

# RFID systems for the HF frequency range

## SIMATIC RF200 readers

SIMATIC RF260R

### Overview



SIMATIC RF260R is a reader with an integrated antenna. Its compact design makes it ideal for use in assembly lines.

This reader has either:

- An RS-422 interface with transmission procedure 3964R for connection to the RFID communication modules ASM 456, ASM 475, SIMATIC RF160C, RF170C, RF180C and RF182C,
- or an RS232 interface with a 3964R transmission procedure or ASCII protocol for connection to S7-1200, PC-based systems or third-party controllers,
- or a standardized IO-Link interface for connection to IO-Link master modules from Siemens or third parties.

Thanks to its high degree of protection and rugged design, the SIMATIC RF260R reader enables problem-free use even under the toughest industrial conditions. Connection is by means of either an 8-pin M12 plug-in connector (RS422/RS232 version) or a 4-pin M12 plug-in connector (IO-Link version).

The reader is operated with ISO 15693-compatible transponders.

### Design

#### Field data

Minimum distance from reader to reader	
SIMATIC RF260R	≥ 150 mm

### Technical specifications

Order No.	6GT2821-6AC10	6GT2821-6AC11	6GT2821-6AC40	6GT2821-6AC32
<b>Product-type designation</b>	<b>RF260R reader</b>	<b>RF260R reader</b>	<b>RF260R ASCII reader</b>	<b>RF260R reader IO-Link</b>
<b>Suitability for installation</b>	ISO 15693 transponder, for connecting to communication modules	ISO 15693 transponder, for connecting to PCs and PLCs. With transmission procedure 3964R	ISO 15693 transponder, for connecting to PCs and PLCs. With ASCII protocol	ISO 15693 transponder, for connecting to IO-Link master
<b>Wireless frequencies</b>				
Operating frequency, rated value	13.56 MHz	13.56 MHz	13.56 MHz	13.56 MHz
<b>Electrical data</b>				
Range, maximum	135 mm	135 mm	135 mm	135 mm
Protocol for radio transmission	ISO 15693, ISO 18000-3	ISO 15693, ISO 18000-3	ISO 15693, ISO 18000-3	ISO 15693, ISO 18000-3
Transfer rate with radio transmission, maximum	26.5 kbit/s	26.5 kbit/s	26.5 kbit/s	26.5 kbit/s
Product property multitag-capable	No	No	No	No
Transmission rate at point-to-point connection serial, maximum	115.2 kbit/s	115.2 kbit/s	115.2 kbit/s	38.4 kbit/s
Transmission time for user data				
• for write access per byte, typical	0.6 ms	0.6 ms	1.2 ms	-
• for read access per byte, typical	0.6 ms	0.6 ms	1.2 ms	40 ms
<b>Interfaces</b>				
Design of the electrical connection	M12, 8-pin	M12, 8-pin	M12, 8-pin	M12, 4-pin
Standard for interfaces for communication	RS422	RS232	RS232	IO-Link

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Product-type designation	RF260R reader	RF260R reader	RF260R ASCII reader	RF260R reader IO-Link
<b>Mechanical data</b>				
Material	PA6.6	PA6.6	PA6.6	PA6.6
Color	Anthracite	Anthracite	Anthracite	Anthracite
Tightening torque of screw for mounting the equipment, maximum	1.5 Nm	1.5 Nm	1.5 Nm	1.5 Nm
Mounting distance for metal surfaces, recommended, minimum	0 mm	0 mm	0 mm	0 mm
<b>Supply voltage, current consumption, power loss</b>				
Supply voltage for DC				
• rated value	24 V	24 V	24 V	24 V
• minimum	20.4 V	20.4 V	20.4 V	20.4 V
• maximum	28.8 V	28.8 V	28.8 V	28.8 V
Consumed current at 24 V DC, typical	0.05 A	0.05 A	0.05 A	0.05 A
<b>Permitted ambient conditions</b>				
Ambient temperature				
• during operating	-20 ... +70 °C	-20 ... +70 °C	-20 ... +70 °C	-20 ... +70 °C
• during storage	-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C
• during transport	-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C
Protection class IP	IP67	IP67	IP67	IP67
Resistance against shock	EN 60721-3-7, Class 7 M2	EN 60721-3-7, Class 7 M2	EN 60721-3-7, Class 7 M2	EN 60721-3-7, Class 7 M2
Resistance against shock	500 m/s <sup>2</sup>	500 m/s <sup>2</sup>	500 m/s <sup>2</sup>	500 m/s <sup>2</sup>
Resistance against vibration	200 m/s <sup>2</sup>	200 m/s <sup>2</sup>	200 m/s <sup>2</sup>	200 m/s <sup>2</sup>
<b>Design, dimensions and weight</b>				
Width	75 mm	75 mm	75 mm	75 mm
Height	41 mm	41 mm	41 mm	41 mm
Depth	75 mm	75 mm	75 mm	75 mm
Diameter	-	-	-	-
Net weight	0.2 kg	0.2 kg	0.2 kg	0.2 kg
Type of mounting	2 x M5 screws	2 x M5 screws	2 x M5 screws	2 x M5 screws
Cable length				
• with RS232 interface, maximum	-	30 m	30 m	-
• for RS 422 interface, maximum	1000 m	-	-	-
Cable length between master and IO-Link device maximum	-	-	-	20 m
<b>Product properties, functions, components general</b>				
Type of display	3-color LED	3-color LED	3-color LED	3-color LED
Product feature silicon-free	Yes	Yes	Yes	Yes
<b>Standards, specifications, approvals</b>				
Verification of suitability	Wireless according to R&TTE guidelines EN300 330 and EN 301489, FCC, UL/CSA	Wireless according to R&TTE guidelines EN300 330 and EN 301489, FCC, UL/CSA	Wireless according to R&TTE guidelines EN300 330 and EN 301489, FCC, UL/CSA	Wireless according to R&TTE guidelines EN300 330 and EN 301489, FCC, UL/CSA

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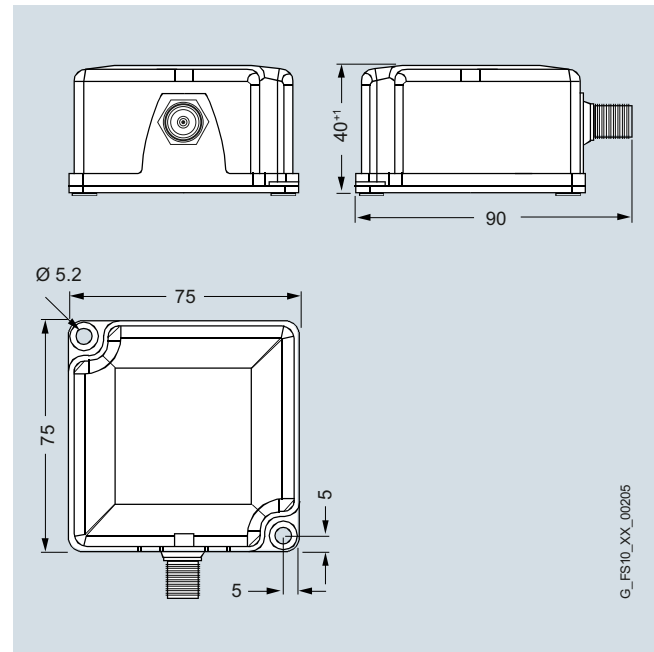
## SIMATIC RF200 readers

SIMATIC RF260R

### Selection and ordering data

	Order No.
<b>SIMATIC RF260R reader (RS422)</b>	<b>6GT2821-6AC10</b>
<b>SIMATIC RF260R reader (RS232 - 3964R)</b>	<b>6GT2821-6AC11</b>
<b>SIMATIC RF260R reader (RS232 - ASCII)</b>	<b>6GT2821-6AC40</b>
<b>SIMATIC RF260R reader (IO-Link)</b>	<b>6GT2821-6AC32</b>
<b>Accessories</b>	
Note: All connection options are shown in Chapter 6 "Communication Modules".	
<b>RS232 connecting cables</b>	
Between reader and PC (RS232), 5 m long, material: PUR, CMG approval.	
• 24 V connection with M12 plug	<b>6GT2891-4KH50</b>
• 24 V connection with open ends	<b>6GT2891-4KH50-0AX0</b>
<b>IO-Link master</b>	
For SIMATIC ET 200eco PN, for 4 readers	
<b>IO-Link Master 4SI</b>	<b>6ES7138-4GA50-0AB0</b>
For SIMATIC ET 200S, for 4 readers	
<b>IO-Link connecting cables</b>	
• between IO-Link master and reader, with M12 plug on the IO-Link master, open end, 4-pole, 5 m	<b>6GT2891-4LH50</b>
• between IO-Link master and reader, with M12 plug on the IO-Link master, open end, 4-pole, 10 m	<b>6GT2891-4LN10</b>
• between IO-Link master and reader, with M12 plug at both ends, 4-pole, 5 m	<b>6GT2891-0MH50</b>
• between IO-Link master and reader, with M12 plug at both ends, 4-pole, 10 m	<b>6GT2891-0MN10</b>
<b>DVD "RFID Systems Software &amp; Documentation"</b>	<b>6GT2080-2AA20</b>

### Dimensional drawings



Reader SIMATIC RF260R

### More information

All current approvals are listed in the Internet at:  
<http://www.siemens.com/rfid-approvals>