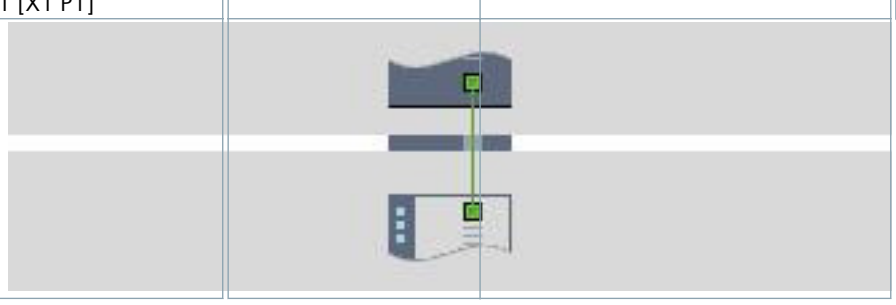
Analog Input / Analog Input MNS [CPU 1214C DC/DC/DC]

S7-1200 station_1

Analog Input MNS					
General\Project information					
Name	Analog Input MNS	**Author**	Andi Sama	**Comment**	Early Explorations
Slot	1	**Rack**	0		
General\Catalog information					
Short designation	CPU 1214C DC/DC/DC	**Description**	Work memory 100 KB; 24VDC power supply with DI14 x 24VDC SINK/SOURCE, DQ10 x 24VDC and AI2 on board; 6 high-speed counters and 4 pulse outputs on-board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 8 signal modules for I/O expansion; PROFINET IO controller, I-device, transport protocol TCP/IP, secure Open User Communication, S7 communication, Web server, OPC UA: Server DA	**Article number**	6ES7 214-1AG40-0XB0
Firmware version	V4.5		False		
General\Identification & Maintenance					
Plant designation	Lab	**Location identifier**	01	**Installation date**	2022-12-10 19:22:00.529
Additional information					
General\Checksums					
Text lists	FA 70 E8 75 1D 5A 8E 29	**Software**	53 50 AD D8 74 13 D0 0B		
PROFINET interface [X1]\General					
Name	PROFINET interface_1	**Author**	ThinkPad	**Comment**	
PROFINET interface [X1]\General\Project information					
Name	DI 14/DQ 10_1	**Comment**		**Name**	AI 2_1
Comment					
PROFINET interface [X1]\Ethernet addresses\Interface networked with					
Subnet:	Not connected				
PROFINET interface [X1]\Ethernet addresses\Internet protocol version 4 (IPv4)					
IP configuration	Set IP address in the project	**IP address:**	192.168.0.1	**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 automatically**	True	**PROFINET device name:**	analog input mns
Converted name:	analogxainputxamnsd564	**Device number:**	0		
PROFINET interface [X1]\Time synchronization					
Enable time synchronization via NTP server	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 device.**	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	**Prefix Event Rising Edge**	49152	**Event name:**	0
Hardware interrupt:	0	**Rising edge0**	Rising edge0		
PROFINET interface [X1]\Digital inputs\Channel0					
Enable falling edge detection	0	**Prefix Event Falling Edge**	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	**Prefix Event Rising Edge**	49153	**Event name:**	0
Hardware interrupt:	0	**Rising edge1**	Rising edge1		
PROFINET interface [X1]\Digital inputs\Channel1					
Enable falling edge detection	0	**Prefix Event Falling Edge**	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	**Prefix Event Rising Edge**	49154	**Event name:**	0
Hardware interrupt:	0	**Rising edge2**	Rising edge2		
PROFINET interface [X1]\Digital inputs\Channel2					
Enable falling edge detection	0	**Prefix Event Falling Edge**	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
PROFINET interface [X1]\Digital inputs\Channel3					
Enable rising edge detection	0	**Prefix Event Rising Edge**	49155	**Event name:**	0
Hardware interrupt:	0	**Rising edge3**	Rising edge3		

PROFINET interface [X1]\Digital inputs\Channel3					
Enable falling edge detection	0	**Prefix Event Falling Edge**	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	**Prefix Event Rising Edge**	49156	**Event name:**	0
Hardware interrupt:	0	**Rising edge4**	Rising edge4		
PROFINET interface [X1]\Digital inputs\Channel4					
Enable falling edge detection	0	**Prefix Event Falling Edge**	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	**Prefix Event Rising Edge**	49157	**Event name:**	0
Hardware interrupt:	0	**Rising edge5**	Rising edge5		
PROFINET interface [X1]\Digital inputs\Channel5					
Enable falling edge detection	0	**Prefix Event Falling Edge**	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	**Prefix Event Rising Edge**	49158	**Event name:**	0
Hardware interrupt:	0	**Rising edge6**	Rising edge6		
PROFINET interface [X1]\Digital inputs\Channel6					
Enable falling edge detection	0	**Prefix Event Falling Edge**	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	**Prefix Event Rising Edge**	49159	**Event name:**	0
Hardware interrupt:	0	**Rising edge7**	Rising edge7		
PROFINET interface [X1]\Digital inputs\Channel7					
Enable falling edge detection	0	**Prefix Event Falling Edge**	49287	**Event name:**	0
Hardware interrupt:	0	**Falling edge7**	Falling edge7		
PROFINET interface [X1]\Digital inputs\Channel8					
Channel address	I1.0	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel8					
Enable rising edge detection	0	**Prefix Event Rising Edge**	49160	**Event name:**	0
Hardware interrupt:	0	**Rising edge8**	Rising edge8		
PROFINET interface [X1]\Digital inputs\Channel8					
Enable falling edge detection	0	**Prefix Event Falling Edge**	49288	**Event name:**	0
Hardware interrupt:	0	**Falling edge8**	Falling edge8		
PROFINET interface [X1]\Digital inputs\Channel9					
Channel address	I1.1	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel9					
Enable rising edge detection	0	**Prefix Event Rising Edge**	49161	**Event name:**	0
Hardware interrupt:	0	**Rising edge9**	Rising edge9		
PROFINET interface [X1]\Digital inputs\Channel9					
Enable falling edge detection	0	**Prefix Event Falling Edge**	49289	**Event name:**	0
Hardware interrupt:	0	**Falling edge9**	Falling edge9		
PROFINET interface [X1]\Digital inputs\Channel10					
Channel address	I1.2	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel10					
Enable rising edge detection	0	**Prefix Event Rising Edge**	49162	**Event name:**	0
Hardware interrupt:	0	**Rising edge10**	Rising edge10		
PROFINET interface [X1]\Digital inputs\Channel10					
Enable falling edge detection	0	**Prefix Event Falling Edge**	49290	**Event name:**	0
Hardware interrupt:	0	**Falling edge10**	Falling edge10		
PROFINET interface [X1]\Digital inputs\Channel11					
Channel address	I1.3	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel11					
Enable rising edge detection	0	**Prefix Event Rising Edge**	49163	**Event name:**	0
Hardware interrupt:	0	**Rising edge11**	Rising edge11		
PROFINET interface [X1]\Digital inputs\Channel11					
Enable falling edge detection	0	**Prefix Event Falling Edge**	49291	**Event name:**	0
Hardware interrupt:	0	**Falling edge11**	Falling edge11		
PROFINET interface [X1]\Digital inputs\Channel12					
Channel address	I1.4	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel13					
Channel address	I1.5	**Input filters**	6.4 millisec	**Enable pulse catch**	0

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				
PROFINET interface [X1]\Digital outputs\Channel0					
Channel address	Q0.0	**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		
PROFINET interface [X1]\Digital outputs\Channel2					
Channel address	Q0.2	**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		
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]\Digital outputs\Channel6					
Channel address	Q0.6	**Substitute a value of 1 on a change from RUN to STOP.**	0		
PROFINET interface [X1]\Digital outputs\Channel7					
Channel address	Q0.7	**Substitute a value of 1 on a change from RUN to STOP.**	0		
PROFINET interface [X1]\Digital outputs\Channel8					
Channel address	Q1.0	**Substitute a value of 1 on a change from RUN to STOP.**	0		
PROFINET interface [X1]\Digital outputs\Channel9					
Channel address	Q1.1	**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**	1.7	**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**	1.7	**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	**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**	ThinkPad	**Comment**	
PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port interconnection\Local port:					
Local port:	Analog Input MNS\PROFINET interface_1 [X1]\Port_1 [X1 P1]	**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]\Web server access					
Enable Web server for the IP address of this interface	False	**The Web server must also be activated in the properties of the PLC.**			
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
Pulse generators (PTO/PWM)\PTO1/PWM1\General\Enable					
Enable this pulse generator	0	**Enable this pulse generator**	0		
Pulse generators (PTO/PWM)\PTO1/PWM1\General\Project information					
Name	Pulse_1	**Comment**		**Name**	Pulse_2
Comment					
Pulse generators (PTO/PWM)\PTO1/PWM1\I/O addresses\Output addresses					
Start address	1000.0	**End address**	1001.7	**Start address**	1002.0
End address	1003.7	**Organization block**	0	**Organization block**	0
Process image	0	**Process image**	0		
Startup					
Startup after POWER ON	Warm restart - mode before POWER OFF	**Comparison preset to actual configuration**	Startup CPU even if mismatch	**Configuration time**	60000ms
OBs should be interruptible	1				
Cycle					
Cycle monitoring time [ms]	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	1	**Address of clock memory byte (MBx)**	0	**10 Hz clock**	%M0.0 (Clock_10Hz)
5 Hz clock	%M0.1 (Clock_5Hz)	**2.5 Hz clock**	%M0.2 (Clock_2.5Hz)	**2 Hz clock**	%M0.3 (Clock_2Hz)
1.25 Hz clock	%M0.4 (Clock_1.25Hz)	**1 Hz clock**	%M0.5 (Clock_1Hz)	**0.625 Hz clock**	%M0.6 (Clock_0.625Hz)
0.5 Hz clock	%M0.7 (Clock_0.5Hz)				
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 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
Analog Input MNS	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**	60min		

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.				

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 diagnostics 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

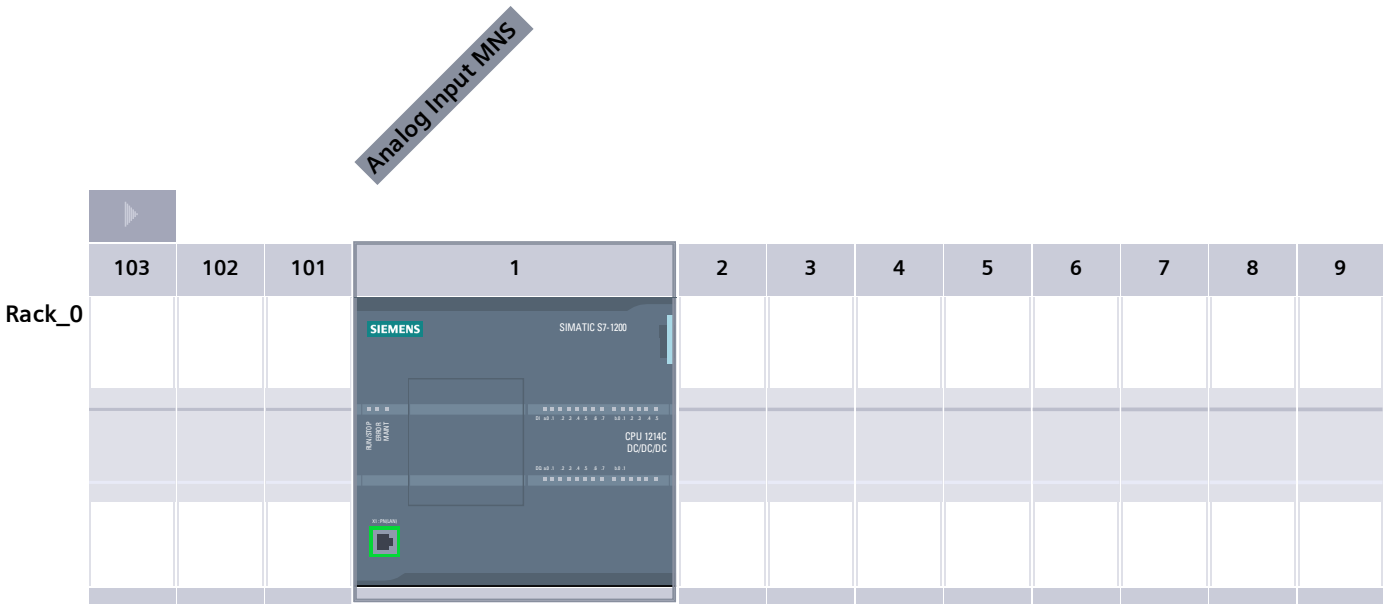
	Station resources - Reserved - Maximum	Station resources - Reserved - Configured	Station resources - Dynamic - Configured	Module resources - Analog Input MNS [CPU 1214C DC/DC/DC] - Configured
Maximum number of resources:		34	34	68
	Maximum	Configured	Configured	Configured
PG communication:	4	-	-	-
HMI communication:	12	0	0	0
S7 communication:	8	0	0	0
Open user communication:	8	0	0	0
Web communication:	2	-	-	-
OPC UA client/server communication:	0	-	-	-
Other communication:	-	-	0	0
Total resources used:		0	0	0
Available resources:		34	34	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	1	DI 14/DQ 10_1	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	1 1
O	0	1	DI 14/DQ 10_1	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	1 1
I	64	67	AI 2_1	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 2
I	1000	1003	HSC_1	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 16
I	1004	1007	HSC_2	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 17
I	1008	1011	HSC_3	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 18
I	1012	1015	HSC_4	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 19
I	1016	1019	HSC_5	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 20
I	1020	1023	HSC_6	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 21
O	1000	1001	Pulse_1	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	1 32
O	1002	1003	Pulse_2	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	1 33
O	1004	1005	Pulse_3	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	1 34
O	1006	1007	Pulse_4	Automatic update	Analog Input MNS [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	1 35

Analog Input / Analog Input MNS [CPU 1214C DC/DC/DC]

Device view


Analog Input MNS
103
102
101
1
2
3
4
5
6
7
8
9
Rack_0
SIEMENS
SIMATIC S7-1200
CPU 1214C
DC/DC/DC