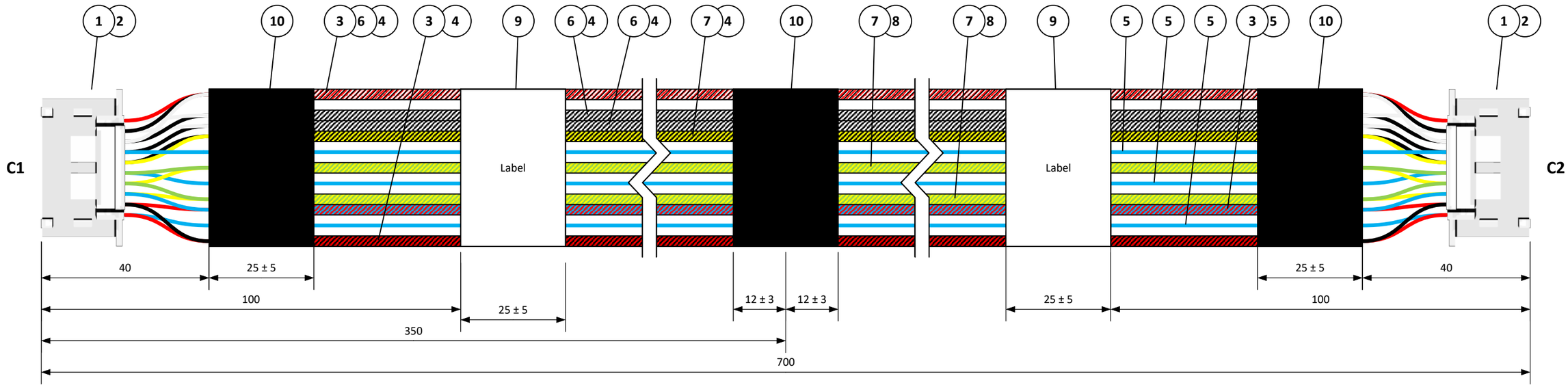
Bill of Materials

ID	Manufacturer	Manufacturer Part No.	Description	Qty.
1	JST	SPH-001T-P0.5L	Crimp Terminal, JST PAD, Socket, 26 AWG to 22 AWG, Tin Plated, Reel	40
2	JST	PADP-20V-1-S	Connector Housing, JST PAD, Socket, 20 Way	2
3	Alpha Wire	2845/19 RD005	Wire, 22 AWG (19/34), PTFE, 250 V, Red	2100 mm
4	Alpha Wire	2845/19 BK005	Wire, 22 AWG (19/34), PTFE, 250 V, Black	3500 mm
5	Alpha Wire	2845/19 BL005	Wire, 22 AWG (19/34), PTFE, 250 V, Blue	2100 mm
6	Alpha Wire	2845/19 WH005	Wire, 22 AWG (19/34), PTFE, 250 V, White	2100 mm
7	Alpha Wire	2845/19 YL005	Wire, 22 AWG (19/34), PTFE, 250 V, Yellow	2100 mm
8	Alpha Wire	2845/19 GR005	Wire, 22 AWG (19/34), PTFE, 250 V, Green	1400 mm
9	HellermannTyton	TULT9-3WH	Heat Shrink, Printable, Flat, 3:1, White, 9.0 mm to 3.0 mm, 72 m spool	50 mm
10	TE Connectivity	RNF-100-3/8-0-STK	Heat Shrink, 2:1, Black, 9.5 mm to 4.8 mm, 1.2m length	74 mm

Revision History

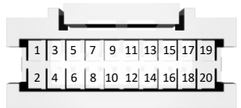
Rev.	Description
1.0	Original Release

Label Text
Harness v1.0 XXXXXX



Connector Housing Pin Numbering

Perspective of wires coming out of the connector housing towards viewer



Notes

1. Printable heat shrink tubing will be used for labels, and they shall contain information as shown in the “Label Text” box. “XXXXXX” shall be replaced with the assembly date.
2. All cut lengths listed in the BOM are approximate and are for guidance only.
3. Drawing shows dimensions for finished assembly.
4. Wires to be twisted as per IPC620 guidelines.

Dim.: mm	**Drawn By:** Richard Carter	**Tolerance (Unless Stated):**
Scale: Not to Scale	**Drawn On:** 04-Apr-2023	
Sheet Size: A3	**Sheet:** 1 of 2	
Rev: 1.0	**Drawing Title:** Harness	

≤ 100 mm	+5 mm -0 mm
> 100 - 200 mm	+8 mm -0 mm
>200 - 300 mm	+12 mm -0 mm
>300 - 1500 mm	+25 mm -0 mm
>1500 - 3000 mm	+50 mm -0 mm
>3000 - 7500 mm	+75 mm -0 mm
>7500 mm	+2.5% -0%

C1				
Pin	**Wire/Cable ID & Desc.**	**Colour**	**Crimp ID No.**	**Destination**
C1.1	3 - 22 AWG Red		1	C2.19
C1.3	4 - 22 AWG Black		1	C2.17
C1.2	5 - 22 AWG Blue		1	C2.20
C1.4	3 - 22 AWG Red		1	C2.18
C1.5	5 - 22 AWG Blue		1	C2.15
C1.6	7 - 22 AWG Yellow		1	C2.16
C1.7	8 - 22 AWG Green		1	C2.13
C1.8	7 - 22 AWG Yellow		1	C2.14
C1.9	8 - 22 AWG Green		1	C2.11
C1.10	5 - 22 AWG Blue		1	C2.12
C1.11	7 - 22 AWG Yellow		1	C2.9
C1.12	4 - 22 AWG Black		1	C2.10
C1.13	5 - 22 AWG Blue		1	C2.7
C1.14	4 - 22 AWG Black		1	C2.8
C1.18	6 - 22 AWG White		1	C2.4
C1.16	4 - 22 AWG Black		1	C2.6
C1.20	6 - 22 AWG White		1	C2.2
C1.15	6 - 22 AWG White		1	C2.5
C1.17	4 - 22 AWG Black		1	C2.3
C1.19	3 - 22 AWG Red		1	C2.1

C2				
Destination	**Crimp ID No.**	**Colour**	**Wire/Cable ID & Desc.**	**Pin**
C1.1	1		3 - 22 AWG Red	C2.19
C1.3	1		4 - 22 AWG Black	C2.17
C1.2	1		5 - 22 AWG Blue	C2.20
C1.4	1		3 - 22 AWG Red	C2.18
C1.5	1		5 - 22 AWG Blue	C2.15
C1.6	1		7 - 22 AWG Yellow	C2.16
C1.7	1		8 - 22 AWG Green	C2.13
C1.8	1		7 - 22 AWG Yellow	C2.14
C1.9	1		8 - 22 AWG Green	C2.11
C1.10	1		5 - 22 AWG Blue	C2.112
C1.11	1		7 - 22 AWG Yellow	C2.9
C1.12	1		4 - 22 AWG Black	C2.10
C1.13	1		5 - 22 AWG Blue	C2.7
C1.14	1		4 - 22 AWG Black	C2.8
C1.18	1		6 - 22 AWG White	C2.4
C1.16	1		4 - 22 AWG Black	C2.6
C1.20	1		6 - 22 AWG White	C2.2
C1.15	1		6 - 22 AWG White	C2.5
C1.17	1		4 - 22 AWG Black	C2.3
C1.19	1		3 - 22 AWG Red	C2.1

Dim.: mm	**Drawn By:** Richard Carter	**Tolerance (Unless Stated):**
Scale: Not to Scale	**Drawn On:** 04-Apr-2023	≤ 100 mm: +5 mm -0 mm > 100 - 200 mm: +8 mm -0 mm >200 - 300 mm: +12 mm -0 mm >300 - 1500 mm: +25 mm -0 mm >1500 - 3000 mm: +50 mm -0 mm >3000 - 7500 mm: +75 mm -0 mm >7500 mm: +2.5% -0%
Sheet Size: A3	**Sheet:** 2 of 2	
Rev: 1.0	**Drawing Title:** Harness	