 x 24VDC / 200 kHz; plug-in terminal blocks	Article number	6ES7 222-1BD30-0XB0
Firmware version	V1.0				
PROFINET interface [X1]\Ethernet addresses\Interface networked with					
Subnet:	Not connected				
PROFINET interface [X1]\Ethernet addresses\IP protocol					
IP configuration	Set IP address in the project	IP address:	192.168.1.10	Subnet mask:	255.255.255.0
Use router	False				
PROFINET interface [X1]\Ethernet addresses\PROFINET					
PROFINET device name is set directly at the device	False	Generate PROFINET device name auto- matically	True	PROFINET device name:	plc_1
Converted name:	plcxb1d0ed	Device number:	0		
PROFINET interface [X1]\Time synchronization					
Enable time synchro- nization via NTP serv- er	Enable time synchronization via NTP server		IP addresses	Server 1	0.0.0.0
Server 2	0.0.0.0	Server 3	0.0.0.0	Server 4	0.0.0.0
Update interval	10sec			CPU synchronizes the modules of the de- vice.	No synchronization
PROFINET interface [X1]\Digital inputs\Channel0					
Channel address	I0.0	Input filters	6.4 millisec	Enable pulse catch	0
PROFINET interface [X1]\Digital inputs\Channel0\					
Enable rising edge detection	0	RidPrefixRisingEdgeE- vent	49152	Event name:	0
Hardware interrupt:	0	Rising edge0	Rising edge0		
PROFINET interface [X1]\Digital inputs\Channel0\					
Enable falling edge detection	0	RidPrefixFallingEdg- eEvent	49280	Event name:	0
Hardware interrupt:	0	Falling edge0	Falling edge0		
PROFINET interface [X1]\Digital inputs\Channel1					
Channel address	I0.1	Input filters	6.4 millisec	Enable pulse catch	0
PROFINET interface [X1]\Digital inputs\Channel1\					
Enable rising edge detection	0	RidPrefixRisingEdgeE- vent	49153	Event name:	0
Hardware interrupt:	0	Rising edge1	Rising edge1		
PROFINET interface [X1]\Digital inputs\Channel1\					
Enable falling edge detection	0	RidPrefixFallingEdg- eEvent	49281	Event name:	0
Hardware interrupt:	0	Falling edge1	Falling edge1		
PROFINET interface [X1]\Digital inputs\Channel2					
Channel address	I0.2	Input filters	6.4 millisec	Enable pulse catch	0
PROFINET interface [X1]\Digital inputs\Channel2\					
Enable rising edge detection	0	RidPrefixRisingEdgeE- vent	49154	Event name:	0
Hardware interrupt:	0	Rising edge2	Rising edge2		
PROFINET interface [X1]\Digital inputs\Channel2\					
Enable falling edge detection	0	RidPrefixFallingEdg- eEvent	49282	Event name:	0
Hardware interrupt:	0	Falling edge2	Falling edge2		
PROFINET interface [X1]\Digital inputs\Channel3					
Channel address	I0.3	Input filters	6.4 millisec	Enable pulse catch	0

--	--	--

Totally Integrated Automation Portal						
PROFINET interface [X1]\Digital inputs\Channel3\						
Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49155	Event name:	0	
Hardware interrupt:	0	Rising edge3	Rising edge3			
PROFINET interface [X1]\Digital inputs\Channel3\						
Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49283	Event name:	0	
Hardware interrupt:	0	Falling edge3	Falling edge3			
PROFINET interface [X1]\Digital inputs\Channel4						
Channel address	I0.4	Input filters	6.4 millisec	Enable pulse catch	0	
PROFINET interface [X1]\Digital inputs\Channel4\						
Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49156	Event name:	0	
Hardware interrupt:	0	Rising edge4	Rising edge4			
PROFINET interface [X1]\Digital inputs\Channel4\						
Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49284	Event name:	0	
Hardware interrupt:	0	Falling edge4	Falling edge4			
PROFINET interface [X1]\Digital inputs\Channel5						
Channel address	I0.5	Input filters	6.4 millisec	Enable pulse catch	0	
PROFINET interface [X1]\Digital inputs\Channel5\						
Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49157	Event name:	0	
Hardware interrupt:	0	Rising edge5	Rising edge5			
PROFINET interface [X1]\Digital inputs\Channel5\						
Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49285	Event name:	0	
Hardware interrupt:	0	Falling edge5	Falling edge5			
PROFINET interface [X1]\Digital inputs\Channel6						
Channel address	I0.6	Input filters	6.4 millisec	Enable pulse catch	0	
PROFINET interface [X1]\Digital inputs\Channel6\						
Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49158	Event name:	0	
Hardware interrupt:	0	Rising edge6	Rising edge6			
PROFINET interface [X1]\Digital inputs\Channel6\						
Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49286	Event name:	0	
Hardware interrupt:	0	Falling edge6	Falling edge6			
PROFINET interface [X1]\Digital inputs\Channel7						
Channel address	I0.7	Input filters	6.4 millisec	Enable pulse catch	0	
PROFINET interface [X1]\Digital inputs\Channel7\						
Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49159	Event name:	0	
Hardware interrupt:	0	Rising edge7	Rising edge7			
PROFINET interface [X1]\Digital inputs\Channel7\						
Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49287	Event name:	0	
Hardware interrupt:	0	Falling edge7	Falling edge7			
PROFINET interface [X1]\Analog inputs\Noise reduction						
Integration time	50 Hz (20 ms)					
PROFINET interface [X1]\Analog inputs\Channel0						
Channel address	IW64	Measurement type	Voltage	Voltage range	0..10 V	
Smoothing	Weak (4 cycles)			Enable overflow diagnostics	1	
PROFINET interface [X1]\Analog inputs\Channel1						
Channel address	IW66	Measurement type	Voltage	Voltage range	0..10 V	
Smoothing	Weak (4 cycles)			Enable overflow diagnostics	1	
PROFINET interface [X1]\Digital outputs						
Reaction to CPU STOP	Use substitute value		Reaction to CPU STOP	Use substitute value		
PROFINET interface [X1]\Digital outputs\Channel0						
Channel address	Q0.0	Substitute a value of 1 on a change from RUN to STOP.	0	Channel address	Q4.0	
Substitute a value of 1 on a change from RUN to STOP.	0					
PROFINET interface [X1]\Digital outputs\Channel1						
Channel address	Q0.1	Substitute a value of 1 on a change from RUN to STOP.	0	Channel address	Q4.1	
Substitute a value of 1 on a change from RUN to STOP.	0					
PROFINET interface [X1]\Digital outputs\Channel2						
Channel address	Q0.2	Substitute a value of 1 on a change from RUN to STOP.	0	Channel address	Q4.2	
Substitute a value of 1 on a change from RUN to STOP.	0					
PROFINET interface [X1]\Digital outputs\Channel3						
Channel address	Q0.3	Substitute a value of 1 on a change from RUN to STOP.	0	Channel address	Q4.3	
Substitute a value of 1 on a change from RUN to STOP.	0					

Totally Integrated Automation Portal						
PROFINET interface [X1]\Digital outputs\Channel4						
Channel address	Q0.4	Substitute a value of 1 on a change from RUN to STOP.	0			
PROFINET interface [X1]\Digital outputs\Channel5						
Channel address	Q0.5	Substitute a value of 1 on a change from RUN to STOP.	0			
PROFINET interface [X1]\Operating mode						
IO controller	True	IO system		Device number	0	
IO device	False					
PROFINET interface [X1]\I/O addresses\Input addresses						
Start address	0.0	End address	0.7	Organization block	0	
Process image	0					
PROFINET interface [X1]\I/O addresses\Input addresses						
Start address	64	End address	67	Organization block	0	
Process image	0					
PROFINET interface [X1]\I/O addresses\Output addresses						
Start address	0.0	End address	0.7	Organization block	0	
Process image	0					
PROFINET interface [X1]\Advanced options\Interface options						
Support device replacement without exchangeable medium	True	Permit overwriting of device names of all assigned IO devices	False	Limit data infeed into the network	True	
Use IEC V2.2 LLDP mode	False	Keep-Alive connection monitoring	30s			
PROFINET interface [X1]\Advanced options\Real time settings\IO communication						
Send clock:	1.000ms					
PROFINET interface [X1]\Advanced options\Real time settings\Real time options						
Calculated bandwidth for cyclic IO data:	0.000ms	Calculated bandwidth for cyclic IO data:	0.000%			
PROFINET interface [X1]\Advanced options\Port [X1 P1]\General						
Name	Port_1	Author	Lenovo	Comment		
PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port interconnection\Local port:						
Local port:	PLC_1\PROFINET interface_1 [X1]\Port_1 [X1 P1 R]	Medium:	Copper	Cable name:	---	
						
PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port interconnection\Partner port:						
	Monitoring of partner port is not possible	Partner port:	Any partner			
PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port options\Activate						
Activate this port for use	True					
PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port options\Connection						
Transmission rate / duplex:	Automatic	Monitor	False	Enable autonegotiation	True	
PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port options\Boundaries						
End of detection of accessible devices	False	End of topology discovery	False	End of the sync domain	False	
PROFINET interface [X1]\Advanced options\Port [X1 P1]\Hardware identifier\Hardware identifier						
LADDR	65					
PROFINET interface [X1]\Web server access						
Enable Web server using this interface	False	The Web server must also be activated in the properties of the PLC.				
PROFINET interface [X1]\Hardware identifier\Hardware identifier						
Hardware identifier	264	Hardware identifier	64			
High speed counters (HSC)\HSC1\General\Enable						
Enable this high speed counter	0	Enable this high speed counter	0	Enable this high speed counter	0	
Enable this high speed counter	0	Enable this high speed counter	0	Enable this high speed counter	0	
High speed counters (HSC)\HSC1\General\Project information						
Name	HSC_1	Comment		Name	HSC_2	
Comment		Name	HSC_3	Comment		
Name	HSC_4	Comment		Name	HSC_5	
Comment		Name	HSC_6	Comment		
High speed counters (HSC)\HSC1\I/O addresses\Input addresses						
Start address	1000.0	End address	1003.7	Start address	1004.0	
End address	1007.7	Organization block	0	Start address	1008.0	
End address	1011.7	Organization block	0	Process image	0	
Start address	1012.0	End address	1015.7	Organization block	0	
Process image	0	Start address	1016.0	End address	1019.7	
Organization block	0	Process image	0	Start address	1020.0	
End address	1023.7	Organization block	0	Process image	0	
Organization block	0	Process image	0	Process image	0	
High speed counters (HSC)\HSC1\Hardware identifier\Hardware identifier						
Hardware identifier	257	Hardware identifier	258	Hardware identifier	259	
Hardware identifier	260	Hardware identifier	261	Hardware identifier	262	

Totally Integrated Automation Portal

Pulse generators (PTO/PWM)\PTO1/PWM1\General\Enable

Enable this pulse generator

1

Enable this pulse generator

0

Pulse generators (PTO/PWM)\PTO1/PWM1\General\Project information

Name

Pulse_1

Comment

Name

Pulse_2

Pulse generators (PTO/PWM)\PTO1/PWM1\Parameter assignment\Pulse options

Signal type

PTO (pulse A and direction B)

Time base:

Milliseconds

Pulse duration format

Hundredths

Cycle time

100ms

Initial pulse duration

50Hundredths

Allow runtime modification of the cycle time

0

Pulse generators (PTO/PWM)\PTO1/PWM1\I/O addresses\Output addresses

Start address

1002.0

End address

1003.7

Organization block

0

Process image

0

Pulse generators (PTO/PWM)\PTO1/PWM1\Hardware outputs

Pulse output

%Q4.0

Enable direction output

1

Direction output

%Q4.1

Pulse generators (PTO/PWM)\PTO1/PWM1\Hardware identifier\Hardware identifier

Hardware identifier

265

Startup

Startup after POWER ON

Warm restart - RUN

Comparison preset to actual configuration

Startup CPU even if mismatch

Configuration time

60000ms

OBs should be interruptible

1

Cycle

Cycle monitoring time

150ms

Enable minimum cycle time for cyclic OBs

0

Minimum cycle time

1ms

Communication load

Cycle load due to communication

20%

System and clock memory\System memory bits

Enable the use of system memory byte

0

Address of system memory byte (MBx)

1

First cycle

Diagnostic status changed

Always 1 (high)

Always 0 (low)

System and clock memory\Clock memory bits

Enable the use of clock memory byte

0

Address of clock memory byte (MBx)

0

10 Hz clock

5 Hz clock

2.5 Hz clock

2 Hz clock

1.25 Hz clock

1 Hz clock

0.625 Hz clock

0.5 Hz clock

Web server\General

Activate Web server on all modules of this device

False

Permit access only with HTTPS

True

Web server\Automatic update

Enable automatic update

True

Update interval

0s

Web server\User interface languages

Assign project language

User interface languages

English (United States)

German

English (United States)

English

English (United States)

French

English (United States)

Spanish

English (United States)

Italian

English (United States)

Chinese (simplified)

Web server\User management

User name

User rights

Everybody

Web server\User defined web pages

Application name

HTML source path

Default HTML page

Files with dynamic content

Web DB number

Fragment DB number

index.htm

.htm;.html

333

334

Web server\Overview of interfaces

Device

Interface

Enabled web server access

PLC_1

PROFINET interface_1

False

User interface languages

Assign project language

User interface languages

English (United States)

German

English (United States)

English

English (United States)

French

English (United States)

Spanish

English (United States)

Italian

English (United States)

Chinese (simplified)

Time of day\Local time

Time zone

(UTC +01:00) Berlin, Bern, Brussels, Rome, Stockholm, Vienna

Time of day\Daylight saving time

Activate daylight saving time

1

Difference between standard and daylight saving time

60mins

Time of day\Daylight saving time\Start of daylight saving time

Starting week of the month:

Last

Sunday

of

March

at

01:00 a.m.

Time of day\Daylight saving time\Start of standard time

Last

Sunday

of

October

at

02:00 a.m.

Totally Integrated Automation Portal

Protection & Security

Level of protection

No protection

Protection & Security\Connection mechanisms

Permit access with PUT/GET communication from remote partner

False

Protection & Security\Security event

Summarize security events in case of high message volume

True

Length of an interval

20

Unit

seconds

Protection & Security\External load memory

Disable copying from internal load memory to external load memory

False

Configuration control\Configuration control for central configuration

Allow to reconfigure the device via the user program

0

Connection resources\

	Station resources - Reserved - Maximum	Station resources - Reserved - Configured	Station resources - Dynamic - Configured	Module resources - PLC_1 [CPU 1212C AC/DC/Rly] - Configured
Maximum number of resources:		62	6	68
	Maximum	Configured	Configured	Configured
PG communication:	4	-	-	-
HMI communication:	12	0	0	0
S7 communication:	8	0	0	0
Open user communication:	8	0	0	0
Web communication:	30	-	-	-
Other communication:	-	-	0	0
Total resources used:		0	0	0
Available resources:		62	6	68

Overview of addresses\Overview of addresses\Overview of addresses

Inputs

True

Outputs

True

Address gaps

False

Slot

True

Type	Addr. from	Addr. to	Module	PIP	Device name	Device number	Size	Master / IO system	Rack	Slot
I	0	0	DI 8/DQ 6_1	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	1 Bytes	-	0	1 1
O	0	0	DI 8/DQ 6_1	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	1 Bytes	-	0	1 1
I	64	67	AI 2_1	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	4 Bytes	-	0	1 2
I	1000	1003	HSC_1	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	4 Bytes	-	0	1 16
I	1004	1007	HSC_2	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	4 Bytes	-	0	1 17
I	1008	1011	HSC_3	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	4 Bytes	-	0	1 18
I	1012	1015	HSC_4	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	4 Bytes	-	0	1 19
I	1016	1019	HSC_5	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	4 Bytes	-	0	1 20
I	1020	1023	HSC_6	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	4 Bytes	-	0	1 21
O	1002	1003	Pulse_2	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	2 Bytes	-	0	1 33
O	1004	1005	Pulse_3	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	2 Bytes	-	0	1 34
O	1006	1007	Pulse_4	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	2 Bytes	-	0	1 35
I	8	8	DI 8x24VDC/DQ 8xRelay_1	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	1 Bytes	-	0	2
O	8	8	DI 8x24VDC/DQ 8xRelay_1	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	1 Bytes	-	0	2
O	4	4	DQ 4x24VDC_1	Automatic update	PLC_1 [CPU 1212C AC/DC/Rly]	-	1 Bytes	-	0	1 3

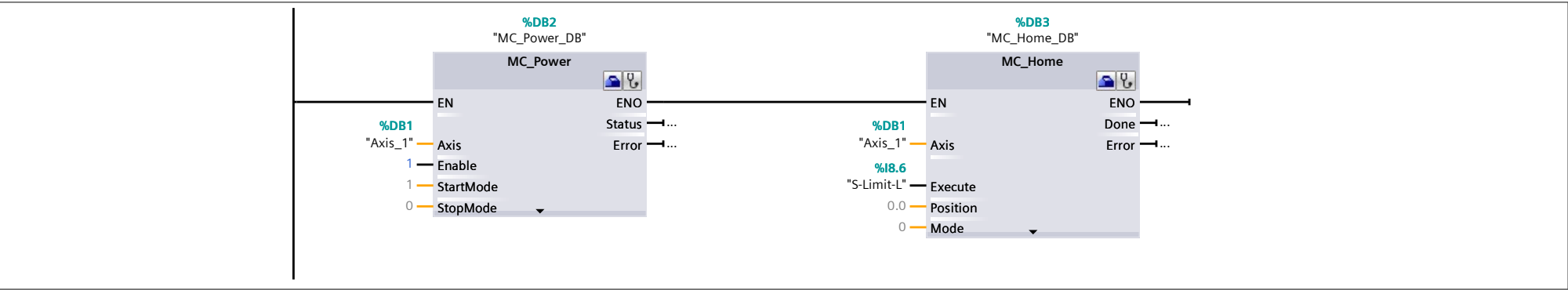
PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks

Main [OB1]

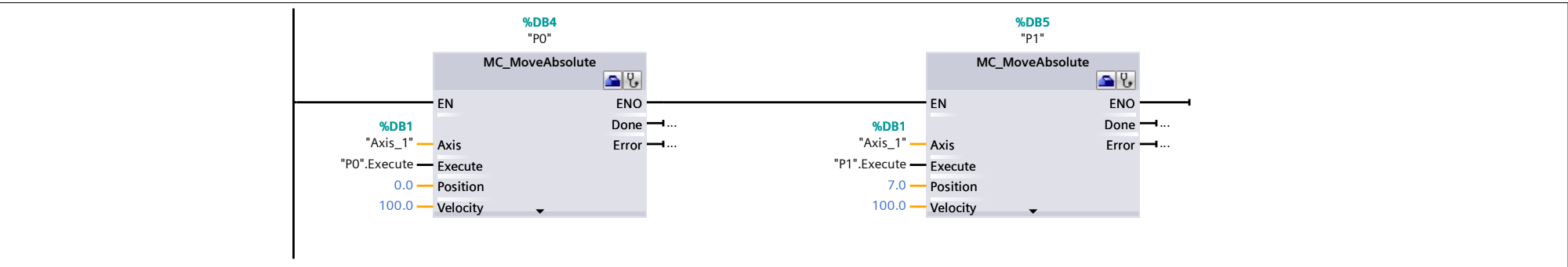
Main Properties							
General							
Name	Main	Number	1	Type	OB	Language	LAD
Numbering	Automatic						
Information							
Title	"Main Program Sweep (Cycle)"	Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value	Supervision	Comment
▼ Input				
Initial_Call	Bool			Initial call of this OB
Remanence	Bool			=True, if remanent data are available
Temp				
Constant				

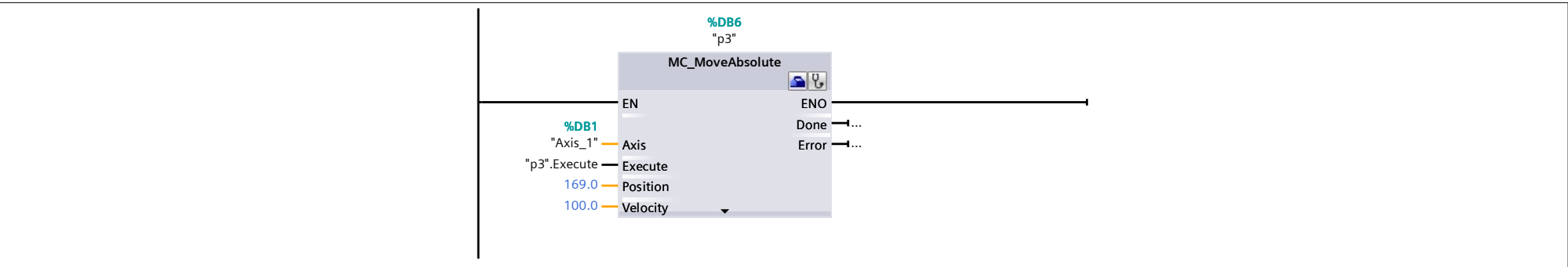
Network 1:



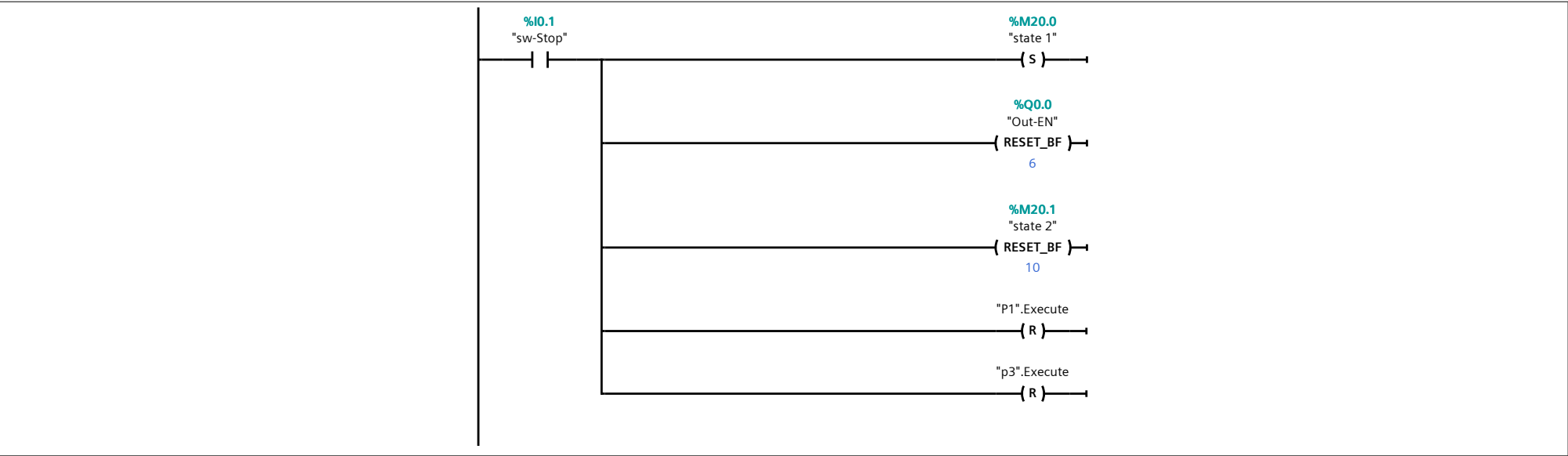
Network 2:



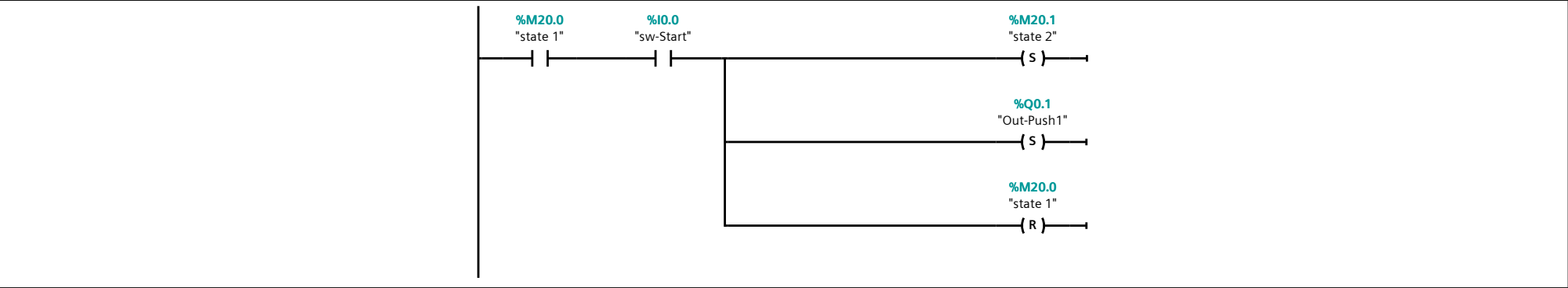
Network 3:



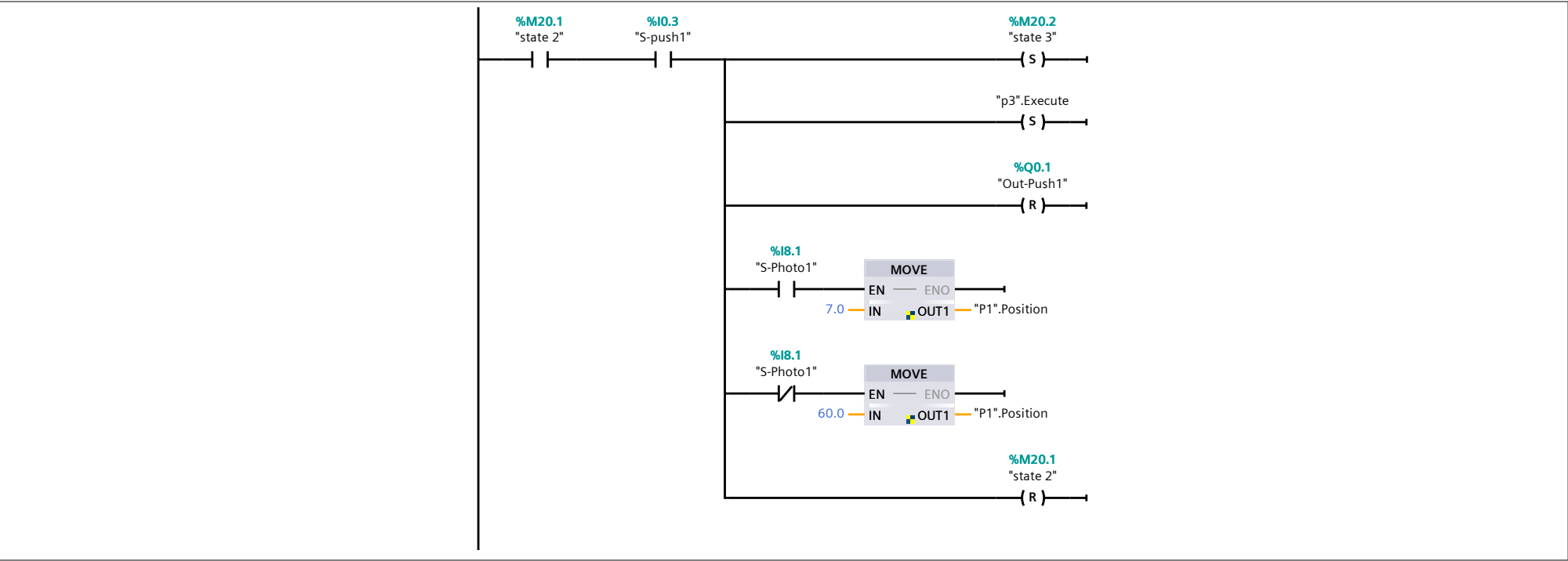
Network 4: Start command



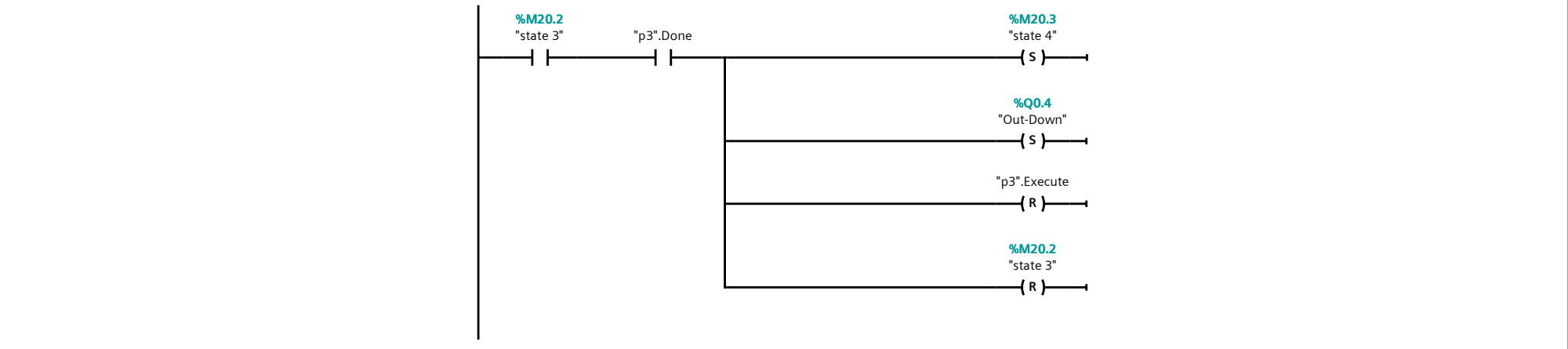
Network 5: Start command



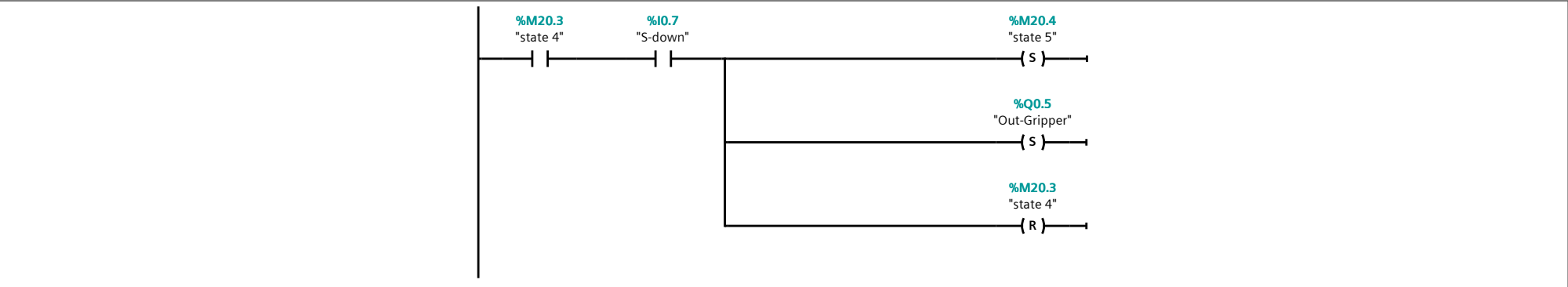
Network 6: Start command



Network 7: Start command



Network 8: Start command



Network 9: Start command

Totally Integrated Automation Portal		
	%M20.4 "state 5" %I8.0 "S-Gripper" %M20.5 "state 6" %Q0.4 "Out-Down" %M20.4 "state 5"	
Network 10: Start command		
	%M20.5 "state 6" %I0.6 "S-Up" %M20.6 "state 7" "P1".Execute %M20.5 "state 6"	
Network 11:		
	%M20.6 "state 7" "P1".Done %M20.7 "state 8" "P1".Execute %Q0.4 "Out-Down" %M20.6 "state 7"	
Network 12:		
	%M20.7 "state 8" %I0.7 "S-down" %M21.0 "state 9" %Q0.5 "Out-Gripper" %Q0.4 "Out-Down" %M20.7 "state 8"	
Network 13:		
	%M21.0 "state 9" %I0.6 "S-Up" %M20.1 "state 2" %Q0.1 "Out-Push1" %M21.0 "state 9"	

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks / System blocks / Program resources

MC_Power [FB1107]

MC_Power Properties

General

Name	MC_Power	Number	1107	Type	FB	Language	SCL
Numbering	Automatic						

Information

Title		Author	SIMATIC	Comment		Family	BasicMC
Version	4.0	User-defined ID	MC_Power				

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Input									
▼ Axis	TO_Axis			False	False	False	False		Used technology object "Axis"
▼ Base	TO_AnyMotionObject			False	False	False	False		
Input									
Output									
InOut									
▼ Static									
▼ Header	TO_Struct_Header		Non-retain	False	False	False	False		Version information of technology object
VersionMaj	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
VersionMin	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Type	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Reserved1	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Reserved2	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Input									
Output									
InOut									
Static									
Enable	Bool	false	Non-retain	True	True	True	False		Enable axis
StartMode	Int	1	Non-retain	True	True	True	False		Start mode on enabling of axis
StopMode	Int	0	Non-retain	True	True	True	False		Stop mode when disabling axis
▼ Output									
Status	Bool	false	Non-retain	True	True	True	False		Axis is enabled
Busy	Bool	false	Non-retain	True	True	True	False		MC_Power is active
Error	Bool	false	Non-retain	True	True	True	False		Error at MC_Power or associated technology object
ErrorID	Word	16#0	Non-retain	True	True	True	False		Error ID for parameter "Error"
ErrorInfo	Word	16#0	Non-retain	True	True	True	False		Error info ID for parameter "ErrorID"
InOut									
▼ Static									
FB_ID	DInt	0	Non-retain	False	False	False	False		Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks / System blocks / Program resources

MC_Power_DB [DB2]

MC_Power_DB Properties

General

Name	MC_Power_DB	Number	2	Type	DB	Language	DB
Numbering	Automatic						

Information

Title		Author	SIMATIC	Comment		Family	BasicMC
Version	4.0	User-defined ID	MC_Power				

Name	Data type	Start value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Input									
Axis	TO_Axis		False	False	False	False	False		Used technology object "Axis"
Enable	Bool	false	False	True	True	True	False		Enable axis
StartMode	Int	1	False	True	True	True	False		Start mode on enabling of axis
StopMode	Int	0	False	True	True	True	False		Stop mode when disabling axis
▼ Output									
Status	Bool	false	False	True	True	True	False		Axis is enabled
Busy	Bool	false	False	True	True	True	False		MC_Power is active
Error	Bool	false	False	True	True	True	False		Error at MC_Power or associated tech-nology object
ErrorID	Word	16#0	False	True	True	True	False		Error ID for parameter "Error"
ErrorInfo	Word	16#0	False	True	True	True	False		Error info ID for parameter "ErrorID"
InOut									
▼ Static									
FB_ID	DInt	0	False	False	False	False	False		Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks / System blocks / Program resources

MC_Home [FB1101]

MC_Home Properties

General

Name	MC_Home	Number	1101	Type	FB	Language	SCL
Numbering	Automatic						

Information

Title		Author	SIMATIC	Comment		Family	BasicMC
Version	4.0	User-defined ID	MC_Home				

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Input									
▼ Axis	TO_Axis			False	False	False	False		Used technology object "Axis"
▼ Base	TO_AnyMotionObject			False	False	False	False		
Input									
Output									
InOut									
▼ Static									
▼ Header	TO_Struct_Header		Non-retain	False	False	False	False		Version information of technology object
VersionMaj	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
VersionMin	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Type	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Reserved1	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Reserved2	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Input									
Output									
InOut									
Static									
Execute	Bool	false	Non-retain	True	True	True	False		Start command
Position	Real	0.0	Non-retain	True	True	True	False		Reference point position of axis
Mode	Int	0	Non-retain	True	True	True	False		Homing mode
▼ Output									
Done	Bool	false	Non-retain	True	True	True	False		Job is completed
Busy	Bool	false	Non-retain	True	True	True	False		Job is being executed
CommandAborted	Bool	false	Non-retain	True	True	True	False		Job was cancelled
Error	Bool	false	Non-retain	True	True	True	False		Error during execution of the job
ErrorID	Word	16#0	Non-retain	True	True	True	False		Error ID for parameter "Error"
ErrorInfo	Word	16#0	Non-retain	True	True	True	False		Error info ID for parameter "ErrorID"
ReferenceMarkPosition	Real	0.0	Non-retain	True	True	True	False		Position at which the technology object was homed
InOut									
▼ Static									
FB_ID	DInt	0	Non-retain	False	False	False	False		Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks / System blocks / Program resources

MC_Home_DB [DB3]

MC_Home_DB Properties

General

Name	MC_Home_DB	Number	3	Type	DB	Language	DB
Numbering	Automatic						

Information

Title		Author	SIMATIC	Comment		Family	BasicMC
Version	4.0	User-defined ID	MC_Home				

Name	Data type	Start value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Input									
Axis	TO_Axis		False	False	False	False	False		Used technology object "Axis"
Execute	Bool	false	False	True	True	True	False		Start command
Position	Real	0.0	False	True	True	True	False		Reference point position of axis
Mode	Int	0	False	True	True	True	False		Homing mode
▼ Output									
Done	Bool	false	False	True	True	True	False		Job is completed
Busy	Bool	false	False	True	True	True	False		Job is being executed
CommandAborted	Bool	false	False	True	True	True	False		Job was cancelled
Error	Bool	false	False	True	True	True	False		Error during execution of the job
ErrorID	Word	16#0	False	True	True	True	False		Error ID for parameter "Error"
ErrorInfo	Word	16#0	False	True	True	True	False		Error info ID for parameter "ErrorID"
ReferenceMarkPosition	Real	0.0	False	True	True	True	False		Position at which the technology ob-ject was homed
InOut									
▼ Static									
FB_ID	DInt	0	False	False	False	False	False		Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks / System blocks / Program resources

MC_MoveAbsolute [FB1102]

MC_MoveAbsolute Properties

General

Name	MC_MoveAbsolute	Number	1102	Type	FB	Language	SCL
Numbering	Automatic						

Information

Title		Author	SIMATIC	Comment		Family	BasicMC
Version	4.0	User-defined ID	MC_MvAbs				

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Input									
▼ Axis	TO_Positionin-gAxis			False	False	False	False		Used technology object "Ax-is"
▼ Base	TO_SpeedAxis			False	False	False	False		
▼ Base	TO_Axis			False	False	False	False		
▼ Base	TO_AnyMotio-nObject			False	False	False	False		
Input									
Output									
InOut									
▼ Static									
▼ Header	TO_Struct_Head-er		Non-retain	False	False	False	False		Version information of tech-nology object
VersionMaj	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
VersionMin	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Type	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Reserved1	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Reserved2	Int		Non-retain	False	False	False	False		Internal parameter; please do not change!
Input									
Output									
InOut									
Static									
Input									
Output									
InOut									
Static									
Input									
Output									
InOut									
▼ Static									
Position	Real		Non-retain	False	False	False	False		Current axis position
Velocity	Real		Non-retain	False	False	False	False		Current axis velocity
ActualPosition	Real		Non-retain	False	False	False	False		Actual position of the axis
ActualVelocity	Real		Non-retain	False	False	False	False		Actual velocity of the axis
▼ Actor	TO_Struct_Ac-tor		Non-retain	False	False	False	False		Configuration data of drive connection
Type	DInt		Non-retain	False	False	False	True		Type of drive connection
InverseDirection	Bool		Non-retain	False	False	False	True		Invert direction signal
DirectionMode	Int		Non-retain	False	False	False	True		Permitted direction of rota-tion
DataAdaption	DInt		Non-retain	False	False	False	True		Automatic transfer of drive parameters to the CPU
▼ Interface	TO_Struct_Ac-torInterface		Non-retain	False	False	False	False		Configuration data of drive in-terface
▼ AddressIn	VREF		Non-retain	False	False	False	False		Drive telegram (internal pa-rameter)
RID	DWord		Non-retain	False	False	False	False		
AREA	Byte		Non-retain	False	False	False	False		
DB_NUMBER	UInt		Non-retain	False	False	False	False		
OFFSET	UDInt		Non-retain	False	False	False	False		
▼ AddressOut	VREF		Non-retain	False	False	False	False		Drive telegram (internal pa-rameter)
RID	DWord		Non-retain	False	False	False	False		
AREA	Byte		Non-retain	False	False	False	False		
DB_NUMBER	UInt		Non-retain	False	False	False	False		
OFFSET	UDInt		Non-retain	False	False	False	False		
▼ EnableDriveOut-put	VREF		Non-retain	False	False	False	False		Enable output
RID	DWord		Non-retain	False	False	False	False		
AREA	Byte		Non-retain	False	False	False	False		

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks / System blocks / Program resources

P0 [DB4]

P0 Properties

General

Name	P0	Number	4	Type	DB	Language	DB
Numbering	Automatic						

Information

Title		Author	SIMATIC	Comment		Family	BasicMC
Version	4.0	User-defined ID	MC_MvAbs				

Name	Data type	Start value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Input									
Axis	TO_Positionin-gAxis		False	False	False	False	False		Used technology object "Axis"
Execute	Bool	false	False	True	True	True	False		Start command
Position	Real	0.0	False	True	True	True	False		Absolute target position of axis
Velocity	Real	10.0	False	True	True	True	False		Velocity of axis
Direction	Int	1	False	True	True	True	False		Direction specification
▼ Output									
Done	Bool	false	False	True	True	True	False		Job is completed
Busy	Bool	false	False	True	True	True	False		Job is being executed
CommandAborted	Bool	false	False	True	True	True	False		Job was cancelled
Error	Bool	false	False	True	True	True	False		Error during execution of the job
ErrorID	Word	16#0	False	True	True	True	False		Error ID for parameter "Error"
ErrorInfo	Word	16#0	False	True	True	True	False		Error info ID for parameter "ErrorID"
InOut									
▼ Static									
FB_ID	DInt	0	False	False	False	False	False		Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks / System blocks / Program resources

P1 [DB5]

P1 Properties

General

Name	P1	Number	5	Type	DB	Language	DB
Numbering	Automatic						

Information

Title		Author	SIMATIC	Comment		Family	BasicMC
Version	4.0	User-defined ID	MC_MvAbs				

Name	Data type	Start value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Input									
Axis	TO_Positionin-gAxis		False	False	False	False	False		Used technology object "Axis"
Execute	Bool	false	False	True	True	True	False		Start command
Position	Real	0.0	False	True	True	True	False		Absolute target position of axis
Velocity	Real	10.0	False	True	True	True	False		Velocity of axis
Direction	Int	1	False	True	True	True	False		Direction specification
▼ Output									
Done	Bool	false	False	True	True	True	False		Job is completed
Busy	Bool	false	False	True	True	True	False		Job is being executed
CommandAborted	Bool	false	False	True	True	True	False		Job was cancelled
Error	Bool	false	False	True	True	True	False		Error during execution of the job
ErrorID	Word	16#0	False	True	True	True	False		Error ID for parameter "Error"
ErrorInfo	Word	16#0	False	True	True	True	False		Error info ID for parameter "ErrorID"
InOut									
▼ Static									
FB_ID	DInt	0	False	False	False	False	False		Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks / System blocks / Program resources

p3 [DB6]

p3 Properties

General

Name	p3	Number	6	Type	DB	Language	DB
Numbering	Automatic						

Information

Title		Author	SIMATIC	Comment		Family	BasicMC
Version	4.0	User-defined ID	MC_MvAbs				

Name	Data type	Start value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Input									
Axis	TO_Positionin-gAxis		False	False	False	False	False		Used technology object "Axis"
Execute	Bool	false	False	True	True	True	False		Start command
Position	Real	0.0	False	True	True	True	False		Absolute target position of axis
Velocity	Real	10.0	False	True	True	True	False		Velocity of axis
Direction	Int	1	False	True	True	True	False		Direction specification
▼ Output									
Done	Bool	false	False	True	True	True	False		Job is completed
Busy	Bool	false	False	True	True	True	False		Job is being executed
CommandAborted	Bool	false	False	True	True	True	False		Job was cancelled
Error	Bool	false	False	True	True	True	False		Error during execution of the job
ErrorID	Word	16#0	False	True	True	True	False		Error ID for parameter "Error"
ErrorInfo	Word	16#0	False	True	True	True	False		Error info ID for parameter "ErrorID"
InOut									
▼ Static									
FB_ID	DInt	0	False	False	False	False	False		Internal parameter; please do not change!

Axis_1 [DB1]

Name	Data type	Start value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Base	TO_SpeedAxis		False	True	True	True	False		
▼ Base	TO_Axis		False	True	True	True	False		
▼ Base	TO_AnyMotionObject		False	True	True	True	False		
Input									
Output									
InOut									
▼ Static									
▼ Header	TO_Struct_Header		False	False	False	False	False		Version information of technology object
VersionMaj	Int	6	False	False	False	False	False		Internal parameter; please do not change!
VersionMin	Int	0	False	False	False	False	False		Internal parameter; please do not change!
Type	Int	0	False	False	False	False	False		Internal parameter; please do not change!
Reserved1	Int	0	False	False	False	False	False		Internal parameter; please do not change!
Reserved2	Int	0	False	False	False	False	False		Internal parameter; please do not change!
Input									
Output									
InOut									
Static									
Input									
Output									
InOut									
Static									
Input									
Output									
InOut									
▼ Static									
Position	Real	0.0	False	True	False	True	False		Current axis position
Velocity	Real	0.0	False	True	False	True	False		Current axis velocity
ActualPosition	Real	0.0	False	True	False	True	False		Actual position of the axis
ActualVelocity	Real	0.0	False	True	False	True	False		Actual velocity of the axis
▼ Actor	TO_Struct_Actor		False	True	True	True	False		Configuration data of drive connection
Type	DInt	2	False	True	False	True	True		Type of drive connection
InverseDirection	Bool	false	False	True	False	True	True		Invert direction signal
DirectionMode	Int	0	False	True	True	True	True		Permitted direction of rotation
DataAdaption	DInt	0	False	True	False	True	True		Automatic transfer of drive parameters to the CPU
▼ Interface	TO_Struct_ActorInterface		False	False	False	False	False		Configuration data of drive interface
▼ AddressIn	VREF		False	False	False	False	False		Drive telegram (internal parameter)
RID	DWord	16#0000_0000	False	False	False	False	False		
AREA	Byte	16#00	False	False	False	False	False		
DB_NUMBER	UInt	0	False	False	False	False	False		
OFFSET	UDInt	0	False	False	False	False	False		
▼ AddressOut	VREF		False	False	False	False	False		Drive telegram (internal parameter)
RID	DWord	16#0000_0000	False	False	False	False	False		
AREA	Byte	16#00	False	False	False	False	False		
DB_NUMBER	UInt	0	False	False	False	False	False		
OFFSET	UDInt	0	False	False	False	False	False		
▼ EnableDriveOutput	VREF		False	False	False	False	False		Enable output
RID	DWord	DW#16#00000000	False	False	False	False	False		
AREA	Byte	B#16#00	False	False	False	False	False		
DB_NUMBER	UInt	0	False	False	False	False	False		
OFFSET	UDInt	0	False	False	False	False	False		
▼ DriveReadyInput	VREF		False	False	False	False	False		Ready input
RID	DWord	DW#16#00000000	False	False	False	False	False		
AREA	Byte	B#16#00	False	False	False	False	False		

Totally Integrated Automation Portal										
Name	Data type	Start value	Retain	Accessible from HMI/OPC UA	Writ-able from HMI/ OPC UA	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment	
DB_NUMBER	UInt	0	False	False	False	False	False			
OFFSET	UDInt	0	False	False	False	False	False			
PTO	DWord	16#88E1_0109	False	False	False	False	True		Pulse output	
▼ DriveParameter	TO_Struct_Ac-torDriveParame-ter		False	True	False	True	False		Configuration data of drive param-e-ters	
ReferenceSpeed	Real	3000.0	False	True	False	True	True		Enter reference speed of drive	
MaxSpeed	Real	3000.0	False	True	False	True	True		Enter maximum drive speed	
PulsesPerDriveRevolution	DInt	800	False	True	False	True	True		Pulses per motor revolution	
▼ Sensor	Array[1..1] of TO_Struct_Sen-sor		False	True	True	True	False		Configuration data of encoder	
▼ Sensor[1]	TO_Struct_Sen-sor		False	True	True	True	False		Configuration data of encoder	
Type	DInt	0	False	True	False	True	True		Encoder type (internal parameter)	
InverseDirection	Bool	false	False	True	False	True	True		Invert rotation direction of encoder signals	
System	DInt	1	False	True	False	True	True		Encoder system	
MountingMode	DInt	0	False	True	False	True	True		Select encoder mounting type	
DataAdaption	DInt	0	False	True	False	True	True		Automatic transfer of encoder param-eters to the CPU	
▼ Interface	TO_Struct_Sen-sorInterface		False	False	False	False	False		Configuration data of encoder inter-face	
▼ AddressIn	VREF		False	False	False	False	False		Encoder telegram (internal param-e-ter)	
RID	DWord	16#0000_0000	False	False	False	False	False			
AREA	Byte	16#00	False	False	False	False	False			
DB_NUMBER	UInt	0	False	False	False	False	False			
OFFSET	UDInt	0	False	False	False	False	False			
▼ AddressOut	VREF		False	False	False	False	False		Encoder telegram (internal param-e-ter)	
RID	DWord	16#0000_0000	False	False	False	False	False			
AREA	Byte	16#00	False	False	False	False	False			
DB_NUMBER	UInt	0	False	False	False	False	False			
OFFSET	UDInt	0	False	False	False	False	False			
Type	DInt	4	False	False	False	False	True		Encoder connection (internal param-e-ter)	
HSC	DWord	16#0	False	False	False	False	True		High speed counter	
Number	UDInt	1	False	False	False	False	True		Encoder number	
▼ Parameter	TO_Struct_Sen-sorParameter		False	True	False	True	False		Configuration data of encoder	
Resolution	Real	0.001	False	True	False	True	True		Distance between two increments	
StepsPerRevolution	UDInt	2048	False	True	False	True	True		Number of encoder steps per revolu-tion	
FineResolutionXist1	UDInt	11	False	True	False	True	True		Number of bits for fine resolution in incremental actual value (Gn_XIST1)	
FineResolutionXist2	UDInt	9	False	True	False	True	True		Bits in abs. actual value (GN_XIST2)	
DeterminableRevolu-tions	UDInt	1	False	True	False	True	True		Number of encoder steps per revolu-tion	
DistancePerRevolution	Real	100.0	False	True	False	True	True		Load revolutions per number of mo-tor revolutions	
▼ ActiveHoming	TO_Struct_Sen-sorActiveHom-ing		False	True	True	True	False		Configuration data for active homing	
Mode	DInt	2	False	True	False	True	True		Active homing mode	
SideInput	Bool	false	False	True	True	True	True		Side of reference point switch to which homing is executed with "ac-tive homing"	
▼ DigitalInputAddress	VREF		False	False	False	False	False		Input address of homing switch	
RID	DWord	DW#16#00000000	False	False	False	False	False			
AREA	Byte	B#16#00	False	False	False	False	False			
DB_NUMBER	UInt	0	False	False	False	False	False			
OFFSET	UDInt	0	False	False	False	False	False			
HomePositionOffset	Real	0.0	False	True	True	True	True		Home position offset	
SwitchLevel	Bool	true	False	True	True	True	True		Selection of signal level pending with approached homing switch at the CPU input	
▼ PassiveHoming	TO_Struct_Sen-sorPassiveHom-ing		False	True	True	True	False		Configuration data for passive hom-ing	
Mode	DInt	2	False	True	False	True	True		Passive homing mode	
SideInput	Bool	false	False	True	True	True	True		Side of reference point switch to which homing is executed with "pas-sive homing"	
▼ DigitalInputAddress	VREF		False	False	False	False	False		Input address of homing switch	
RID	DWord	DW#16#00000000	False	False	False	False	False			
AREA	Byte	B#16#00	False	False	False	False	False			
DB_NUMBER	UInt	0	False	False	False	False	False			
OFFSET	UDInt	0	False	False	False	False	False			

Totally Integrated Automation Portal									
PLC_1 [CPU 1212C AC/DC/Rly] / PLC tags / Default tag table [64]									
PLC tags									
PLC tags									
	Name	Data type	Address	Retain	Accessi-ble from HMI/OPC UA	Writable from HMI/OPC UA	Visible in HMI engi-neering	Supervision	Comment
	Axis_1_Pulse	Bool	%Q4.0	False	True	True	True		
	Axis_1_Direction	Bool	%Q4.1	False	True	True	True		
	sw-Start	Bool	%I0.0	False	True	True	True		
	sw-Stop	Bool	%I0.1	False	True	True	True		
	Reset	Bool	%I0.2	False	True	True	True		
	S-push1	Bool	%I0.3	False	True	True	True		
	S-push2	Bool	%I0.4	False	True	True	True		
	S-push3	Bool	%I0.5	False	True	True	True		
	S-Up	Bool	%I0.6	False	True	True	True		
	S-down	Bool	%I0.7	False	True	True	True		
	S-Gripper	Bool	%I8.0	False	True	True	True		
	S-Photo1	Bool	%I8.1	False	True	True	True		
	S-Photo2	Bool	%I8.2	False	True	True	True		
	S-Photo3	Bool	%I8.3	False	True	True	True		
	S-Photo4	Bool	%I8.4	False	True	True	True		
	S-Photo5	Bool	%I8.5	False	True	True	True		
	S-Limit-L	Bool	%I8.6	False	True	True	True		
	S-Limit-R	Bool	%I8.7	False	True	True	True		
	Out-EN	Bool	%Q0.0	False	True	True	True		
	Out-Push1	Bool	%Q0.1	False	True	True	True		
	Out-Push2	Bool	%Q0.2	False	True	True	True		
	Out-Push3	Bool	%Q0.3	False	True	True	True		
	Out-Down	Bool	%Q0.4	False	True	True	True		
	Out-Gripper	Bool	%Q0.5	False	True	True	True		
	state 1	Bool	%M20.0	False	True	True	True		
	state 2	Bool	%M20.1	False	True	True	True		
	state 3	Bool	%M20.2	False	True	True	True		
	state 4	Bool	%M20.3	False	True	True	True		
	state 5	Bool	%M20.4	False	True	True	True		
	state 6	Bool	%M20.5	False	True	True	True		
	state 7	Bool	%M20.6	False	True	True	True		
	state 8	Bool	%M20.7	False	True	True	True		
	state 9	Bool	%M21.0	False	True	True	True		
	state 10	Bool	%M21.1	False	True	True	True		

PLC_1 [CPU 1212C AC/DC/Rly] / PLC tags / Default tag table [64]

User constants

User constants				
Name	Data type	Value	Comment	

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Header

TO_Struct_Header Properties

General

Name	TO_Struct_Header	Number	1100	Type	UDT	Language	
Numbering							

Information

Title	Header struct of an TO	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
VersionMaj	Int	0	False	False	False	False	Internal parameter; please do not change!
VersionMin	Int	0	False	False	False	False	Internal parameter; please do not change!
Type	Int	0	False	False	False	False	Internal parameter; please do not change!
Reserved1	Int	0	False	False	False	False	Internal parameter; please do not change!
Reserved2	Int	0	False	False	False	False	Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Actor

TO_Struct_Actor Properties

General

Name	TO_Struct_Actor	Number	1700	Type	UDT	Language	
Numbering							

Information

Title	Actor structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Type	DInt	2	True	False	True	True	Type of drive connection
InverseDirection	Bool	false	True	False	True	True	Invert direction signal
DirectionMode	Int	0	True	True	True	True	Permitted direction of rotation
DataAdaption	DInt	0	True	False	True	True	Automatic transfer of drive parameters to the CPU
▼ Interface	TO_Struct_ActorInter-face		False	False	False	False	Configuration data of drive interface
▼ AddressIn	VREF		False	False	False	False	Drive telegram (internal parameter)
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
▼ AddressOut	VREF		False	False	False	False	Drive telegram (internal parameter)
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
▼ EnableDriveOutput	VREF		False	False	False	False	Enable output
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
▼ DriveReadyInput	VREF		False	False	False	False	Ready input
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
PTO	DWord	16#0	False	False	False	True	Pulse output
▼ DriveParameter	TO_Struct_ActorDrive-Parameter		True	False	True	False	Configuration data of drive parameters
ReferenceSpeed	Real	3000.0	True	False	True	True	Enter reference speed of drive
MaxSpeed	Real	3000.0	True	False	True	True	Enter maximum drive speed
PulsesPerDriveRevolution	DInt	1000	True	False	True	True	Pulses per motor revolution

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_ActorInterface

TO_Struct_ActorInterface Properties							
General							
Name	TO_Struct_ActorInterface	Number	1701	Type	UDT	Language	
Numbering							
Information							
Title	ActorInterface structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
▼ AddressIn	VREF		False	False	False	False	Drive telegram (internal parameter)
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
▼ AddressOut	VREF		False	False	False	False	Drive telegram (internal parameter)
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
▼ EnableDriveOutput	VREF		False	False	False	False	Enable output
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
▼ DriveReadyInput	VREF		False	False	False	False	Ready input
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
PTO	DWord	16#0	False	False	False	True	Pulse output

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_ActorDriveParameter

TO_Struct_ActorDriveParameter Properties

General

Name	TO_Struct_ActorDriveParameter	Number	1702	Type	UDT	Language	
Numbering							
Information							
Title	ActorDriveParameter structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
ReferenceSpeed	Real	3000.0	True	False	True	True	Enter reference speed of drive
MaxSpeed	Real	3000.0	True	False	True	True	Enter maximum drive speed
PulsesPerDriveRevolution	DInt	1000	True	False	True	True	Pulses per motor revolution

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Sensor

TO_Struct_Sensor Properties

General

Name	TO_Struct_Sensor	Number	1703	Type	UDT	Language	
Numbering							

Information

Title	Sensor structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Type	DInt	0	True	False	True	True	Encoder type (internal parameter)
InverseDirection	Bool	false	True	False	True	True	Invert rotation direction of encoder signals
System	DInt	1	True	False	True	True	Encoder system
MountingMode	DInt	0	True	False	True	True	Select encoder mounting type
DataAdaption	DInt	0	True	False	True	True	Automatic transfer of encoder parameters to the CPU
▼ Interface	TO_Struct_SensorInter-face		False	False	False	False	Configuration data of encoder interface
▼ AddressIn	VREF		False	False	False	False	Encoder telegram (internal parameter)
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
▼ AddressOut	VREF		False	False	False	False	Encoder telegram (internal parameter)
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
Type	DInt	4	False	False	False	True	Encoder connection (internal parameter)
HSC	DWord	16#0	False	False	False	True	High speed counter
Number	UDInt	1	False	False	False	True	Encoder number
▼ Parameter	TO_Struct_SensorPara-meter		True	False	True	False	Configuration data of encoder
Resolution	Real	0.001	True	False	True	True	Distance between two increments
StepsPerRevolution	UDInt	2048	True	False	True	True	Number of encoder steps per revolution
FineResolutionXist1	UDInt	11	True	False	True	True	Number of bits for fine resolution in incremental ac-tual value (Gn_XIST1)
FineResolutionXist2	UDInt	9	True	False	True	True	Bits in abs. actual value (GN_XIST2)
DeterminableRevolutions	UDInt	1	True	False	True	True	Number of encoder steps per revolution
DistancePerRevolution	Real	100.0	True	False	True	True	Load revolutions per number of motor revolutions
▼ ActiveHoming	TO_Struct_SensorActi-veHoming		True	True	True	False	Configuration data for active homing
Mode	DInt	2	True	False	True	True	Active homing mode
Sidelnput	Bool	false	True	True	True	True	Side of reference point switch to which homing is executed with "active homing"
▼ DigitalInputAddress	VREF		False	False	False	False	Input address of homing switch
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
HomePositionOffset	Real	0.0	True	True	True	True	Home position offset
SwitchLevel	Bool	true	True	True	True	True	Selection of signal level pending with approached homing switch at the CPU input
▼ PassiveHoming	TO_Struct_SensorPassi-veHoming		True	True	True	False	Configuration data for passive homing
Mode	DInt	2	True	False	True	True	Passive homing mode
Sidelnput	Bool	false	True	True	True	True	Side of reference point switch to which homing is executed with "passive homing"
▼ DigitalInputAddress	VREF		False	False	False	False	Input address of homing switch
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
SwitchLevel	Bool	true	True	True	True	True	Selection of signal level pending with approached homing switch at the CPU input

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_SensorInterface

TO_Struct_SensorInterface Properties

General

Name	TO_Struct_SensorInterface	Number	1704	Type	UDT	Language	
Numbering							

Information

Title	SensorInterface structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
▼ AddressIn	VREF		False	False	False	False	Encoder telegram (internal parameter)
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
▼ AddressOut	VREF		False	False	False	False	Encoder telegram (internal parameter)
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
Type	DInt	4	False	False	False	True	Encoder connection (internal parameter)
HSC	DWord	16#0	False	False	False	True	High speed counter
Number	UDInt	1	False	False	False	True	Encoder number

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_SensorParameter

TO_Struct_SensorParameter Properties

General

Name	TO_Struct_SensorParameter	Number	1705	Type	UDT	Language	
Numbering							
Title	SensorParameter structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Resolution	Real	0.001	True	False	True	True	Distance between two increments
StepsPerRevolution	UDInt	2048	True	False	True	True	Number of encoder steps per revolution
FineResolutionXist1	UDInt	11	True	False	True	True	Number of bits for fine resolution in incremental actual value (Gn_XIST1)
FineResolutionXist2	UDInt	9	True	False	True	True	Bits in abs. actual value (GN_XIST2)
DeterminableRevolutions	UDInt	1	True	False	True	True	Number of encoder steps per revolution
DistancePerRevolution	Real	100.0	True	False	True	True	Load revolutions per number of motor revolutions

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_SensorActiveHoming

TO_Struct_SensorActiveHoming Properties

General

Name	TO_Struct_SensorActive-Homing	Number	1706	Type	UDT	Language	
Numbering							

Information

Title	SensorActiveHoming structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Mode	DInt	2	True	False	True	True	Active homing mode
SideInput	Bool	false	True	True	True	True	Side of reference point switch to which homing is executed with "active homing"
▼ DigitalInputAddress	VREF		False	False	False	False	Input address of homing switch
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
HomePositionOffset	Real	0.0	True	True	True	True	Home position offset
SwitchLevel	Bool	true	True	True	True	True	Selection of signal level pending with approached homing switch at the CPU input

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_SensorPassiveHoming

TO_Struct_SensorPassiveHoming Properties

General

Name	TO_Struct_SensorPassive-Homing	Number	1707	Type	UDT	Language	
------	--------------------------------	--------	------	------	-----	----------	--

Numbering

Information

Title	SensorPassiveHoming structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
Mode	DInt	2	True	False	True	True	Passive homing mode
SideInput	Bool	false	True	True	True	True	Side of reference point switch to which homing is executed with "passive homing"
▼ DigitalInputAddress	VREF		False	False	False	False	Input address of homing switch
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
SwitchLevel	Bool	true	True	True	True	True	Selection of signal level pending with approached homing switch at the CPU input

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Units

TO_Struct_Units Properties

General

Name	TO_Struct_Units	Number	1708	Type	UDT	Language	
Numbering							

Information

Title	Units structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
LengthUnit	Int	1013	True	False	True	True	Unit of measurement of parameters

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Mechanics

TO_Struct_Mechanics Properties

General

Name	TO_Struct_Mechanics	Number	1711	Type	UDT	Language	
Numbering							

Information

Title	Mechanics structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
LeadScrew	Real	10.0	True	False	True	True	Distance per motor revolution

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_DynamicLimits

TO_Struct_DynamicLimits Properties

General

Name	TO_Struct_DynamicLimits	Number	1713	Type	UDT	Language	
Numbering							

Information

Title	DynamicLimits structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
MaxVelocity	Real	250.0	True	False	True	True	Maximum velocity of axis
MinVelocity	Real	10.0	True	False	True	True	Start / stop velocity of axis

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_DynamicDefaults

TO_Struct_DynamicDefaults Properties

General

Name	TO_Struct_DynamicDefaults	Number	1714	Type	UDT	Language	
Numbering							

Information

Title	DynamicDefaults structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Acceleration	Real	48.0	True	True	True	True	Acceleration of axis
Deceleration	Real	48.0	True	True	True	True	Deceleration of axis
EmergencyDeceleration	Real	120.0	True	True	True	True	Emergency stop deceleration of axis
Jerk	Real	0.0	True	True	True	True	Jerk of axis

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Modulo

TO_Struct_Modulo Properties

General

Name	TO_Struct_Modulo	Number	1712	Type	UDT	Language	
Numbering							

Information

Title	Modulo structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Enable	Bool	false	True	False	True	True	Enable modulo property of axis
StartValue	Real	0.0	True	False	True	True	Define start value of modulo area
Length	Real	360.0	True	False	True	True	Define length of modulo area

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_PositionLimitsSW

TO_Struct_PositionLimitsSW Properties							
General							
Name	TO_Struct_PositionLimitsSW	Number	1715	Type	UDT	Language	
Numbering							
Information							
Title	PositionLimitsSW structure of a technology object	Author		Comment		Family	
Version		User-defined ID					
Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Active	Bool	false	True	True	True	True	Enable software limit switches
MinPosition	Real	-10000.0	True	True	True	True	Position of lower software limit switch
MaxPosition	Real	10000.0	True	True	True	True	Position of upper software limit switch

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_PositionLimitsHW

TO_Struct_PositionLimitsHW Properties

General

Name	TO_Struct_PositionLimitsHW	Number	1716	Type	UDT	Language	
Numbering							

Information

Title	PositionLimitsHW structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Active	Bool	false	True	True	True	True	Enable hardware limit switches
MinSwitchLevel	Bool	false	True	False	True	True	Voltage level at which the lower hardware limit switch reports "approach"
▼ MinSwitchAddress	VREF		False	False	False	False	Input address of lower hardware limit switch
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	
MaxSwitchLevel	Bool	false	True	False	True	True	Voltage level at which the upper hardware limit switch reports "approach"
▼ MaxSwitchAddress	VREF		False	False	False	False	Input address of upper hardware limit switch
RID	DWord	DW#16#00000000	False	False	False	False	
AREA	Byte	B#16#00	False	False	False	False	
DB_NUMBER	UInt	0	False	False	False	False	
OFFSET	UDInt	0	False	False	False	False	

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Homing

TO_Struct_Homing Properties

General

Name	TO_Struct_Homing	Number	1717	Type	UDT	Language	
Numbering							

Information

Title	Homing structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
AutoReversal	Bool	false	True	True	True	True	Enable direction reversal on the hardware limit switch
ApproachDirection	Bool	true	True	True	True	True	Direction of approach and homing direction of axis
ApproachVelocity	Real	200.0	True	True	True	True	Approach velocity of axis
ReferencingVelocity	Real	40.0	True	True	True	True	Homing velocity of axis

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_PositionControl

TO_Struct_PositionControl Properties

General

Name	TO_Struct_PositionControl	Number	1719	Type	UDT	Language	
Numbering							

Information

Title	PositioningControl structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Kv	Real	10.0	True	False	True	True	Gain Kv of position control loop
Kpc	Real	100.0	True	False	True	True	Precontrol of position control loop

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_FollowingError

TO_Struct_FollowingError Properties

General

Name	TO_Struct_FollowingError	Number	1720	Type	UDT	Language	
Numbering							
Title	FollowingError structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
EnableMonitoring	Bool	True	True	False	True	True	Enable following error monitoring
MinValue	Real	10.0	True	False	True	True	Permitted following error for small velocities
MaxValue	Real	100.0	True	False	True	True	Following error for maximum velocity
MinVelocity	Real	10.0	True	False	True	True	Velocity as of which the following error is to be adap-ted dynamically

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_PositioningMonitoring

TO_Struct_PositioningMonitoring Properties

General

Name	TO_Struct_PositioningMonitoring	Number	1721	Type	UDT	Language	
Numbering							

Information

Title	PositioningMonitoring structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
ToleranceTime	Real	1.0	True	False	True	True	Tolerance time in which the current position value must reach the positioning window
MinDwellTime	Real	0.1	True	False	True	True	Minimum dwell time in positioning window
Window	Real	1.0	True	False	True	True	Size of the window in which the current value must be located

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_StandstillSignal

TO_Struct_StandstillSignal Properties

General

Name	TO_Struct_StandstillSignal	Number	1722	Type	UDT	Language	
Numbering							

Information

Title	StandstillSignal structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
VelocityThreshold	Real	5.0	True	False	True	True	Size of the standstill window
MinDwellTime	Real	0.01	True	False	True	True	Minimum dwell time in standstill window

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Simulation

TO_Struct_Simulation Properties

General

Name	TO_Struct_Simulation	Number	1739	Type	UDT	Language	
Numbering							

Information

Title	Simulation structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Mode	UDInt	0	True	False	True	True	Simulation mode

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_StatusPositioning

TO_Struct_StatusPositioning Properties

General

Name	TO_Struct_StatusPositioning	Number	1723	Type	UDT	Language	
Numbering							

Information

Title	StatusPositioning structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Distance	Real	0.0	True	False	True	False	Current distance of axis to target position
TargetPosition	Real	0.0	True	False	True	False	Target position of axis
FollowingError	Real	0.0	True	False	True	False	Current axis following error

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_StatusDrive

TO_Struct_StatusDrive Properties

General

Name	TO_Struct_StatusDrive	Number	1724	Type	UDT	Language	
Numbering							

Information

Title	StatusDrive structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
In Operation	Bool	false	True	False	True	False	Operational status of the drive
CommunicationOK	Bool	false	True	False	True	False	Cyclic BUS communication between controller and drive
AdaptionState	DInt	0	True	False	True	False	Transfer status of the drive

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_StatusSensor

TO_Struct_StatusSensor Properties

General

Name	TO_Struct_StatusSensor	Number	1725	Type	UDT	Language	
Numbering							

Information

Title	StatusSensor structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
State	DInt	0	True	False	True	False	Status of the encoder value
CommunicationOK	Bool	false	True	False	True	False	Cyclic BUS communication between controller and encoder
AbsEncoderOffset	Real	0.0	True	False	True	False	Home position offset for value of an absolute value encoder
AdaptionState	DInt	0	True	False	True	False	Tranfer status of the encoder

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_StatusBits

TO_Struct_StatusBits Properties							
General							
Name	TO_Struct_StatusBits	Number	1726	Type	UDT	Language	
Numbering							
Information							
Title	StatusBits structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
Activated	Bool	false	True	False	True	False	Axis is activated
Enable	Bool	false	True	False	True	False	Axis is enabled
AxisSimulation	Bool	false	True	False	True	False	Simulation activated
NonPositionControlled	Bool	false	True	False	True	False	Position control deactivated
HomingDone	Bool	false	True	False	True	False	Axis is homed
Done	Bool	false	True	False	True	False	No Motion Control job is active on the axis
Error	Bool	false	True	False	True	False	An error has occurred on the axis
Standstill	Bool	false	True	False	True	False	Axis is at a standstill
PositioningCommand	Bool	false	True	False	True	False	Axis executes a positioning job
VelocityCommand	Bool	false	True	False	True	False	Axis executes a job with velocity specification
HomingCommand	Bool	false	True	False	True	False	Axis executes a homing job
CommandTableActive	Bool	false	True	False	True	False	Command table is being processed
ConstantVelocity	Bool	false	True	False	True	False	Axis traverses with a constant velocity
Accelerating	Bool	false	True	False	True	False	Axis is accelerating
Decelerating	Bool	false	True	False	True	False	Axis is decelerating
ControlPanelActive	Bool	false	True	False	True	False	"Manual control" mode was enabled in the axis control panel
DriveReady	Bool	false	True	False	True	False	Drive is ready
RestartRequired	Bool	false	True	False	True	False	Restart required
SWLimitMinActive	Bool	false	True	False	True	False	Status of lower software limit switch
SWLimitMaxActive	Bool	false	True	False	True	False	Status of upper software limit switch
HWLimitMinActive	Bool	false	True	False	True	False	Status of lower hardware limit switch
HWLimitMaxActive	Bool	false	True	False	True	False	Status of upper hardware limit switch

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_ErrorBits

TO_Struct_ErrorBits Properties

General

Name	TO_Struct_ErrorBits	Number	1727	Type	UDT	Language	
Numbering							

Information

Title	ErrorBits structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
SystemFault	Bool	false	True	False	True	False	Internal system error
ConfigFault	Bool	false	True	False	True	False	Faulty configuration of axis
DriveFault	Bool	false	True	False	True	False	Drive has displayed an error due to failure of drive-ready signal
SWLimit	Bool	false	True	False	True	False	Software limit switch approached or overtraveled
HWLimit	Bool	false	True	False	True	False	Hardware limit switch approached or overtraveled
DirectionFault	Bool	false	True	False	True	False	Invalid movement direction
HWUsed	Bool	false	True	False	True	False	Another axis is using the same PTO (Pulse Train Out-put) and is enabled
SensorFault	Bool	false	True	False	True	False	Error in encoder system
CommunicationFault	Bool	false	True	False	True	False	Communication with a connected device is faulty
FollowingError	Bool	false	True	False	True	False	The maximum permitted following error has been exceeded
PositioningFault	Bool	false	True	False	True	False	The positioning axis was not positioned correctly at the end of a positioning motion
AdaptionError	Bool	false	True	False	True	False	The transfer of the drive or encoder parameters failed

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_ControlPanel

TO_Struct_ControlPanel Properties							
General							
Name	TO_Struct_ControlPanel	Number	1729	Type	UDT	Language	
Numbering							
Information							
Title	ControlPanel structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engi-neering	Setpoint	Comment
▼ Input	TO_Struct_ControlPane-Input		False	False	False	False	Input parameters of axis control panel
TimeOut	DInt	L#3000	False	False	False	False	Internal parameter; please do not change!
EsLifeSign	DInt	0	False	False	False	False	Internal parameter; please do not change!
▼ Command	Array[1..1] of TO_Struct_ControlPane-InputCmd		False	False	False	False	Internal parameter; please do not change!
▼ Command[1]	TO_Struct_ControlPane-InputCmd		False	False	False	False	Internal parameter; please do not change!
ReqCounter	DInt	0	False	False	False	False	Internal parameter; please do not change!
Type	DInt	0	False	False	False	False	Internal parameter; please do not change!
Position	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Velocity	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Acceleration	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Jerk	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Param	DInt	0	False	False	False	False	Internal parameter; please do not change!
▼ Output	TO_Struct_ControlPane-Output		False	False	False	False	Output parameters of axis control panel
RTLifeSign	DInt	0	False	False	False	False	Internal parameter; please do not change!
▼ Command	Array[1..1] of TO_Struct_ControlPane-OutputCmd		False	False	False	False	Internal parameter; please do not change!
▼ Command[1]	TO_Struct_ControlPane-OutputCmd		False	False	False	False	Internal parameter; please do not change!
AckCounter	DInt	0	False	False	False	False	Internal parameter; please do not change!
ErrorID	Word	16#0	False	False	False	False	Internal parameter; please do not change!
ErrorInfo	Word	16#0	False	False	False	False	Internal parameter; please do not change!
Done	Bool	false	False	False	False	False	Internal parameter; please do not change!
Aborted	Bool	false	False	False	False	False	Internal parameter; please do not change!

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_ControlPanelInput

TO_Struct_ControlPanellInput Properties							
General							
Name	TO_Struct_ControlPanellInput	Number	1730	Type	UDT	Language	
Numbering							
Information							
Title	ControlPanellInput structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
TimeOut	DInt	L#3000	False	False	False	False	Internal parameter; please do not change!
EsLifeSign	DInt	0	False	False	False	False	Internal parameter; please do not change!
▼ Command	Array[1..1] of TO_Struct_ControlPanelInputCmd		False	False	False	False	Internal parameter; please do not change!
▼ Command[1]	TO_Struct_ControlPanelInputCmd		False	False	False	False	Internal parameter; please do not change!
ReqCounter	DInt	0	False	False	False	False	Internal parameter; please do not change!
Type	DInt	0	False	False	False	False	Internal parameter; please do not change!
Position	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Velocity	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Acceleration	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Jerk	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Param	DInt	0	False	False	False	False	Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_ControlPanelInputCmd

TO_Struct_ControlPanelInputCmd Properties

General

Name	TO_Struct_ControlPanelInputCmd	Number	1731	Type	UDT	Language	
------	--------------------------------	--------	------	------	-----	----------	--

Numbering

Information

Title	ControlPanelInputCommand structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
ReqCounter	DInt	0	False	False	False	False	Internal parameter; please do not change!
Type	DInt	0	False	False	False	False	Internal parameter; please do not change!
Position	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Velocity	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Acceleration	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Jerk	Real	0.0	False	False	False	False	Internal parameter; please do not change!
Param	DInt	0	False	False	False	False	Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_ControlPanelOutput

TO_Struct_ControlPanelOutput Properties

General

Name	TO_Struct_ControlPanelOutput	Number	1732	Type	UDT	Language	
Numbering							
Title	ControlPanelOutput structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
RTLifeSign	DInt	0	False	False	False	False	Internal parameter; please do not change!
▼ Command	Array[1..1] of TO_Struct_ControlPanelOutputCmd		False	False	False	False	Internal parameter; please do not change!
▼ Command[1]	TO_Struct_ControlPanelOutputCmd		False	False	False	False	Internal parameter; please do not change!
AckCounter	DInt	0	False	False	False	False	Internal parameter; please do not change!
ErrorID	Word	16#0	False	False	False	False	Internal parameter; please do not change!
ErrorInfo	Word	16#0	False	False	False	False	Internal parameter; please do not change!
Done	Bool	false	False	False	False	False	Internal parameter; please do not change!
Aborted	Bool	false	False	False	False	False	Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_ControlPanelOutputCmd

TO_Struct_ControlPanelOutputCmd Properties

General

Name	TO_Struct_ControlPanelOutputCmd	Number	1733	Type	UDT	Language	
------	---------------------------------	--------	------	------	-----	----------	--

Numbering

Information

Title	ControlPanelOutputCommand structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
AckCounter	DInt	0	False	False	False	False	Internal parameter; please do not change!
ErrorID	Word	16#0	False	False	False	False	Internal parameter; please do not change!
ErrorInfo	Word	16#0	False	False	False	False	Internal parameter; please do not change!
Done	Bool	false	False	False	False	False	Internal parameter; please do not change!
Aborted	Bool	false	False	False	False	False	Internal parameter; please do not change!

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / PLC data types

TO_Struct_Internal

TO_Struct_Internal Properties

General

Name	TO_Struct_Internal	Number	1734	Type	UDT	Language	
Numbering							

Information

Title	Internal structure of a technology object	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value	Accessible from HMI/OPC UA	Writ-able from HMI/OPC UA	Visible in HMI engineering	Setpoint	Comment
Id	Int	0	False	False	False	False	Internal parameter; please do not change!
Value	Real	0.0	False	False	False	False	Internal parameter; please do not change!

Totally Integrated Automation Portal							
PLC_1 [CPU 1212C AC/DC/Rly] / Watch and force tables Force table <table><thead><tr><th>Name</th><th>Address</th><th>Display format</th><th>Force value</th><th>Comment</th></tr></thead><tbody></tbody></table>			Name	Address	Display format	Force value	Comment
Name	Address	Display format	Force value	Comment			

Totally Integrated Automation Portal		
PLC_1 [CPU 1212C AC/DC/Rly] Traces Name		

Totally Integrated Automation Portal		
PLC_1 [CPU 1212C AC/DC/Rly] / Traces Measurements Name		

Totally Integrated Automation Portal		
PLC_1 [CPU 1212C AC/DC/Rly] / Traces Combined measurements Name		

Totally Integrated Automation Portal		
PLC_1 [CPU 1212C AC/DC/Rly] PLC alarm text lists This folder is empty.		

Totally Integrated Automation Portal

PLC_1 [CPU 1212C AC/DC/Rly] / Local modules

DI 8x24VDC/DQ 8xRelay_1

DI 8x24VDC/DQ 8xRelay_1

General\Project information

Name	DI 8x24VDC/DQ 8xRelay_1	Author	Lenovo	Comment	
Slot	2				

General\Catalog information

Short designation	SM 1223 DI8/DQ8 x relay	Description	Digital input/output module DI8 x 24VDC SINK/SOURCE and DQ8 x relay; configurable input delay; plug-in terminal blocks	Article number	6ES7 223-1PH32-0XB0
Firmware version	V2.0				

DI 8/DQ 8\Project information

Name	DI 8x24VDC/DQ 8xRelay_1	Comment		
------	-------------------------	---------	--	--

DI 8/DQ 8\Digital inputs\Input filters

I8.0 - I8.3	6.40ms	I8.4 - I8.7	6.40ms	
-------------	--------	-------------	--------	--

DI 8/DQ 8\Digital inputs\Channel0

Channel address	I8.0	
-----------------	------	--

DI 8/DQ 8\Digital inputs\Channel1

Channel address	I8.1	
-----------------	------	--

DI 8/DQ 8\Digital inputs\Channel2

Channel address	I8.2	
-----------------	------	--

DI 8/DQ 8\Digital inputs\Channel3

Channel address	I8.3	
-----------------	------	--

DI 8/DQ 8\Digital inputs\Channel4

Channel address	I8.4	
-----------------	------	--

DI 8/DQ 8\Digital inputs\Channel5

Channel address	I8.5	
-----------------	------	--

DI 8/DQ 8\Digital inputs\Channel6

Channel address	I8.6	
-----------------	------	--

DI 8/DQ 8\Digital inputs\Channel7

Channel address	I8.7	
-----------------	------	--

DI 8/DQ 8\Digital outputs

Reaction to CPU STOP	Use substitute value	
----------------------	----------------------	--

DI 8/DQ 8\Digital outputs\Channel0

Channel address	Q8.0	Substitute a value of 1 on a change from RUN to STOP.	0	
-----------------	------	---	---	--

DI 8/DQ 8\Digital outputs\Channel1

Channel address	Q8.1	Substitute a value of 1 on a change from RUN to STOP.	0	
-----------------	------	---	---	--

DI 8/DQ 8\Digital outputs\Channel2

Channel address	Q8.2	Substitute a value of 1 on a change from RUN to STOP.	0	
-----------------	------	---	---	--

DI 8/DQ 8\Digital outputs\Channel3

Channel address	Q8.3	Substitute a value of 1 on a change from RUN to STOP.	0	
-----------------	------	---	---	--

DI 8/DQ 8\Digital outputs\Channel4

Channel address	Q8.4	Substitute a value of 1 on a change from RUN to STOP.	0	
-----------------	------	---	---	--

DI 8/DQ 8\Digital outputs\Channel5

Channel address	Q8.5	Substitute a value of 1 on a change from RUN to STOP.	0	
-----------------	------	---	---	--

DI 8/DQ 8\Digital outputs\Channel6

Channel address	Q8.6	Substitute a value of 1 on a change from RUN to STOP.	0	
-----------------	------	---	---	--

DI 8/DQ 8\Digital outputs\Channel7

Channel address	Q8.7	Substitute a value of 1 on a change from RUN to STOP.	0	
-----------------	------	---	---	--

DI 8/DQ 8\I/O addresses\Input addresses

Start address	8.0	End address	8.7	Organization block	0
Process image	0				

DI 8/DQ 8\I/O addresses\Output addresses

Start address	8.0	End address	8.7	Organization block	0
Process image	0				

DI 8/DQ 8\Hardware identifier\Hardware identifier

Hardware identifier	269	
---------------------	-----	--