

- Filter frequencies from 0.1 Hz to > 500 kHz
- Configurable Inputs
- Easy to Use
- Low pass / Highpass / Notch filter responses
- Screw terminal connections
- Single ended / differential / IEPE inputs
- Independent signal and power earth
- 9 – 30 V DC power input – ideal for +24 V DC
- Switchable gain 0dB, +20 dB, +40dB, +60dB
- 2 Types
  - 255 step variable frequency (DR 1600 series)
  - fixed frequency (DR 1200 series)
- Wide Range of filter responses – to suit most applications
- Suitable for 4-20mA input
- Power on indication



The Kemo range of DIN rail mounting filters are a fast, easy to install, solution for many industrial, small noisy signal problems. The combination of configurable input, gain, plus a flexible range of signal filters, make the Kemo DIN rail filters an ideal choice for industrial signal filtering.

The DIN rail filters are based on the established Kemo CardMaster 1 filter carrier card. These are in use world-wide in a wide range of industries and applications. Including:- data acquisition, control signal conditioning, industrial measurements, IEPE transducer conditioning, and a wide range of other applications

DIN rail filters are available in two versions

DR 1200 – fixed filter frequency, specified at order. 1 Hz to > 500 kHz

DR 1600 – 255 filter steps, set by DIP switch, range covering 0.2 Hz to 127 500 Hz.

Both have input gain, set by easily accessible dip switches, up to + 60 dB (x1000), AC/DC input coupling, single ended/differential input, 24V IEPE transducer supply adjustable to 10mA. The signal zero volts is floating from the power supply, allowing flexibility in system earthing. The differential input allows use with 4-20mA systems by fitting a suitable current sense resistor.

### Applications

- Anti-aliasing filters
- Noise reduction in industrial measurements
- Signal reconstruction
- Data acquisition systems
- Sound and Vibration testing
- Band limiting
- Communications systems
- Signal optimization

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Dinrailf.doc

## Specification (typical values)

Power Input	10 – 30 Volts DC, 2.5 Watt. Polarity protected.
Connections	screw terminals.
Indicators	External LED, indicates correct power to filter
Operating Temperature	10 to 45 °C, non condensing.
Input Coupling	DC / AC (with dual line AC coupling for differential input)
Input Mode	Single ended / Differential / IEPE (24V, 1 - 10 mA, set by single resistor)
Input Impedance	> 1 MΩ
Input Gain	0, 20, 40, 60 dB, and user selectable. Set by DIP switches.
Bandwidth	0 dB gain, > 600 kHz
Signal level	+/- 10 Volt pk-pk
Noise and THD	< 0.003% typical (depending on filter type, signal amplitude and frequency)
Output Impedance	50Ω direct from filter module
Trim Adjustments	DC Offset, Gain. Multi-turn pots.
Frequency Setting	DR 1200 factory set DR 1600 by DIP switch.

Base Frequency	Frequency Range	Steps
0.2	0.2 – 51 Hz	0.2 Hz
1	1 – 255 Hz	1 Hz
2	2 – 510 Hz	2 Hz
5	5 – 1 275 Hz	5 Hz
10	10 – 2 550 Hz	10 Hz
20	20 – 5 100 Hz	20 Hz
50	50 – 12 750 Hz	50 Hz
100	100 – 25 500 Hz	100 Hz
200	200 – 51 000 Hz	200 Hz
500	500 – 127 500 Hz	500 Hz

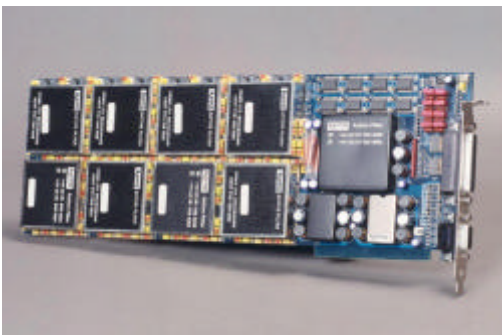
Dimensions	45 x 78 x 110 mm (1.8 x 3.1 x 4.3")
Weight	180 gms (6.4 oz)
Fixing	fits to 35 x 15mm DIN rail

## Ordering Information

Order as DR 1200, specify filter frequency and type.  
Order as DR 1600, specify filter base frequency and type

## Other Products

We produce a full range of filtering products, including bench top laboratory filters, multi-channel computer controlled filters and a range of filter modules. We have over 30 years expertise in the signal conditioning field, which usually leads to a simple solution to your filtering and signal conditioning requirements. Visit our web site to view the broadest range of filtering products available.



CardMaster8 – 8 Channel PC filter Card



VBF 8 – 2 Channel Bench Top Filter

Due to continued product development Kemo Limited reserves the right to change specification without notice

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