

# MDS-SB5- - - X

## GEARBOX MODEL

MPG-064  MPG-084  MPG-114   
 MRG-064  MRG-084  MRG-114   
 RATIO: \_\_\_\_\_

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

**CENTER TO CENTER DISTANCE (mm)**

CENTER TO CENTER IN INCREMENTS OF 25mm  
 LIMITS: 500mm-2950mm

**ENTER X-AXIS TRAVEL**

TRAVEL IN INCREMENTS OF 25mm  
 TRAVEL LIMITS: 150mm-5775mm

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

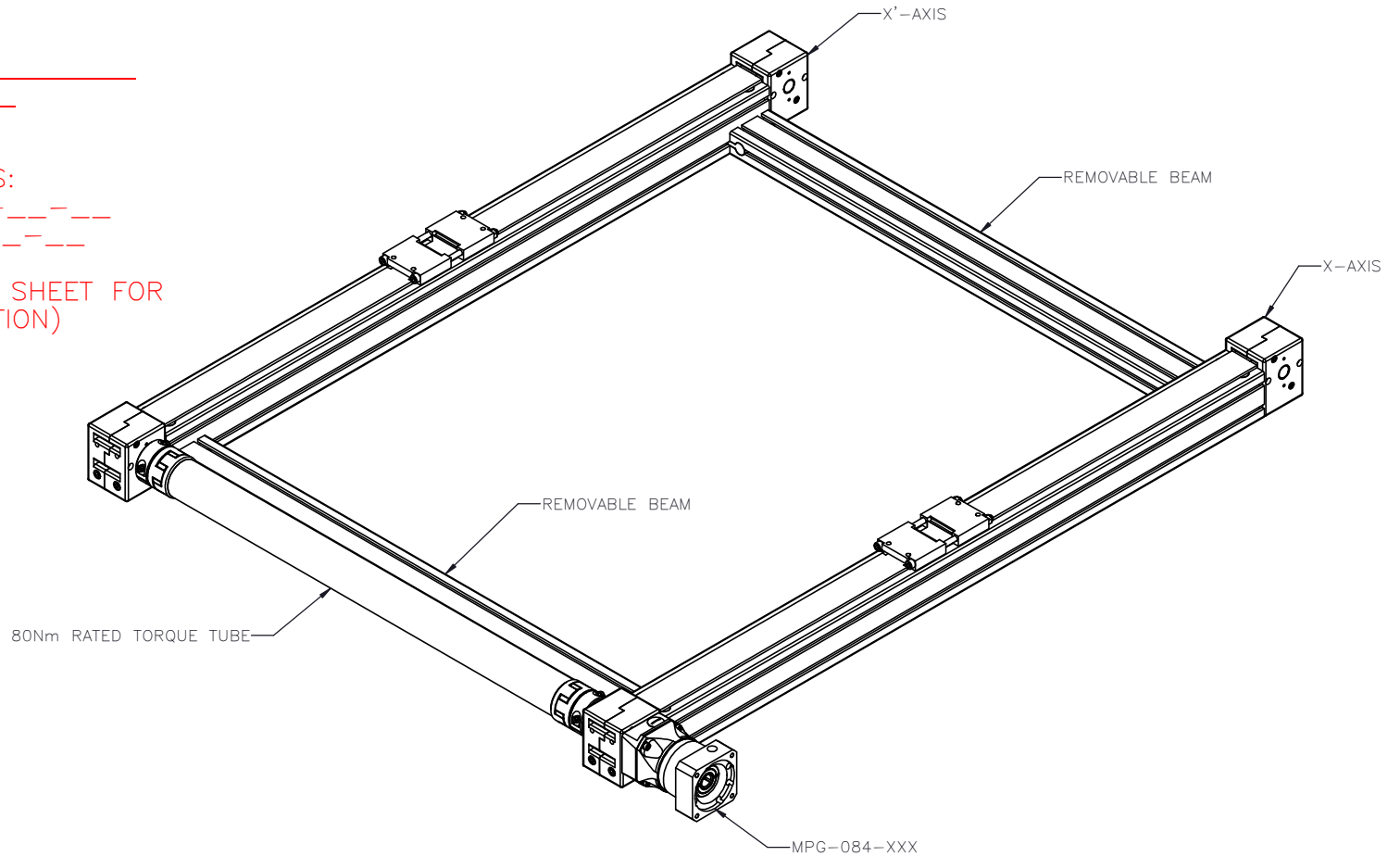
## MOTOR INFORMATION

MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

## SENSOR INFORMATION X-AXIS:

HOME-QTY \_\_\_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 EOT-QTY \_\_\_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_

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




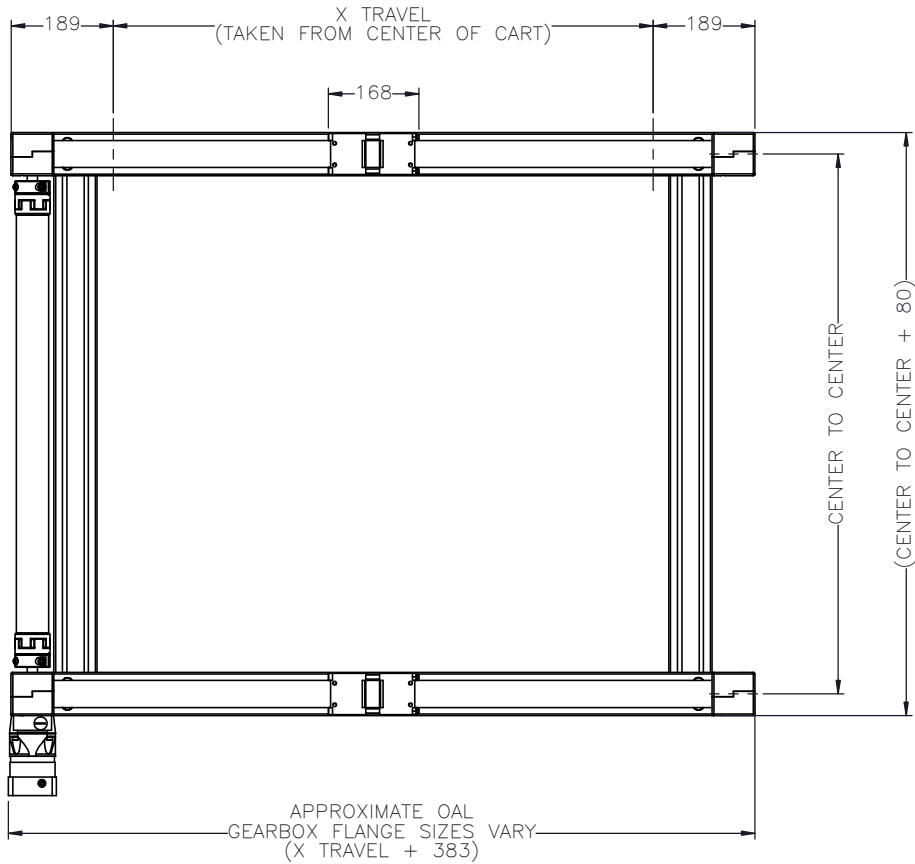
APPROVED: \_\_\_\_\_

SIGN & PRINT

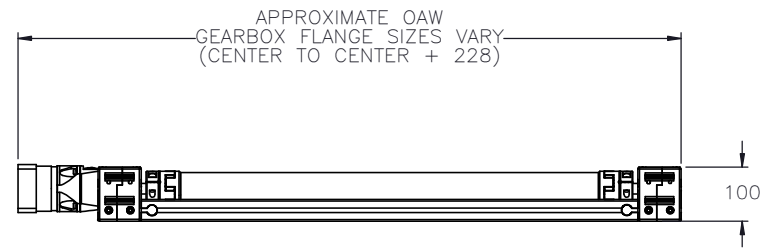
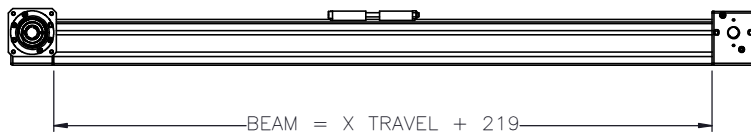
DATE: \_\_\_\_\_

PO:REFERENCE#: \_\_\_\_\_

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 8/7/2023	MATERIAL:	TITLE: MACRON DUAL SB5 GANTRY	
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:		
	LAST SAVED BY: awong      DATE: 8/8/2023	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: <input checked="" type="checkbox"/>	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET: 1 OF 6      PART NUMBER: MDS-SB5-X-X-X	REV: 00



# GANTRY FOOTPRINT

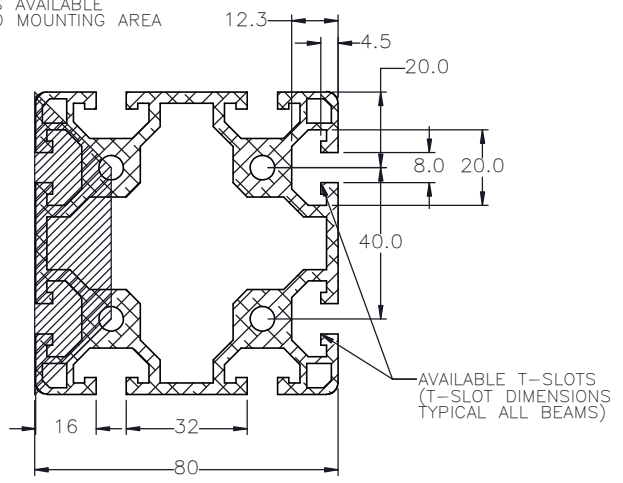
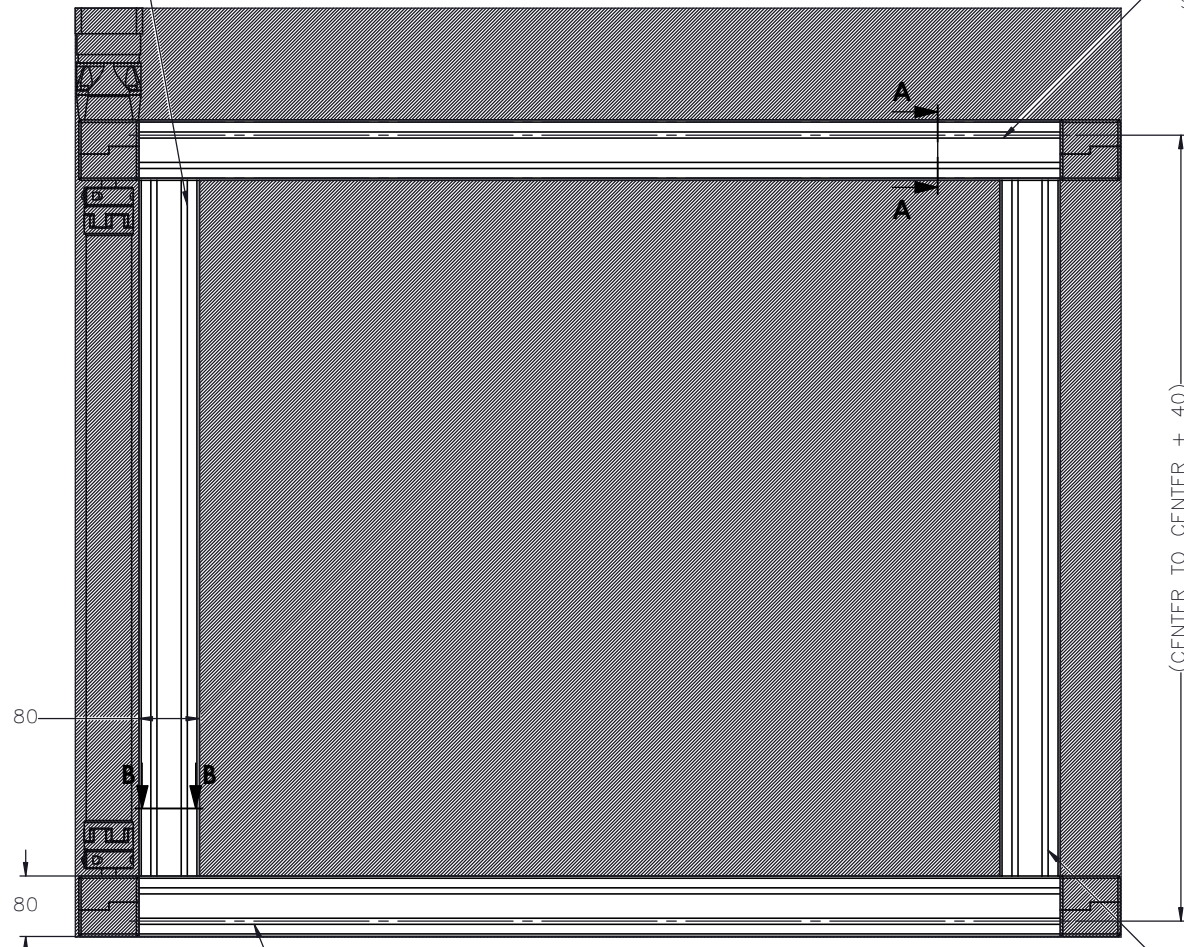


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	DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED: .XX ± .254 .XXX ± .127 OTHERWISE: ANG ± 0°30'		SURFACE FINISH: 63 BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING <b>THIRD ANGLE PROJECTION</b>	SCALE: 1:1 SHEET SIZE: C
	SHEET: 2 OF 6		PART NUMBER: MDS-SB5-X-X-X	
	REV: 00			

# GANTRY MOUNTING FEATURES

2 T-SLOTS AVAILABLE IF BEAM IS NOT REMOVED

2 T-SLOTS AVAILABLE SUGGESTED MOUNTING AREA



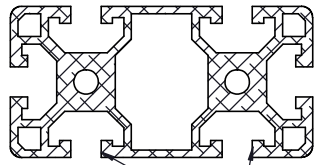
SECTION A-A

2 T-SLOTS AVAILABLE SUGGESTED MOUNTING AREA

2 T-SLOTS AVAILABLE IF BEAM IS NOT REMOVED

80  
80

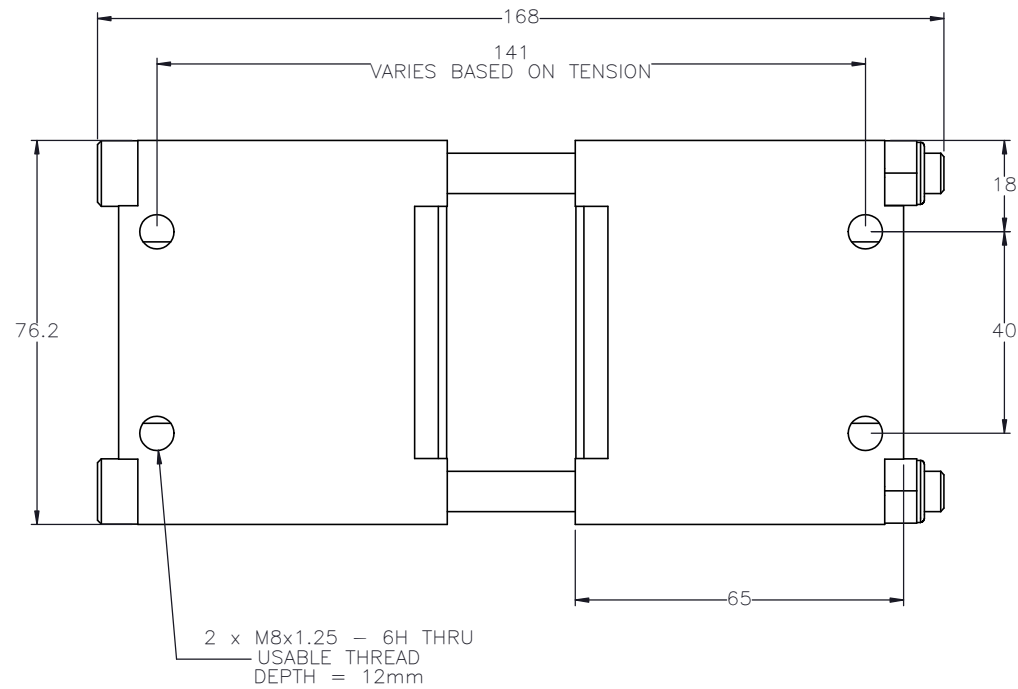
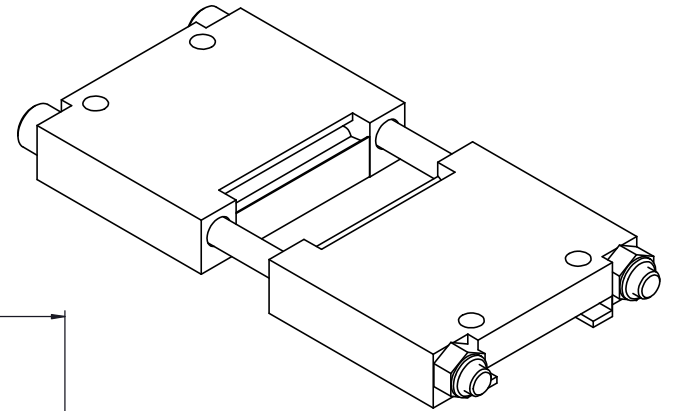
(CENTER TO CENTER + 40)




SECTION B-B  
AVAILABLE T-SLOTS

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 8/7/2023	MATERIAL:	TITLE: <b>MACRON DUAL SB5 GANTRY</b>
	CHECKED BY: ---      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: awong      DATE: 8/8/2023	UNLESS OTHERWISE SPECIFIED: .X ± .762 DIMENSIONS ARE IN MILLIMETERS: .XX ± .254 TOLERANCES UNLESS NOTED: .XXX ± .127 OTHERWISE: ANG ± 0°30'	
SURFACE FINISH      63		SHEET: <b>3 OF 6</b> PART NUMBER: <b>MDS-SB5-X-X-X</b>	SCALE: <b>1:1</b> SHEET SIZE: <b>C</b>
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# CART MOUNTING FEATURES

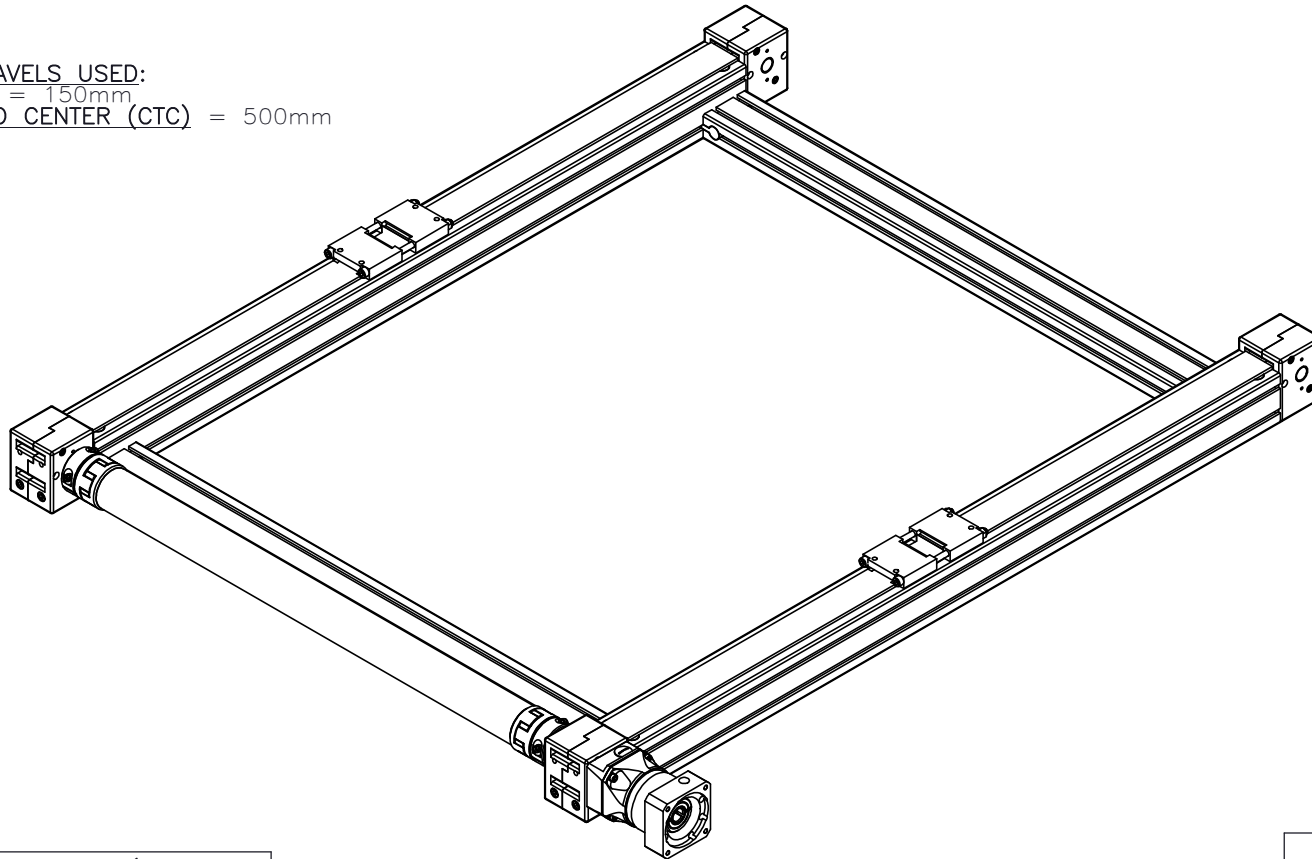


 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 8/7/2023	MATERIAL:	TITLE:
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	50mm BELT TENSION ASSEMBLY
	LAST SAVED BY: awong      DATE: 8/8/2023		
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED: OTHERWISE:	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE: 1:1
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 <b>THIRD ANGLE PROJECTION</b>	SHEET: 4 OF 6 PART NUMBER: MDS-SB5-X-X-X	REV: C

# MOTOR SIZING WORKSHEET

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASED TRAVELS USED:  
 X-TRAVEL = 150mm  
 CENTER TO CENTER (CTC) = 500mm




PROPERTY	BASE VALUE (T=150mm, CTC=500mm)
**MOVING MASS	2.828kg(+0.068kg/25mm)
BELT MASS	1.044kg(+0.034kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.880")
PULLEY WIDTH	54.0mm (2.124")
PULLEY MATERIAL	STEEL
TORQUE TUBE LENGTH	901mm
TORQUE TUBE $\phi$	60mm
TORQUE TUBE MASS	1.485kg(+0.036kg/25mm)
TORQUE TUBE MATERIAL	ANODIZED ALUMINUM ELASTOMER STYLE COUPLINGS WITH HUB
TRAVEL PER REV	150mm

X-TRAVEL = \_\_\_\_\_ mm  
 CENTER TO CENTER (CTC) = \_\_\_\_\_ mm

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

GEARBOX MASS (ADD TO SYSTEM MASS)	
MPG-064	1.0kg
MPG-084	2.3kg
MPG-114	5.8kg
MRG-064	3.0kg
MRG-084	5.6kg
MRG-114	15.0kg

<b>TOTAL SYSTEM MASS</b>		$(X-TRAVEL \times .0111) + (CTC \times .0078) + 14.744 = \text{kg}$		
 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 8/7/2023 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: qwong      DATE: 8/8/2023	MATERIAL:	TITLE: MACRON DUAL SB5 GANTRY	
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS: TOLERANCES UNLESS NOTED: OTHERWISE:	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	FINISH:	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: 5 OF 6	PART NUMBER: MDS-SB5-X-X-X    REV: 00

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# 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

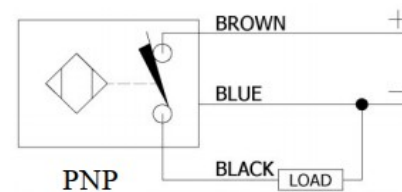
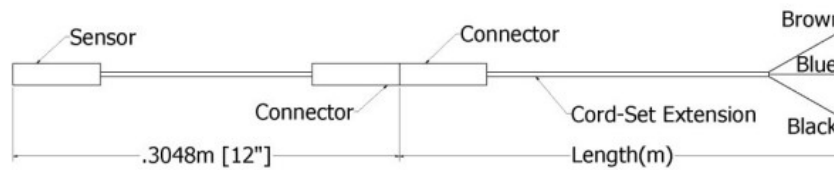
# Part Number Configuration

## 244- - - - -

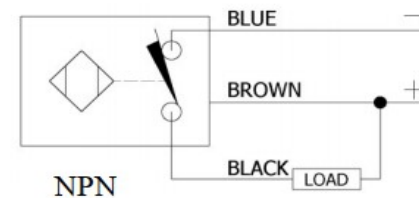
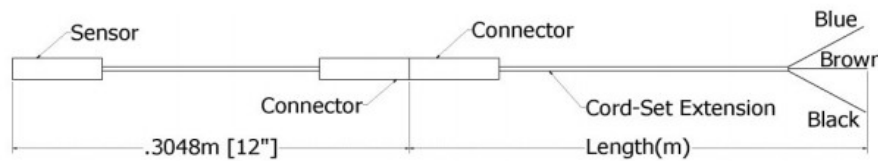
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

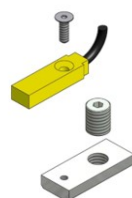
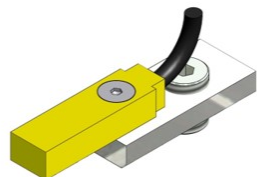
### PNP Diagrams



### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: AW      DATE: 8/7/2023 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: awong      DATE: 8/8/2023	MATERIAL:	TITLE:	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	FINISH:	T-SLOT SENSOR KIT	
	SURFACE FINISH: ✓	SHEET: 6 OF 6	SCALE: 1:1	SHEET SIZE: C
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