

Overview



- Interface module for linking the ET 200AL to PROFIBUS
- As DP-V1 slave it handles the data exchange with the PROFIBUS master in the PLC
- Max. 32 I/O modules can be connected
- Max. data volume of 244 bytes, for input and output data respectively
- Automatic detection of baud rate 9.6 kBd ... 12 MBd
- PROFIBUS addresses 1 ... 99; can be set by means of rotary switch
- Identification and maintenance data IM0 ... IM3
- Firmware update
- Configuration management (option handling)

Technical specifications

Article number	6ES7157-1AA00-0AB0 ET 200AL, IM 157-1 DP
General information	
Product type designation	IM 157-1 DP
HW functional status	E01
Firmware version	V1.0.x
Vendor identification (VendorID)	81A9H
Product function	
• I&M data	Yes; I&M0 to I&M3
Engineering with	
• STEP 7 TIA Portal configurable/ integrated as of version	STEP 7 V13 SP1 or higher
• STEP 7 configurable/integrated as of version	From V5.5 SP4 Hotfix 3
• PROFIBUS as of GSD version/ GSD revision	GSD as of Revision 5
Supply voltage	
Load voltage 1L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes; against destruction
Input current	
Current consumption (rated value)	50 mA
from load voltage 1L+ (unswitched voltage)	4 A; Maximum value
from load voltage 2L+, max.	4 A; Maximum value
Power loss	
Power loss, typ.	1.7 W
Address area	
Address space per station	
• Address space per station, max.	244 byte
Interfaces	
Number of PROFIBUS interfaces	1

Article number	6ES7157-1AA00-0AB0 ET 200AL, IM 157-1 DP
1. Interface	
Interface type	PROFIBUS DP
Interface types	
• RS 485	Yes
• M12 port	Yes; 2x M12 b-coded
Functionality	
• PROFIBUS DP slave	Yes
Interface types	
RS 485	
• Transmission rate, max.	12 Mbit/s
PROFIBUS	
Services	
- SYNC capability	Yes
- FREEZE capability	Yes
- Direct data exchange (slave-to-slave communication)	Yes
- DPV0	Yes
- DPV1	Yes
Interrupts/diagnostics/ status information	
Alarms	Yes
Diagnostic functions	Yes
Diagnostics indication LED	
• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red LED
• MAINT LED	Yes; yellow LED
• Connection display DP	Yes; Green LED
Potential separation	
between the load voltages	Yes
between PROFIBUS DP and all other circuit components	Yes
Isolation	
Isolation tested with	707 V DC (type test)

I/O systems

SIMATIC ET 200 systems without control cabinet
SIMATIC ET 200AL

Interface modules > IM 157-1 DP

Technical specifications (continued)

Article number	6ES7157-1AA00-0AB0 ET 200AL, IM 157-1 DP
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP65	Yes
• IP67	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C
• max.	55 °C

Article number	6ES7157-1AA00-0AB0 ET 200AL, IM 157-1 DP
Connection method	
Power supply	M8, 4-pole
ET-Connection	
• ET-Connection	M8, 4-pin, shielded
Dimensions	
Width	45 mm
Height	159 mm
Depth	46 mm
Weights	
Weight, approx.	211 g

Ordering data

Article No.

IM 157-1 DP interface module	6ES7157-1AA00-0AB0
For connecting ET 200AL to PROFIBUS	
Accessories	
Bus cable for backplane bus (ET connection)	
4-pin, shielded	
Pre-assembled at both ends, 2 M8 connectors	
0.19 m	6ES7194-2LH02-0AA0
0.3 m	6ES7194-2LH03-0AA0
1 m	6ES7194-2LH10-0AA0
2 m	6ES7194-2LH20-0AA0
5 m	6ES7194-2LH50-0AA0
10 m	6ES7194-2LN10-0AA0
15 m	6ES7194-2LN15-0AA0
Pre-assembled at both ends, 2 M8 connectors, angled	
0.3 m	6ES7194-2LH03-0AB0
1 m	6ES7194-2LH10-0AB0
2 m	6ES7194-2LH20-0AB0
5 m	6ES7194-2LH50-0AB0
10 m	6ES7194-2LN10-0AB0
15 m	6ES7194-2LN15-0AB0
Pre-assembled at one end, 1 M8 connector	
2 m	6ES7194-2LH20-0AC0
5 m	6ES7194-2LH50-0AC0
10 m	6ES7194-2LN10-0AC0
15 m	6ES7194-2LN15-0AC0

Article No.

M8 power cable	
4-pin	
Pre-assembled at both ends, M8 connector and M8 socket	
0.19 m	6ES7194-2LH02-1AA0
0.3 m	6ES7194-2LH03-1AA0
1 m	6ES7194-2LH10-1AA0
2 m	6ES7194-2LH20-1AA0
5 m	6ES7194-2LH50-1AA0
10 m	6ES7194-2LN10-1AA0
15 m	6ES7194-2LN15-1AA0
Pre-assembled at both ends, angled M8 connector and angled M8 socket	
0.3 m	6ES7194-2LH03-1AB0
1 m	6ES7194-2LH10-1AB0
2 m	6ES7194-2LH20-1AB0
5 m	6ES7194-2LH50-1AB0
10 m	6ES7194-2LN10-1AB0
15 m	6ES7194-2LN15-1AB0
Pre-assembled at one end, M8 socket	
2 m	6ES7194-2LH20-1AC0
5 m	6ES7194-2LH50-1AC0
10 m	6ES7194-2LN10-1AC0
15 m	6ES7194-2LN15-1AC0
M8 connector for ET connection	6ES7194-2AB00-0AA0
4-pin, shielded	
M8 power connector	
Male contact insert, 4-pin	6ES7194-2AA00-0AA0
Female contact insert, 4-pin	6ES7194-2AC00-0AA0
ET connection FastConnect stripping tool	6ES7194-2KA00-0AA0
Stripping tool for stripping the ET connection bus cable	
Labels	6ES7194-2BA00-0AA0
10 x 5 mm, RAL 9016; 5 frames with 40 labels each	