



RCI-1502 Tension Based System

SINGLE & TWIN WINCH STRUT BOOM CRANES

Instruction Manual



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5.4. Calibrating Load on the MAIN Winch

5.4.1. Calibrating Light Main Load

- Safely lift a light, known test load off the ground, the load should be heavy enough to produce approximately 10% of the maximum single linepull of the main winch (or if not available, just lift the empty main hook block),
- Enter calibration mode, if not already activated, and select the correct function code (F-02) for calibrating a light load on the main winch,
- Use the UP/DOWN keys to ramp the display to the required value, i.e. the total weight of the light load lifted (or if not available, the weight of the empty main hook block),
- Press ENTER to accept value. Proceed to next Section 5.4.2. "Calibrating Heavy Main Load".

5.4.2. Calibrating Heavy Main Load

- Safely lift a heavy, known test load off the ground, the load should be heavy enough to produce approximately 75% of the maximum single linepull of the main winch,
- Enter calibration mode, if not already activated, and select the correct function code (F-03) for calibrating a heavy load on the main winch,
- Use the UP/DOWN keys to ramp the display to the required value, i.e. the total weight of the heavy load lifted (including the weight of the main hook block and all rigging accessories used),
- Press ENTER to accept value. For Twin Winch cranes, proceed to Section 5.5. "Calibrating Load on the Aux Winch".

Verify that the MAIN LOAD is accurately measured, using the VIEW CALIBRATED MAIN LOAD (F-01) function.

7. Electrical Specifications

Power Supply Input (VDC)

Range: 10 VDC - 40 VDC

Power Consumption

< 1 amp (in full alarm)

Temperature Range

Operating: -20°C to +70°C

Digital Inputs

Total of three (3) digital inputs for connecting slew/proximity switches for monitoring different zones of operation, and/or for connecting other types of switches for any special crane requirement/application. Refer to Section 4. "Installation" of the manual for application details.

Motion Cut Relay Output

One (1) standard motion cut relay output available for wiring to crane lockout solenoids to inhibit crane motion when on overload/alarm condition. The relay fitted in the Switchbox is rated 10A @ 30 VDC. A spare 12 VDC relay is also supplied with the installation kit for use on 12 VDC cranes. Refer to Section 4. "Installation" of the manual for application details.

Sensors

Load Sensor/s

Capacity: Various capacities to suit application
Excitation Voltage: 4.0 VDC regulated (provided by the Display unit)
Linearity: 0.15% nominal
Repeatability: > 0.10%
Hysteresis: < 0.10%
Creep: < 0.10%
Output: 1, 2, or 3 mV/V nominal
Isolation: > 2000 MOhms at 50 VDC
Overload: 150% (no electrical damage)
> 400% (ultimate)

Temperature Effects:

On Zero: < 0.006% / °C

On Span: < 0.005% / °C

Compensated Range: -10°C to +70°C

Sealing: IP68 fully encapsulated

Pin/Wire Connections:

Pin A	Black	Negative Excitation
Pin B	White	Negative Signal
Pin C	Red	Positive Excitation
Pin D	Green	Positive Signal
Pin E	Screen	Screen

Expected Resistances (for a standard 350-Ω cell):

Red - Black 300 - 600 Ω

Red - Green 200 - 400 Ω

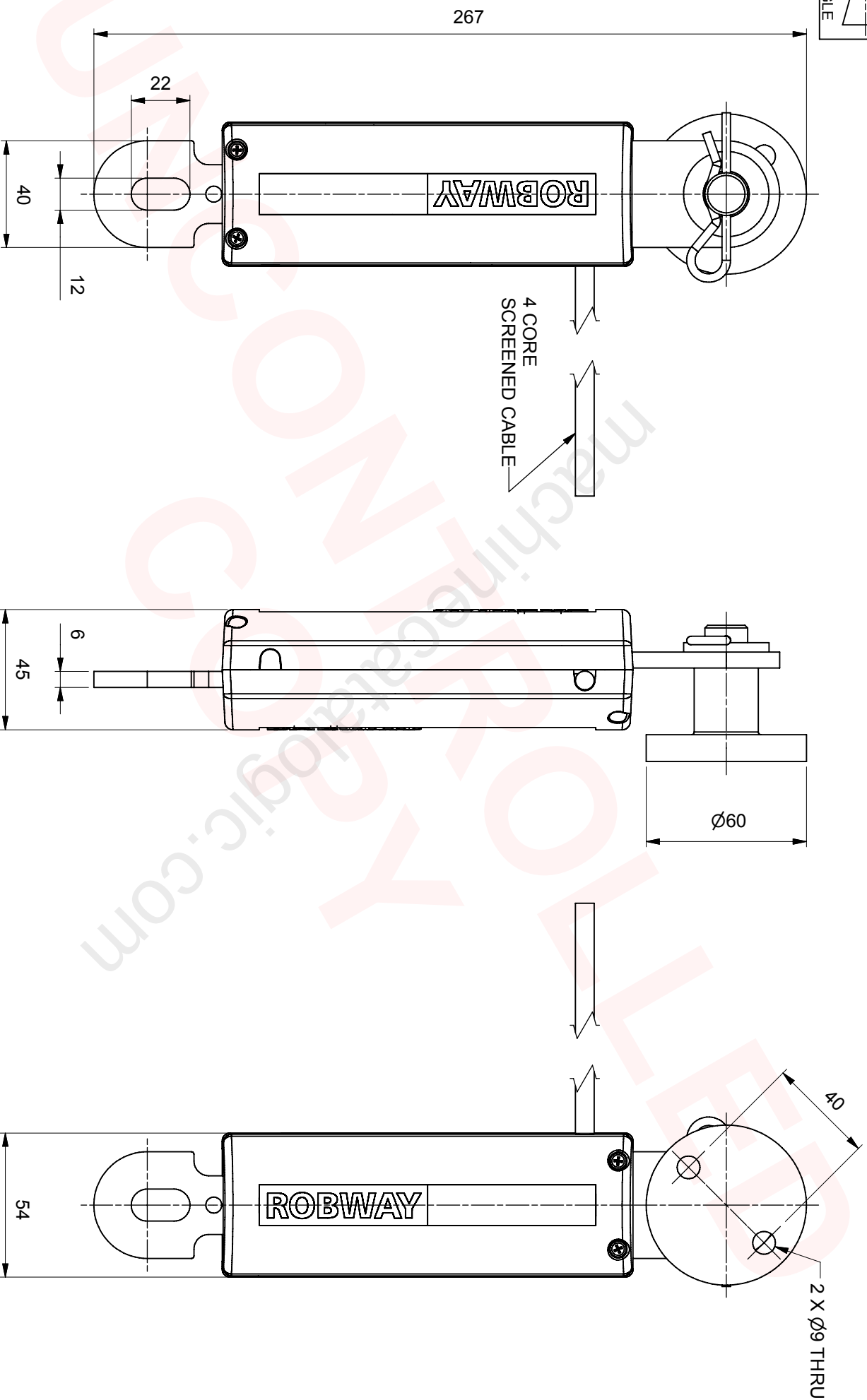
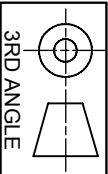
Red - White 200 - 400 Ω

Black - Green 200 - 400 Ω

Black - White 200 - 400 Ω

White - Green 350 Ω ± 2 Ω

Shield/Screen to any other wire must be open circuit

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REV	DATE	DESCRIPTION OF CHANGE	APPRVD	TOL: X. +/1 X.X +/0.2 X.XX +/0.02		DRAWN BY S. CHAMBERS	APPROVED BY A. CANLAS	PART OF ASSY -	PART No: SWISBB5	PROJECT: BB5 ATB SWITCH	
				DO NOT SCALE DRAWING ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED				32 West Thebarton Rd THEBARTON SOUTH AUSTRALIA 5031 PHONE: +61 8 8238 3500 FAX: +61 8 8352 1884	DIMENSIONAL DETAIL		
									DRAWING No: DWG 2934		
									FILE No:	293401AA.idw	REV 1.0
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Robway RCI-1502 Load Moment Indicator Service Manual

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