

# Baseband Channel / Brickwall Filter 581632 (9435-00)

**FESTO**

LabVolt Series

Datasheet



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## General Description

The Baseband Channel / Brickwall Filter is designed for use with the Time-Division Multiplexer, Model 9460, the Time-Division Demultiplexer, Model 9461, and the T1/CEPT PCM Transceiver, Model 9462. Other modules that can be used with the Baseband Channel / Brickwall Filter are the Line Coder, Model 9464, and the Line Decoder, Model 9465.

The Baseband Channel section of the module provides the frequency characteristics of a twisted pair of wires. The line length simulated is selectable between 0.15, 0.30, 1, and 2 kilometers. An auxiliary noise input is provided for noise injection. Input and output impedances are 120  $\Omega$  and coupling is either DC or AC (10 kHz). When AC coupling is selected, both the input and output connectors have a balanced (ungrounded) characteristic.

The Brickwall Filter creates heavy intersymbol interference (ISI) conditions. The filter has a very sharp low-pass characteristic that cuts off at 60 dB per decade. Again, input and output impedances are 120  $\Omega$  and can be either DC or AC (balanced) coupled.

## Specifications

Parameter	Value
<b>Power Requirements</b>	Connection to the Enclosure / Supply Regulator, Model 9420
<b>Baseband Channel</b>	
Maximal Input Voltage	3 V p-p
Input Impedance	120 $\Omega$
<b>Noise Input</b>	
Maximal Output Voltage	3 V p-p with 120 $\Omega$ load
<b>Frequency Range</b>	
DC Coupling	0-15 MHz with 0.15 km line length
	0-9 MHz with 0.30 km line length
	0-1 MHz with 1.0 km line length
	0-100 kHz with 2.0 km line length
AC Coupling	10 kHz to 15 MHz with 0.15 km line length
	10 kHz to 9 MHz with 0.30 km line length
	10 kHz to 1 MHz with 1.0 km line length
	10 kHz to 100 kHz with 2.0 km line length
Maximal Voltage	2 V p-p
Impedance	500 $\Omega$
Frequency Range	0-15 MHz
<b>Brickwall Filter</b>	
Maximal Input Voltage	3 V p-p
Input Impedance	120 $\Omega$
Slope	60 dB/decade
Maximal Output Voltage	3 V p-p with 120 $\Omega$ load
Output Impedance	120 $\Omega$
<b>Physical Characteristics</b>	
Dimensions (H x W x D)	83 x 142 x 212 mm (3.3 x 5.6 x 8.3 in)
Net Weight	0.9 kg (2 lb)

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