

GEARBOX MODEL (X AXIS)

MPG-062

MRG-062

RATIO:

GEARBOX MODEL (Y AXIS)

MPG-062

MRG-062

RATIO:

FOR DIRECT DRIVE OPTION WITH MMK (NO GEARBOX) CHECK HERE:

MOTOR INFORMATION (X AXIS)

MANUFACTURER:

MODEL:

MOTOR INFORMATION (Y AXIS)

MANUFACTURER:

MODEL:

MOTOR INFORMATION (Z AXIS)

MANUFACTURER:

MODEL:

(\*Z AXIS IS DIRECT-DRIVEN)

SENSOR INFORMATION X-AXIS:

HOME-QTY 244

EOT-QTY 244

SENSOR INFORMATION Y-AXIS:

HOME-QTY 244

EOT-QTY 244

SENSOR INFORMATION Z-AXIS:

HOME-QTY 244

EOT-QTY 244

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

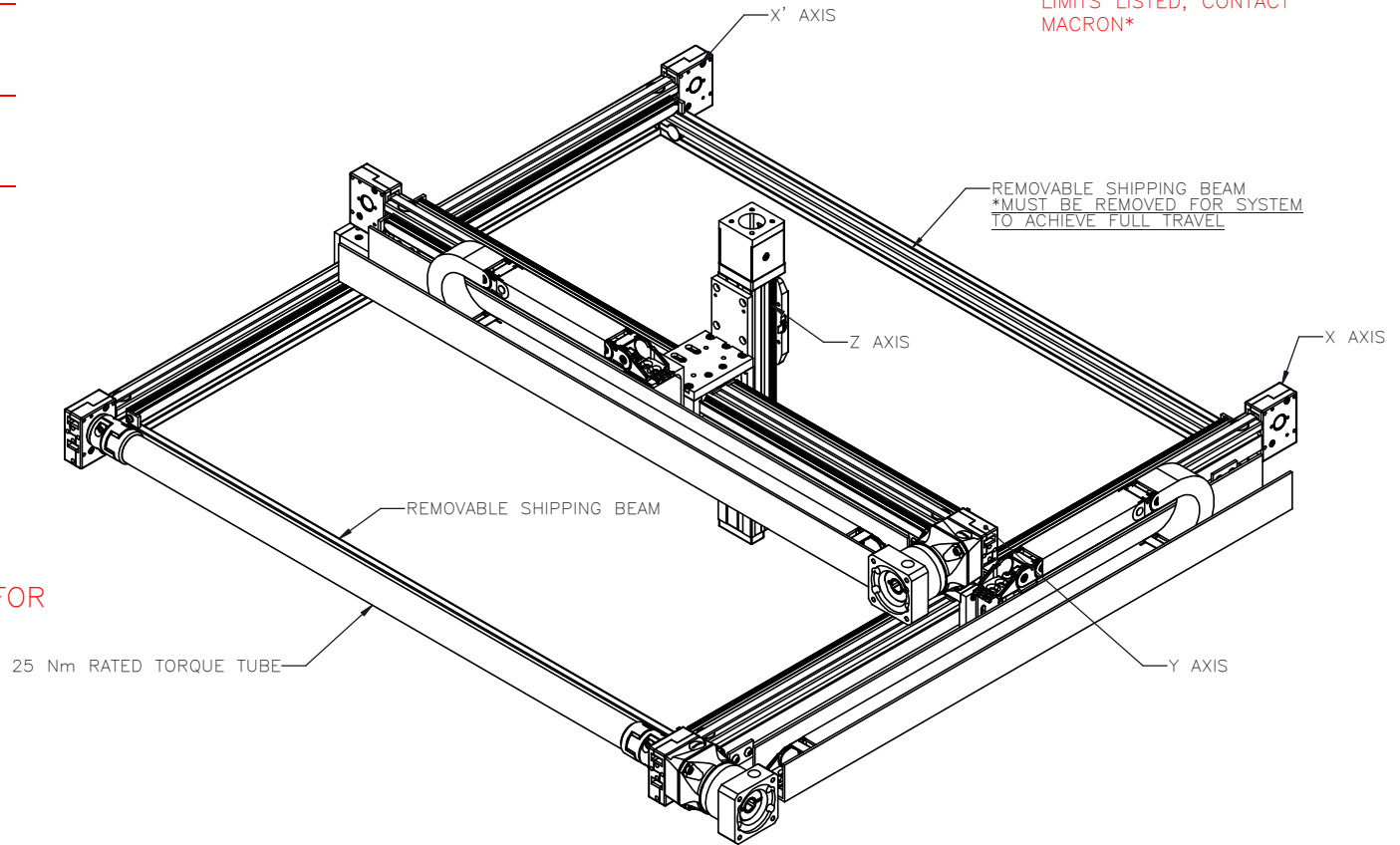
MCS-R15- -S-

ENTER Z-AXIS TRAVEL TRAVEL IN INCREMENTS OF 100mm LIMITS: 100mm-400mm

ENTER Y-AXIS TRAVEL TRAVEL IN INCREMENTS OF 25mm LIMITS: 150mm-1000mm

ENTER X-AXIS TRAVEL TRAVEL IN INCREMENTS OF 25mm TRAVEL LIMITS: 150mm-3850mm

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



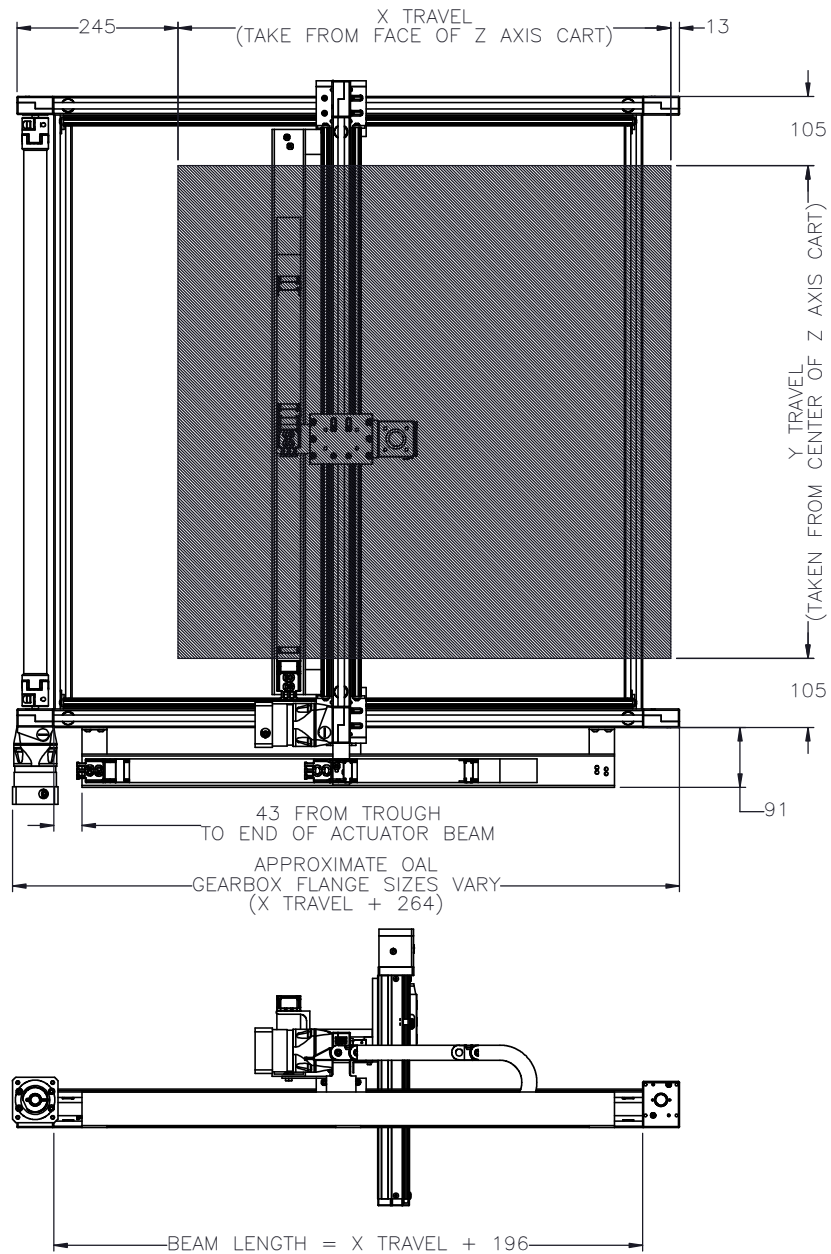
APPROVED:

SIGN & PRINT

DATE:

PO:REFERENCE#:

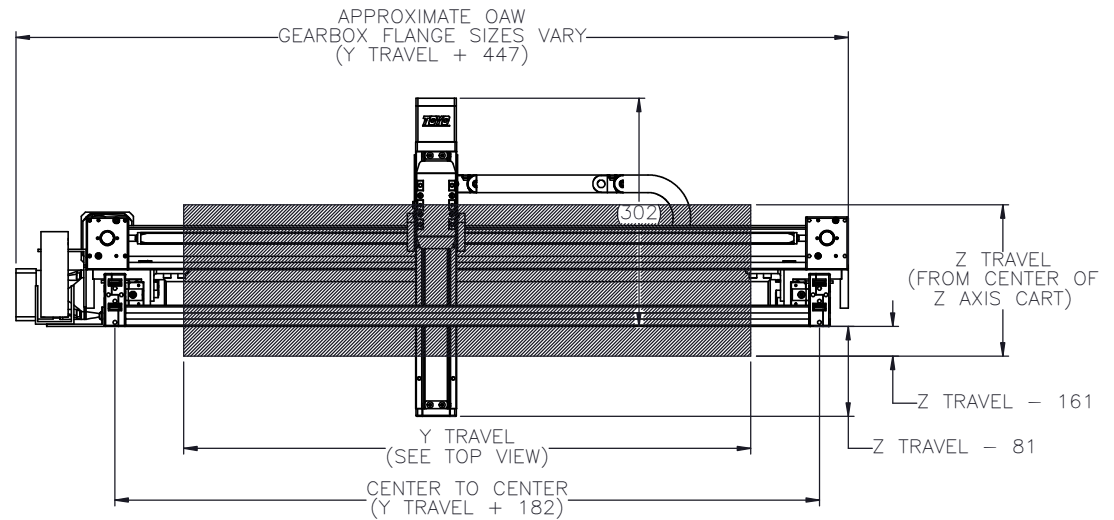
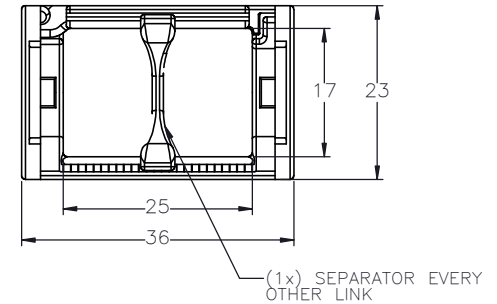
Technical drawing header table containing drawing details, material, finish, and title information.



# GANTRY FOOTPRINT

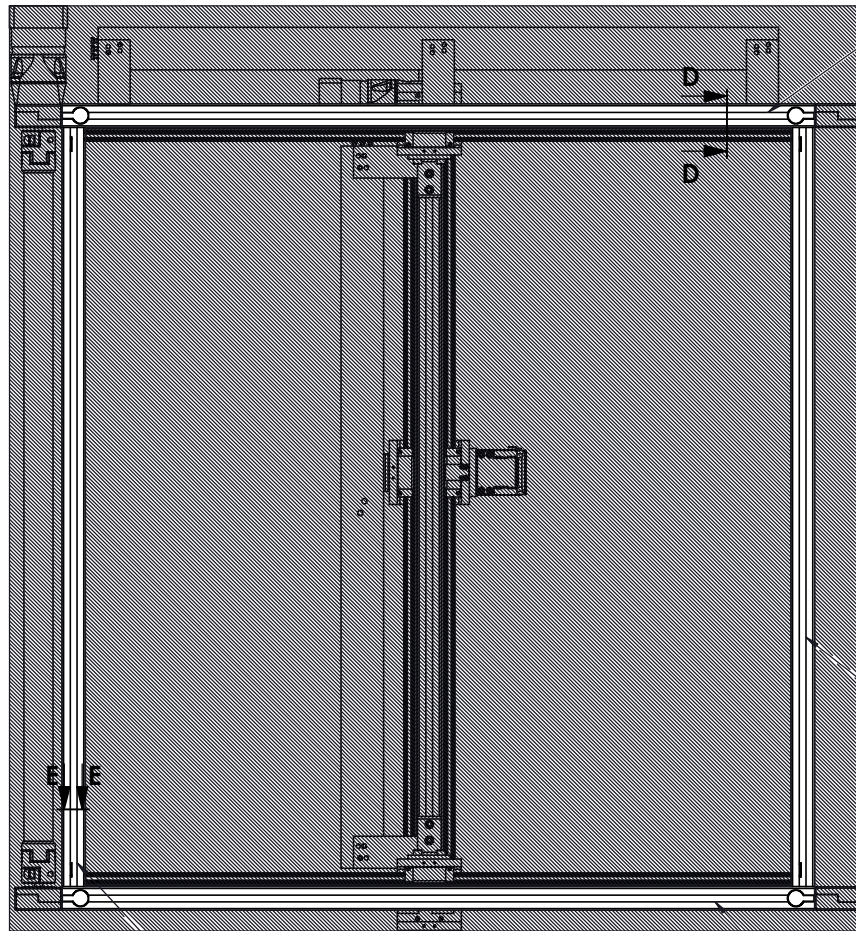
\*\*ALL X-TRAVEL DIMENSIONS GIVEN ARE  
 BASED ON THE CUSTOMERS REMOVAL  
 OF "REMOVABLE SHIPPING BEAMS"

## CABLE TRACK DIMENSIONS

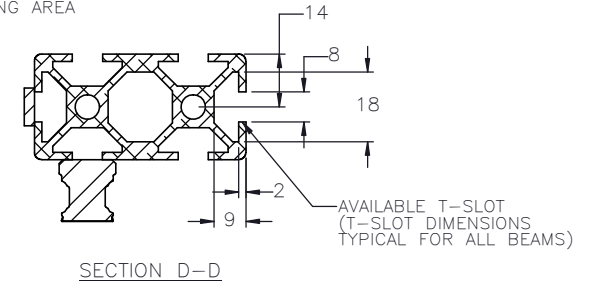


<p><b>MACRON DYNAMICS INC</b></p> <p>THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS. ANY REPRODUCTIONS SHALL BE FOR QUOTATION, MANUFACTURING, OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHER CONCERNS DOES NOT CONSTITUTE LICENSING IN ANY WAY. INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL.</p>	DRAWN BY: AW CHECKED BY: --- LAST SAVED BY: awong	DATE: 9/18/2023 DATE: DD/MM/YYYY DATE: 10/9/2023	MATERIAL:  FINISH:	TITLE: <b>MACRON XYZ R15          GANTRY</b>
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS NOTED OTHERWISE:		.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE: 1:1 SHEET SIZE: C
	SURFACE FINISH: 63 BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING <b>THIRD ANGLE PROJECTION</b>		SHEET: 2 OF 6 PART NUMBER: MCS-R15-X-X-SX	REV:

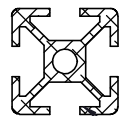
# GANTRY MOUNTING FEATURES



(1x) T-SLOT AVAILABLE  
SUGGESTED MOUNTING AREA




(BEAM MUST BE REMOVED  
TO ACHIEVE FULL TRAVEL)



(1x) T-SLOT AVAILABLE  
IF BEAM IS NOT REMOVED

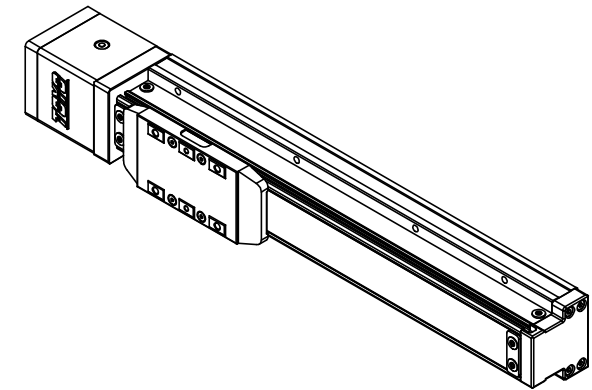
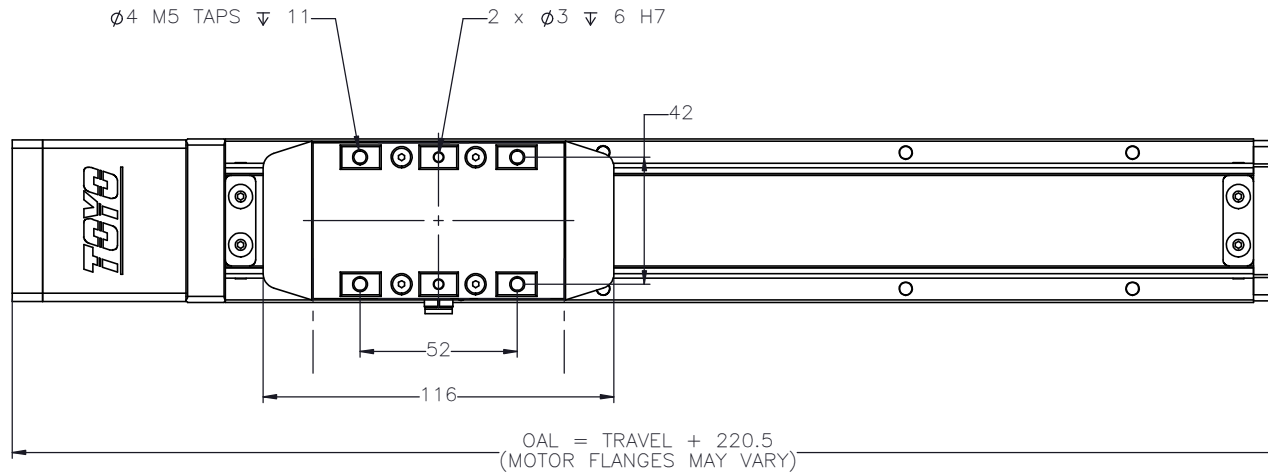
(1x) T-SLOT AVAILABLE  
SUGGESTED MOUNTING AREA


SECTION E-E (1x) T-SLOT AVAILABLE

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 9/18/2023	MATERIAL:	TITLE: <b>MACRON XYZ R15                  GANTRY</b>
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: awong      DATE: 10/9/2023	UNLESS OTHERWISE SPECIFIED: .X ± .762 DIMENSIONS ARE IN MILLIMETERS: .XX ± .254 TOLERANCES UNLESS NOTED: .XXX ± .127 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: 63 BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET: 3 OF 6      PART NUMBER: MCS-R15-X-X-SX

# Z-AXIS SCREW TABLE SELECTION

GTH5-L \_\_\_\_\_ - \_\_\_\_\_ -BC-M10B- \_\_\_\_\_



 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 9/18/2023	MATERIAL:	TITLE:
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	TOYO 10mm LEAD SCREW TABLE
	LAST SAVED BY: awong      DATE: 10/9/2023		
	<small>UNLESS OTHERWISE SPECIFIED:          DIMENSIONS ARE IN MILLIMETERS          TOLERANCES UNLESS NOTED:          OTHERWISE:</small>	<small>.X ± .762          .XX ± .254          .XXX ± .127          ANG ± 0°30'</small>	SCALE: 1:1
<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>	SURFACE FINISH: 63 BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING <b>THIRD ANGLE PROJECTION</b>	SHEET: <b>4 OF 6</b> PART NUMBER: MCS-R15-X-X-SX	REV: C

# MOTOR SIZING WORKSHEET

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

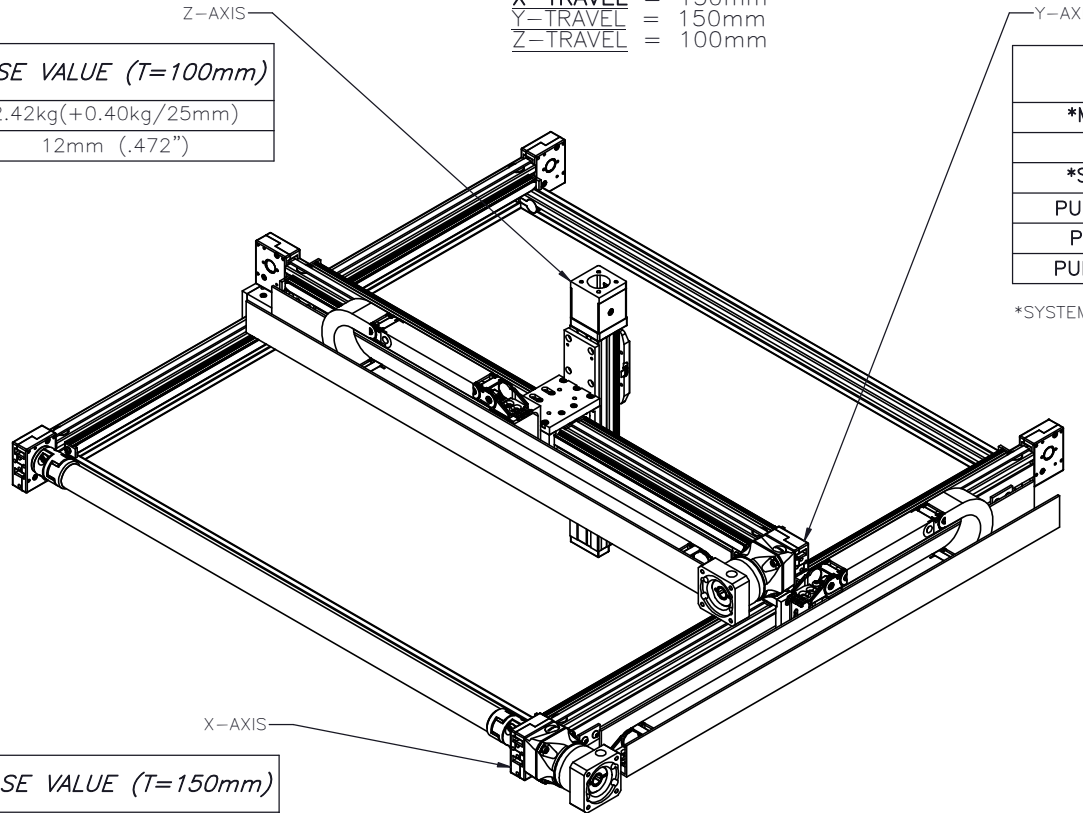
BASED TRAVELS USED:

X-TRAVEL = 150mm  
 Y-TRAVEL = 150mm  
 Z-TRAVEL = 100mm

PROPERTY	BASE VALUE (T=100mm)
SYSTEM MASS	2.42kg(+0.40kg/25mm)
BALL SCREW DIAMETER	12mm (.472")

PROPERTY	BASE VALUE (T=150mm)
*MOVING MASS	0.922kg(+0.012kg/25mm)
BELT MASS	0.100kg(+0.002kg/25mm)
*SYSTEM MASS	3.510kg(+.157/25mm)
PULLEY PITCH $\phi$	33.42mm (1.32")
PULLEY WIDTH	16.3mm (.640")
PULLEY MATERIAL	STEEL

\*SYSTEM MASS OF Z-AXIS NEEDS TO BE ADDED TO THIS



PROPERTY	BASE VALUE (T=150mm)
**MOVING MASS	1.374kg(+0.014kg/25mm)
BELT MASS	0.200kg(+0.004kg/25mm)
PULLEY PITCH $\phi$	33.42mm (1.32")
PULLEY WIDTH	16.3mm (.640")
PULLEY MATERIAL	STEEL
TORQUE TUBE LENGTH	295mm
TORQUE TUBE $\phi$	35mm
TORQUE TUBE MASS	0.200kg(+0.017kg/25mm)
TORQUE TUBE MATERIAL	ANODIZED ALUMINUM ELASTOMER STYLE COUPLINGS WITH HUB
TRAVEL PER REV	105mm


\*\*SYSTEM MASS OF Y-AXIS NEEDS TO BE ADDED TO THIS

\*\*\*BASE VALUE AT Y TRAVEL = 150mm

X-TRAVEL = \_\_\_\_\_ mm  
 Y-TRAVEL = \_\_\_\_\_ mm  
 Z-TRAVEL = \_\_\_\_\_ mm

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

GEARBOX MASS (ADD TO SYSTEM MASS)	MPG-062	1.0kg
	MRG-062	3.0kg

TOTAL SYSTEM MASS	$(X-TRAVEL \times .0081) + (Y-TRAVEL \times .0088) + (Z-TRAVEL \times .004) + 8.254 = \text{kg}$		
 MACRON DYNAMICS INC	DRAWN BY: AW      DATE: 9/18/2023 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: qwong      DATE: 10/9/2023	MATERIAL:	TITLE: MACRON XYZ R15 GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .XX $\pm$ .254 .XXX $\pm$ .127 ANG $\pm$ 0°30'	SURFACE FINISH: <input checked="" type="checkbox"/> BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	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.	SHEET: 5 OF 6	PART NUMBER: MCS-R15-X-X-SX	REV: 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

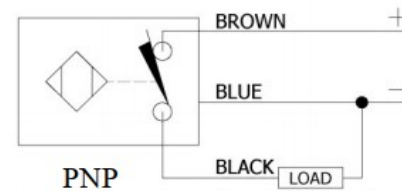
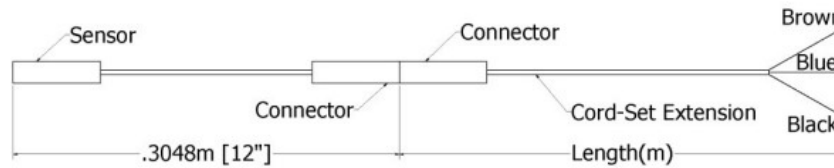
# Part Number Configuration

## 244- - - - -

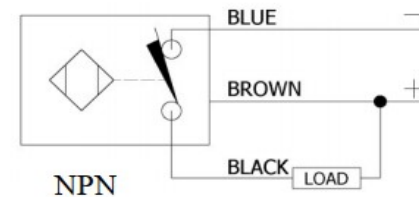
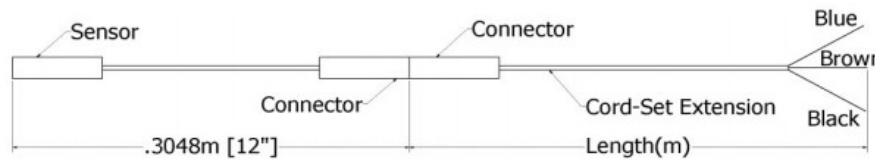
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

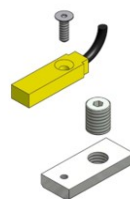
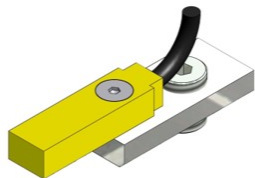
### PNP Diagrams



### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: AW      DATE: 9/18/2023 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: awong      DATE: 10/9/2023	MATERIAL:	TITLE:	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .XX ± .254 .XXX ± .127 ANG ± 0°30'	FINISH:	T-SLOT SENSOR KIT	
	SURFACE FINISH: <input checked="" type="checkbox"/> BREAK ALL SHARP EDGES	SHEET: 6 OF 6	SCALE: 1:1	SHEET SIZE: C
	DIMENSIONAL LIMITS APPLY AFTER FINISHING	PART NUMBER: MCS-R15-X-X-SX	REV: C	