Back ARM IMD Test Cable

Model Number: THRSLTCA1081

Overview

The Back ARM IMD Test Cable is designed to interface the manipulator's back arm Integrated Motor Drive (IMD) with power, communication, and feedback subsystems. It supports motor phases, encoder channels, hall sensors, brakes, CAN bus, and limit switch signals through rugged MIL-grade connectors.

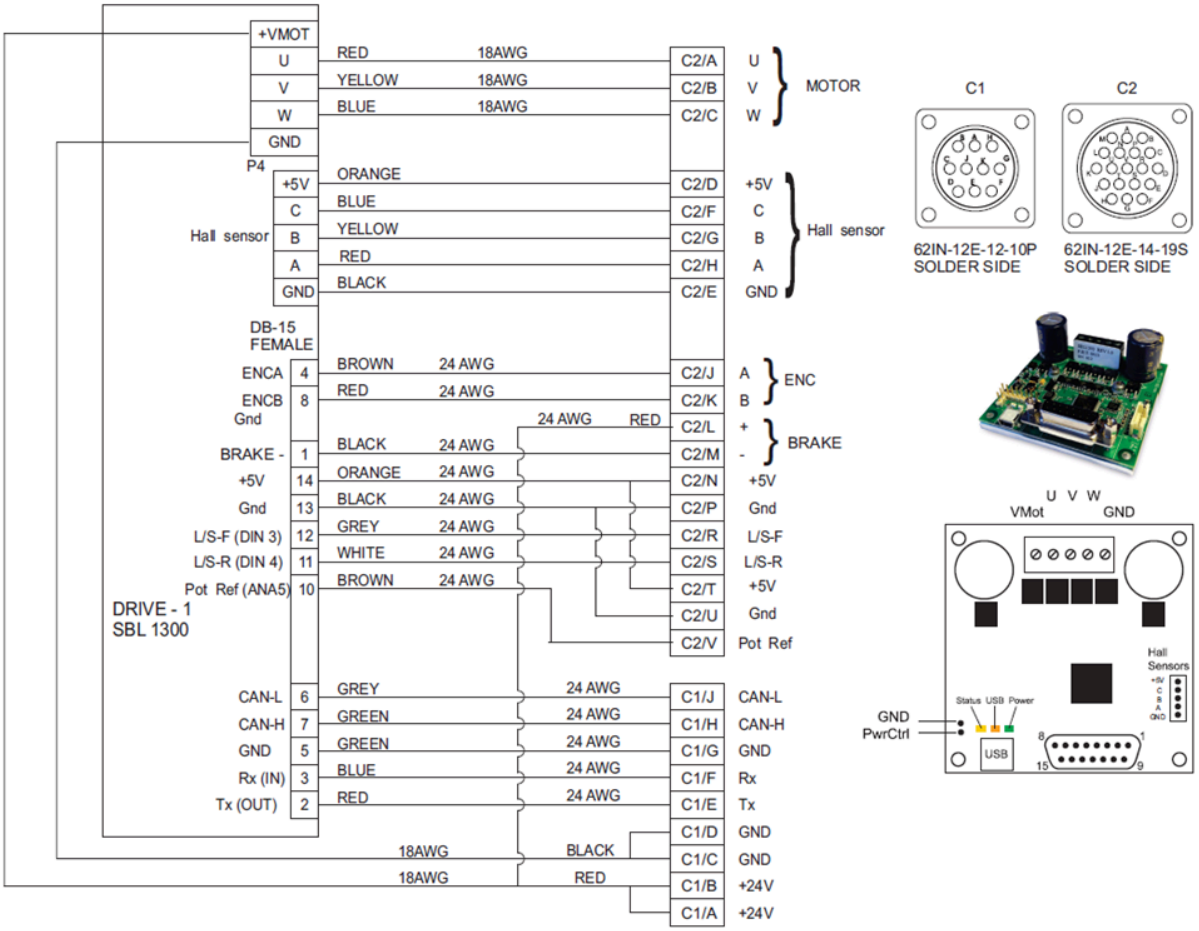
Proven in the **UXOR project supplied to the Indian Air Force (IAF)**, this cable ensures robust testing and validation under mission-critical conditions.

Technical Specifications

Parameter	Specification
Function	Power, control, and feedback interface for back arm IMD
Connectors	C1: 62IN-12E-12-10P C2: 62IN-12E-14-19S
Supported Signals	Motor, Hall sensors, Encoders, Brake, CAN bus, Limit switches, POT
Cable Construction	Shielded PTFE wiring, rugged boots and transitions
Protection Standard	IP65
Operating Temperature	–20°C to +55°C

Pin Configuration (Combined Table)

Connector	Pin	Signal	Connector	Pin	Signal
C1	A	+24V	**C2**	A	U (Motor)
	B	+24V		B	V (Motor)
	C	GND		C	W (Motor)
	D	GND		D	+5V (Hall)
	E	Tx (RS-232)		E	GND (Hall)
	F	Rx (RS-232)		F	C (Hall)
	G	GND		G	B (Hall)
	H	CAN-H		H	A (Hall)
	J	CAN-L		J	ENC A
				K	ENC B
				L	BRAKE +
				M	BRAKE –
				N	+5V (Limit SW)
				P	GND (Limit SW)
				R	L/S-F
				S	L/S-R
				T	+5V (POT)
				U	GND (POT)
				V	POT-REF



Key Features

- Comprehensive support for **motor, feedback, and control signals** in one harness.
- CAN-H / CAN-L integrated for robust communication.
- Supports motor phases (U, V, W), encoder channels, hall sensors, and brakes.
- Rugged Amphenol MIL-grade connectors ensure field reliability.
- Shielded PTFE wiring with EMI/EMC protection.
- Proven under harsh defense field conditions.

Applications

- Testing and validation of back arm manipulator IMD systems.
- Bench and field integration for defense-grade robotics.
- Subsystem connectivity for UXOR platforms.
- **Back arm IMD validation (field-proven in IAF deployment).**

Note

The Back ARM IMD Test Cable is part of THRSL's standard cable suite, tailored for robotic IMD applications. Custom harnesses can be developed for alternate connector configurations, added signal lines, or specific cable lengths.