

product type designation



Reader RF680R ETSI

SIMATIC RF600 Reader RF680R ETSI; Interface Ethernet M12, PROFINET M12, 4 antennas, 4 dig. inputs/ 4 dig. outputs, 24 V DC; IP65; -25 to +55 °C; without accessories and antennas.

suitability for operation

RF600 Transponder, for direct connection to Ethernet, PROFINET, EtherNet/IP or PROFIBUS via communication module, OPC UA server integrated

radio frequencies

operating frequency	865 ... 868 MHz
transmit power	3 ... 2000 mW
effective radiated power	
• for each external antenna / maximum	2000 mW
range / maximum	8 m; Extended ranges possible, see RF600 System Manual, Range table: http://support.automation.siemens.com/WW/view/en/67384964
protocol / with radio transmission	EPCglobal Class 1 Gen 2 V2 / ISO/IEC 18000-62/-63
transfer rate / with radio transmission / maximum	400 kbit/s
product feature / multitag-capable	Yes

electrical data

transmission time / for user data	
• for write access / per byte / typical	2 ms
• for read access / per byte / typical	0.15 ms

interfaces

number of external antennas	4
standard for interfaces / for communication	Ethernet, PROFINET, OPC UA, EtherNet/IP, RS422
type of electrical connection	
• for external antenna(s)	RP-TNC
• for supply voltage	M12, 8-pin, connector
• for communications interface	2 x M12 4-pin D-coded, M12 8-pin (RS422)
• at the digital inputs/outputs	M12, 12-pin, female connector
number of digital inputs	4
number of digital outputs	4

mechanical data

material	Aluminum, Pocan
color	silver, TI-Grey
mounting distance / relating to metal surfaces / recommended / minimum	0 mm

supply voltage, current consumption, power loss

supply voltage / at DC	
• rated value	24 V
•	20 ... 30 V
consumed current / at DC	
• at 24 V / typical	0.38 A
• at 24 V / maximum	2 A

ambient conditions

ambient temperature	
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• during operation • during storage • during transport	-25 ... +55 °C -40 ... +85 °C -40 ... +85 °C
ambient condition / for operation	With operating temperature below -20 °C: Warming-up time at least 10 minutes
protection class IP	IP65
shock resistance	EN 60068-2-27, EN 60068-2-6
shock acceleration	250 m/s ²
vibrational acceleration	30 m/s ²
resistance to mechanical stress	The maximum values for shock and vibration acceleration must not occur as continuous stress and they apply exclusively to assembly using screws

design, dimensions and weights

width	258 mm
height	258 mm
depth	80 mm
net weight	2.4 kg
fastening method	Vesa 100 with 4 x M4 screws, top-hat rail 35 mm, profile rail S7-300, S7-1200 or S7-1500
wire length • of antenna cable / minimum • of antenna cable / maximum	1 m 40 m

product features, product functions, product components / general

display version	two LED rows with 8 and 9 LEDs
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
product function / of the PROFINET IO device / is supported / H-Sync forwarding	No
protocol / is supported • LLDP • PROFINET IO protocol • TCP/IP • SNMP v1 • SNMP v2 • SNMP v3 • DCP • EtherNet/IP protocol • OPC UA	Yes Yes Yes Yes No No Yes Yes Yes
product feature / silicon-free	Yes

standards, specifications, approvals

certificate of suitability	wireless according to RED directive, CE, IEC 60950, OPC UA: embedded UA Server Profile
certificate of suitability • IECEx	No
MTBF	28 a
reference code • according to IEC 81346-2:2019	BYB

standards, specifications, approvals / Environmental Product Declaration

Environmental Product Declaration	Yes
Global Warming Potential [CO2 eq] • total • during manufacturing • during operation • after end of life	359.52 kg 72.88 kg 285.81 kg 0.83 kg

accessories

accessories	up to 4 external antennas, set for mounting on top-hat rail or profile rail
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further information / internet links

internet link • to website: Selection guide for cables and connectors • to web page: selection aid TIA Selection Tool • to web page: RFID country approval • to web page: identification and localization systems • to web page: SiePortal • to website: Image database • to website: CAX-Download-Manager	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://www.siemens.com/rfid-approvals https://www.siemens.com/ident https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb https://www.siemens.com/cax
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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

EMV



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formity](#)

[KC](#)

Radio Equipment
Type Approval Certi-
ficate

Environment

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[Miscellaneous](#)

[Confirmation](#)



[PROFINET](#)

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