

Overview



- Interface module for linking the ET 200S to PROFINET
- Handles all data exchange with the PROFINET IO Controller
- 3 versions:
 - IM151-3 PN STANDARD
 - IM151-3 PN HIGH FEATURE and IM 151-3 PN FO: supports, in contrast to the STANDARD version, the operation of PROFI-safe F modules
- With integrated 2-port switch for line topology
- Delivery including connecting module

Note:

Micro Memory Card required for operation depending on the configuration.

Technical specifications

Article number	6ES7151-3AA23-0AB0 ET200S, IM151-3 PN ST INTERFACEMODULE	6ES7151-3BA23-0AB0 ET200S, IM151-3 PN HF INTERFACEMODULE
Product type designation		
Supply voltage		
Mains buffering		
• Mains/voltage failure stored energy time		20 ms
Input current		
from supply voltage 1L+, max.		200 mA
Power losses		
Power loss, typ.		3.3 W
Address area		
Addressing volume		
• Inputs		256 byte
• Outputs		256 byte
Interfaces		
PROFINET IO		
• Number of PROFINET interfaces		1
• Autocrossing		Yes
• Automatic detection of transmission speed		Yes
• Transmission rate, max.		100 Mbit/s
• Services		Ping; arp; LLDP; network diagnostics (SNMP) / MIB-2, reset SNMP parameters to factory settings; prioritized startup; media redundancy MRP; shared device
• RJ 45		Yes
1st interface		
Functionality		
• PROFINET IO Device		Yes
PROFINET IO Device		
Services		
- Isochronous mode		Yes
- IRT		Yes
- PROFIenergy		Yes
- Prioritized startup		Yes
- Shared device		Yes
- Number of IO controllers with shared device, max.		2

I/O systems

ET 200 systems for the control cabinet

ET 200S - Interface modules

IM 151-3 PN

Technical specifications (continued)

Article number	6ES7151-3AA23-0AB0 ET200S, IM151-3 PN ST INTERFACEMODULE	6ES7151-3BA23-0AB0 ET200S, IM151-3 PN HF INTERFACEMODULE
Protocols		
PROFINET IO	Yes	Yes
IRT		Yes
MRP		Yes
Protocols (Ethernet)		
• SNMP		Yes
• LLDP		Yes
• ping		Yes
• ARP		Yes
Interrupts/diagnostics/ status information		
Alarms		
• Alarms		Yes
Diagnostic messages		
• Diagnostic functions		Yes
Diagnostics indication LED		
• Bus fault BF (red)		Yes
• Group error SF (red)		Yes
• Monitoring 24 V voltage supply ON (green)		Yes
• Connection to network LINK (green)		Yes
Galvanic isolation		
between backplane bus and electronics		No
between supply voltage and electronics		No
between Ethernet and electronics		Yes
Permissible potential difference		
between different circuits		75V DC/60V AC
Isolation		
Isolation checked with		500 V
Standards, approvals, certificates		
CE mark		Yes
UL approval		Yes
Ambient conditions		
Ambient temperature in operation		
• Min.		0 °C
• max.		60 °C
Dimensions		
Width	60 mm	60 mm
Height	119.5 mm	119.5 mm
Depth	75 mm	75 mm; with mounting rail
Weights		
Weight, approx.		150 g

Ordering data

Article No.

IM 151-3 PN interface module

for ET 200S; transfer rates up to 100 Mbit/s; data volume depends on the number of modules inserted, up to 63 modules can be connected, bus connection through RJ45

6ES7151-3AA23-0AB0

IM 151-3 PN PROFINET High Feature interface module

for ET 200S; transfer rate up to 100 Mbit/s; max. 63 modules up to 2 m wide can be connected; bus connection via RJ45, incl. termination module

6ES7151-3BA23-0AB0

Article No.

IM 151-3 FO interface module

for ET 200S; with 2 PROFINET FO-interfaces and integrated 2-port switch, max. 63 modules up to 2 m wide can be connected, incl. termination module

6ES7151-3BB23-0AB0

Overview



- Interface module for linking the ET 200S PROFINET
- Handles all data exchange with the PROFINET IO controller
- IM 151-3 PN STANDARD
- With integrated 2-port switch for line topology

Micro Memory Card required for operation of CPU.

Note:

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme specific information was added.

For technical documentation on SIPLUS, see:

<http://www.siemens.com/siplus-extreme>

Technical specifications

Article number	6AG1151-3AA23-2AB0	6AG1151-3AA23-7AB0
Based on	6ES7151-3AA23-0AB0 SIPLUS ET200S IM151-3 ST	6ES7151-3AA23-0AB0 SIPLUS ET200S IM151-3 ST
Product type designation		
Standards, approvals, certificates		
CE mark	Yes	Yes
Ambient conditions		
Ambient temperature in operation		
• Min.	-25 °C; = Tmin	-25 °C; = Tmin
• max.	60 °C; = Tmax	70 °C; = Tmax
Extended ambient conditions		
• Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity		
- With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance		
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!