SIMATIC RF200

The compact RFID system in the HF range – Now with IO-Link

Brochure · April 2012
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As the world's leading provider of identification systems, Siemens offers the comprehensive SIMATIC Ident range of RFID and code reading systems – from a single source.

SIMATIC RF200 is the new, compact RFID system to the ISO 15693 standard in the SIMATIC RF product family. The system comprises space-saving HF readers which are ideal for use in small assembly lines or in intralogistics.

IO-Link – more than just another interface

IO-Link is the smart concept for the standardized linking of switching devices and sensors to the control level by means of an economical point-to-point connection.

The new communications standard IO-Link below the fieldbus level allows central fault diagnosis and location as far as the actuator/sensor level and simplifies both commissioning and maintenance by allowing the parameter data to be modified dynamically, direct from the application. As an open interface, the IO-Link can be integrated into all common fieldbus and automation systems.

<table>
<thead>
<tr>
<th>Product</th>
<th>SIMATIC RF210R IO-Link</th>
<th>SIMATIC RF220R IO-Link</th>
<th>SIMATIC RF260R IO-Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Reader with integrated antenna in M18 compact design for use in small assembly lines</td>
<td>Reader with integrated antenna in M30 compact design for use in small assembly lines</td>
<td>Reader with integrated antenna in square design for universal use in small assembly lines and intralogistics</td>
</tr>
<tr>
<td>Memory capacity</td>
<td>Transponder dependent: up to 992 bytes (EEPROM), up to 2000 bytes (FRAM)</td>
<td>Transponder dependent: up to 992 bytes (EEPROM), up to 2000 bytes (FRAM)</td>
<td>Transponder dependent: up to 2000 bytes (FRAM)</td>
</tr>
<tr>
<td>Range, max.</td>
<td>18 mm</td>
<td>40 mm</td>
<td>130 mm</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP67</td>
<td>IP67</td>
<td>IP67</td>
</tr>
<tr>
<td>Dimensions (L x W x H / Ø x H) in mm</td>
<td>M18 x 71 (without connector)</td>
<td>M30 x 71 (without connector)</td>
<td>75 x 75 x 41 (without connector)</td>
</tr>
<tr>
<td>Data transmission rate</td>
<td>Read-only / 8 byte ID number is read in 90 ms</td>
<td>Read-only / 8 byte ID number is read in 90 ms</td>
<td>Read-only / 8 byte ID number is read in 90 ms</td>
</tr>
<tr>
<td>Product selection code</td>
<td>6GT2 821-1AC32</td>
<td>6GT2 821-2AC32</td>
<td>6GT2821-6AC32</td>
</tr>
</tbody>
</table>

SIMATIC RF200 with IO-Link

The new readers SIMATIC RF210R, RF220R and RF260R with the interface variants for IO-Link, support easy identification tasks, such as reading an identification number or user data (“Read Only”). This standardized interface makes it particularly easy and cost-effective to link the data automatically read by the reader into the automation level.

The comprehensive portfolio of extremely rugged, industry-compatible ISO 15693 data carriers from Siemens is available for a wide range of application areas: from low-cost Smart Labels for permanent attachment to the product, to screw-type transponders for easy mounting (also by robots), as far as transponders for flush-mounting in metal, for example, on a workpiece carrier.
**Easy connection to the automation system**

The IO-Link interface allows the SIMATIC RF200 readers to be connected to the controllers of many well-known suppliers of automation solutions through an appropriate IO-Link master module. Siemens offers two master modules, one for the SIMATIC ET 200eco PN distributed I/O system at the field level and one for SIMATIC ET 200S in the control cabinet which support seamless integration in the established PROFINET and PROFIBUS fieldbuses, and also therefore in the world of Totally Integrated Automation. Both master modules allow up to four SIMATIC RF200 IO-Link readers to be connected.

**Advantages at a glance**

<table>
<thead>
<tr>
<th>Easy to operate</th>
<th>No programming necessary, ideal for those new to RFID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractive price</td>
<td>Low channel costs for each reading station</td>
</tr>
<tr>
<td>Open standard</td>
<td>RFID interfacing to controllers and bus systems of well-known manufacturers</td>
</tr>
</tbody>
</table>

RFID-specific programming is not required. The RFID system automatically supplies the data read from the transponder. Whereby both the unique identification number (UID) and user data from a predefined memory area can be read. The data appears in the process image of the controller as soon as a transponder enters the field of a reader.

Parameterization is easy and convenient to carry out using the Port Configuration Tool (PCT). This can be called up in STEP 7 V5.4 SP5 and higher under hardware configuration. A standalone variant of the PCT is available for downloading from the Internet free of charge for connecting to automation systems from other manufacturers. A device description file (IODD file) is available on the Internet which enables the Port Configuration Tool to recognize the IO-Link reader immediately complete with all variable names and parameter settings.

**Typical application areas**

The SIMATIC RF200 system is optimally suited for employment in assembly and handling systems. The readers can be used in assembly lines for identification of workpiece carriers. In production logistics and material flow control, components, containers and other vessels can be identified easily. This simplifies manufacturing since special customer requirements can be flexibly integrated into the production processes. Due to the traceability of the individual steps, high quality is assured throughout production and delivery.
Get more information

RFID systems SIMATIC RF200:
www.siemens.com/rf200

Industrial identification with SIMATIC Ident:
www.siemens.com/ident

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www.sitrain.com

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