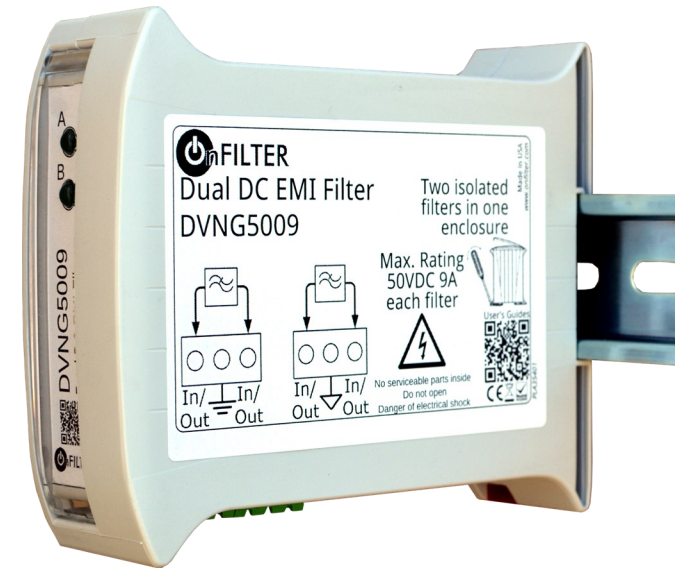


DC Dual EMI Filter, DIN-Rail Mounted DVNG5009 2x9A 50V



Filter Care

Normally, filter requires no maintenance and no calibration. During its normal operation filter may have elevated temperature which would feel “warm” to the touch, but not what is considered “hot.” If the filter does feels “hot” to the touch (more than 60°C or 140°F), turn off equipment that is powered via the filter immediately. Verify that the total actual current load does not exceed filter’s maximum rating. Keep in mind that sometimes power rating of equipment is “typical” rather than “maximum” - it is prudent to load filter to no more than 75% of its capacity to accommodate for such situations. Check if the heat dissipation of the filter is obstructed by improper installations such as lack of space around it for proper ventilation, or its placement in small confined space. If such problem is identified, correct it, let the filter cool down and turn equipment back on. Check within 30 minutes and then within an hour the temperature of the filter. If the filter still feels “hot” to the touch, turn your equipment off, disconnect filter from the circuit and discontinue using it. For warranty or other repair contact factory or its authorized distributors.

Warranty Information and Terms and Conditions of Sale:
See links at the footer at www.onfilter.com

Life- and Mission-Critical Applications

OnFILTER products shall not be used in life- or mission-critical applications. OnFILTER’s products shall not be used in such applications without prior written approval by OnFILTER.



OnFILTER, Inc.

730 Mission Dr. Ste. 102
Santa Cruz, CA 95060 U.S.A.
Tel. +1.831.824.4052
FAX +1.206.350.7458
www.onfilter.com
info@onfilter.com



User’s Guide



Thank you for buying dual DC EMI filter DVNG5009! Your new DC filter will help to “clean up” your DC power from noise generated by your power supply and by other equipment on the DC supply rails.

Safety First!

WARNING

- Do not exceed maximum rating - it may cause overheating
- Allow sufficient space around this device for ventilation to avoid overheating
- No serviceable parts inside - do not open.
- High voltage may be present inside



Brief Summary

DC dual EMI filter DVNG5009 is designed to suppress conducted high-frequency electromagnetic interference (EMI) on DC power. DC power is largely produced by switched mode power supplies (SMPS) that operate on pulses. This inherently imposes high-frequency noise on DC power which causes problems for sensitive circuits. Sometimes the circuit itself generates electrical noise polluting DC rail as well—our DC filters help to clean it up as well.

DVNG5009 contains two completely isolated DC filters, saving precious space inside control panels, and allowing for different configurations that may suit your applications best.

Installation

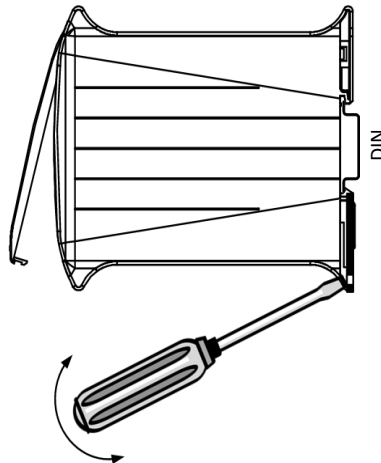
Proper installation of DC filter helps to assure its continuous operation for a long time. Please follow these requirements for installation:

- Use filter in a dry location away from the possibility of spillage, including from cleaning
- Ambient temperature should not exceed the range of 5°...40°C
- At currents approaching max. rating the filter will heat up. Please allow for ample space around it and for ventilation. If no adequate spacing around the filter is available for heat exchange, limit current through the filter so that it is not approaching max. rating.

Mounting on DIN Rail

You will need a long small-blade slot screwdriver.

Set filter so that the top rail fits into the top slot of the enclosure. Gently snap the enclosure on the bottom rail. Don't force it. In case of any problem, use slot screwdriver, insert it into the slot in the red latch at the foot of the enclosure and leverage this latch slightly out. The enclosure should install easily.



Dismounting the Filter from DIN Rail

To remove the filter from DIN rail use the flat-head screwdriver, leverage the red latch out, gently pull out the bottom part of the filter away from DIN rail, lift it slightly, and remove it from the top rail.

Connections

DC filter DVNG5009 is a dual filter comprised of two completely isolated independent filters. You can use it as two filters for different supplies, or as one filter with higher current capacity. The filters are non-polar—you can use either positive or negative supplies. The filters perform similarly in both directions, providing protection from EMI from both SMPS and from the noisy load.

Application Examples

Figure 1. One power supply, two loads, one is noisy

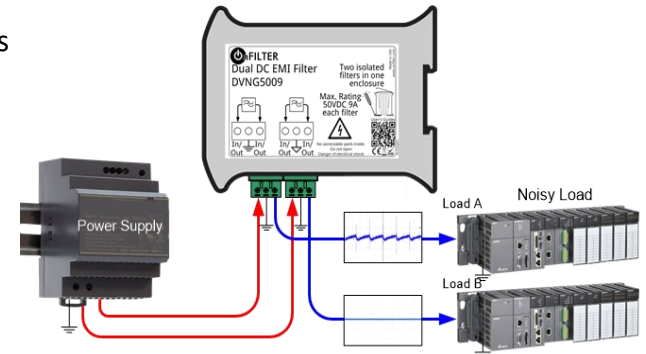


Figure 2. Two independent supplies, both noisy; two corresponding loads

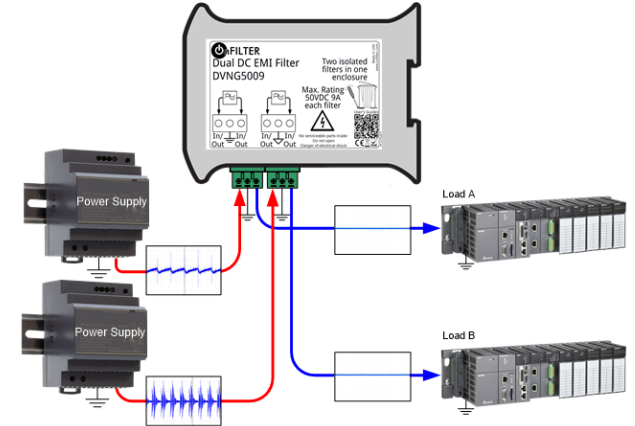
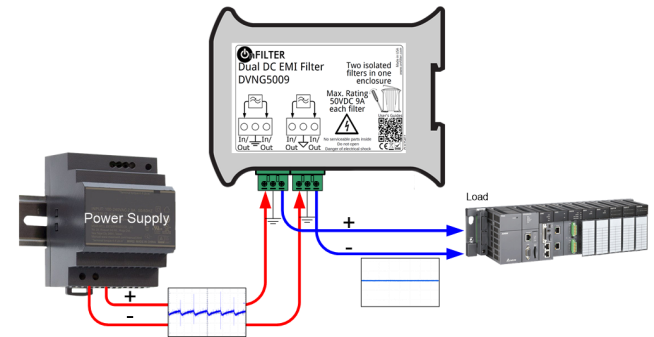


Figure 3. Filtering both polarities



Specification

Rated Voltage	50 VDC Max.	DVNG5009 qualifies for UL 508A panels as low voltage, low energy circuit (the filter itself consumes very little current just for LEDs)
Rated Current	9 A each filter Max.	
DC Resistance	<0.1 Ohms each filter	
Width	35mm	
Wire Gauge	AWG14...22	
	0.33...2mm ²	
Plug-in Terminal Connector	Würth Electronic part number 691352710003	