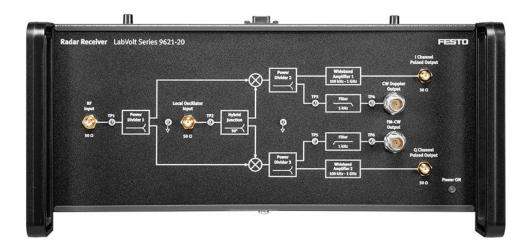
Radar Receiver 595990 (9621-20)



LabVolt Series

Datasheet



* The product images shown in this document are for illustration purposes; actual products may vary. Please refer to the Specifications section of each product/item for all details. Festo Didactic reserves the right to change product images and specifications at any time without notice.

Festo Didactic en 11/2024

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General Description

The Radar Receiver is an instructional module designed to provide training in system- and module-level troubleshooting. It has switches that the instructor can use to insert faults. These switches, as well as the circuit boards and test points, are accessed through the hinged door on top of the module.

The Radar Receiver down-converts the received RF signal to baseband directly (homodyne receiver) for the three types of radar that can be implemented (CW, FM-CW, and pulse radars). Direct CW Doppler and FM-CW outputs are provided. Quadrature detection (I- and Q-channel outputs) is used for the pulse radar. Wideband amplifiers are used in the I- and Q-channels to ensure faithful baseband reproduction of the received RF signals.

Unregulated DC power is automatically supplied to the Radar Receiver through self-aligning connectors when it is installed on the Power Supply / Antenna Motor Driver.

Specifications

Parameter	Value
Туре	Direct Conversion - DC-IF
Detector Type	Quadrature
RF Input Frequency Range	8 to 12.4 GHz
Bandwidth	600 MHz
Sensitivity	Noise Figure better than 18 dB
Local Oscillator Input Power	+11 dBm (+13 dBm maximum)
I- and Q-Channel Pulsed Output Voltage Range	-700 to +700 mV
CW Doppler Output Voltage Range	-15 to +15 V
FM-CW Output Voltage Range	-15 to +15 V
Faults	6, switch-insertable
Test Points	10
Physical Characteristics	
Dimensions (H x W x D)	162 x 330 x 300 mm (6.4 x 13 x 11.8 in)
Net Weight	4.8 kg (10.6 lb)

Reflecting the commitment of Festo Didactic to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification.

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