

### product type designation



### Reader RF685R ARIB

SIMATIC RF600 Reader RF685R ARIB; Interfaces: 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	916 ... 920 MHz
transmit power	3 ... 1000 mW
equivalent isotropically radiated power	
<ul style="list-style-type: none"> <li>for each external antenna / maximum</li> </ul>	4000 mW
<ul style="list-style-type: none"> <li>minimum</li> </ul>	10 mW
<ul style="list-style-type: none"> <li>maximum</li> </ul>	4000 mW
range / maximum	8 m; Extended ranges possible, see RF600 System Manual, Range table: <a href="http://support.automation.siemens.com/WW/view/en/67384964">http://support.automation.siemens.com/WW/view/en/67384964</a>
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"> <li>for write access / per byte / typical</li> </ul>	2 ms
<ul style="list-style-type: none"> <li>for read access / per byte / typical</li> </ul>	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"> <li>for external antenna(s)</li> </ul>	RP-TNC
<ul style="list-style-type: none"> <li>for supply voltage</li> </ul>	M12, 8-pin, connector
<ul style="list-style-type: none"> <li>for communications interface</li> </ul>	2 x M12 4-pin D-coded, M12 8-pin (RS422)
<ul style="list-style-type: none"> <li>at the digital inputs/outputs</li> </ul>	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"> <li>at DC / rated value</li> </ul>	24 V
<ul style="list-style-type: none"> <li>at DC</li> </ul>	20 ... 30 V
consumed current / at DC	
<ul style="list-style-type: none"> <li>at 24 V / typical</li> </ul>	0.38 A

<ul style="list-style-type: none"> <li>at 24 V / maximum</li> </ul>	2 A
<b>ambient conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul>	-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 <sup>2</sup>
vibrational acceleration	30 m/s <sup>2</sup>
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
<b>design, dimensions and weights</b>	
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"> <li>of antenna cable / minimum</li> <li>of antenna cable / maximum</li> </ul>	1 m 40 m
<b>product features, product functions, product components / general</b>	
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"> <li>LLDP</li> <li>PROFINET IO protocol</li> <li>TCP/IP</li> <li>SNMP v1</li> <li>SNMP v2</li> <li>SNMP v3</li> <li>DCP</li> <li>EtherNet/IP protocol</li> <li>OPC UA</li> </ul>	Yes Yes Yes Yes No No Yes Yes Yes
product feature / silicon-free	Yes
<b>standards, specifications, approvals</b>	
certificate of suitability	wireless acc. to ARIB (STD-T106), OPC UA: embedded UA Server Profile
certificate of suitability	
<ul style="list-style-type: none"> <li>IECEX</li> </ul>	No
MTBF	29 a
<b>accessories</b>	
accessories	one external antenna, set for mounting on top-hat rail or profile rail
<b>further information / internet links</b>	
internet link	
<ul style="list-style-type: none"> <li>to web page: selection aid TIA Selection Tool</li> <li>to website: Industrial communication</li> <li>to website: Industry Mall</li> <li>to website: Information and Download Center</li> <li>to website: Image database</li> <li>to website: CAX-Download-Manager</li> <li>to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com/cs/ww/en/view/67384964">https://support.industry.siemens.com/cs/ww/en/view/67384964</a> <a href="http://www.siemens.com/ident/rfid">http://www.siemens.com/ident/rfid</a> <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a> <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a> <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

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