

MC Test Cable at Connector C6-VMM

Model Number: THRSLTCA1051

Overview

The MC Test Cable at Connector C6-VMM is a multi-branch harness designed to provide power, CAN communication, vibration and range sensor interfacing, and nozzle sensor connectivity for subsystem testing. It integrates MIL-grade connectors with PTFE-insulated shielded wiring, ensuring rugged field reliability.

Proven in the **UXOR project supplied to the Indian Air Force (IAF)**, it has demonstrated robust performance in subsystem validation and integration.

Technical Specifications

Parameter	Specification
Function	Multi-signal test harness for MC at Connector C6-VMM
Connectors	A-End: Amphenol 62IN-56T-20-41S (MC C6) B-End: Amphenol 62IN-56T-18-32P (Breakout) C-End: TNC Male (VDPU C13 Wrist Camera)
Cable Lengths	A-B: 2100 ±100 mm B-C: 3000 ±100 mm Branch: 2000 ±50 mm
Supported Signals	+24V, +12V, CAN-H, CAN-L, GND, Tx/Rx (serial), vibration sensor, range sensor, nozzle sensor, video
Cable Construction	PTFE insulated, shielded wiring with rugged transitions
Protection Standard	IP65
Operating Temperature	−20°C to +55°C

Pin Configuration (Start → End Mapping)

Power Lines

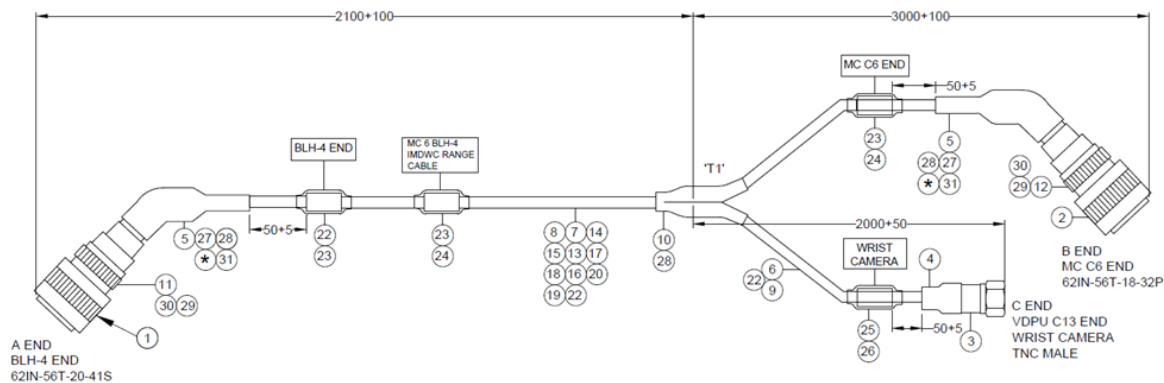
MC C6 (A-End)	Signal	Wire Color	Destination (B-End)
A, B, C, F	+24V	Red	+24V pins (Breakout)
D, E, G	GND	Black	GND pins (Breakout)

CAN Bus

MC C6 (A-End)	Signal	Wire Color	Destination (B-End)
H	CAN-L	Brown	CAN-L
J	CAN-H	Grey	CAN-H

Vibration Sensor (VYM S1)

MC C6 (A-End)	Signal	Wire Color	Destination
M	+12V	Yellow	Sensor +12V
N	GND	Black	Sensor GND
P	TX2	Black	Sensor Tx
R	RX2	Red	Sensor Rx
S	GND	Green	Signal GND



Range Sensor (VYM S1)

MC C6 (A-End)	Signal	Wire Color	Destination
T	+24V	Red	Sensor +24V
U	GND	Black	Sensor GND
V	TX3	White	Sensor Tx
W	RX3	White	Sensor Rx
X	GND	White	Signal GND

Nozzle Sensor (VYM S2)

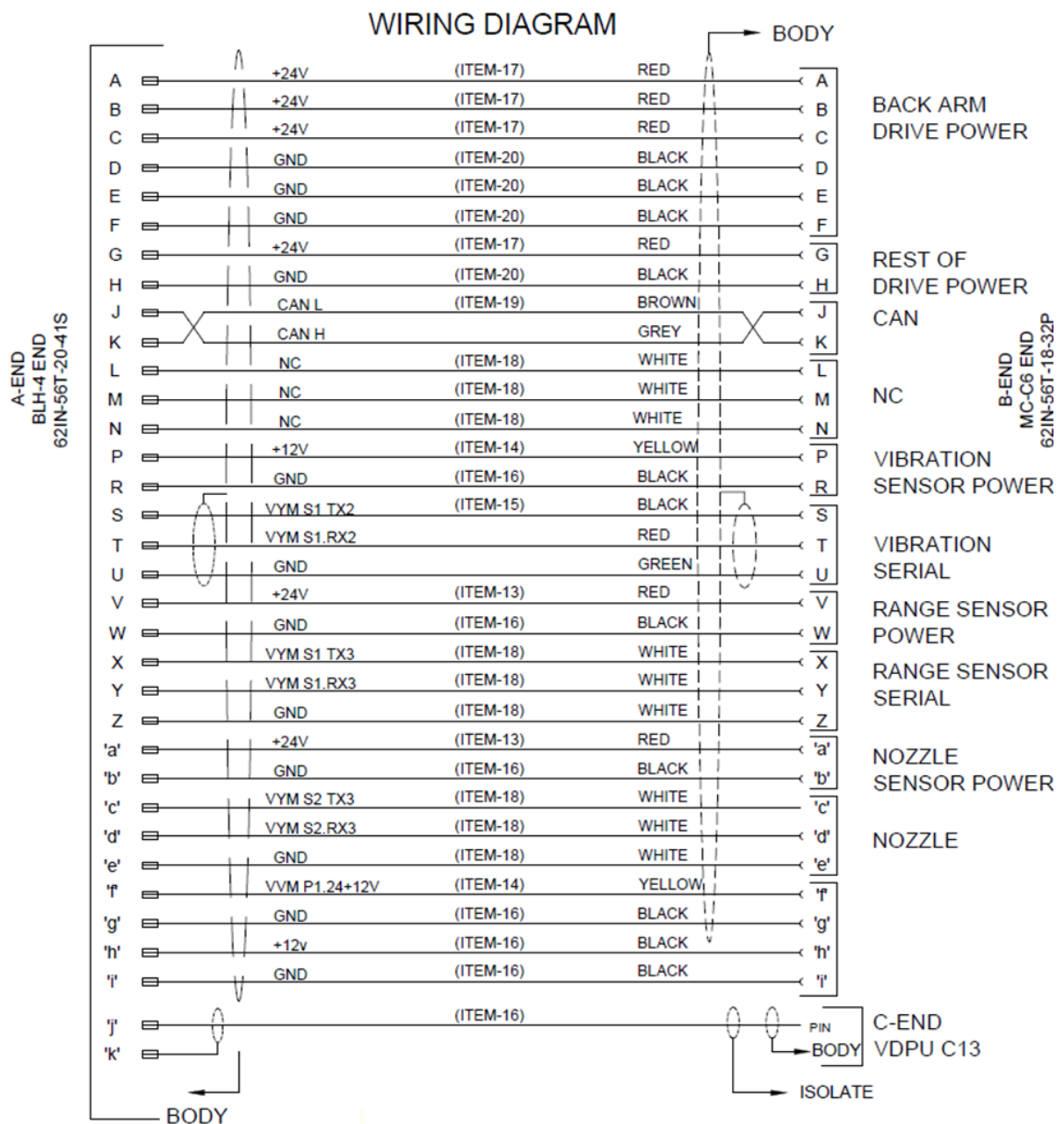
MC C6 (A-End)	Signal	Wire Color	Destination
Y	+24V	Red	Nozzle Power
Z	GND	Black	Nozzle GND
a	TX3	White	Nozzle Tx
b	RX3	White	Nozzle Rx
c	GND	White	Signal GND
d, f, h	+12V	Yellow/Black	Aux +12V
e, g, i	GND	Black	Aux GND

Wrist Camera (Video Feed)

C-End (TNC)	Signal	Destination
Center Pin	Video	VDPU C13 (Video In)
Shield	GND	VDPU C13 (Ground)

Shielding

- Cable braid and connector shells are continuous end-to-end for EMI/EMC protection.



Key Features

- Multi-branch harness supporting **power, CAN, serial, and sensor signals**.
- Rugged Amphenol and TNC connectors.
- Shielded PTFE wiring with EMI/EMC protection.
- Optimized harness lengths with strain relief at all transitions.
- Proven durability under vibration and harsh environments.

Applications

- Testing and validation of **MC subsystems**.
- Integration of vibration, range, and nozzle sensors.
- Wrist camera video and power interfacing.
- **UXOR robotic platform testing (field-proven in IAF deployment)**.

Note

The MC Test Cable at Connector C6-VMM is part of THRSL's standard cable suite, designed for multi-signal interfacing in defense robotics. Custom harnesses can be developed to support alternate connector types, additional sensor feeds, or extended cable lengths.