



**GENISCO FILTER™**  
*always on.™*



## Communication Line Filters

### GF58270 Series Filters



#### Product Summary

Genisco communication filters are low-pass Electromagnetic Interference and Radio Frequency Interference filters (EMI & RFI) designed to block high-frequency noise that interferes with the operation of sensitive electrical equipment.

These high-performance dual circuit filters are available for both DC and AC applications including:

- POTS Telephone
- P.A. System
- Fire Alarm-Analog
- Fire Alarm-Digital
- Relay/Thermostat
- Low Speed Data

These standalone filters are built with a pipe to penetrate a shielded environment (shielded rooms, screen rooms, SCIFs, secure environments, etc.) to maintain shielding integrity. EMI Ring Gasket and nut provided.





## FUNCTIONAL CHARACTERISTICS

- Voltage Ratings:
  - 24-1,000 VDC
  - 120/208 VAC (50/60 Hz)
  - 277/480 VAC (50/60 Hz)
  - Temperature Rating: MIL-PRF-15733
  - Current Overload: 140% maximum current rating
  - RF Radiation: Greater than 100 dB isolation
  - Dielectric With-Standing Voltage: 1,000 VDC (prior to installation of discharge resistors)
  - Insulation Resistance: MIL-PRF-15733 (prior to installation of discharge resistors)

## Analog vs. Digital Filter Applications

Analog communication filters are generally used when a system is composed of only analog equipment, such as: POTS telephone lines, or make & break relays or simple milliwatt type thermostats. If any part of the system contains digital equipment, has communication over power, is addressable, supervised or uses any form of pulsed current for testing or communication, a digital filter will be required. A digital filter with a higher pass-band frequency may prevent false ground fault indications.

## SPECIAL FEATURES

### Filters

- Factory pre-wired clean output lead provided through the pipe penetration.
- Low Pass filter circuits ~ passive components which includes inductors, capacitors, resistors, and optional transient suppression devices.
- Manufactured and tested per applicable portions of MIL-PRF-15733
- All circuits provided in single enclosure.

### Enclosure

- Fabricated case of not less than 18 gauge cold rolled steel electro plated or painted Gray (Std. Paint Color)
- Sealed with welded and soldered seams for minimum shielding effectiveness 100 dB from 14 kHz to 18 GHz.
- Threaded steel pipe penetration
- Triple knock outs provided on filter case input.
- Front cover access to input terminals
- Mounting tab provided for easy wall mounting.

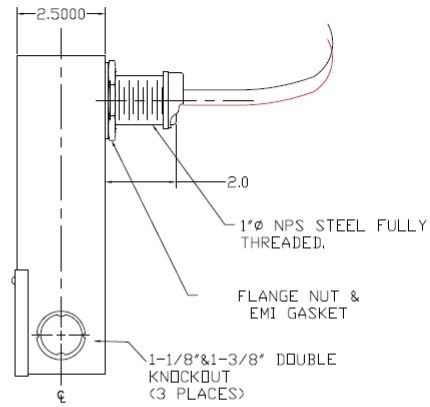
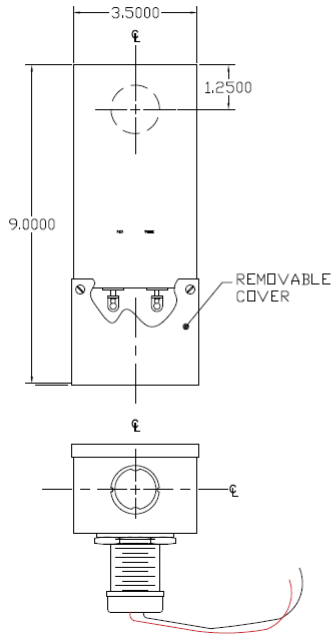
### Applicable Specifications

- MIL-PRF-15733 General
- Military Test Methods
- MIL-STD-202 Component Parts
- MIL-STD-220 Insertion Loss
- MIL-STD-285 Shielding Effectiveness
- NFPA 70/2011 National Electrical Code Standards

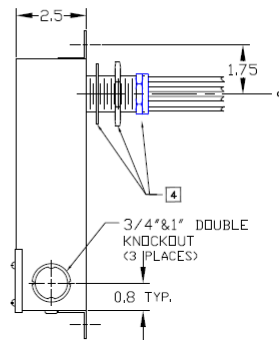
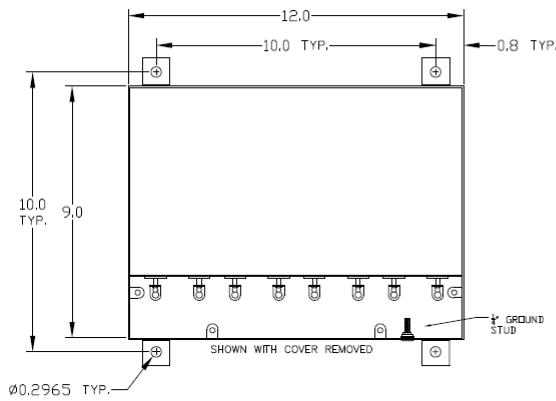




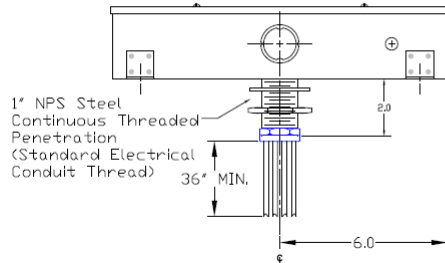
MECHANICAL DIMENSIONS



EXAMPLE OF 2-WIRE FILTER



EXAMPLE OF 4 TO 8-WIRE FILTER





## EXAMPLES OF COMMON COMMUNICATION FILTERS

Part #	Typical Application	Imp L-L (Ohms)	Imp L-G (Ohms)	Voltage max	Current max (Amps)	DC Res (Ohms)	Passband (kHz)	Insertion Loss	Test Frequency
GF58270-1	A: POTS Telephone	600	300	400 VDC 125 VAC	0.5	≤ 12	0-4	≥ 100 dB	14 kHz-10 GHz
GF58270-5	A: P.A. Systems	16	8	100 VDC	1.5	≤ 5	0-3	≥ 100 dB	14 kHz-10 GHz
GF58270-6	A: P.A. Systems	32	16	100 VDC	1.5	≤ 5	0-3	≥ 100 dB	14 kHz-10 GHz
GF58270-9	A: Fire Alarm or Power supply	100	50	100 VDC 30 VAC	4.0	≤ 1	N/A	≥ 100 dB	14 kHz-10 GHz
GF58270-10	A: Relay/Thermostat	100	50	400 VDC 125 VAC	0.4	≤ 1	N/A	≥ 100 dB	14 kHz-10 GHz
GF58270-21	D: Data / Addressable or Supervised Fire Alarm (56000 Baud)	600	300	400 VDC 125 VAC	1.0	≤ 1	0-140	≥ 100 dB	1 MHz-10 GHz
GF58270-22	D: Data (128000 Baud)	124	62	400 VDC 125 VAC	1.0	≤ 1	0-256	≥ 100 dB	5 MHz-10 GHz

\* 'A:' = Analog Applications, 'D:' = Digital Applications

\* Other Circuit Configurations and Designs Available Upon Request • Dimensions are in Inches.

\* GF58270 series filters are available in 2-wire up to 16-wire configurations. (1 pair to 8 pair)

GFP7072 Communication filter panels available for up to 100-wire capacity. (50 pair)

**NOTE:** Communication filter designs are very specific. We recommend consulting with us before ordering to assure the best filter fit for your project. Please contact us for specific model information and pricing or with any questions you may have.

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