

### Product type designation

### Reader RF685R CMIIT

SIMATIC RF600 Reader RF685R CMIIT; 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	920 ... 925 MHz
Transmit power	3 ... 2000 mW
Effective radiant power	
<ul style="list-style-type: none"> <li>• for each external antenna / maximum</li> <li>• minimum</li> <li>• maximum</li> </ul>	<p>2000 mW</p> <p>10 mW</p> <p>2000 mW</p>
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 / at 24 V	
<ul style="list-style-type: none"> <li>• typical</li> </ul>	0.38 A
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	2 A

### Ambient conditions

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

### Design, dimensions and weight

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	
• of antenna cable / minimum	1 m
• of antenna cable / maximum	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	Yes
• PROFINET IO protocol	Yes
• TCP/IP	Yes
• SNMP v1	Yes
• SNMP v2	No
• SNMP v3	No
• DCP	Yes
• EtherNet/IP protocol	Yes
Product feature / silicon-free	Yes

#### Standards, specifications, approvals

Certificate of suitability	
• 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	
• to website: Selector SIMATIC NET SELECTION TOOL	<a href="https://support.industry.siemens.com/cs/ww/en/view/67384964">https://support.industry.siemens.com/cs/ww/en/view/67384964</a>
• to website: Industrial communication	<a href="http://www.siemens.com/ident/rfid">http://www.siemens.com/ident/rfid</a>
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to website: Information and Download Center	<a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>
• to website: Image database	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
• to website: CAx Download Manager	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

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