

I/O systems

ET 200 systems for the control cabinet

ET 200M – Interface modules

IM 153-1/153-2

Ordering data	Article No.		Article No.
IM 153-1 interface module Slave interface for connecting an ET 200M to PROFIBUS DP • Standard temperature range	6ES7153-1AA03-0XB0		
IM 153-2 interface module Slave interface for connecting an ET 200M to PROFIBUS DP; also for use in redundant systems • High Feature • High Feature with extended temperature range	6ES7153-2BA02-0XB0 6ES7153-2BA82-0XB0		
Active IM 153 /IM 153 bus module For two IM 153-2 High Feature modules for designing redundant systems	6ES7195-7HD10-0XA0		
Bus module for ET 200M • For accommodating a power supply and an IM 153 module for the hot-swapping function during RUN, incl. bus module cover • For accommodating two 40-mm wide I/O modules for the hot-swapping function • For accommodating one 80-mm wide I/O module for the hot-swapping function	6ES7195-7HA00-0XA0 6ES7195-7HB00-0XA0 6ES7195-7HC00-0XA0		
ET 200M redundancy bundle Comprising two IM 153-2 High Feature modules and one IM 153/IM 153 bus module	6ES7153-2AR03-0XA0		
		Accessories PROFIBUS bus connector 90° outgoing cable, terminating resistor with disconnecting function, up to 12 Mbit/s, FastConnect Without PG interface • 1 unit • 100 units With PG interface • 1 unit • 100 units	6ES7972-0BA52-0XA0 6ES7972-0BA52-0XB0 6ES7972-0BB52-0XA0 6ES7972-0BB52-0XB0
		SIMATIC DP DIN rail for ET 200M Accommodates up to 5 bus modules; for hot-swapping function • Length: 483 mm (19") • Length: 530 mm • Length: 620 mm • Length: 2000 mm	6ES7195-1GA00-0XA0 6ES7195-1GF30-0XA0 6ES7195-1GG30-0XA0 6ES7195-1GC00-0XA0
		SIMATIC S7-300 DIN rail • Length: 160 mm • Length: 480 mm (19") • Length: 530 mm • Length: 830 mm • Length: 2000 mm	6ES7390-1AB60-0AA0 6ES7390-1AE80-0AA0 6ES7390-1AF30-0AA0 6ES7390-1AJ30-0AA0 6ES7390-1BC00-0AA0
		S7 Manual Collection Electronic manuals on DVD, multi-language: S7-200, TD 200, S7-300, M7-300, C7, S7-400, M7-400, STEP 7, Engineering Tools, Runtime Software, SIMATIC DP (Distributed I/O), SIMATIC HMI (Human Machine Interface), SIMATIC NET (Industrial Communication)	6ES7998-8XC01-8YE0
		S7 Manual Collection, update service for 1 year Scope of delivery: Current DVD "S7 Manual Collection" and the three subsequent updates	6ES7998-8XC01-8YE2

Ordering data	Article No.		Article No.
IM 153-4 PN interface module I/O device for connecting an ET 200M to PROFINET		S7 Manual Collection Electronic manuals on DVD, multi-language: S7-200, TD 200, S7-300, M7-300, C7, S7-400, M7-400, STEP 7, Engineering Tools, Runtime Software, SIMATIC DP (distributed I/O), SIMATIC HMI (Human Machine Interface), SIMATIC NET (Industrial Communication)	6ES7998-8XC01-8YE0
Standard	6ES7153-4AA01-0XB0		
High Feature	6ES7153-4BA00-0XB0		
Accessories		S7 Manual Collection update service for 1 year Scope of delivery: Current DVD "S7 Manual Collection" and the three subsequent updates	6ES7998-8XC01-8YE2
Bus modules for ET 200M • For accommodating a power supply and an IM 153 module for the hot-swapping function during RUN, incl. bus module cover • For accommodating two 40-mm wide I/O modules for the hot-swapping function • For accommodating one 80-mm wide I/O module for the hot-swapping function	6ES7195-7HA00-0XA0 6ES7195-7HB00-0XA0 6ES7195-7HC00-0XA0	Industrial Ethernet FC RJ45 Plug 180 RJ45 plug connector for Industrial Ethernet with a rugged metal housing and integrated insulation displacement contacts for connecting Industrial Ethernet FC installation cables; with 180° cable outlet 1 unit 10 units 50 units	 6GK1901-1BB10-2AA0 6GK1901-1BB10-2AB0 6GK1901-1BB10-2AE0
SIMATIC Micro Memory Card 64 KB ¹⁾	6ES7953-8LF30-0AA0	Industrial Ethernet FastConnect installation cables • FastConnect standard cable • FastConnect trailing cable • FastConnect marine cable	6XV1840-2AH10 6XV1840-3AH10 6XV1840-4AH10
SIMATIC DP DIN rail for ET 200M Accommodates bus modules; for hot-swapping function • Length: 483 mm (19") • Length: 530 mm • Length: 620 mm • Length: 2 000 mm	6ES7195-1GA00-0XA0 6ES7195-1GF30-0XA0 6ES7195-1GG30-0XA0 6ES7195-1GC00-0XA0	Industrial Ethernet FastConnect Stripping Tool	6GK1901-1GA00
SIMATIC S7-300 DIN rail Length: 160 mm Length: 480 mm (19") Length: 530 mm Length: 830 mm Length: 2000 mm	6ES7390-1AB60-0AA0 6ES7390-1AE80-0AA0 6ES7390-1AF30-0AA0 6ES7390-1AJ30-0AA0 6ES7390-1BC00-0AA0		
Power supply connector For connection of the 24 V DC power supply; spare part, 1 pack containing 10 units Spring-loaded connection Screw terminal connection	 6ES7193-4JB00-0AA0 6ES7193-4JB50-0AA0		

¹⁾ To operate the IM153-4, an MMC is required with at least 64 KB memory. Cards with higher memory capacity may also be used.

I/O systems

ET 200 systems for the control cabinet

ET 200M – I/O modules

Analog input module with HART

Technical specifications (continued)

Article number	6ES7331-7TF01-0AB0 SM331, 8AI, 0/4-20MA HART
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Alarms	
• Diagnostic alarm	Yes
• Limit value alarm	Yes
Diagnostic messages	
• Diagnostic functions	Yes
• Diagnostic information readable	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
Galvanic isolation	
Galvanic isolation analog inputs	
• between the channels	No
• between the channels, in groups of 8	8
• between the channels and the backplane bus	Yes
Isolation	
Isolation checked with	500
Connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	117 mm
Weights	
Weight, approx.	205 g

Ordering data

Article No.

SM 331 HART analog input module

8 inputs, 0/4 – 20 mA, HART for ET 200M with IM 153-2 interface module

6ES7331-7TF01-0AB0

Accessories

Front connectors

- 20-pin, with screw contacts

- 1 unit
- 100 units

6ES7392-1AJ00-0AA0
6ES7392-1AJ00-1AB0

- 20-pin, with spring contacts

- 1 unit
- 100 units

6ES7392-1BJ00-0AA0
6ES7392-1BJ00-1AB0

LK 393 cable guide

Mandatory for operation in hazardous areas

6ES7393-4AA00-0AA0

SIMATIC DP DIN rail for ET 200M

For mounting of up to 5 bus modules for hot-swapping function

- Length: 483 mm (19")
- Length: 530 mm

6ES7195-1GA00-0XA0
6ES7195-1GF30-0XA0

SIMATIC S7-300 DIN rail

- Length: 160 mm
- Length: 480 mm (19")
- Length: 530 mm
- Length: 830 mm
- Length: 2000 mm

6ES7390-1AB60-0AA0
6ES7390-1AE80-0AA0
6ES7390-1AF30-0AA0
6ES7390-1AJ30-0AA0
6ES7390-1BC00-0AA0

Label cover

(10 units, spare part) for signal modules (not 32-channel modules), function modules and CPU 312 IFM

6ES7392-2XY00-0AA0

Labeling strips

(10 units, spare part) for signal modules (not 32-channel modules), function modules and CPU 312 IFM

6ES7392-2XX00-0AA0

Labeling sheets for machine printing

For modules with 20-pin front connector, DIN A4, for printing with laser printer; 10 units

petrol

6ES7392-2AX00-0AA0

light beige

6ES7392-2BX00-0AA0

yellow

6ES7392-2CX00-0AA0

red

6ES7392-2DX00-0AA0

Overview



- For connecting HART devices in hazardous areas
- Can only be plugged into ET 200M
- 2 AI HART, Ex
- 2 inputs in 2 channel groups (single-channel isolation)
- Measurement type/range can be selected for each channel
- Diagnostics and diagnostic alarm parameterizable

Technical specifications

Article number	6ES7331-7TB00-0AB0 SIMATIC DP, HART ANALOG INPUT M	6ES7331-7TB10-0AB0 SIMATIC DP, HART ANALOG INPUT M
Product type designation		
Supply voltage		
Load voltage L+		
• Rated value (DC)	24 V	24 V
• Reverse polarity protection	Yes	Yes
Input current		
from backplane bus 5 V DC, max.	100 mA	100 mA
from supply voltage L+, max.	180 mA	180 mA
Output voltage		
Power supply to the transmitters		
• present	Yes	Yes
• Rated value (DC)	15 V; at 22 mA	15 V; at 22 mA
• short-circuit proof	Yes; approx. 30 mA	Yes; approx. 30 mA
• No-load voltage (DC)	29.6 V	29.6 V
Power losses		
Power loss, typ.	4.5 W	4.5 W
Analog inputs		
Number of analog inputs	2	2
permissible input current for current input (destruction limit), max.	40 mA	40 mA
Input ranges		
• Current	Yes	Yes
Input ranges (rated values), currents		
• 0 to 20 mA	Yes	Yes
• Input resistance (0 to 20 mA)	50 Ω	50 Ω
• 4 mA to 20 mA	Yes	Yes
• Input resistance (4 mA to 20 mA)	50 Ω	50 Ω
Cable length		
• shielded, max.	400 m	400 m