32-Bit HUMAC Interface

1. Three 16-bit analog outputs, 1 digital direction output.
2. Output range is ±10v.
3. HUMAC Program allows the user to set the output Gain, Offset, and Rectification.

NORM

The Auxiliary Outputs are accessible via the DB-9 connector at the rear of the HUMAC Interface. Mating connector is DB-9 Male. Amp 747904-2 or equivalent.
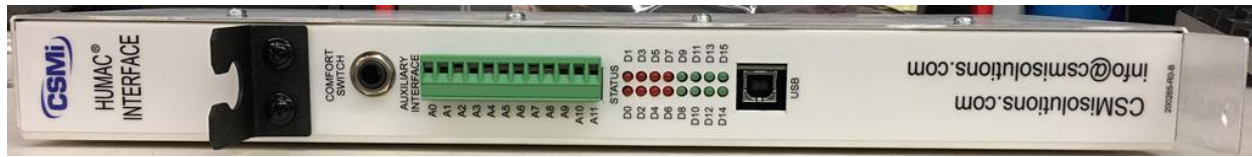
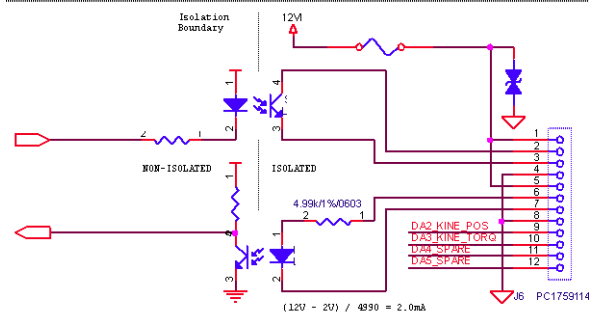| PIN	SIGNAL
1	COMMON
2	COMMON
3	COMMON
4	COMMON
5	COMMON
6	POSITION
7	TORQUE
8	VELOCITY
9	DIRECTION

Biodex System2, System3

The Auxiliary Outputs are accessible via J15 on the HUMAC interface. Mating connector is CST-100 Housing & Terminals (8-Position). Housing is AMP 770602-8 or equivalent. Terminals are AMP 770666-1 or equivalent.

PIN	SIGNAL
1	POSITION
2	COMMON
3	TORQUE
4	COMMON
5	VELOCITY
6	COMMON
7	DIRECTION
8	COMMON

64-Bit Interface

1. Four 14-bit analog outputs, 1 digital sync input, 1 digital sync output and a +12v supply.
2. Output range is ±10v.
3. All Auxiliary signals are electrically isolated.
4. HUMAC Program allows the user to set the output Gain, Offset, and Rectification.

NORM, Biodex System2

The Auxiliary Outputs are accessible via the green screw-type connector at the front of the HUMAC Interface.

POS	LABEL	SIGNAL	DESCRIPTION
12	A0	DIRECTION	16-BIT ANALOG DIRECTION
11	A1	VELOCITY	16-BIT ANALOG VELOCITY
10	A2	TORQUE	16-BIT ANALOG TORQUE
9	A3	POSITION	16-BIT ANALOG POSITION
8	A4	GROUND	GROUND
7	A5	SYNC_IN_0	DIGITAL SYNC INPUT
6	A6	SYNC_IN_1	DIGITAL SYNC INPUT
5	A7	+12V	+12V
4	A8	GROUND	GROUND
3	A9	SYNC_OUT_0	DIGITAL SYNC OUT EMITTER
2	A10	SYNC_OUT_1	DIGITAL SYNC OUT BASE
1	A11	+12v	+12V

Biodex System3, System4

The Auxiliary Outputs are accessible via the DB-15 connector at the rear of the Biodex servo cart bottom tray. **Note:** *Requires HUMAC Internal Biodex Aux Output adapter cable.*

DB-15 PIN	SIGNAL	DESCRIPTION
1	COMMON	COMMON
2	TORQUE	16-BIT ANALOG TORQUE
3	VELOCITY	16-BIT ANALOG VELOCITY
4	POSITION	16-BIT ANALOG POSITION
5	SYNC_OUT	SYNC_OUT (NOT USED)
6-9	RESERVED	DO NOT USE
10	COMMON	COMMON
11-15	N/C	NO CONNECTION