

Honeywell Power Products
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Models Covered:
 HPFF8, HPFF12, HPFF8CM, HPFF12CM,
 HPFF8E, HPFF12E , HPFF8CME,
 HPFF12CME

APPLICATION NOTE:

This note applies to interconnecting multiple HPFF8/12 Series fire alarm power supplies on a single FCAP NAC output circuit. This function is referred to in HPFF8 Manual page 41 and HPFF12 Manual Section 5.4 Figure 5.6 “Connecting Multiple Units”. Table 1 below is a handy guide to sizing wire runs and gauge in connecting multiple supplies so system wide synchronization is possible.

The Table assumes:

1. A maximum allowable voltage drop from FACP to EOLR of 2.0 volts
2. Utilization of Class B installation wiring methods
3. Only these power supplies can be connected to FACP NAC loops that are initiating power supplies. Any other NAC devices like strobes or horns can not be installed on FACP NAC circuits that are initiating these power supplies utilizing this table.
4. Wire run in the table is point to point distance from the End of the Line to the FACP in one direction only.
5. The maximum possible number of power supply units that can be interconnected also depends on the current carrying capability of the FACP NAC output. Each HPFF8/HPFF12 input draws 12.26 ma. There are 2 inputs per power supply and in this applications note it is assumed both are connected. Make sure the FACP NAC circuit can support the current drawn by the supplies.
6. The FACP NAC outputs must provide filtered and rectified DC. Unfiltered and FWR outputs are not to be used.

# of Supplies	Maximum wire distance for given wire gauge		
	12 AWG	14 AWG	18 AWG
1	21,567 FT	13,572 FT	5,366 FT
5	4948 FT	3114 FT	1231.2 Ft
10	2516.5 FT	1586 FT	627 FT
25	1019.7 FT	641.6 FT	253.7 FT
40	639.1 FT	402 FT	159 FT
50	511.8 FT	322FT	127.3 FT

Table 1.0 - Maximum Wire Distance from FACP with Given Wire Gauge versus Maximum Interconnected Number of HPFF8/HPFF12 NAC Supplies on a Single FACP Regulated NAC Circuit.

For additional information:

- Visit our website at <http://www.honeywell power.com>
- Contact technical support at 1(877) **HPP-POWR**
- Email us at hpp.techserv@honeywell.com