

APPENDIX E - INFI 90 CABLE SUMMARY

INTRODUCTION

Appendix E contains information on cables that may be supplied by Bailey as part of the procurement agreement. These cables are listed on drawings, schedules, or diagrams that are part of the hardware documentation for your system. **Table E-1** lists maximum cable length, maximum cable diameter, minimum bending radius and maximum pulling tension. Refer to **Table E-2** for communication network cable lengths.

NOTE: The cable lengths in the table are maximum lengths; refer to your hardware documentation for the exact length of specific cables in your system. The number in the cable nomenclature that follows the hyphen designates cable length in feet. Example: Type NKDS01-50 is 50 feet of digital station cable. Type NKPL01-1250 is 1,250 feet of Plant Loop cable. A zero in the fifth position of the cable nomenclature indicates PVC cable insulation. A one in the fifth position of the cable nomenclature indicates non-PVC cable insulation.

Table E-1. INFI 90 Cable Summary

Description	Nomenclature/ Part Number	Max. Length		Max. Cable Diameter		Min. Bending Radius		Max. Pulling Tension	
		m	ft	mm	in.	mm	in.	kg	lbs
Twisted pair, remote I/O serial link	R2041-1976 ¹	457	1500	3.73	0.147	29	1.14	5	11
Twisted pair, NDCS03 or IISAC01 station serial link		61	200						
Cold junction compensation	NKAI01	1.5	5	12.70	0.500	127	5	55	121
	NKAI11			12.95	0.510	152.4	6		
External alarm cable	NKAL01	61	200	4.83	0.190	36.6	1.44	7.7	17
I/O module termination cable	NKAS01/02	61	200	14.71	0.579	114.3	4.5	132.3	291
	NKAS11/12			15.88	0.625	139.7	5.5		
INFI-NET or Plant Loop coaxial cable	NKCL01	4000 ²	13123	10.29	0.405	147.3	5.8	27.3	60
	NKCL02/11			9.52	0.375	134.6	5.3		
NTDO01/02 termination unit cable	NKDO01	1.5	5	12.70	0.500	127	5	55	121
	NKDO11			12.95	0.510	152.4	6		
Analog control station (IISAC01) cable	NKCS01/02	137 ³	450	13.46	0.530	127	5	60	132
	NKCS11/12			14.10	0.555	152.4	6		
Digital control station (NDCS03) cable	NKDS01	122 ³	400	12.70	0.500	127	5	55	121
	NKDS02	83.8 ³	275						
	NKDS03	3.0	10						

Table E-1. INFI 90 Cable Summary (continued)

Description	Nomenclature/ Part Number	Max. Length		Max. Cable Diameter		Min. Bending Radius		Max. Pulling Tension	
		m	ft	mm	in.	mm	in.	kg	lbs
Digital logic station (NDLS02) with series connector	NKDS04	99	325	12.70	0.500	127	5	55	121
	NKDS05	3.0	10						
Digital control station (NDCS03) cable	NKDS11	122 ³	400	12.95	0.510	152.4	6	55	121
	NKDS12	83.8 ³	275						
	NKDS13	3.0	10	8.64	0.340	97.5	3.84	24.5	54
Digital logic station (NDLS02) with series connector	NKDS14	99	325	12.95	0.510	152.4	6	55	121
	NKDS15	3.0	10						
Loop interface cable	NKLM01	61	200	14.86	0.585	127	5	29.5	65
	NKLM11			14.73	0.580	177.8	7		
INNISO1 INFI-NET network interface I/O module termination cable	NKLS01/02/03/04	25	82	14.86	0.585	127	5	29.5	65
	NKLS11/12/13/14			14.73	0.580	177.8	7		
Coax video cable	NKMC01	91.4	300	6.27	0.247	50.8	2.0	5.5	12
	NKMC02	76.2	250	6.35	0.250	50.8	2.0	10	22
IMMFC03/04/05 multi-function controller module cable (redundant)	NKMF01	3.0	10	7.87	0.310	76.2	3	24.5	54
	NKMF02	1.8	6	12.70	0.500	76.2	3	55	121
IMMFP01/02/03 multi-function processor module cable (redundant)	NKMP01	1.8	6	12.70	0.500	76.2	3	55	121
	NKMP11			12.95	0.510	152.4	6		
	NKMP03	30	100	30 conductor ribbon, 22 AWG				11.3	<25
RS-232-C cable	NKMR01	91.4	300	Not available					
	NKMR02	76.2	250	7.5	0.295	50.8	2.0	11	36
INFI-NET or Plant Loop twinaxial cable	NKPL01/03	2000 ²	6561	10.92	0.430	102	4	34.1	75
	NKPL02/04/11/13					114.3	4.5		
Printer cable	NKPR01	21.3	70	30 conductor ribbon, 24 AWG				48.9	107.5
Expander bus cable	NKSB01	0.305	1	26 conductor ribbon, 28 AWG				16.5	36.4
Serial extension cable	NKSE01/02	61	200	7.87	0.310	76.2	3	24.5	54
	NKSE11			8.64	0.340	69.9	2.75		
Serial link cable	NKSL01/02	61	200	7.87	0.310	76.2	3	24.5	54
	NKSL11			8.64	0.340	69.9	2.75		
Digital control station (NDCS03) termination cable	NKTD01	0.609	2	12.70	0.500	127	5	55	121
	NKTD11			12.95	0.510	152.4	6		
Digital control station (NDCS03) termination cable	NKTD02	183	600	7.87	0.310	76.2	3	24.5	54
	NKTD12			8.64	0.34	97.5	3.84		
INFI-NET termination cable, coax	NKTL01-03	4	1.22	4.52	0.178	53.3	2.1	3.63	8

Table E-1. INFI 90 Cable Summary (continued)

Description	Nomenclature/ Part Number	Max. Length		Max. Cable Diameter		Min. Bending Radius		Max. Pulling Tension	
		m	ft	mm	in.	mm	in.	kg	lbs
Termination module cable	NKTM01/02/04	30	100	30 conductor ribbon, 22 AWG				11.3	<25
INFI-NET termination cable, TUs	NKTT01-3	4	1.22	4.52	0.178	53.3	2.1	3.6	8
Termination unit cable	NKTU01	61	200	13.84	0.545	165	6.5	79.1	174
	NKTU11			15.62	0.615	177.8	7		
Termination module cable	NKTU02	61	200	13.84	0.545	165	6.5	79.1	174
	NKTU12			15.62	0.615	177.8	7		

NOTES:

1. This cable is UL listed PLTC (power limited tray cable) and is suitable for use in Class I Division 2 hazardous locations.
2. Network communication rates affect the maximum length of this cable. Table E-2 lists maximum cable lengths for the communication rates of Bailey systems. For IISAC01 applications using the NKCL01/11 cable, refer to the Bailey product instruction, **Analog Control Station (IISAC01)**.
3. Maximum length for 1 station on systems using INFI 90 power systems. This maximum cable length varies with additional stations and from using Network 90[®] power systems. Refer to the IISAC01 product instruction for more information.

Table E-2. Communication Network Cable Lengths

Description	Nomenclature	System/ Communication Rate	Maximum Length ¹ m (ft)
INFI-NET or Plant Loop coaxial cable	NKCL01/02/11	INFI-NET at 2 Mbaud	4000 (13120)
		INFI-NET at 10 Mbaud	2000 (6562)
		Plant Loop	2000 (6562)
INFI-NET or Plant Loop twinaxial cable	NKPL01/02 NKPL03/04/11 NKPL13	INFI-NET at 2 Mbaud	2000 (6562)
		INFI-NET at 10 Mbaud	1000 (3281)
		Plant Loop	2000 (6562)

NOTE:

1. Maximum length is the length of the entire communication loop.

[®] Network 90 is a registered trademark of Eltag Bailey Process Automation.

