

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



General information	
Product type designation	IM 157-1 PN
HW functional status	E01
Firmware version	V1.0.x
Vendor identification (VendorID)	002AH
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M4
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	STEP 7 V13 SP1 or higher
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated as of version</li> </ul>	From V5.5 SP4 Hotfix 3
<ul style="list-style-type: none"> <li>PROFINET as of GSD version/GSD revision</li> </ul>	GSDML V2.3.1
Configuration control	
via dataset	Yes
Supply voltage	
Load voltage 1L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>permissible range, lower limit (DC)</li> </ul>	20.4 V

- permissible range, upper limit (DC) 28.8 V
- Reverse polarity protection Yes; against destruction

### Input current

Current consumption (rated value)	100 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.	2.9 W
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### Address area

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

### Interfaces

Number of PROFINET interfaces	1
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#### 1. Interface

Interface type	PROFINET
Interface types	
• integrated switch	Yes
• M12 port	Yes; 2x M12 d-coded
Functionality	
• PROFINET IO Device	Yes

#### Interface types

M12 port	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 10 Mbps	Yes; for Ethernet services
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autonegotiation	Yes
• Autocrossing	Yes

### Protocols

#### PROFINET IO Device

##### Services

— Open IE communication	Yes
— IRT	Yes; 250 $\mu$ s, 500 $\mu$ s, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms
— MRP	Yes
— MRPD	Yes
— PROFINergy	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 Yes

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

#### Potential separation

between the load voltages Yes

between PROFINET and all other circuits Yes

#### Isolation

Isolation tested with 707 V DC (type test)

#### 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

#### Connection method

Power supply M8, 4-pole

ET-Connection

- ET-Connection M8, 4-pin, shielded

#### Dimensions

Width 45 mm

Height 159 mm

Depth 40 mm

#### Weights

Weight, approx. 263 g

**last modified:** 05/11/2017