

SIMATIC S7-1200, CM 1243-2 communication module
AS-Interface master according to AS-i specification V3.0



Figure similar

General technical data:		
Product designation		AS-Interface Master
Product type designation		CM 1243-2
Protection class IP		IP20
Type of electrical connection of the AS-interface		Screw-type connection
Type of voltage supply		via backplane bus
Operating condition separate power supply 24 V		No
Consumed current		
• from profile conductors of the AS-interface		
— at 30 V maximum	mA	100
• from backplane bus maximum	mA	250
Power loss [W]	W	2.9
Insulation voltage rated value	V	500
Product function suitable for AS-i Power24V		Yes
• Note		All product versions
Product feature redundancy capability		No
Product function		

• web-based management		No
• Diagnostics via email		No
• Galvanic isolation		Yes
Display version		
• as status display by LED		AS-i, PF, CM, CER, DIAG
Type of configuration of the AS-interface		With STEP 7, command interface

Communication/ Protocol:

Version of the AS-interface specification		V 3.0
AS-interface master profile is supported		M4 (in acc. with AS-interface specification V 3.0)
Type of data transmission		S7-1200 backplane bus
Number of units per CPU maximum		3
Number of interfaces		
• as AS-interface		1
• acc. to RS 485		0
• acc. to Industrial Ethernet		0
• acc. to PROFINET		0
• acc. to wireless		0
• acc. to USB		0
• other		0
Product component optical interface		No
Protocol is supported		
• ASIsafe (Safety at work) protocol		No
• PROFIsafe protocol		No
• PROFIBUS protocol		No
• PROFINET IO protocol		No
• PROFINET CBA protocol		No
• TCP/IP		No
• SNMP		No
Standard for wireless communication IEEE 802.11		No

Inputs/ Outputs:

Number of inputs for AS Interface maximum		496
Number of outputs for AS Interface maximum		496
Number of AS-i slaves per AS-Interface maximum		62
Bus cycle time of the AS-interface		
• for 31 slaves	ms	5
• for 62 slaves	ms	10
Access to digital I/O data		via process image/peripheral addresses
Access to analog I/O data		via process diagram/peripheral addresses and data record transfer

Mechanical data:

Width	mm	30
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Height	mm	100
Depth	mm	75
Mounting type		snap-on fastening on 35 mm standard rail
Module format		S7-1200 design

Ambient conditions:

Ambient temperature		
• if installed on horizontal mounting rail	°C	0 ... 55
• if installed on vertical mounting rail during operation	°C	0 ... 45
• during transport	°C	-40 ... +70
• during storage	°C	-40 ... +70
Relative humidity at 25 °C during operation maximum	%	95
Installation altitude at height above sea level maximum	m	2 000

Safety related data:

Suitability for use safety-related function		No
Explosion protection marking for intrinsic safety of related equipment		
• EEx ia		No
• EEx ib		No
Explosion protection category for gas		none
Explosion protection category for dust		none

Certificates/ approvals:

General Product Approval	For use in hazardous locations	Declaration of Conformity
FM  UL	Explosion Protection Certificate  ATEX	 EG-Konf.

Shipping Approval	other
 GL	NK / Nippon Kaiji Kyokai  ASI

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK7243-2AA30-0XB0>



Timing diagram for the ASI Master interface. The diagram shows a sequence of signals: ASI+, ASI-, ASI+, ASI-, and a ground symbol. The maximum current I_{max} is 8.0 A. The diagram is labeled "ASI Master" and "ASI Slave".

Legend:

- ☐ AS-i
- ☐ PF
- ☐ CM
- ☐ CER

DIAG

ASI MASTER

ASI SLAVE

ASI+ ASI- ASI+ ASI-

$I_{max} = 8.0 \text{ A}$

ASI FAULT

ASI < 19V

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