Honeywell's Genesis Series low voltage wire and cable is produced with innovative equipment and technology. Our leading edge production facility, located in Pleasant Prairie, Wisconsin enables Honeywell to produce the highest quality and cost effective thermostat, electronic, security, fire, sound, voice, data and video wire and cable.

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L/NTFR2B/D
May 2012

Fire Wire

Genesis Series Cables for NOTIFIER

Honeywell

We've Got a Cable for That!

Notifier

NOTIFIER®
by Honeywell

								
SFP-2402	SFP-2404	SFP-5UD	SFP-10UD	NFW-50	NFW2-100	NFS-320	NFS2-640	NFS2-3030

DIRECTORY

NEC Article 760• Fire Alarm Systems

The scope of this article covers:

- Installation of wiring and equipment of fire alarm systems including all circuits controlled and powered by the fire alarm system. This includes fire detection and alarm notification, guard's tour, sprinkler waterflow and sprinkler supervisory systems
- Circuits controlled and powered by the fire alarm system including circuits for the control of a building system's safety functions, elevator capture, elevator shutdown, door release, smoke doors and damper control, fire doors and damper control and fan shutdown but only where these circuits are powered and controlled by the fire alarm system

NEC Listings for Power Limited Fire Alarm (PLFA) cables

- FPL: For general use in buildings
- FPLR: For use within buildings in vertical shafts
- FPLP: For use in ducts, plenums or other environmental spaces
- Direct Burial: For use outdoor or underground sunlight resistant

Signaling Line Circuits (SLC)

NOTIFIER®
by Honeywell

Maximum Loop Resistance								
								
SFP-2402	SFP-2404	SFP-5UD	SFP-10UD	NFW-50	NFW2-100	NFS-320	NFS2-640	NFS2-3030
				40 Ohms	40 Ohms	50 Ohms	50 Ohms	50 Ohms

Wire Requirements	Distance in Feet (m)	Maximum Loop Resistance	Recommended Genesis Cable		
			Gen. Purpose FPL	Riser FPLR	Plenum FPLP
18 AWG/Shielded	3,225 (983)	40 Ohms	4202	4402	4602
16 AWG/Shielded	4,875 (1,486)		4206	4406	4606
14 AWG/Shielded	8,000 (2,438)		4208	4408	4608
12 AWG/Shielded	10,000 (3,048)		4210	4410	4610
18 AWG/Unshielded	3,225 (983)		4106	4306	4506
16 AWG/Unshielded	4,875 (1,486)		4111	4311	4511
14 AWG/Unshielded	8,000 (2,438)		4113	4313	4513
12 AWG/Unshielded	10,000 (3,048)		4115	4315	4515
18 AWG/Shielded	3,700 (1,127.6 m)	50 Ohms	4202	4402	4602
12 AWG/Shielded	5,000 (1,524 m)		4210	4410	4610
18 AWG/Unshielded	3,700 (1,127.6 m)		4106	4306	4506
16 AWG/Unshielded	6,000 (1,828.8 m)		4111	4311	4511
14 AWG/Unshielded	9,500 (2,895.6 m)		4113	4313	4513
12 AWG/Unshielded	12,500 (3,810 m)		4115	4315	4515

Note: Refer to SLC wiring manual for additional details.

Initiating Device Circuits (IDC)

NOTIFIER® by Honeywell

SFP-2402	SFP-2404	SFP-5UD	SFP-10UD	NFW-50	NFW2-100	NFS-320	NFS2-640	NFS2-3030
								

	AWG	DCR at 75C (Ohms/Mft)	Maximum Wiring Distance (ft.)	Recommended Genesis Cables		
				Gen. Purpose FPL	Riser FPLR	Plenum FPLP
2-Wire Devices	18	7.77	6,435	4106	4306	4506
	16	4.89	10,225	4111	4311	4511
	14	3.07	16,287	4113	4313	4513
	12	1.93	25,907	4115	4315	4515
4-Wire Devices	18	7.77	6,435	4107	4307	4507
	16	4.89	10,225	4112	4312	4512
	14	3.07	16,287	4114	4313	4513

Note: Maximum distance based on circuit current of 100mA and loop resistance of 100 Ohms.

Notification Appliance Circuits (NAC)

NOTIFIER® by Honeywell

SFP-2402	SFP-2404	SFP-5UD	SFP-10UD	NFW-50	NFW2-100	NFS-320	NFS2-640	NFS2-3030
								
Number of NACs								
1	2	4	4	2	4	4	4	N/A
Current Per NAC								
2.5 A	2.5 A	2.5 A	3.0 A	2.5 A	2.5 A	1.5 A	1.5 A	N/A
Maximum Control Panel NAC Current								
2.5 A	3.0 A	3.0 A	7.0 A	2.5 A	3.0* A	6.0 A	6.0 A	N/A
						external power supply only for NFS2-3030		

* 6.0A with optional Transformer refer to manual

Maximum Class-B Wiring Distance** (ft.)							Recommended Genesis Cables		
LOAD		0.5 A	1.0 A	1.5 A	2.0 A	2.5 A	Gen. Purpose FPL	Riser FPLR	Plenum FPLP
AWG	18 AWG	425	212	142	106	85	4106	4306	4506
	16 AWG	675	337	225	169	135	4111	4311	4511
	14 AWG	1,075	537	358	269	215	4113	4313	4513
	12 AWG	1,710	855	570	427	342	4115	4315	4515

*** Calculations are based on Direct-Current Resistance data for uncoated copper wire, per National Electrical Code (2011 Edition) Table 8, Conductor Properties.*

Digital Audio Loop

NOTIFIER® by Honeywell

Cable Description	Distance in Feet (m)	Recommended Genesis Cable		
		Gen. Purpose FPL	Riser FPLR	Plenum FPLP
18 AWG/2 C, Unshielded	750 (228.6)	4106	4306	4506
18 AWG/4 C, Unshielded	750 (228.6)	4107	4307	4507
18 AWG/1 Pair, Unshielded FPLP/ NYC LL5	450 ft. (121.9)	-	-	5500 (NYC LL4)

Noti-Fire-Net™

Cable Description	Data Threshold: All Nodes and/or Repeaters on a Cable Segment	Point-to-Point	Bus Configuration	Recommended Genesis Cables		
		2 Nodes/ Repeaters	3 to 7 Nodes/Repeaters	Gen. Purpose	Riser	Plenum
18 AWG/2 C, Shielded	High:	1-500	1-100	4202	4402	4602
	Low:	500-100	N/A			
16 AWG/2 C, Shielded	High:	1-500	1-100	4206	4406	4606
	Low:	500-100	N/A			
14 AWG/2 C, Shielded	High:	1-400	1-100	4208	4408	4608
	Low:	400-800	N/A			
24 AWG/3 Pair Cat 3	High:	1-1,400	1-100	4932	5032	5042
	Low:	1,200-2,000	N/A			
24 AWG/4 Pair Cat 3	High:	1-1,400	1-100	4933	5033	5043
	Low:	1,200-2,000	N/A			
24 AWG/6 Pair Cat 3	High:	1-1,400	1-100	4934	5034	5044
	Low:	1,200-2,000	N/A			
24 AWG/4 Pair Cat 5e	High:	1-1,400	1-100	-	5078	-
	Low:	1,200-2,000	N/A			
24 AWG/4 Pair Cat 5e	High:	1-800	1-100	-	-	5088
	Low:	800-1,400	N/A			

Fire Alarm Cables

18 AWG UNSHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
GENERAL PURPOSE - FPL LISTED					
18	2	SOL	6.5	20	4106
18	4	SOL	6.5	20	4107
RISER RATED - FPLR LISTED					
18	2	SOL	6.5	19	4306
18	4	SOL	6.5	19	4307
PLENUM RATED - FPLP LISTED					
18	2	SOL	6.5	24	4506
18	4	SOL	6.5	24	4507

18 AWG SHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
GENERAL PURPOSE - FPL LISTED					
18	2	SOL	6.5	42	4202
18	4	SOL	6.5	42	4203
RISER RATED - FPLR LISTED					
18	2	SOL	6.5	42	4402
18	4	SOL	6.5	42	4203
PLENUM RATED - FPLP LISTED					
18	2	SOL	6.5	68	4602
18	4	SOL	6.5	68	4603

16 AWG UNSHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
GENERAL PURPOSE - FPL LISTED					
16	2	SOL	4.2	20	4111
16	4	SOL	4.2	20	4112
RISER RATED - FPLR LISTED					
16	2	SOL	4.1	20	4311
16	4	SOL	4.2	20	4312
PLENUM RATED - FPLP LISTED					
16	2	SOL	4.2	27	4511
16	4	SOL	4.1	27	4512

16 AWG SHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
GENERAL PURPOSE - FPL LISTED					
16	2	SOL	4.1	46	4206
16	4	SOL	4.1	46	4207
RISER RATED - FPLR LISTED					
16	2	SOL	4.1	46	4406
16	4	SOL	4.1	46	4407
PLENUM RATED - FPLP LISTED					
16	2	SOL	4.1	77	4606
16	4	SOL	4.1	77	4607

14 AWG UNSHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
GENERAL PURPOSE - FPL LISTED					
14	2	SOL	2.6	22	4113
14	4	SOL	2.6	22	4114
RISER RATED - FPLR LISTED					
14	2	SOL	2.5	22	4313
14	4	SOL	2.5	22	4314
PLENUM RATED - FPLP LISTED					
14	2	SOL	2.5	27	4513
14	4	SOL	2.5	27	4514

14 AWG SHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
GENERAL PURPOSE - FPL LISTED					
14	2	SOL	2.5	52	4208
14	4	SOL	2.5	52	4209
RISER RATED - FPLR LISTED					
14	2	SOL	2.5	52	4408
14	4	SOL	2.5	52	4409
PLENUM RATED - FPLP LISTED					
14	2	SOL	2.5	86	4608
14	4	SOL	2.5	86	4609

12 AWG UNSHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
GENERAL PURPOSE - FPL LISTED					
12	2	SOL	1.6	22	4115
RISER RATED - FPLR LISTED					
12	2	SOL	2.5	22	4315
PLENUM RATED - FPLP LISTED					
12	2	SOL	1.6	30	4515

12 AWG SHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
GENERAL PURPOSE - FPL LISTED					
12	2	SOL	1.6	56	4210
RISER RATED - FPLR LISTED					
12	2	SOL	1.7	56	4410
PLENUM RATED - FPLP LISTED					
12	2	SOL	1.6	96	4610

Mid. Capacitance Fire Alarm Cables

MID. CAPACITANCE CABLES - UNSHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
RISER RATED - FPLR LISTED					
18	2	SOL	6.3	15	4431
16	2	SOL	4.0	17	4432
12	2	SOL	1.6	22	4434

MID. CAPACITANCE CABLES - SHIELDED

AWG	# COND	SOL/STR	DC RESISTANCE (OHMS)	NOM. CAP. (PF/FT)	PART #
RISER RATED - FPLR LISTED					
18	2	SOL	6.3	34	4441
16	2	SOL	4.0	38	4442
14	2	SOL	2.6	41	4443
12	2	SOL	1.6	48	4444

* For complete cable selection, including Direct Burial and NYC LL5 rated cable, see pages 35-44 in the Honeywell Cable and Custom Electronics catalog.

All Honeywell fire alarm cables are proudly produced in Pleasant Prairie, WI USA.