Technical Specifications

Filter Amplifier	FA8	FA16	FA32	FA48	FA64
Operating temperature Storage temperature Relative humidity	10 °C to 50 °C 0 °C to 50 °C 10 to 85 %, non condensing	10 °C to 50 °C 0 °C to 50 °C 10 to 85 %, non condensing	10 °C to 50 °C 0 °C to 50 °C 10 to 85 %, non condensing	10 °C to 50 °C 0 °C to 50 °C 10 to 85 %, non condensing	10 °C to 50 °C 0 °C to 50 °C 10 to 85 %, non condensing
Dimension (W x D x H) Weight	92 x 145 x 26 mm 330 g	92 x 145 x 26 mm 330 g	92 x 145 x 26 mm 370 g	92 x 145 x 26 mm 410 g	92 x 145 x 26 mm 450 g
Supply voltage Supply current	± 6 V to ± 9 V DC < ± 40 mA, typically ± 25 mA	± 6 V to ± 9 V DC < ± 75 mA, typically ± 50 mA	± 6 V to ± 9 V DC < ± 125 mA, typically ± 100 mA	± 6 V to ± 9 V DC < ± 225 mA, typically ± 150 mA	± 6 V to ± 9 V DC < ± 300 mA, typically ± 200 mA
Number of input channels	8	16	32	48	64
Input voltage range	± 500 mV after fully amplification	± 500 mV after fully amplification	± 500 mV after fully amplification	± 500 mV after fully amplification	± 500 mV after fully amplification
Input impedance	> 10^9 Ω parallel to 10 pF	> 10^9 Ω parallel to 10 pF	> 10^9 Ω parallel to 10 pF	> 10^9 Ω parallel to 10 pF	> 10^9 Ω parallel to 10 pF
Input noise	< 1 µV $_{RMS}$ full bandwidth, inputs short-circuited	< 1 µV $_{RMS}$ full bandwidth, inputs short-circuited	< 1 µV $_{RMS}$ full bandwidth, inputs short-circuited	< 1 µV $_{RMS}$ full bandwidth, inputs short-circuited	< 1 µV $_{RMS}$ full bandwidth, inputs short-circuited
Noise density @ 1 kHz	$e_9 = nV / \sqrt{Hz}$	$e_9 = nV / \sqrt{Hz}$	$e_9 = nV / \sqrt{Hz}$	$e_9 = nV / \sqrt{Hz}$	$e_9 = nV / \sqrt{Hz}$
Number of output channels	8	16	32	48	64
Output voltage Output current Output impedance	± 5 V 10 mA 300 Ω	± 5 V 10 mA 300 Ω	± 5 V 10 mA 300 Ω	± 5 V 10 mA 300 Ω	± 5 V 10 mA 300 Ω
Bandwidth Filter slope Gain	as specified 100 db/decade as specified	as specified 100 db/decade as specified	as specified 100 db/decade as specified	as specified 100 db/decade as specified	as specified 100 db/decade as specified

Filter amplifiers with 8, 16, 32, 48, and 64 input and output channels are available. Filter amplifiers can be ordered with any gain and bandwidth configurations by the user's choice. The name specifies the configuration. The first number after the input type specifies the gain, followed by the lowest frequency, and followed by the highest frequency. For example, FA-16-I-5000-300-3000 stands for a filter amplifier with 16 channels, input type I, gain of 5000, and 300 Hz to 3 kHz bandwidth.

The input type of the amplifier is S or I. Amplifiers with input type S have single ended inputs and all channels are grounded. The measurement is the difference between the signal and the ground. The signal's source ground and the amplifier's ground should have the same value for obtaining good results. An amplifier input type I is a differential amplifier, with additional common ground and reference electrode inputs: The reference electrode is ideally identical to the recording electrodes and placed into a comparable but inactive area or tissue. Background or noise signals that are picked up by both, the reference electrode and the recording electrode are removed.