

IM 153-4 PN



IM 153-4 PN features

RJ45 interface

Fiber-optic interface

Identification data

Module hot-swapping

Use of function modules (FM) and
communications processors (CP)

IM 153-4 PN

6ES7 153-4AA01-0XB0

yes (copper)

no

yes

Yes (with active bus backplane modules)

Limited

Time synchronization on PROFIBUS, time stamping of input signals	yes
Use of F modules	no
Use of HART modules	no
Support of isochronous mode	no
Firmware update via bus/micro memory card	yes
Redundancy	no
Configuration change in RUN	
•In the redundant system	no
•In the non-redundant system	no
Time synchronization on PROFINET	no
Time stamping of input signals	no
Certification for hazardous zone 2	yes

Mode of operation

The IM 153-4 PN interface module handles all communication between the modular ET 200M I/O device and the higher-level IO controller via PROFINET.

The inputs and outputs are assigned to the respective IO controller during configuration.

Parameterization

- STEP 7;
- Configuration is carried out in HW Config; the respective header module is selected from the corresponding HW catalog. The modules are also configured using the corresponding hardware catalog. As of STEP 7 V5.4, SP2 (HSP138)
- External tools;
Connection to external masters and configuration with external tools is completed using the GSDML file.

Technical specifications

Technical specifications

	6ES7 153-4AA01-0XB0	6ES7 153-4BA00-0XB0
General information		
Vendor identification (VendorID)	002AH	002AH
Device identifier (DeviceID)	0302H	0302H
Supply voltage		
24 V DC	Yes	Yes
permissible range, lower limit (DC)	20.4 V	20.4 V
permissible range, upper limit (DC)	28.8 V	28.8 V
permissible range (ripple included), lower limit (DC)	20.4 V	18.5 V
permissible range (ripple included), upper limit (DC)	28.8 V	30.2 V

External protection for supply cables (recommendation)	In a construction with grounded reference potential, a fuse is necessary for redundant interface modules (Recommendation: 2.5 A)	In a construction with grounded reference potential, a fuse is necessary for redundant interface modules (Recommendation: 2.5 A)
Mains buffering		
•Mains/voltage failure stored energy time	5 ms	5 ms
Input current		
Current consumption, max.	600 mA	600 mA
Inrush current, typ.	4 A	4 A
I^2t	0.09 A ² ·s	0.09 A ² ·s
Output voltage		
Rated value, 5 V DC	Yes	Yes
Output current		
for backplane bus (5 V DC), max.	1.5 A	1.5 A
Power losses		
Power loss, typ.	6 W; Typical	6 W; Typical
Address area		
Addressing volume		
•Outputs	192 byte	192 byte
•Inputs	192 byte	672 byte; Extended HART user data

Hardware configuration		
Number of modules per DP slave interface, max.	12	12
Communication functions		
Bus protocol/transmission protocol	PN IO	PN IO
Interrupts/diagnostics/status information		
Diagnostics indication LED		
•Connection to network LINK (green)	Yes	Yes
•Transmit/receive RX/TX (yellow)	Yes	Yes
Isolation		
Isolation checked with	500 V DC	Between Profinet and 24 V supply: 1500 V AC Between functional grounding and 24 V supply: 500 V DC
Ambient conditions		
Operating temperature		
•Min.	0 °C	0 °C
•max.	60 °C	60 °C
Air pressure		
•Operating altitude above sea	2 000 m	2 000 m