

MRS-RTU-3-0-00-A01--X

GEARBOX MODEL  
 ATB-170\_\_\_\_  
 RATIO: \_\_\_\_\_

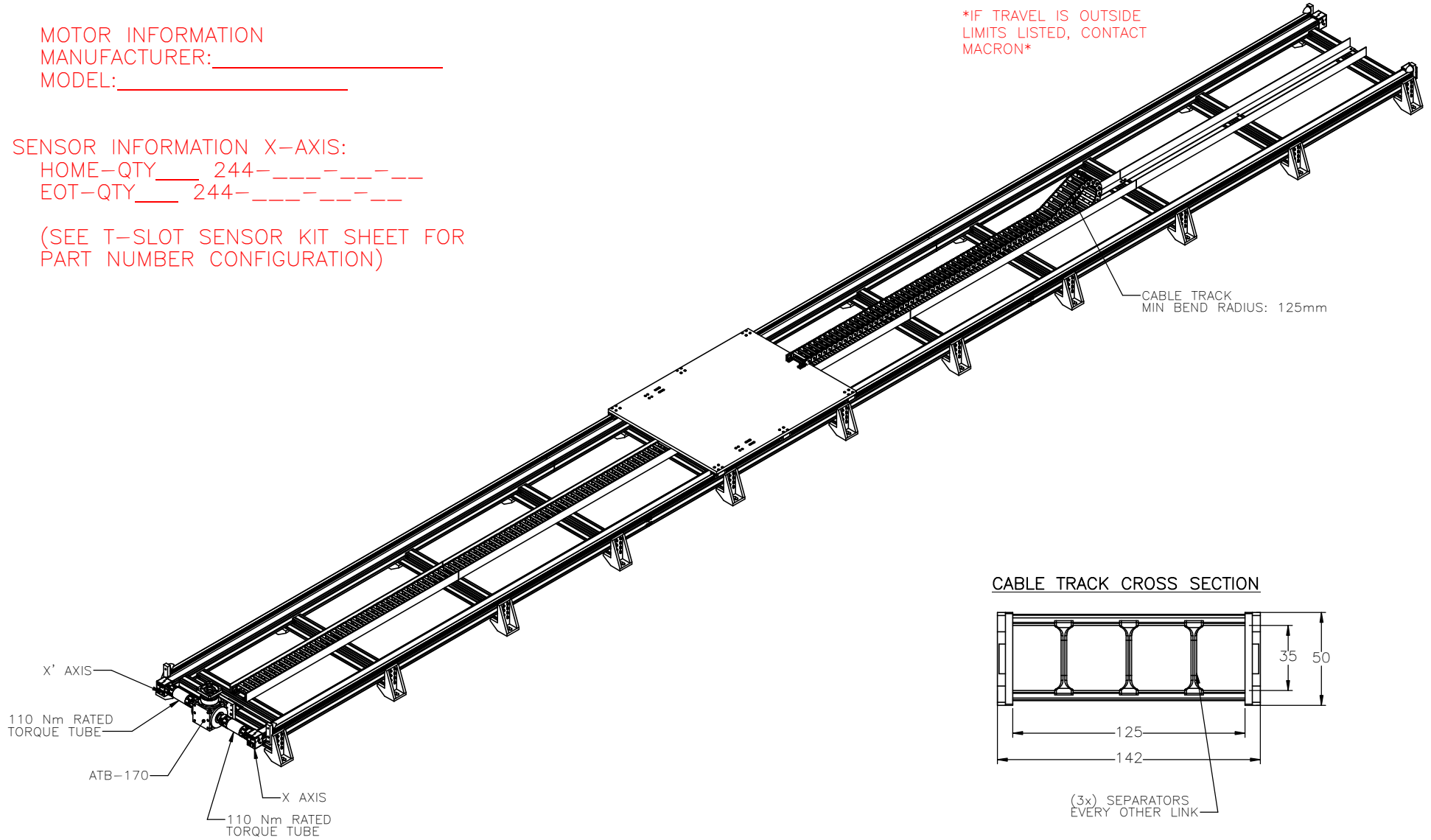
**ENTER**  
 TRAVEL IN INCREMENTS OF 25mm  
 TRAVEL LIMITS: 250mm-16300mm

\*IF TRAVEL IS OUTSIDE  
 LIMITS LISTED, CONTACT  
 MACRON\*

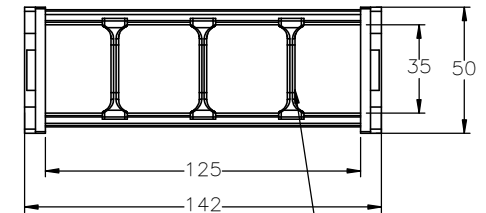
MOTOR INFORMATION  
 MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

SENSOR INFORMATION X-AXIS:  
 HOME-QTY \_\_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 EOT-QTY \_\_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_

(SEE T-SLOT SENSOR KIT SHEET FOR  
 PART NUMBER CONFIGURATION)



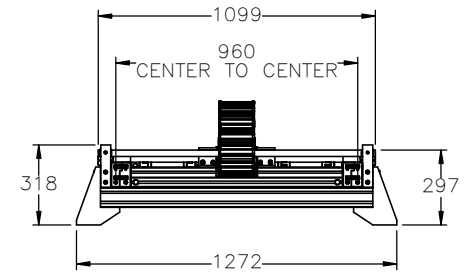
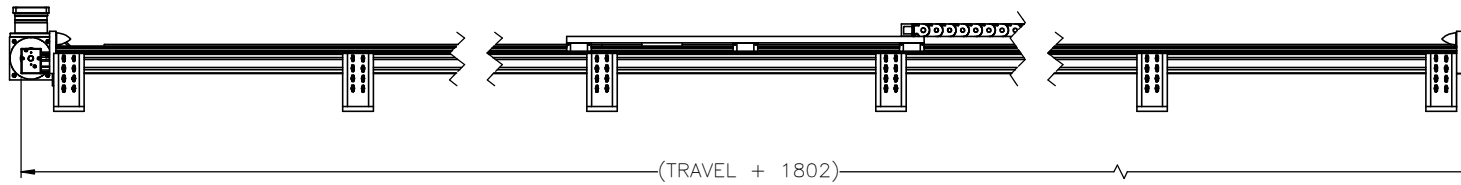
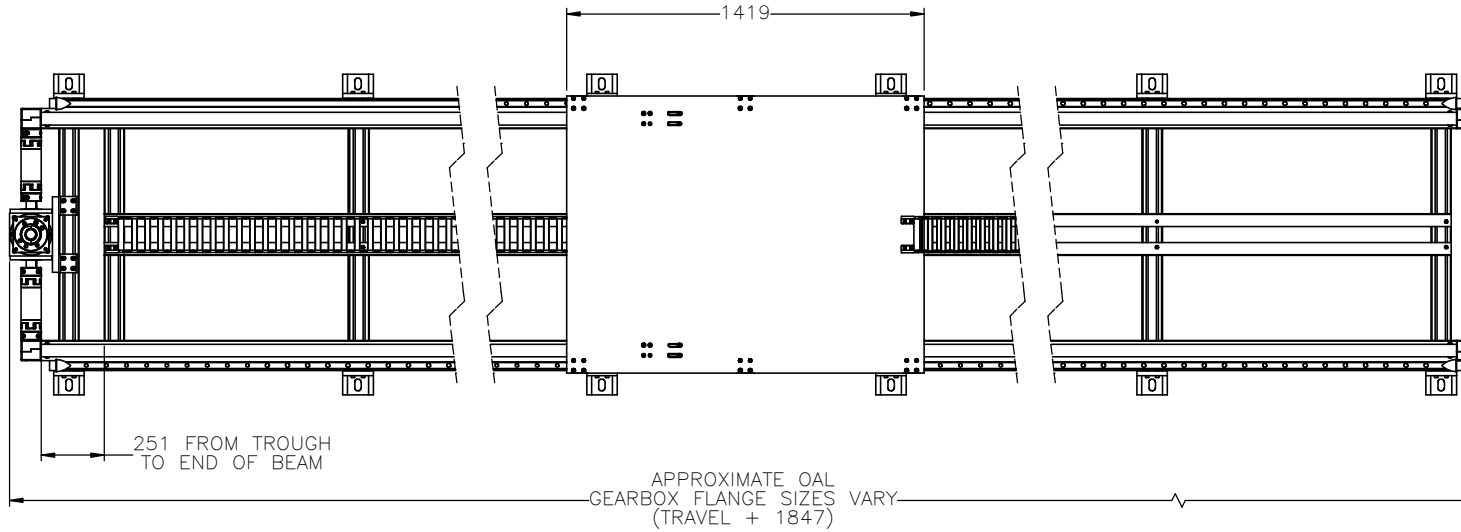
CABLE TRACK CROSS SECTION




APPROVED: \_\_\_\_\_  
 SIGN & PRINT  
 DATE: \_\_\_\_\_  
 PO:REFERENCE#: \_\_\_\_\_

<p>MACRON DYNAMICS INC</p> <p><small>THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS. ANY REPRODUCTIONS SHALL BE FOR QUOTATION, MANUFACTURING, OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHER CONCERNS DOES NOT CONSTITUTE LICENSING IN ANY WAY. INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL.</small></p>	DRAWN BY: AW CHECKED BY: _____ LAST SAVED BY: qwong	DATE: 8/18/2023 DATE: DD/MM/YYYY DATE: 9/27/2023	MATERIAL: _____ FINISH: _____	TITLE: MACRON RTU SYSTEM SCALE: 1:1 SHEET SIZE: C
	SURFACE FINISH: <input checked="" type="checkbox"/> BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		SHEET: 1 OF 6	PART NUMBER: MRA-RTU-3-0-00-A01-XXXX
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS NOTED: OTHERWISE:		.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	

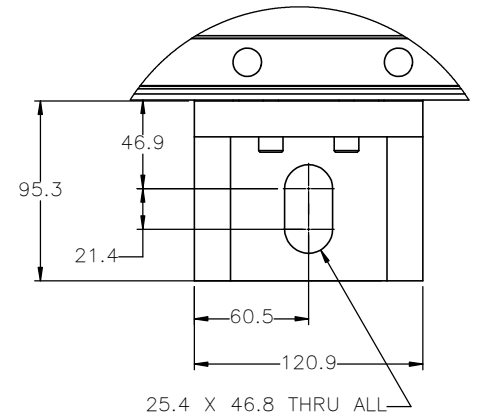
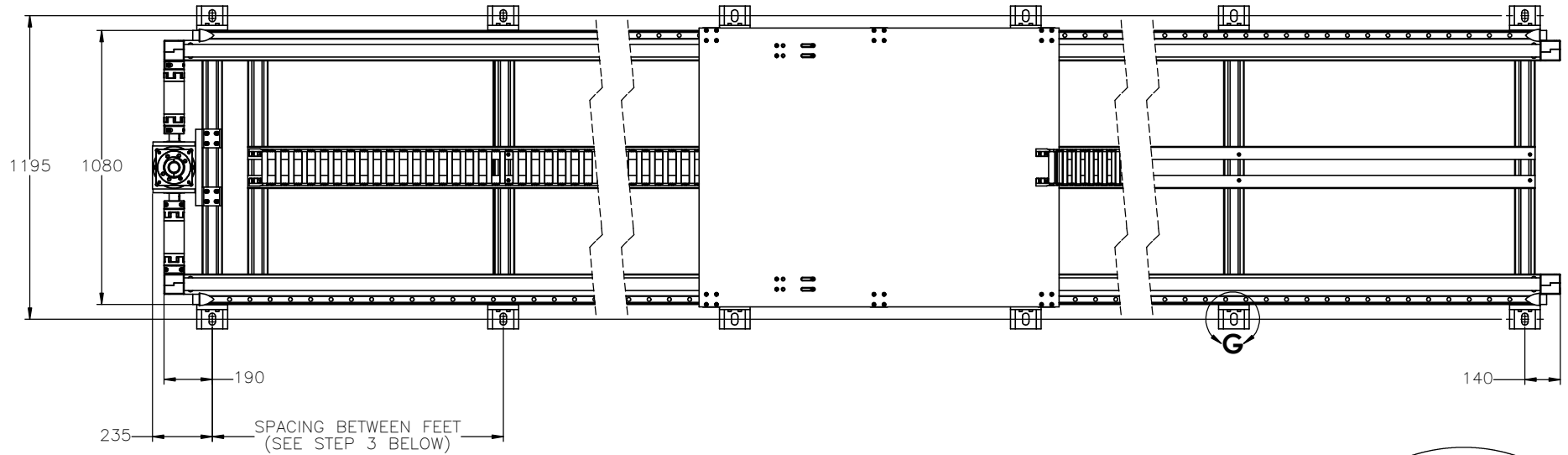
# GANTRY FOOTPRINT



 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 8/18/2023	MATERIAL:	TITLE: <b>MACRON RTU SYSTEM</b>
	CHECKED BY:      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: awong      DATE: 9/27/2023	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS NOTED: .XX ± .762 .XXX ± .254 OTHERWISE: ANG ± 0°30'	SCALE: 1:1      SHEET SIZE: C
	THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS. ANY REPRODUCTIONS SHALL BE FOR QUOTATION, MANUFACTURING, OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHER CONCERNS DOES NOT CONSTITUTE LICENSING IN ANY WAY. INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL.	SURFACE FINISH: <input checked="" type="checkbox"/> BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING <b>THIRD ANGLE PROJECTION</b>	SHEET: 2 OF 6      PART NUMBER: MRA-RTU-3-0-00-A01-XXXX

# GANTRY MOUNTING FEATURES


## TOP VIEW



DETAIL G  
SCALE 1 : 2

TO DETERMINE SPACING BETWEEN MOUNTING FEET FRAMES

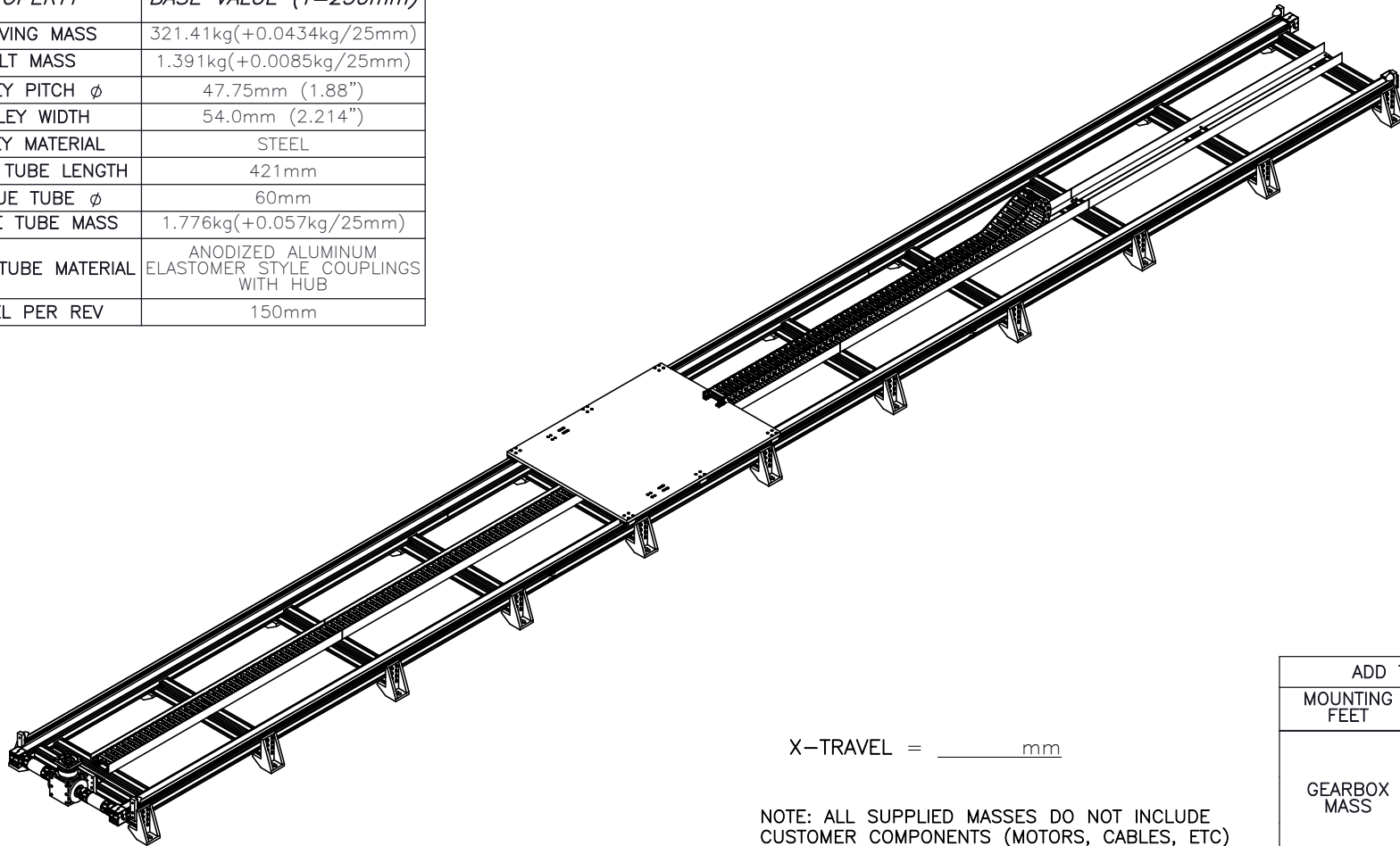
- 1) FIND "TL" (TOTAL LENGTH) = X-TRAVEL + 1802mm
- 2) FIND "NF" (NUMBER OF FEET) = ("TL"-330) / 1000 (ROUND UP)  
(EXAMPLE: (8000mm + 1802mm - 330) / 1000 = 9.47 = 10 FEET FRAMES)
- 3) SPACING BETWEEN FEET = ("TL" - 330) / "NF"  
(EXAMPLE: (9802mm - 330) / 10 = 948.5 ≈ 949mm)

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: <b>AW</b> DATE: <b>8/18/2023</b> MATERIAL:	TITLE: <b>MACRON RTU SYSTEM</b>
	CHECKED BY:      DATE: <b>DD/MM/YYYY</b>	
	LAST SAVED BY: <b>awong</b> DATE: <b>9/27/2023</b>	
FINISH:		SCALE: <b>1:1</b> SHEET SIZE: <b>C</b>
SURFACE FINISH: <input checked="" type="checkbox"/>		SHEET: <b>3 OF 6</b> PART NUMBER: <b>MRA-RTU-3-0-00-A01-XXXX</b>
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# MOTOR SIZING WORKSHEET

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)


PROPERTY	BASE VALUE (T=250mm)
**MOVING MASS	321.41kg(+0.0434kg/25mm)
BELT MASS	1.391kg(+0.0085kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	54.0mm (2.214")
PULLEY MATERIAL	STEEL
TORQUE TUBE LENGTH	421mm
TORQUE TUBE $\phi$	60mm
TORQUE TUBE MASS	1.776kg(+0.057kg/25mm)
TORQUE TUBE MATERIAL	ANODIZED ALUMINUM ELASTOMER STYLE COUPLINGS WITH HUB
TRAVEL PER REV	150mm



X-TRAVEL = \_\_\_\_\_ mm

NOTE: ALL SUPPLIED MASSES DO NOT INCLUDE CUSTOMER COMPONENTS (MOTORS, CABLES, ETC)

ADD TO SYSTEM MASS		
MOUNTING FEET	(QTY.)	24.6kg EACH
GEARBOX MASS	ATB-170 (1 STAGE)	35.5kg
	ATB-170 (2 STAGE)	37.9kg
	ATB-170 (3 STAGE)	38.2kg

TOTAL SYSTEM MASS	$(X-TRAVEL \times .0719) + 452.793 = \text{kg}$		
 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW	DATE: 8/18/2023	MATERIAL:
	CHECKED BY:	DATE: DD/MM/YYYY	
	LAST SAVED BY: awong	DATE: 9/27/2023	
	<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:</small> .X $\pm$ .762 .XX $\pm$ .254 .XXX $\pm$ .127 ANG $\pm$ 0°30'		FINISH:
THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS. ANY REPRODUCTIONS SHALL BE FOR QUOTATION, MANUFACTURING OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHER CONCERNS DOES NOT CONSTITUTE LICENSING IN ANY WAY. INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL.		SURFACE FINISH <input checked="" type="checkbox"/>	TITLE: MACRON RTU SYSTEM
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING <b>THIRD ANGLE PROJECTION</b>		SHEET 4 OF 6	PART NUMBER MRA-RTU-3-0-00-A01-XXXX
		SCALE 1:1	SHEET SIZE C

# SPECIFICATIONS

Sensor Type	Inductive
Sensor Size	Fits all 8mm wide T-Slots
Operating Voltage	10-30 VDC
Voltage Drop Across Conducting Sensor	≤1.8 V at 100 mA
Number of Conductors (AWG)	3x26 AWG
Temperature Range	-40°C to 105°C

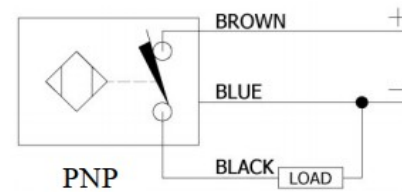
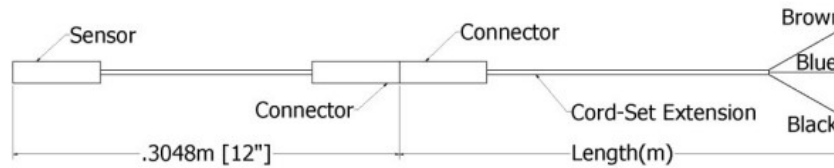
# Part Number Configuration

## 244- \_ \_ \_ - \_ \_ \_

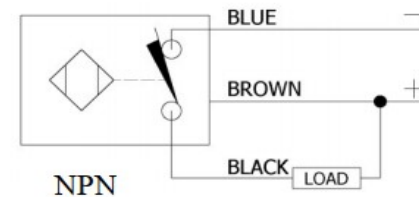
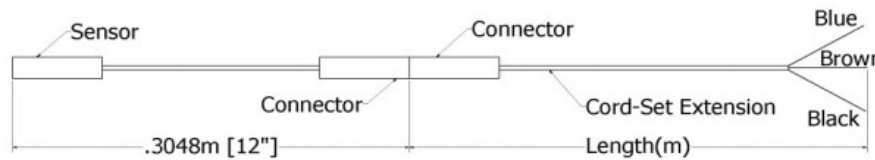
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

Example: PNP, normally closed, cord-set extension length 6 meters = 244-PNP-NC-06

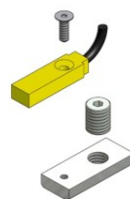
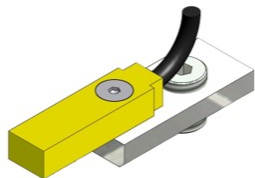
### PNP Diagrams



### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: AW      DATE: 8/18/2023 CHECKED BY:      DATE: DD/MM/YYYY LAST SAVED BY: awong      DATE: 9/27/2023	MATERIAL:	TITLE:
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	FINISH:	T-SLOT SENSOR KIT
	SURFACE FINISH <input checked="" type="checkbox"/> BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING	SCALE: 1:1	SHEET SIZE: C
	THIRD ANGLE PROJECTION	SHEET: 5 OF 6	PART NUMBER:      REV: