

FA Filter Amplifier



	FA8	FA16	FA32	FA48	FA64
Operating temperature	10 °C to 50 °C	10 °C to 50 °C	10 °C to 50 °C	10 °C to 50 °C	10 °C to 50 °C
Storage temperature	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C
Relative humidity	10 % to 85 %, non-condensing	10 % to 85 %, non-condensing	10 % to 85 %, non-condensing	10 % to 85 %, non-condensing	10 % to 85 %, non-condensing
Dimensions (W x D x H)	92 mm x 145 mm x 26 mm	92 mm x 145 mm x 26 mm	92 mm x 145 mm x 26 mm	92 mm x 145 mm x 26 mm	92 mm x 145 mm x 26 mm
Weight	330 g	330 g	370 g	410 g	450 g
Supply voltage	± 6 V to ± 9 V DC	± 6 V to ± 9 V DC	± 6 V to ± 9 V DC	± 6 V to ± 9 V DC	± 6 V to ± 9 V DC
Supply current	< ± 40 mA, typically ± 25 mA	< ± 75 mA, typically ± 50 mA	< ± 150 mA, typically ± 100 mA	< ± 225 mA, typically ± 150 mA	< ± 300 mA, typically ± 200 mA
Number of input channels	8	16	32	48	64
Input voltage	± 500 mV (with respect to 5 V supply voltage)	± 500 mV (with respect to 5 V supply voltage)	± 500 mV (with respect to 5 V supply voltage)	± 500 mV (with respect to 5 V supply voltage)	± 500 mV (with respect to 5 V supply voltage)
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	$e_n = 9 \text{ nV} / \sqrt{\text{Hz}}$	$e_n = 9 \text{ nV} / \sqrt{\text{Hz}}$	$e_n = 9 \text{ nV} / \sqrt{\text{Hz}}$	$e_n = 9 \text{ nV} / \sqrt{\text{Hz}}$	$e_n = 9 \text{ nV} / \sqrt{\text{Hz}}$
Number of output channels	As specified; versions with 4, 8, 16, 32, 48, and 64 channels available	As specified; versions with 4, 8, 16, 32, 48, and 64 channels available	As specified; versions with 4, 8, 16, 32, 48, and 64 channels available	As specified; versions with 4, 8, 16, 32, 48, and 64 channels available	As specified; versions with 4, 8, 16, 32, 48, and 64 channels available
Output voltage	± 5 V	± 5 V	± 5 V	± 5 V	± 5 V
Output current	10 mA	10 mA	10 mA	10 mA	10 mA
Output impedance	300 Ω	300 Ω	300 Ω	300 Ω	300 Ω
Bandwidth	As specified	As specified	As specified	As specified	As specified
Filter slope	100 db/decade	100 db/decade	100 db/decade	100 db/decade	100 db/decade
Gain	As specified	As specified	As specified	As specified	As specified

Filter amplifiers with 8, 16, 32, 48, and 64 input channels are available under the name FA-4-X, FA-8-X, FA-16-X, FA-32-X, FA-48-X, and FA-64-X, respectively, where X stands for the input type (S or I). 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.