

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 | 8.64 | 0.340 | 97.5 | 3.84 | 24.5 | 54 |
| | NKDS13 | 3.0 | 10 | | | | | | |
| 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 | | |
| INNIS01 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.

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