

GEARBOX MODEL (X-AXIS):  
 MPG-064 \_\_\_ MPG-084 \_\_\_  
 MRG-064 \_\_\_ MRG-084 \_\_\_  
 RATIO: \_\_\_\_\_

FOR DIRECT-DRIVE OPTION WITH MMKs  
 (NO GEARBOXES) CHECK HERE: \_\_\_\_\_

MOTOR INFORMATION (X-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 (Z-AXIS):  
 HOME-QTY \_\_\_ 244-\_\_\_\_\_  
 EOT-QTY \_\_\_ 244-\_\_\_\_\_

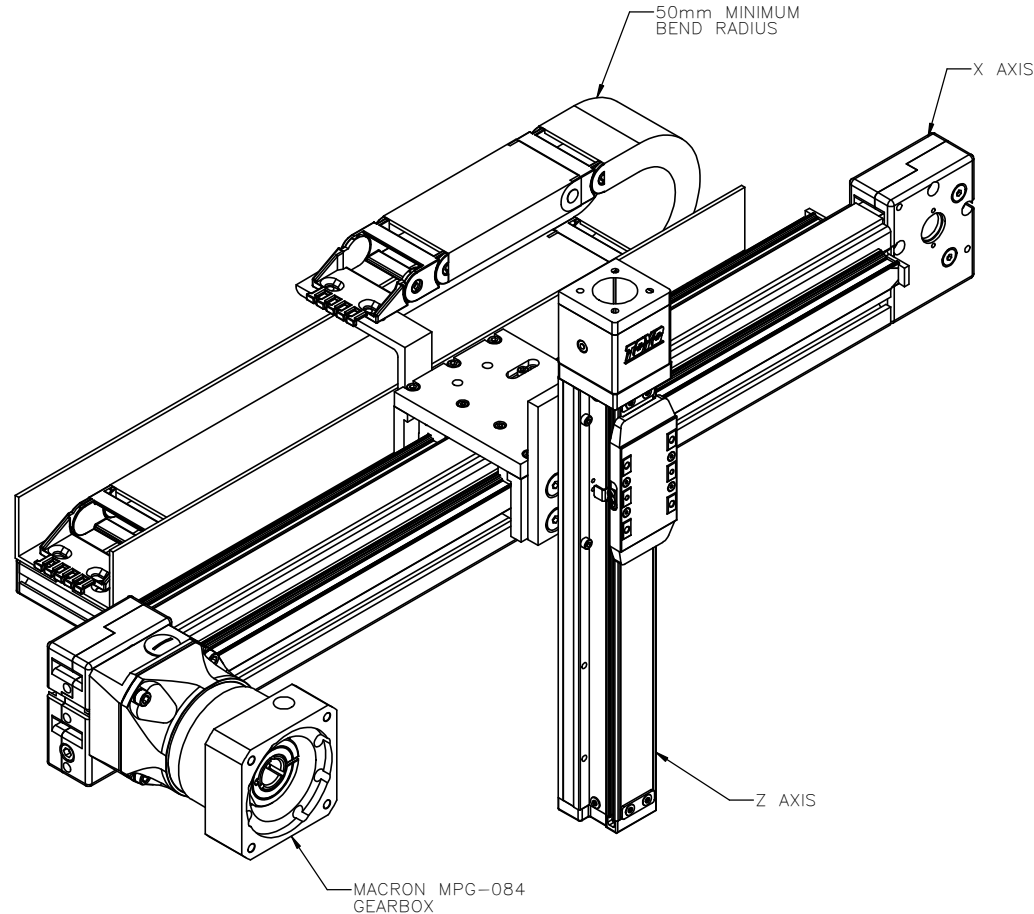
(SEE T-SLOT SENSOR KIT SHEET  
 FOR PART NUMBER CONFIGURATION)

MGS-R6D- [ ] -X-S [ ]

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

ENTER X-AXIS TRAVEL  
 TRAVEL IN INCREMENTS OF 25mm  
 TRAVEL LIMITS: 150mm-5825mm

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



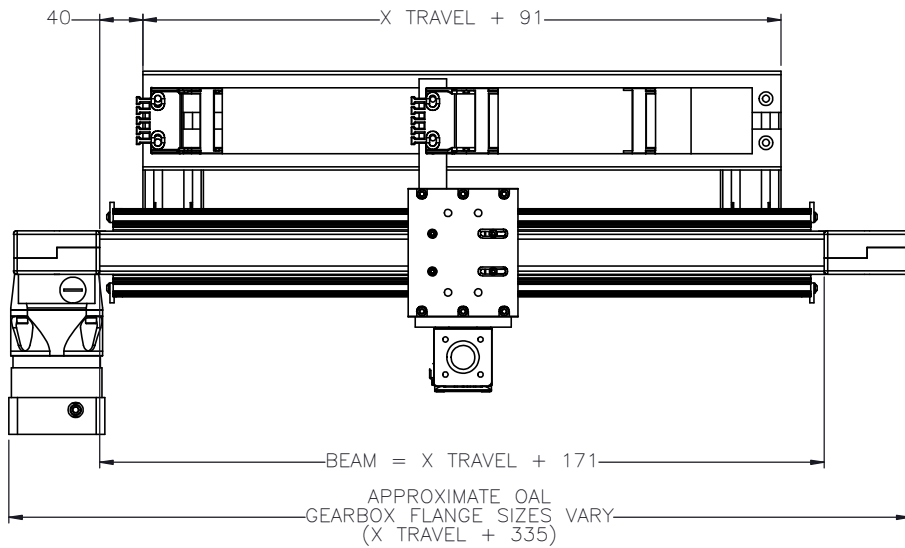
APPROVED: \_\_\_\_\_

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

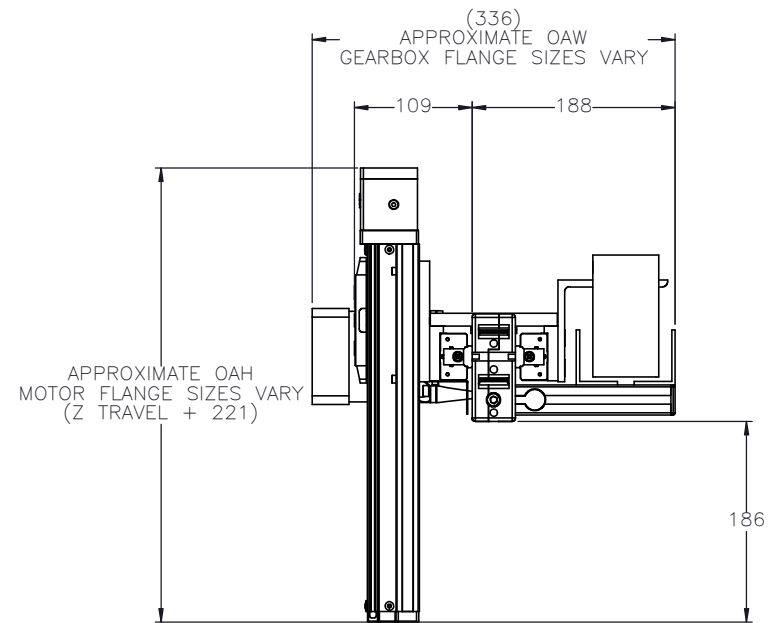
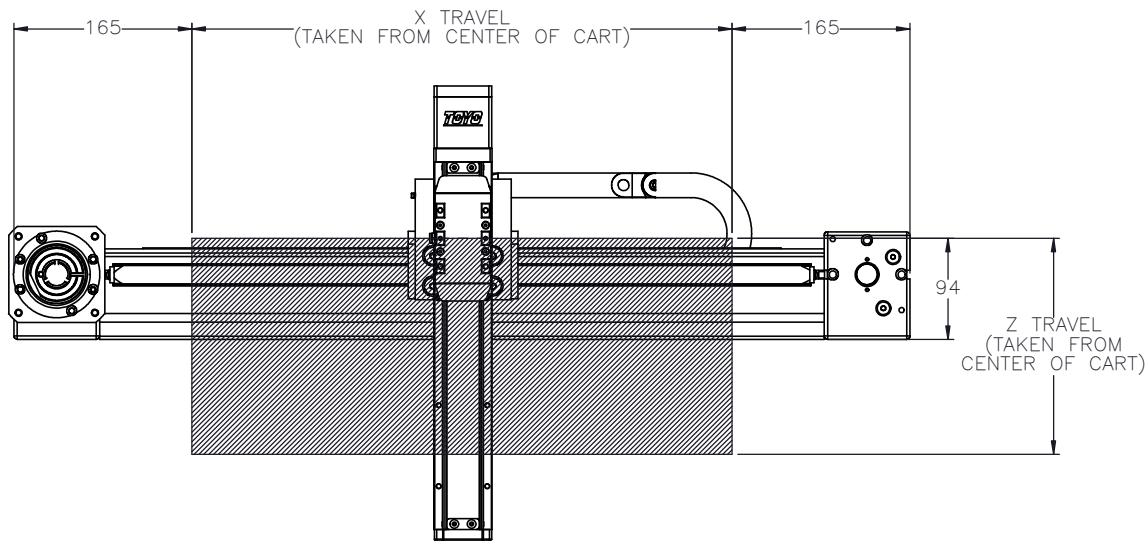
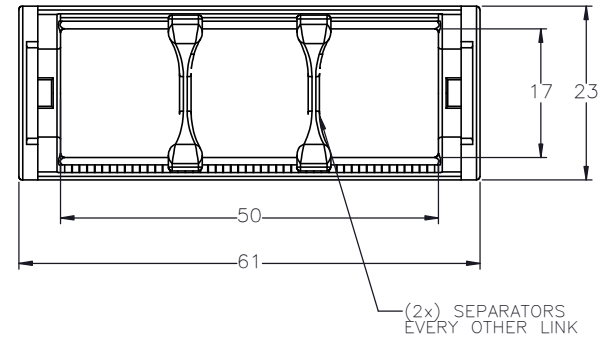
PO:REFERENCE#: \_\_\_\_\_


	DRAWN BY: AW      DATE: 11/8/2023 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: awong      DATE: 11/9/2023	MATERIAL:	TITLE: MACRON R6D XZ GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .XX ± .762 .XX ± .254 .XXX ± .127 ANG ± 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"/> BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SCALE: 1:1      SHEET SIZE: C	SHEET: 1 OF 6 PART NUMBER: MGS-R6D-XXX-X-SXXX

# WORK ENVELOPE AND GANTRY FOOTPRINT

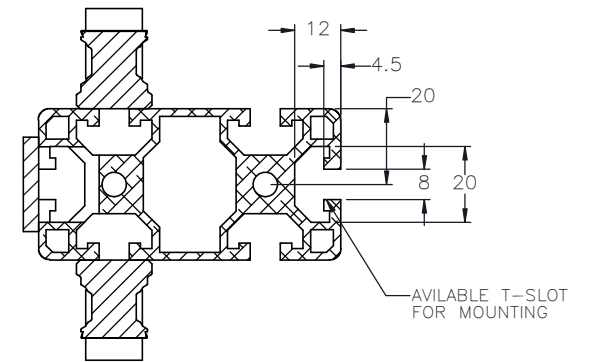
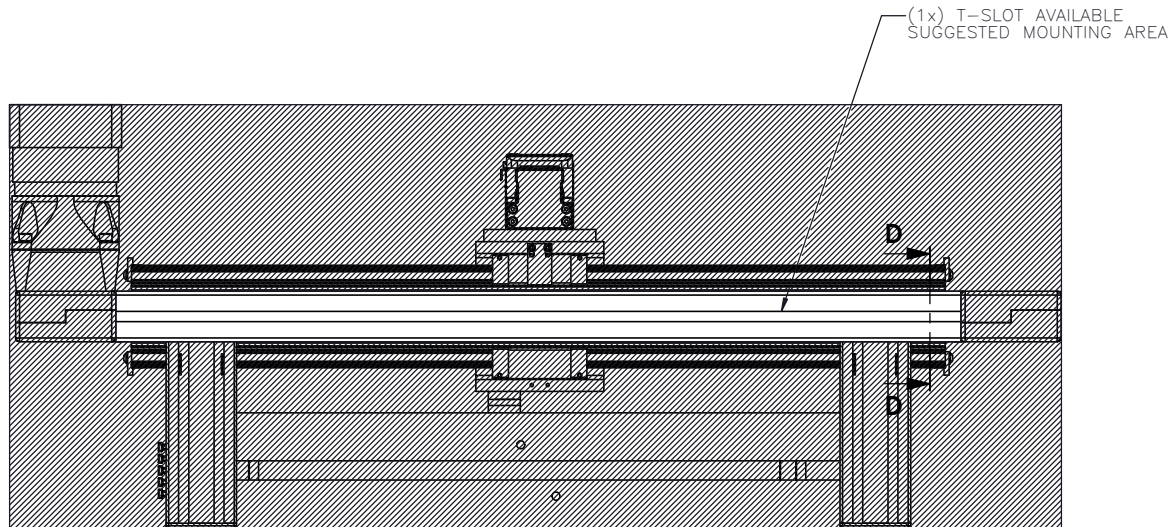


CABLE TRACK CROSS SECTION




 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 11/8/2023	MATERIAL:	TITLE: <b>MACRON R6D XZ GANTRY</b>
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: awong      DATE: 11/9/2023	UNLESS OTHERWISE SPECIFIED: .X ± .762 DIMENSIONS ARE IN MILLIMETERS: .XX ± .254 TOLERANCES UNLESS NOTED: .XXX ± .127 OTHERWISE: ANG ± 0°30'	
	SURFACE FINISH: <input checked="" type="checkbox"/>	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.		SHEET: 2 OF 6	PART NUMBER: MGS-R6D-XXX-X-SXXX
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING <b>THIRD ANGLE PROJECTION</b>			

# GANTRY MOUNTING FOOTPRINT



SECTION D-D

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: <b>AW</b> DATE: <b>11/8/2023</b>	MATERIAL:	TITLE: <b>MACRON R6D XZ                  GANTRY</b>
	CHECKED BY: <b>--</b> DATE: <b>DD/MM/YYYY</b>	FINISH:	
	LAST SAVED BY: <b>awong</b> DATE: <b>11/9/2023</b>	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>MGS-R6D-XXX-X-SXXX</b>	SCALE: <b>1:1</b> SHEET SIZE: <b>C</b>
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# Z AXIS SCREW TABLE SELECTION

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

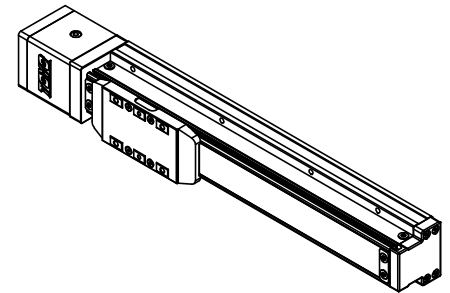
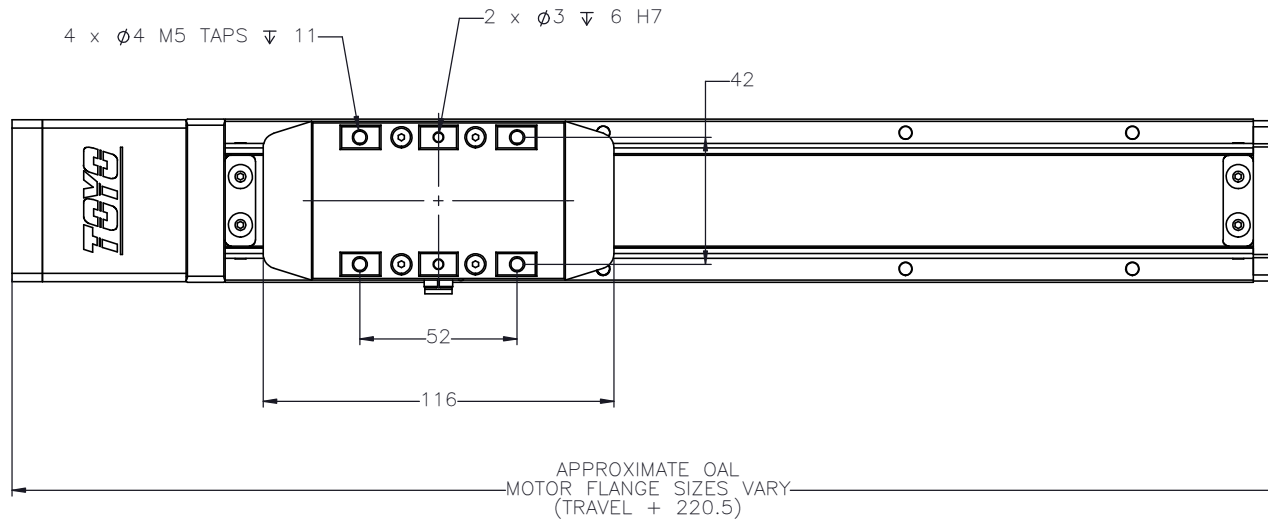
SENSOR CODE C3 = 1 HOME, 1 LIMIT SENSOR  
C4 = 1 HOME, 2 LIMIT SENSOR  
E5 = NO SENSORS


MOTOR CODE

MOTOR POSITION UP

STROKE/TRAVEL (100mm, 200mm, 300mm, 400mm)

BALL SCREW LEAD (5mm, 10mm, 20mm)

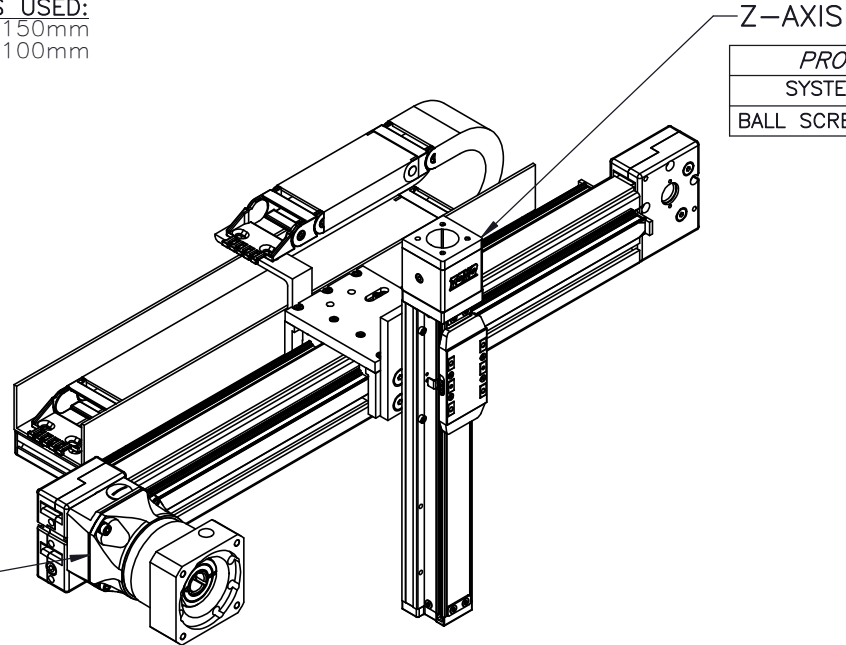


 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 11/8/2023	MATERIAL:	TITLE: TOYO 10mm LEAD SCREW TABLE
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: awong      DATE: 11/9/2023	UNLESS OTHERWISE SPECIFIED: .X ± .762 DIMENSIONS ARE IN MILLIMETERS: .XX ± .254 TOLERANCES UNLESS NOTED: .XXX ± .127 OTHERWISE: ANG ± 0°30'	SCALE: 1:1      SHEET SIZE: C
	SURFACE FINISH: 63	SHEET: 4 OF 6      PART NUMBER: MGS-R6D-XXX-X-SXXX	REV: C
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# MOTOR SIZING INFORMATION

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE TRAVELS USED:  
X-TRAVEL = 150mm  
Z-TRAVEL = 100mm



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

X-AXIS

PROPERTY	BASE VALUE (T=150mm)
*MOVING MASS	2.05kg(+0.037kg/25mm)
BELT MASS	0.94kg(+0.028kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	150mm

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


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

Z-TRAVEL = \_\_\_\_\_ mm

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

GEARBOX MASS (ADD TO SYSTEM MASSES)	MPG-084	2.3kg
	MRG-084	5.6kg

TOTAL SYSTEM MASS	$(X-TRAVEL \times .0064) + (Z-TRAVEL \times .004) + 6.12 = \text{kg}$
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 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 11/8/2023 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: awong      DATE: 11/9/2023	MATERIAL:	TITLE:	
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS NOTED: OTHERWISE: ANG ± 0°30'	FINISH: .X ± .762 .XX ± .254 .XXX ± .127	SCALE 1:1	SHEET SIZE C
	SURFACE FINISH 63	BREAK ALL SHARP EDGES	SHEET 5 OF 6	PART NUMBER MGS-R6D-XXX-X-SXXX
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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

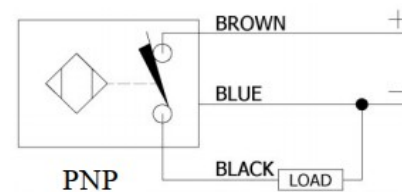
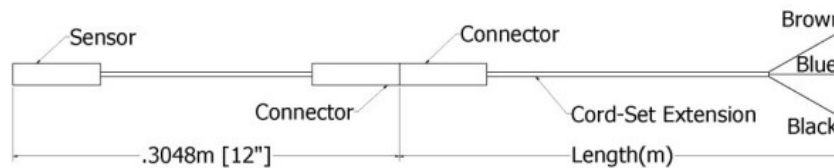
# Part Number Configuration

## 244- - - - -

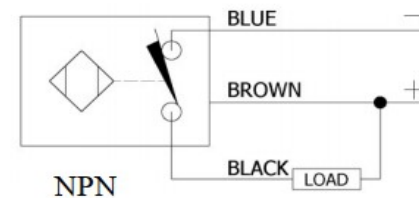
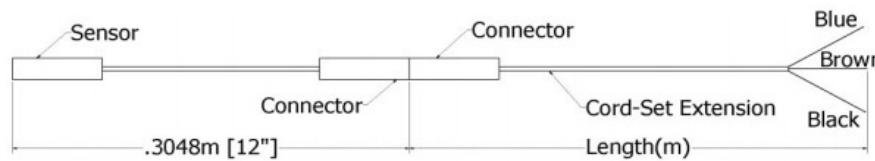
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

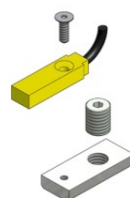
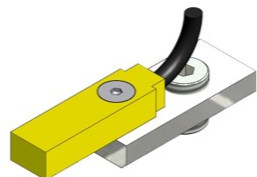
### PNP Diagrams



### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: AW      DATE: 11/8/2023 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: cwong      DATE: 11/9/2023	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: <input checked="" type="checkbox"/>	SHEET: 6 OF 6	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.	PART NUMBER: MGS-R6D-XXX-X-SXXX THIRD ANGLE PROJECTION	REV: C	