

Motor Controller Enclosure

Bill of materials (aggregated)

No.	Wire harness name	Type	Part number	Manufacturer	Quantity / Length
1	MOCO_INTFC_TO_MOCO, MOCO_CAN, MOCO_AUX	Connector	MOL.43025-0600	MOLEX	5
2	MOCO_INTFC_TO_MOCO, MOCO_CAN, MOCO_AUX, FAN_PWR	Connector	MOL.43645-0200	MOLEX	6
3	MOCO_HV	Connector	AMP.ELRA3A03	Amphenol	1
4	MOCO_HV	Connector	AMP.ELRA2A03	Amphenol	1
5	MOCO_HV	Connectable object	PRO.PHLN-3000-0022	Prohelion	1
6	MTR_INTFC_TO_MOCO	Connector	MOL.43025-1400	MOLEX	2
7	MOCO_CAN, MOCO_AUX	Connector	MOL.47725-6010	MOLEX	2
8	MOCO_AUX	Connector	MOL.43025-0200	MOLEX	1
9	FAN_PWR	Connector	MOL.33472-1206	MOLEX	1
10	MOCO_INTFC_TO_MOCO, MTR_INTFC_TO_MOCO, MOCO_CAN, MOCO_AUX, FAN_PWR	Wire	20AWG-RED		1471 mm
11	MOCO_INTFC_TO_MOCO, MTR_INTFC_TO_MOCO, MOCO_CAN, MOCO_AUX, FAN_PWR	Wire	20AWG-BLK		2179 mm
12	MOCO_INTFC_TO_MOCO, MTR_INTFC_TO_MOCO, MOCO_AUX	Wire	20AWG-WHT		793.4 mm
13	MOCO_INTFC_TO_MOCO, MTR_INTFC_TO_MOCO, MOCO_AUX	Wire	20AWG-BLU		509.8 mm
14	MOCO_HV	Wire	6AWG-SIL-ORG		1580 mm
15	MTR_INTFC_TO_MOCO, MOCO_CAN, MOCO_AUX	Wire	20AWG-YEL		668 mm
16	MTR_INTFC_TO_MOCO	Wire	20AWG-BRN		84.87 mm
17	MTR_INTFC_TO_MOCO, MOCO_CAN	Wire	20AWG-GRN		379.7 mm
18	FAN_PWR	Braided sleeve	BS.000004	EPL	80.32 mm
19	FAN_PWR	Shrink tubing	ST.000001	EPL	21.78 mm

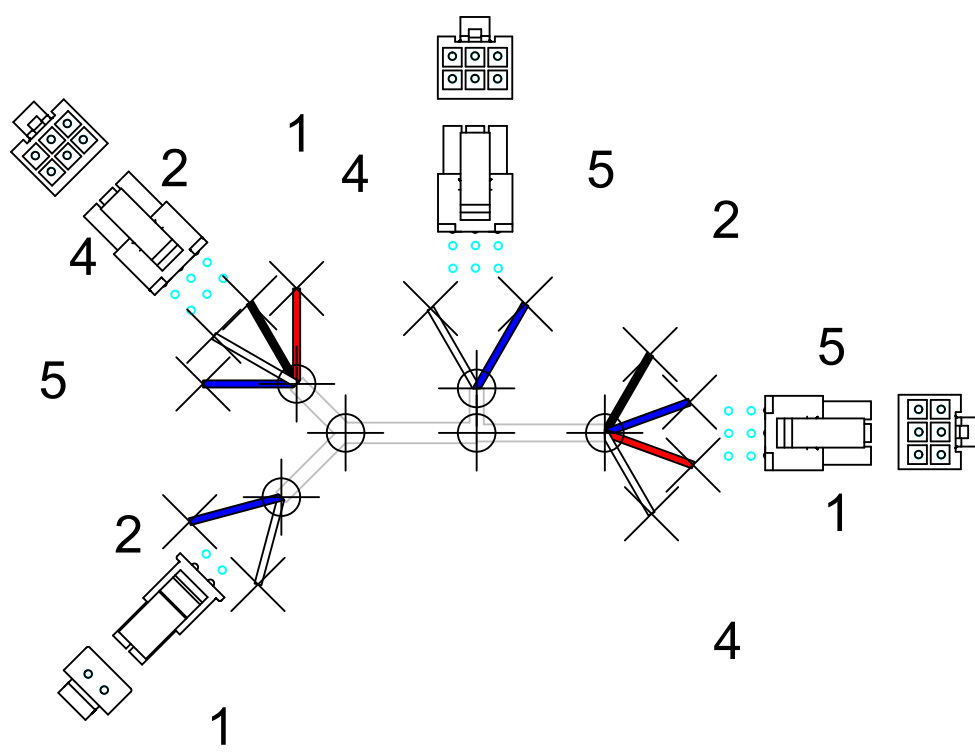
MOCO_INTFC_TO_MOCO

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	-				
2	-				
3	-				
4	CAN-H	20 AWG	59.41 mm	1	
5	CAN-L	20 AWG	60.69 mm	2	
6	-				

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	12VCAN	20 AWG	68.52 mm	1	
2	CGND	20 AWG	67.84 mm	2	
3	-				
4	CAN-H	20 AWG	68.46 mm	4	
5	CAN-L	20 AWG	67.77 mm	5	
6	-				

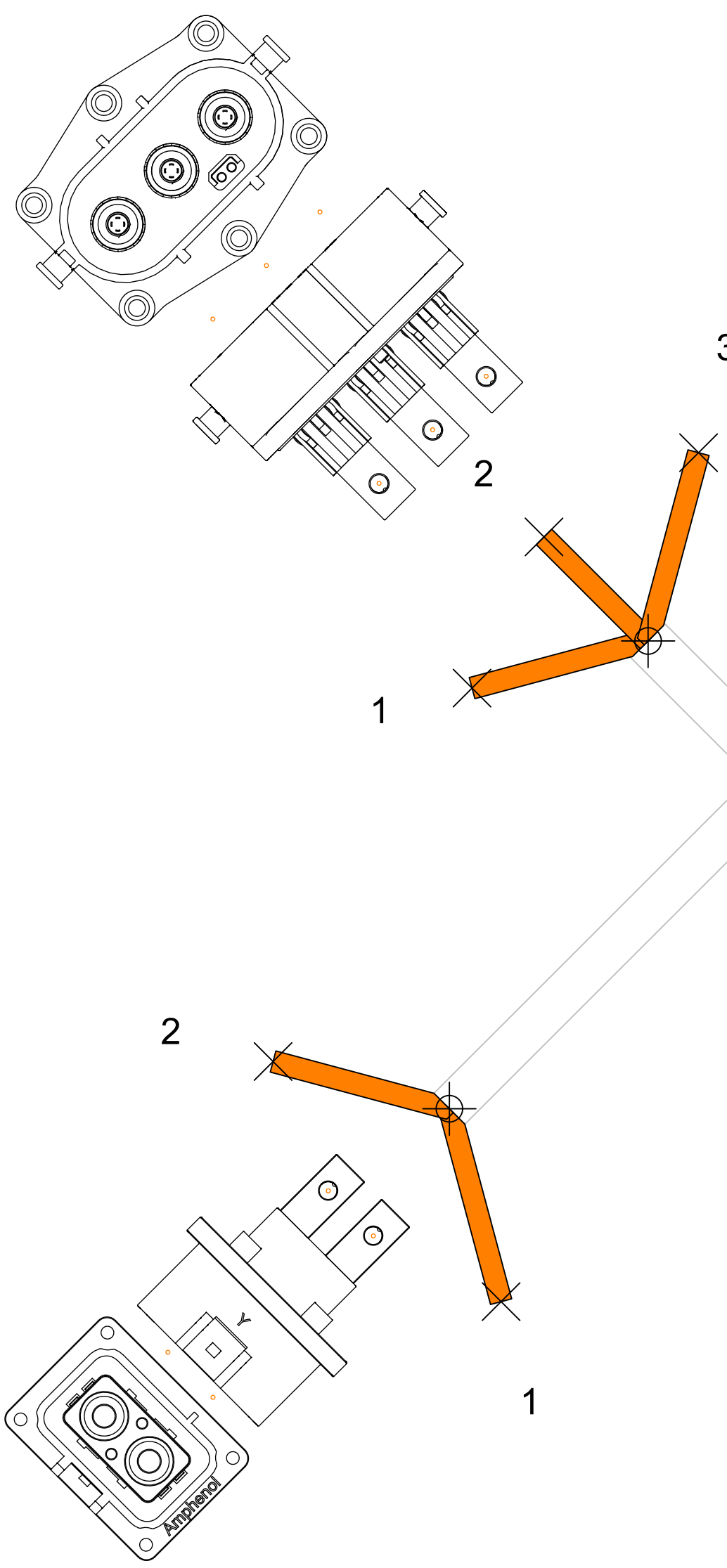
Pin from	Wire name	Cross-section	Length	Pin to	Color
1	CAN-H	20 AWG	59.41 mm	4	
2	CAN-L	20 AWG	60.69 mm	5	

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	12VCAN	20 AWG	68.52 mm	1	
2	CGND	20 AWG	67.84 mm	2	
3	-				
4	CAN-H	20 AWG	68.46 mm	4	
5	CAN-L	20 AWG	67.77 mm	5	
6	-				

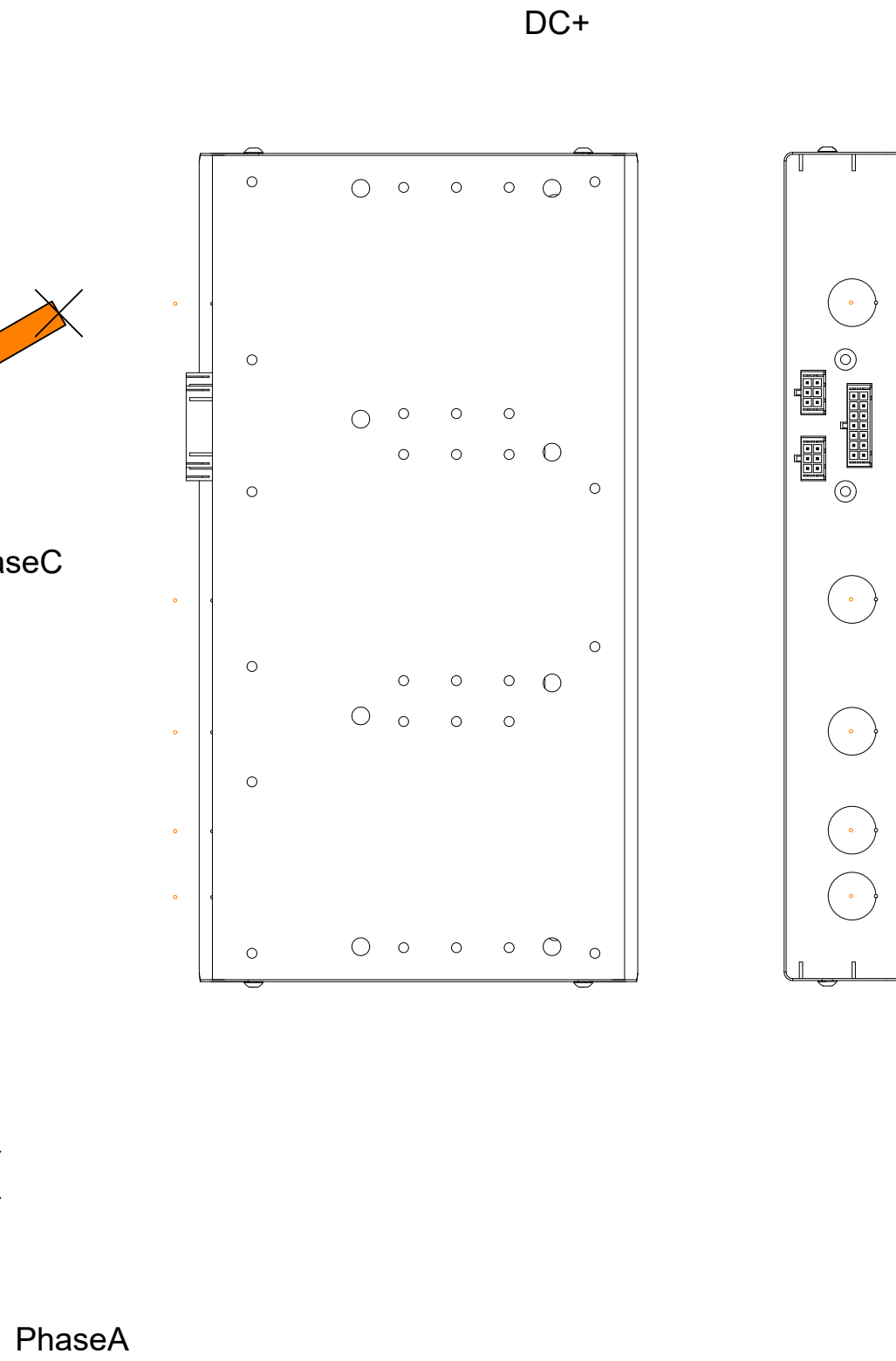


MOCO_HV

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	PhaseC	6 AWG	270.5 mm	PhaseC	
2	PhaseB	6 AWG	243.7 mm	PhaseB	
3	PhaseA	6 AWG	333.9 mm	PhaseA	



Pin from	Wire name	Cross-section	Length	Pin to	Color
DC-	BATT-	6 AWG	378.2 mm	1	
DC+	BATT+	6 AWG	353.5 mm	2	
PhaseA	PhaseA	6 AWG	333.9 mm	3	
PhaseB	PhaseB	6 AWG	243.7 mm	2	
PhaseC	PhaseC	6 AWG	270.5 mm	1	

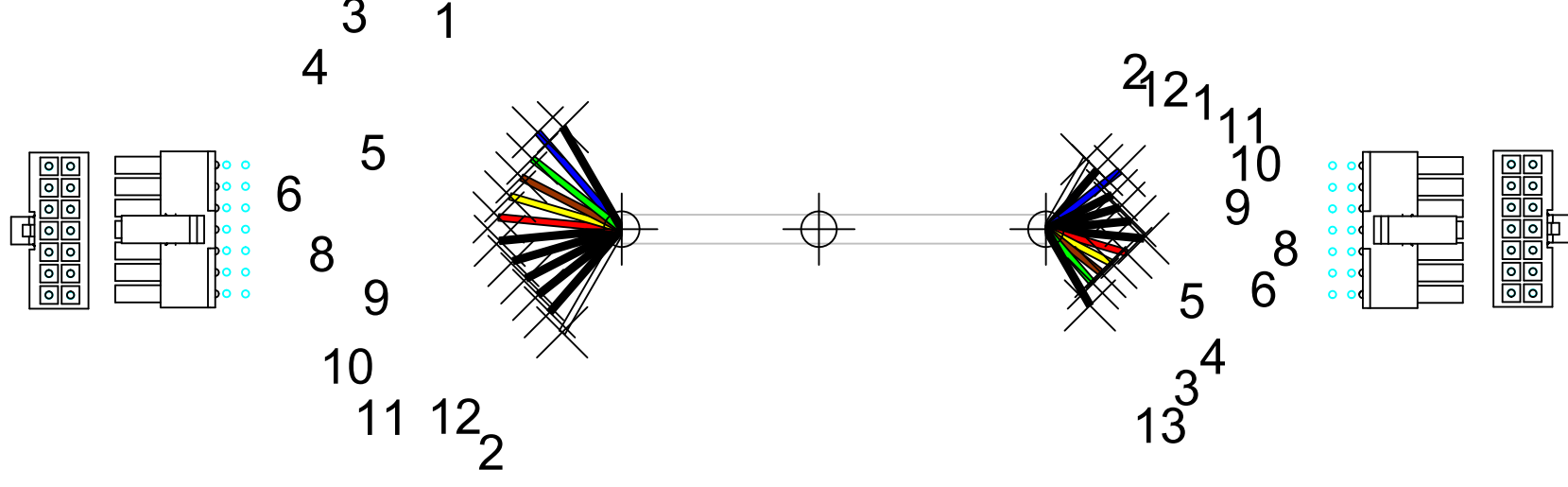


Pin from	Wire name	Cross-section	Length	Pin to	Color
1	BATT-	6 AWG	378.2 mm	DC-	
2	BATT+	6 AWG	353.5 mm	DC+	

Amphenol [ELRA2A03]

MTR_INTFC_TO_MOCO

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	SERIAL_RX+	20 AWG	90.48 mm	1	
2	H3/I_RX+	20 AWG	87.34 mm	2	
3	H2/B_RX+	20 AWG	85.36 mm	3	
4	H1/A_RX+	20 AWG	84.87 mm	4	
5	12V_OUT	20 AWG	85.97 mm	5	
6	5V_OUT	20 AWG	88.45 mm	6	
7	-				
8	SERIAL_RX-	20 AWG	90.25 mm	8	
9	H3/I_RX-	20 AWG	87.07 mm	9	
10	H2/B_RX-	20 AWG	85.12 mm	10	
11	H1/A_RX-	20 AWG	84.64 mm	11	
12	GND	20 AWG	85.72 mm	12	
13	GND	20 AWG	88.18 mm	13	
14	-				

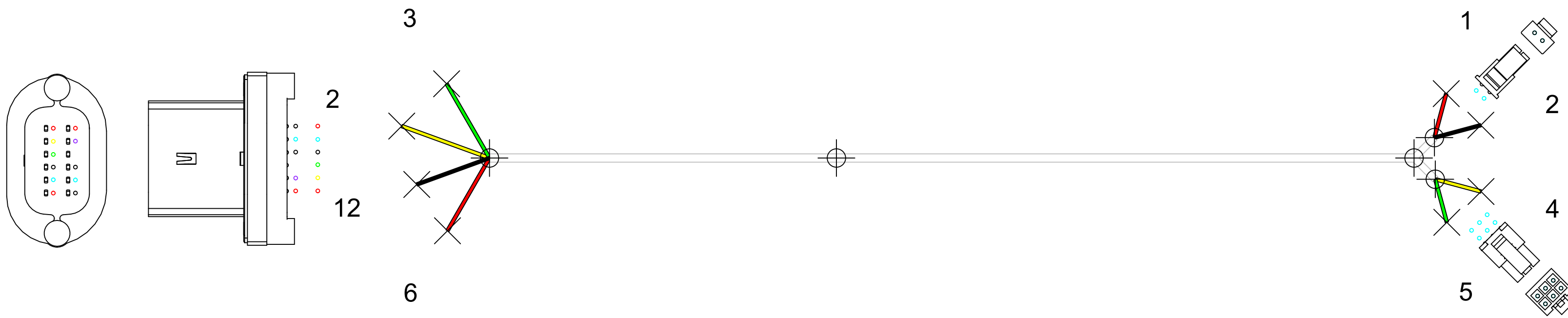


Pin from	Wire name	Cross-section	Length	Pin to	Color
1	SERIAL_RX+	20 AWG	90.48 mm	1	
2	H3/I_RX+	20 AWG	87.34 mm	2	
3	H2/B_RX+	20 AWG	85.36 mm	3	
4	H1/A_RX+	20 AWG	84.87 mm	4	
5	12V_OUT	20 AWG	85.97 mm	5	
6	5V_OUT	20 AWG	88.45 mm	6	
7	-				
8	SERIAL_RX-	20 AWG	90.25 mm	8	
9	H3/I_RX-	20 AWG	87.07 mm	9	
10	H2/B_RX-	20 AWG	85.12 mm	10	
11	H1/A_RX-	20 AWG	84.64 mm	11	
12	GND	20 AWG	85.72 mm	12	
13	GND	20 AWG	88.18 mm	13	
14	-				

MOCO_CAN

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	-				
2	CAN-H	20 AWG	297.1 mm	4	
3	CAN-L	20 AWG	294.3 mm	5	
4	-				
5	-				
6	Fusebox+	20 AWG	293.8 mm	1	
7	-				
8	-				
9	-				
10	-				
11	-				
12	Fusebox-	20 AWG	292.6 mm	2	

Mouser [538-47725-6010]



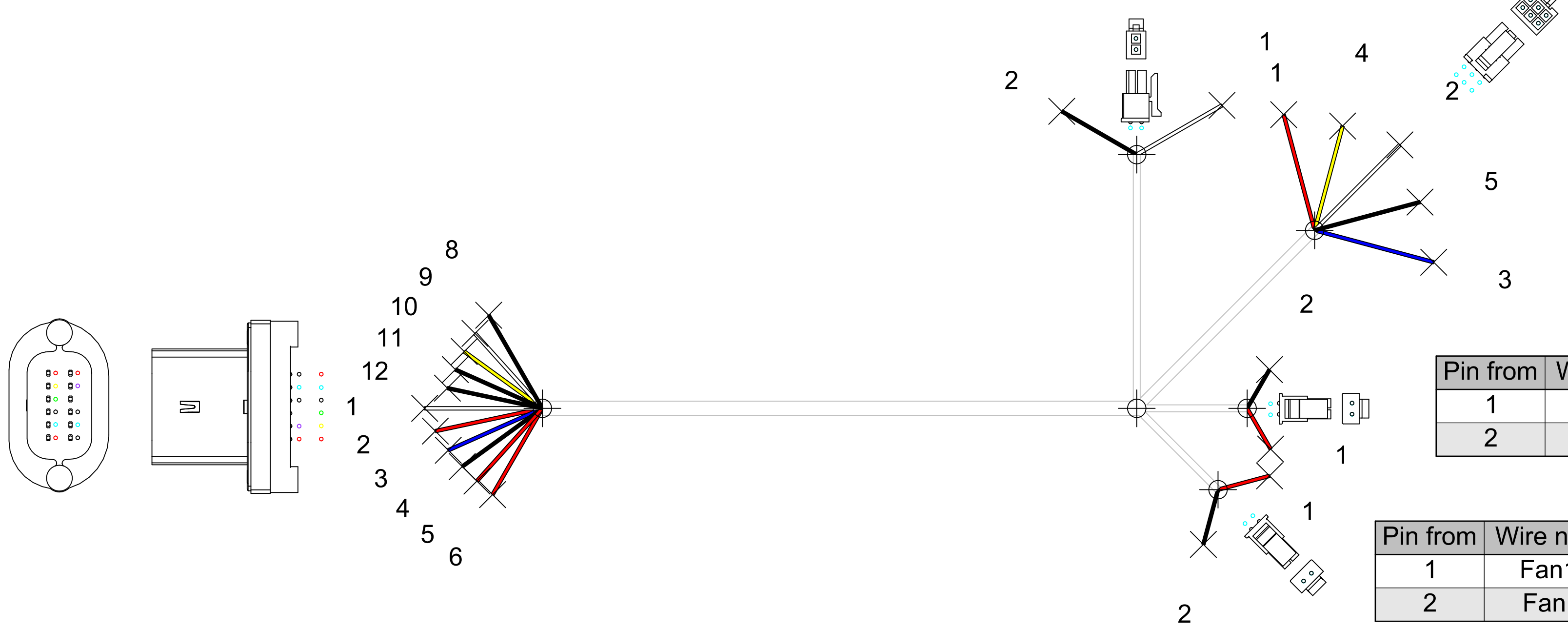
Pin from	Wire name	Cross-section	Length	Pin to	Color
1	Fusebox+	20 AWG	293.8 mm	6	
2	Fusebox-	20 AWG	292.6 mm	12	

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	-				
2	-				
3	-				
4	CAN-H	20 AWG	297.1 mm	2	
5	CAN-L	20 AWG	294.3 mm	3	
6	-				

MOCO_AUX

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	NTC_INP	20 AWG	288.6 mm	1	
2	HALL1_INP	20 AWG	291.6 mm	1	
3	HALL3_INP	20 AWG	290.9 mm	3	
4	POS_GND	20 AWG	285.9 mm	5	
5	Fan2+	20 AWG	230.5 mm	1	
6	Fan1+	20 AWG	233.9 mm	1	
7	-				
8	TEMP_GND	20 AWG	282.6 mm	2	
9	HALL2_INP	20 AWG	289.5 mm	2	
10	HALL_PWR	20 AWG	284.9 mm	4	
11	Fan2-	20 AWG	229.1 mm	2	
12	Fan1-	20 AWG	234.1 mm	2	

Mouser [538-47725-6010]



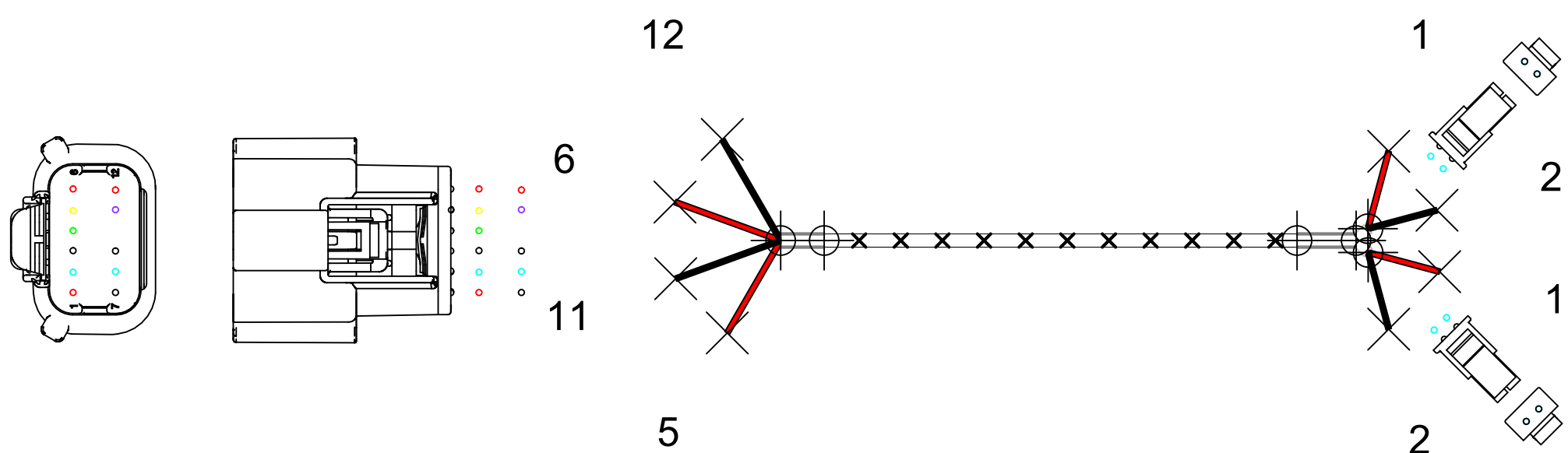
Pin from	Wire name	Cross-section	Length	Pin to	Color
1	HALL1_INP	20 AWG	291.6 mm	2	
2	HALL2_INP	20 AWG	289.5 mm	9	
3	HALL3_INP	20 AWG	290.9 mm	3	
4	HALL_PWR	20 AWG	284.9 mm	10	
5	POS_GND	20 AWG	285.9 mm	4	
6	-				

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	Fan2+	20 AWG	230.5 mm	5	
2	Fan2-	20 AWG	229.1 mm	11	

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	Fan1+	20 AWG	233.9 mm	6	
2	Fan1-	20 AWG	234.1 mm	12	

FAN_PWR

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	-				
2	-				
3	-				
4	-				
5	Fan2+	20 AWG	131.3 mm	1	
6	Fan1+	20 AWG	133.3 mm	1	
7	-				
8	-				
9	-				
10	-				
11	Fan2-	20 AWG	133.1 mm	2	
12	Fan1-	20 AWG	132.6 mm	2	



Pin from	Wire name	Cross-section	Length	Pin to	Color
1	Fan1+	20 AWG	133.3 mm	6	
2	Fan1-	20 AWG	132.6 mm	12	

Pin from	Wire name	Cross-section	Length	Pin to	Color
1	Fan2+	20 AWG	131.3 mm	5	
2	Fan2-	20 AWG	133.1 mm	11	