

product type designation



communication module **RF166C**

RFID communication module RF166C for Profibus DP V1, Ethernet for wbm and OPC UA, 2 readers can be connected,

Technical Product Detail Page

<https://l.siemens.com/1P6GT2002-0EE20>

suitability for operation

PROFIBUS network according to DP-V1 together with RF200/300/600/1000, MV300/400/500

transfer rate

transfer rate / for Industrial Ethernet	100 ... 100 Mbit/s
transfer rate / with PROFIBUS	9.6 kbit/s ... 12 Mbit/s
transfer rate / at the point-to-point connection / serial / maximum	921.6 kbit/s

interfaces

design of the interface / for point-to-point connection	RS422/RS232
number of readers / connectable	2
type of electrical connection	
• of the PROFIBUS interface	M12, B-coded
• of Industrial Ethernet interface	M12, d-coded
• for supply voltage	M12, L-coded
design of the interface / to the reader / for communication	M12, 8-pin
number of digital inputs	0
number of digital outputs	0

mechanical data

material	Thermoplastic (Valox 467, fiberglass reinforced)
color	Al-grey 2001
tightening torque / of the screw for securing the equipment / maximum	3 N·m

supply voltage, current consumption, power loss

supply voltage / at DC	
• rated value	24 V
•	20.4 ... 28.8 V
consumed current	
• at DC / at 24 V / without connected devices / typical	0.13 A
• from supply voltage 1L+ / maximum	4 A
continuous current / for loop-through to further bus nodes / at DC / maximum	12 A

ambient conditions

ambient temperature	
• during operation	-25 ... +55 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
protection class IP	IP67
shock resistance	according to IEC 60068-2-27 and IEC 60068-2-6
shock acceleration	300 m/s ²

vibrational acceleration	40 m/s ²
design, dimensions and weights	
width	60 mm
height	45 mm
depth	165 mm
net weight	0.26 kg
fastening method	2 M4 screws
wire length / for RS 422 interface / maximum	1000 m
product features, product functions, product components / general	
display version	2 LEDs per reader connection, 3 LEDs for device status, 1 LED for PROFIBUS, 1 LED for Ethernet port
protocol / is supported / Media Redundancy Protocol (MRP)	No
product function / of the PROFINET IO device / is supported / H-Sync forwarding	No
product function / addressable transponder file handler	No
protocol / is supported	
• LLDP	Yes
• PROFIBUS DP-V0 protocol	No
• PROFIBUS DP-V1 protocol	Yes
• PROFINET IO protocol	No
• TCP/IP	Yes
• SNMP v1	Yes
• SNMP v2	No
• SNMP v3	Yes
• DCP	Yes
• EtherNet/IP protocol	No
• OPC UA	Yes
product feature / silicon-free	Yes
product functions / management, configuration, engineering	
type of parameterization	HSP, TO, WBM, GSD
type of programming	ID profile, library with functions, FB 45, OPC UA
type of computer-switched communication	Non-cyclic communication, TCP/IP
standards, specifications, approvals	
certificate of suitability	CE, FCC, cULus, PROFIBUS certificate
certificate of suitability	
• IECEx	No
MTBF	76 a
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
standards, specifications, approvals / Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO ₂ eq]	
• total	101.43 kg
• during manufacturing	16 kg
• during operation	85.3 kg
• after end of life	0.13 kg
further information / internet links	
internet link	
• to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
• to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
• to web page: identification and localization systems	https://www.siemens.com/ident
• to web page: SiePortal	https://sieportal.siemens.com/
• to website: Image database	https://www.automation.siemens.com/bilddb
• to website: CAx-Download-Manager	https://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com
security information	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible

for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

Approvals / Certificates

General Product Approval

Environment



[Declaration of Con-
formity](#)



last modified:

11/11/2025