

# SIEMENS

## SIMATIC Ident

## RFID systems




## Power splitter for RF600 systems

### Compact Operating Instructions

#### Legal information

#### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

 <b>DANGER</b>
indicates that death or severe personal injury <b>will</b> result if proper precautions are not taken.
 <b>WARNING</b>
indicates that death or severe personal injury <b>may</b> result if proper precautions are not taken.
 <b>CAUTION</b>
indicates that minor personal injury can result if proper precautions are not taken.
<b>NOTICE</b>
indicates that property damage can result if proper precautions are not taken.


If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

#### Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.


#### Proper use of Siemens products

Note the following:

 <b>WARNING</b>
Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

# 1 Characteristics

Using the power splitter, two antennas can be connected to one antenna connector of a reader. The power fed in at the input (S) is split over two outputs (1, 2).

Power splitter	Characteristics	
	Application	Designed for distributed mounting of antennas in warehouses, logistics and distribution
	Connectable readers	All readers of the RF600 system
	Connectable antennas	<ul style="list-style-type: none"> <li>• SIMATIC RF620A</li> <li>• SIMATIC RF640A</li> <li>• SIMATIC RF642A</li> <li>• SIMATIC RF660A</li> </ul>
	Degree of protection	IP40

# 2 Ordering data

Table 2-1 Power splitter ordering data

	Article number
Power splitter	6GT2890-0BC00

Table 2-2 Power splitter ordering data for accessories

		Article number
Antenna cable	1 m, 0.5 dB	6GT2815-0BH10
	3 m, 1 dB	6GT2815-0BH30
	5 m, 1.25 dB	6GT2815-2BH50
	10 m, 2 dB	6GT2815-1BN10
	10 m, 4 dB	6GT2815-0BN10
	15 m, 4.5 dB	6GT2815-2BN15
	20 m, 4 dB	6GT2815-0BN20
	40 m, 5 dB	6GT2815-0BN40

### 3 Example of a configuration

The following example of a configuration shows a setup with one RF680R reader, one power splitter and two RF640A antennas.

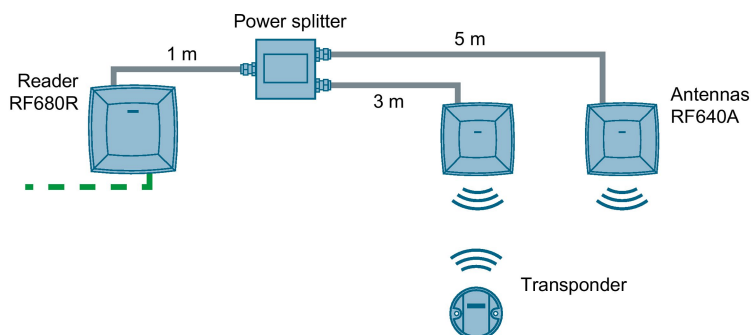


Figure 3-1 Example of a configuration with an RF600 system with a power splitter

The link between the reader and the power splitter (3.2 dB attenuation) is via a cable 1 m in length (0.5 dB cable attenuation). Between the power splitter and the antennas a cable with a length of 3 m (1 dB cable attenuation) and a cable with a length of 5 m (1.25 dB cable attenuation) are used.

To calculate the total attenuation made up of the cable attenuation and the attenuation of the power splitter, the branch with the lowest cable attenuation must be considered. For the configuration shown above, the total attenuation is as follows:

$$0.5 \text{ dB} + 3.2 \text{ dB} + 1 \text{ dB} = 4.7 \text{ dB}$$

The total attenuation of 4.7 dB must be stored in the configuration of the reader as user-defined cable attenuation. When using several different antennas, the antenna gain of the antenna with the highest gain must be specified. This ensures that the maximum permitted transmit power is not exceeded.

Note that when using different antenna cable lengths, the radiated power of the antenna with the longer cable is lower.

### 4 Technical specifications

Table 4-1 Technical specifications

6GT2890-0BC00	
Product type designation	Power splitter
<b>Electrical data</b>	
Transmission frequency	500 ... 1000 MHz
Max. input power	10 W
Impedance	50 Ω
Attenuation between input and outputs	3.2 dB
Connector (input/outputs)	RTNC plug
<b>Mechanical specifications</b>	
Housing	
• Material	• Aluminum
• Color	• Silver

**Permitted ambient conditions**

## Ambient temperature

- |                                     |                  |
|-------------------------------------|------------------|
| • During operation                  | • -40 to +85 °C  |
| • During transportation and storage | • -40 to +100 °C |

Degree of protection to EN 60529	IP40
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**Design, dimensions and weights**

## Dimensions (L × W × H)

- |                |                          |
|----------------|--------------------------|
| • Without plug | • 50.8 × 50.8 × 19.05 mm |
| • With plug    | • 74.7 × 50.8 × 19.05 mm |

Weight	170 g
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## 5 Dimension drawing

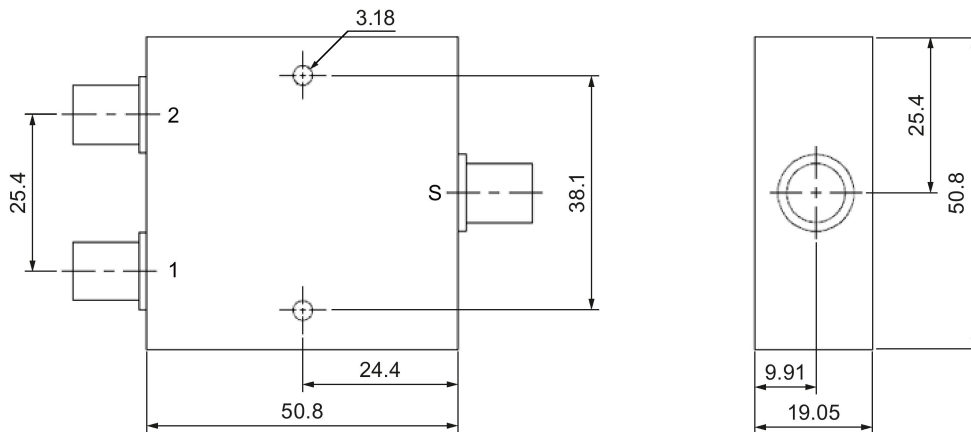


Figure 5-1 Power splitter dimension drawing

All dimensions in mm

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**Disclaimer of Liability**

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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