SIEMENS

SIMATIC ET 200AL, PROFNET INTERFACEMODULE IM157-1 PN,
DEGREE OF PROTECTION IP67

Product type designation

General information

HW functional status	E01
Firmware version	V1.0.0
Vendor identification (VendorID)	002AH

Product function

• I&M data	Yes; I&M0 to I&M4

Engineering with

• STEP 7 TIA Portal can be configured/integrated as of version	STEP 7 V13 SP1 or higher
• PROFINET as of GSD version/GSD revision	GSDML V2.3.1

Configuration control

for dataset	Yes

Supply voltage

Load voltage 1L+

• Rated value (DC)	24 V
• permissible range, lower limit (DC)	20.4 V
• permissible range, upper limit (DC)	28.8 V
• Reverse polarity protection	Yes; against destruction

Load voltage 2L+

• Rated value (DC)	24 V

Input current

Current consumption (rated value)	100 mA

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from load voltage 1L+ (unswitched voltage)	4 A; Maximum value
from load voltage 2L+, max.	4 A; Maximum value

Power losses	
Power loss, typ.	2.9 W

Address area	
Address space per station	
• Address space per station, max.	1 430 byte

Interfaces	
Number of PROFINET interfaces	1
1st interface	
• Interface type	PROFINET
Interface types	
— Integrated switch	Yes
— M12 port	Yes; 2x M12 d-coded
Protocols	
— PROFINET IO Device	Yes
M12 port	
• 10 Mbps	Yes; for Ethernet services
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autonegotiation	Yes
• Autocrossing	Yes
PROFINET IO Device	
Services	
— Open IE communication	Yes
— IRT	Yes; 250 µs, 500 µs, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms
— MRP	Yes
— MRPD	Yes
— PROFIenergy	Yes
— Shared device	Yes
— Number of IO controllers with shared device, max.	4
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes

Interrupts/diagnostics/status information	
Alarms	
• Alarms	Yes
Diagnostic messages	

● Diagnostic functions	Yes
Diagnostics indication LED	
● RUN LED	Yes; Green LED
● ERROR LED	Yes; Red LED
● MAINT LED	Yes; yellow LED
● Connection display LINK TX/RX	Yes; 2x green LED
Galvanic isolation	
between the load voltages	Yes
between PROFINET and all other circuits	Yes
Permissible potential difference	
between different circuits	60 V DC/50 V AC (basic insulation)
Isolation	
Isolation checked with	707 V DC (type test)
Degree and class of protection	
Degree of protection to EN 60529	
● IP65	Yes
● IP67	Yes
Ambient conditions	
Ambient temperature in operation	
● Min.	-25 °C
● max.	55 °C
Connection method	
Power supply	M8, 4-pole
ET-Connection	
● ET-Connection	M8, 4-pin, shielded
Dimensions	
Width	45 mm
Height	159 mm
Depth	34 mm; Without connector
Weights	
Weight, approx.	263 g
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