

Product type designation

Reader RF685R FCC

SIMATIC RF600 Reader RF685R FCC; Interfaces: Ethernet M12 PROFINET M12 1 integrated antenna+1 ext. antenna port, 4 dig. inputs/ 4 dig. outputs, 24V DC; IP65; -25 to +55 °C; without accessories



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	902 ... 928 MHz
Transmit power	3 ... 2000 mW
Equivalent isotropically radiated power	
• for each external antenna / maximum	4000 mW
• minimum	10 mW
• maximum	4000 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
Polarization	Linear (h/v), circular, combined

Electrical data

Transmission time / for user data	
<ul style="list-style-type: none"> • for write access / per byte / typical 	2 ms
<ul style="list-style-type: none"> • for read access / per byte / typical 	0.15 ms

Interfaces

Number of external antennas	1
Standard for interfaces / for communication	Ethernet, PROFINET, OPC UA, EtherNet/IP, RS422
Type of electrical connection	
<ul style="list-style-type: none"> • for external antenna(s) 	RP-TNC
<ul style="list-style-type: none"> • for supply voltage 	M12, 8-pin, connector
<ul style="list-style-type: none"> • for communications interface 	2 x M12 4-pin D-coded, M12 8-pin (RS422)
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • at DC / Rated value 	24 V
<ul style="list-style-type: none"> • at DC 	20 ... 30 V
Consumed current / at DC / at 24 V	
<ul style="list-style-type: none"> • typical 	0.38 A
<ul style="list-style-type: none"> • maximum 	2 A

Ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-25 ... +55 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +85 °C
<ul style="list-style-type: none"> • during transport 	-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	500 m/s ²
Vibrational acceleration	200 m/s ²
Resistance to mechanical stress	The maximum stress of shock and vibration acceleration is guaranteed only in combination with the VESA mount

Design, dimensions and weights

Width	258 mm
Height	258 mm

Depth	80 mm
Net weight	2.47 kg
Mounting type	Vesa 100 with 4 x M4 screws, top-hat rail 35 mm, profile rail S7-300, S7-1200 or S7-1500
Wire length	
<ul style="list-style-type: none"> • of antenna cable / minimum • of antenna cable / maximum 	<p>1 m</p> <p>40 m</p>

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	
<ul style="list-style-type: none"> • LLDP • PROFINET IO protocol • TCP/IP • SNMP v1 • SNMP v2 • SNMP v3 • DCP • EtherNet/IP protocol • OPC UA 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Product feature / silicon-free	Yes

Standards, specifications, approvals

Certificate of suitability	
<ul style="list-style-type: none"> • IECEx 	No
MTBF	29 y

accessories

accessories	one external antenna, set for mounting on top-hat rail or profile rail
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Further information / Internet-Links

Internet-Link	
<ul style="list-style-type: none"> • to website: Selector SIMATIC NET SELECTION TOOL • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Image database • to website: CAx Download Manager • to website: Industry Online Support 	<p>https://support.industry.siemens.com/cs/ww/en/view/67384964</p> <p>http://www.siemens.com/ident/rfid</p> <p>https://mall.industry.siemens.com</p> <p>http://www.siemens.com/industry/infocenter</p> <p>http://automation.siemens.com/bilddb</p> <p>http://www.siemens.com/cax</p> <p>https://support.industry.siemens.com</p>

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