

GEARBOX MODEL (X-AXIS):  
 MPG-114 \_\_\_\_  
 RATIO: \_\_\_\_\_

GEARBOX MODEL (Z-AXIS):  
 VC-T-120 \_\_\_\_  
 RATIO: \_\_\_\_\_

MOTOR INFORMATION (X-AXIS):  
 MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

MOTOR INFORMATION (Z-AXIS):  
 MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

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

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

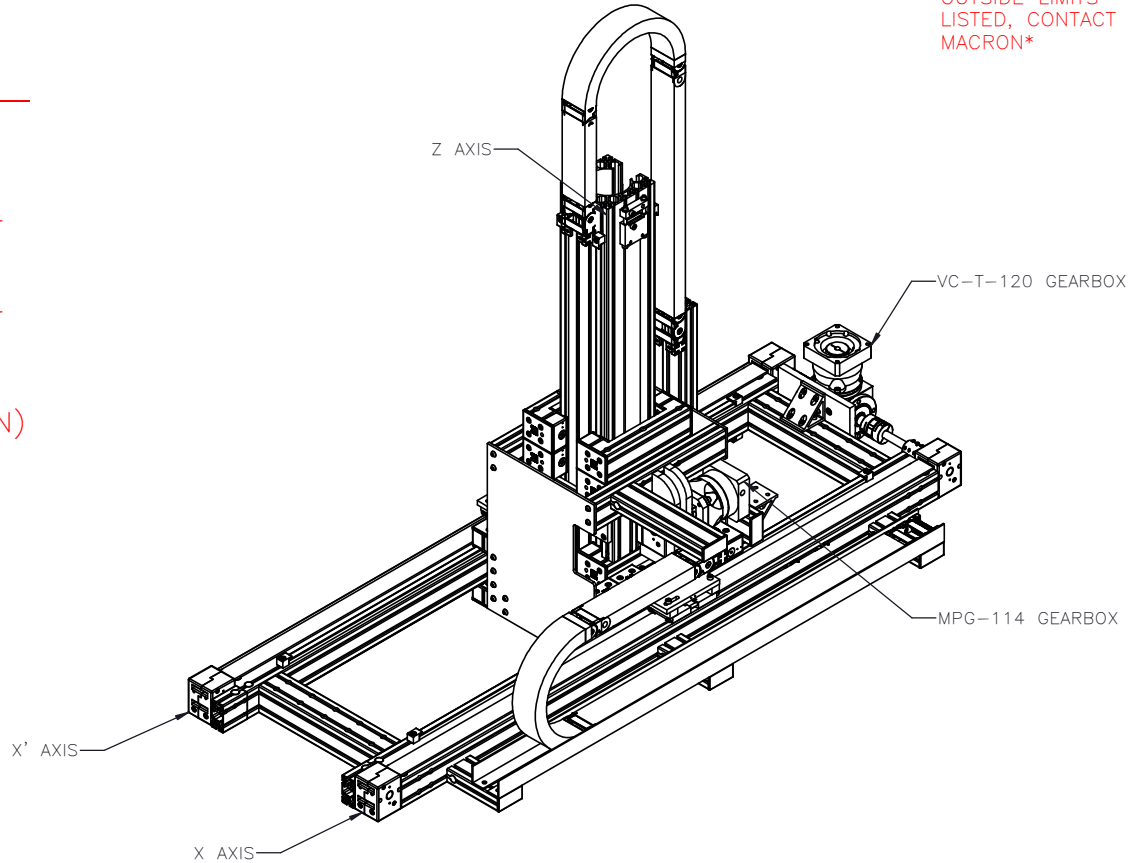
(SEE T-SLOT SENSOR KIT SHEET  
 FOR PART NUMBER CONFIGURATION)

MGS-UC4- [ ] -X- [ ]

ENTER Z-AXIS TRAVEL  
 TRAVEL IN INCREMENTS OF 25mm  
 TRAVEL LIMITS: 250mm-1000mm

ENTER X-AXIS TRAVEL  
 TRAVEL IN INCREMENTS OF 25mm  
 TRAVEL LIMITS: 1000mm-5150mm


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



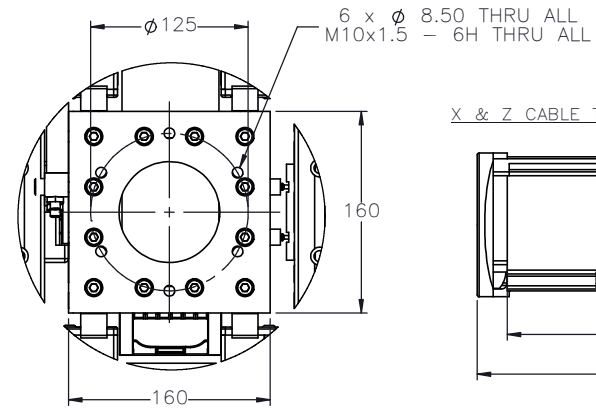
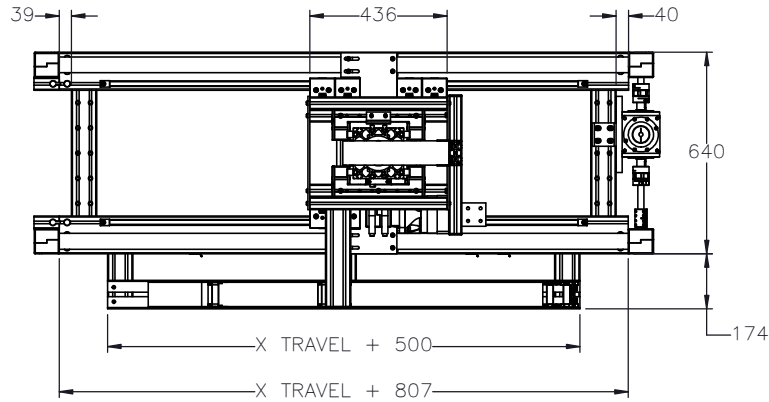
APPROVED: \_\_\_\_\_

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

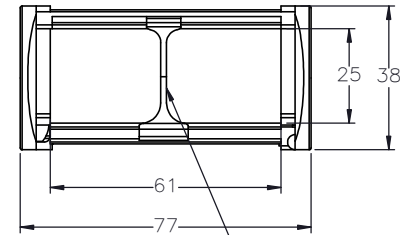
PO:REFERENCE#: \_\_\_\_\_

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW CHECKED BY: -- LAST SAVED BY: awong	DATE: 11/13/2023 DATE: DD/MM/YYYY DATE: 11/21/2023	MATERIAL: _____ FINISH: _____	TITLE: <b>UNIFIED CART          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
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: 1 OF 5 PART NUMBER: MGS-UC4-XXXX-X-XXXX	REV: _____	

# WORK ENVELOPE AND GANTRY FOOTPRINT



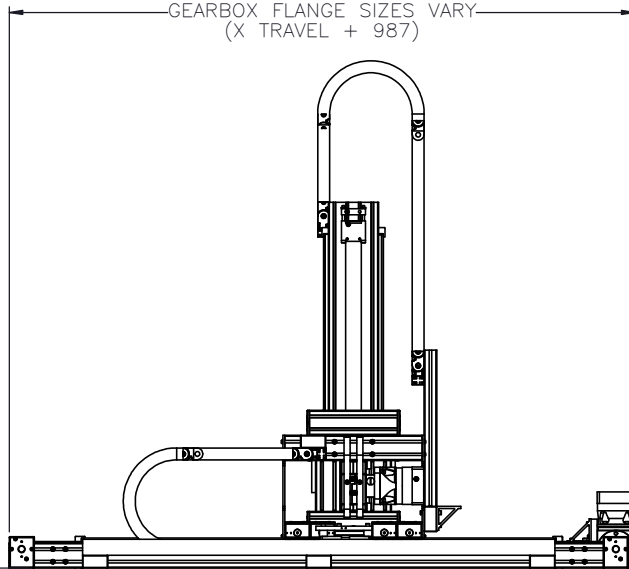
X & Z CABLE TRACK CROSS SECTION



(1x) SEPARATOR EVERY OTHER LINK

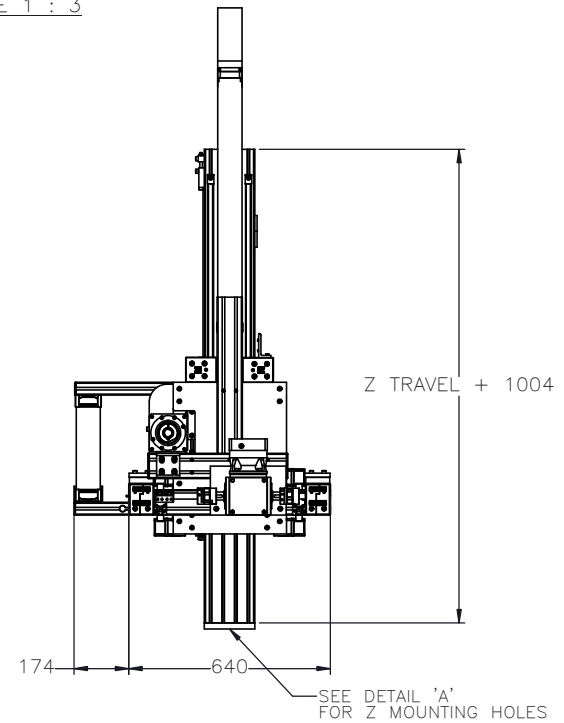
DETAIL A  
 SCALE 1 : 3

OPPROXIMATE OAL  
 GEARBOX FLANGE SIZES VARY  
 (X TRAVEL + 987)



Z TRAVEL  
 (TAKEN FROM  
 BOTTOM OF  
 Z AXIS BEAM)

X TRAVEL  
 (TAKEN FROM CENTER  
 OF Z AXIS)



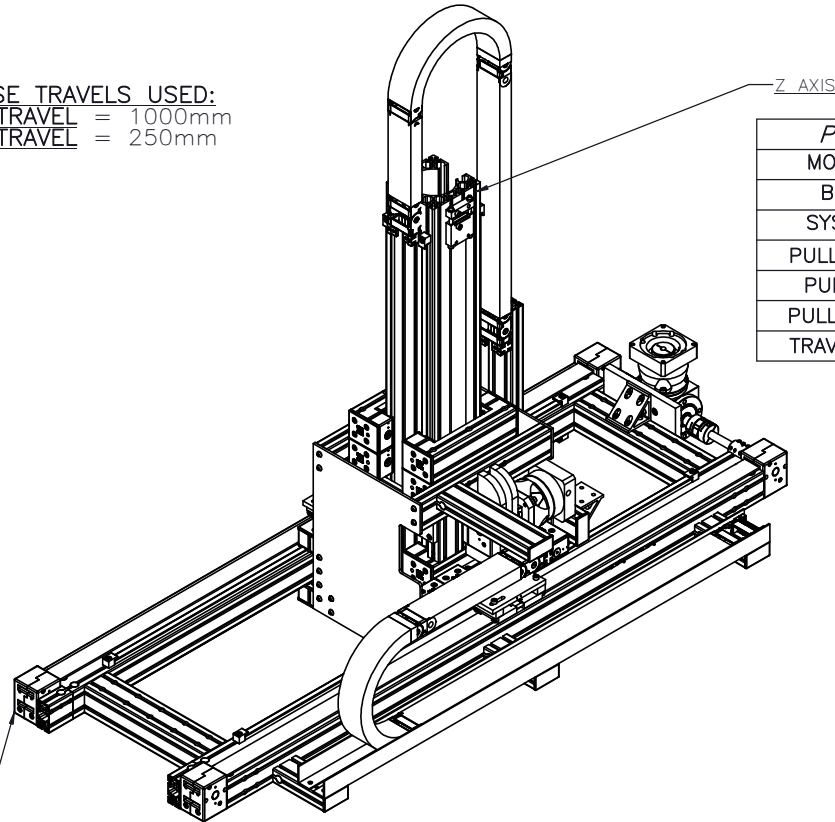
<p>MACRON DYNAMICS INC</p>	DRAWN BY: AW CHECKED BY: -- LAST SAVED BY: awong	DATE: 11/13/2023 DATE: DD/MM/YYYY DATE: 11/21/2023	MATERIAL:  FINISH:	TITLE: UNIFIED CART GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .XX ± .254 .XXX ± .127 ANG ± 0°30'		SCALE 1:1 SHEET SIZE C	
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# MOTOR SIZING INFORMATION

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE TRAVELS USED:  
X-TRAVEL = 1000mm  
Z-TRAVEL = 250mm



PROPERTY	BASE VALUE (T=250mm)
MOVING MASS	32.888kg(+0.689kg/25mm)
BELT MASS	0.426kg(+0.255kg/25mm)
SYSTEM MASS	89.887(+.691kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.880")
PULLEY WIDTH	54.0mm (2.124")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	150mm (5.906")

PROPERTY	BASE VALUE (T=1000mm)
*MOVING MASS	26.969kg(+0.535kg/25mm)
BELT MASS	0.010kg(+0.255kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.880")
PULLEY WIDTH	54.0mm (2.124")
PULLEY MATERIAL	STEEL
CONN SHAFT LENGTH	129mm (5.079")
CONN SHAFT $\phi$	19.05mm (.75")
CONN SHAFT MATERIAL	STEEL
TRAVEL PER REV	150mm (5.906")

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


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

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

GEARBOX MASS (ADD TO SYSTEM MASSES)	VC-T-120	8.0kg
	MPG-114	5.8kg

TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0288) + (Z \text{ TRAVEL} \times .0286) + 149.41 = \text{kg}$
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\*SYSTEM MASS OF Z-AXIS NEEDS TO BE ADDED TO THIS

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: AW      DATE: 11/13/2023 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: awong      DATE: 11/21/2023	MATERIAL:	TITLE:	
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS NOTED: OTHERWISE: ANG $\pm$ 0°30'	FINISH: .X $\pm$ .762 .XX $\pm$ .254 .XXX $\pm$ .127	SCALE 1:1	SHEET SIZE C
	SURFACE FINISH 63	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING	SHEET 4 OF 5	PART NUMBER MGS-UC4-XXXX-X-XXXX
	THIRD ANGLE PROJECTION		REV	

# 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

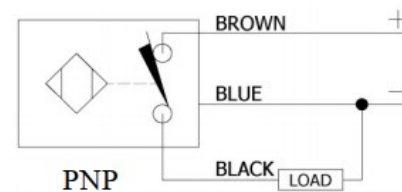
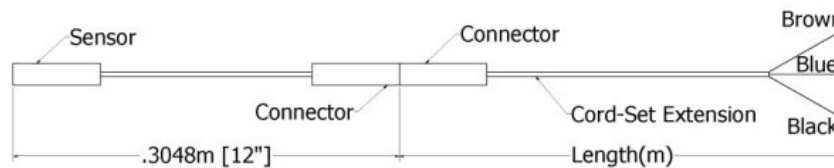
# Part Number Configuration

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

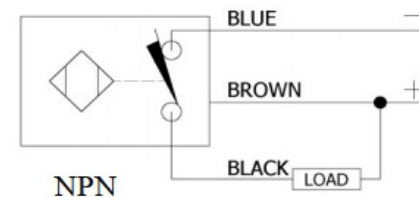
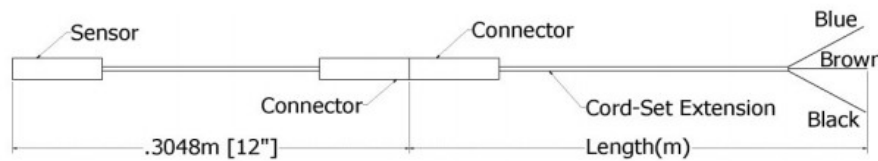
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

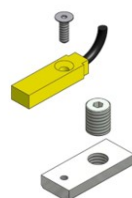
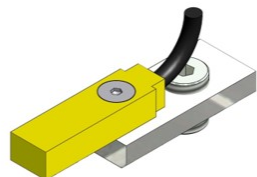
### PNP Diagrams



### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: AW CHECKED BY: -- LAST SAVED BY: Paul	DATE: 11/13/2023 DATE: DD/MM/YYYY DATE: 11/21/2023	MATERIAL:	TITLE: T-SLOT SENSOR KIT
	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
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