

product type designation



Reader RF685R ETSI

SIMATIC RF600 Reader RF685R ETSI; interface Ethernet M12 PROFINET M12 1 integrated antenna+1 ext. antenna port, 4 dig. inputs/ 4 dig. outputs, 24 V 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	865 ... 868 MHz
transmit power	3 ... 2000 mW
effective radiated power	
• for each external antenna / maximum	2000 mW
• minimum	10 mW
• 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
polarization	Linear (h/v), circular, combined
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	1
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
• at DC	20 ... 30 V

consumed current / at DC	
<ul style="list-style-type: none"> • at 24 V / typical • at 24 V / maximum 	0.38 A 2 A
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • 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	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
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	
<ul style="list-style-type: none"> • of antenna wire / minimum • of antenna wire / 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	
<ul style="list-style-type: none"> • 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	
<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
further information / internet-Links	
Internet-Link	
<ul style="list-style-type: none"> • to web page: selection aid TIA 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 	https://support.industry.siemens.com/cs/ww/en/view/67384964 http://www.siemens.com/ident/rfid https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter http://automation.siemens.com/bilddb http://www.siemens.com/cax https://support.industry.siemens.com
last modified:	12/18/2020 

