

MGS-14S-  -  - X

## GEARBOX MODEL (X AXIS)

MPG-064      MPG-084      MPG-114

MRG-064      MRG-084      MRG-114

RATIO: \_\_\_\_\_

### GEARBOX MODEL (Y AXIS)

MPG-064 MPG-084 MPG-114

MRG-064      MRG-084      MRG-114

RATIO:                     

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

MOTOR INFORMATION (X AXIS)

MANUFACTURER: ( )

MODEL:

MOTOR INFORMATION (Y AXIS)

MANUFACTURER:

MODEL:

SENSOR INFORMATION X-AXIS:

HOME-QTY 244- - - -

EOT-QTY 244-

SENSOR INFORMATION Y-AXIS:

HOME-QTY 244- - - -

EOT-QTY 244-

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

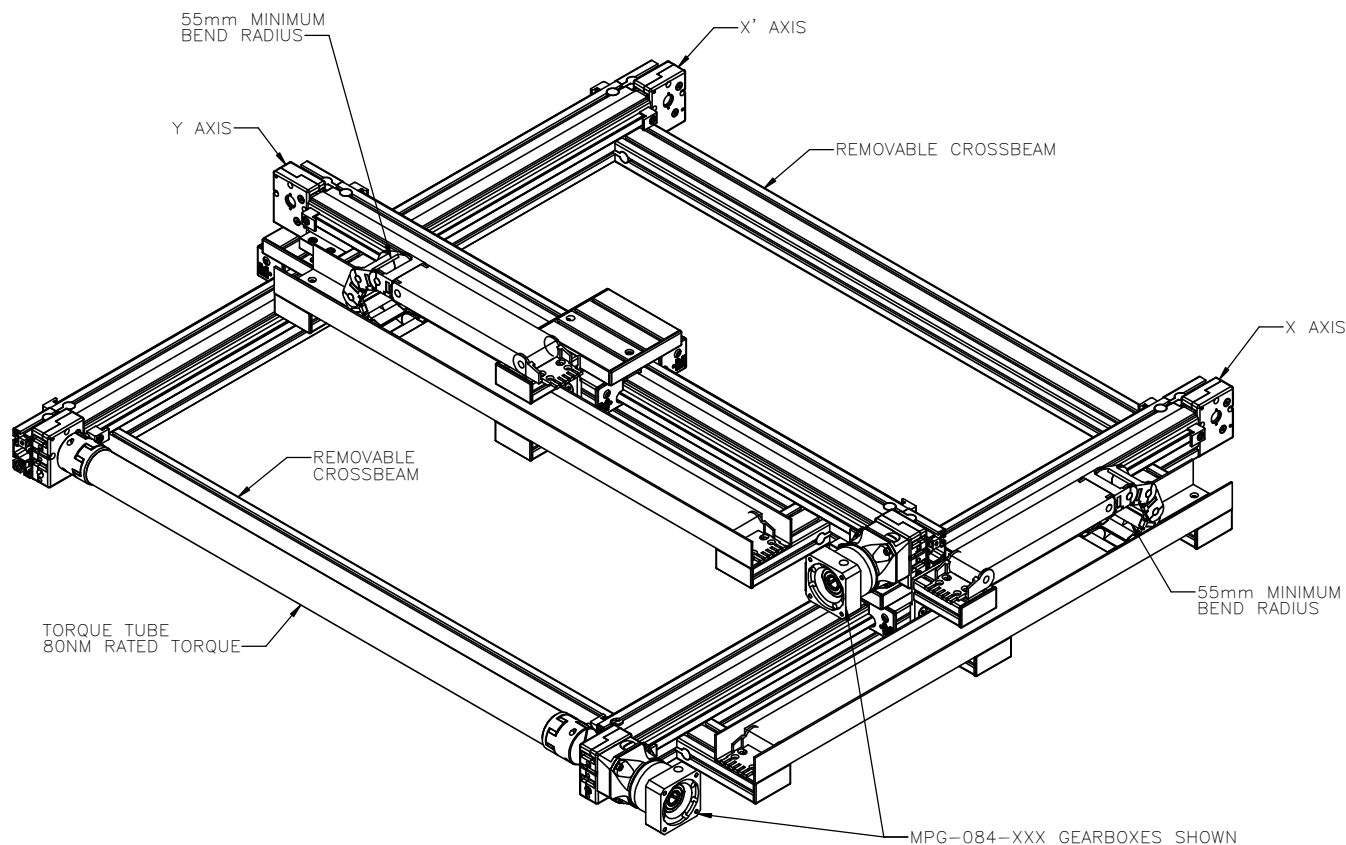
ENTER Y-AXIS TRAVEL

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

ENTER X-AXIS TRAVEL

TRAVEL IN INCREMENTS OF 25mm  
TRAVEL LIMITS: 500mm–5575mm

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

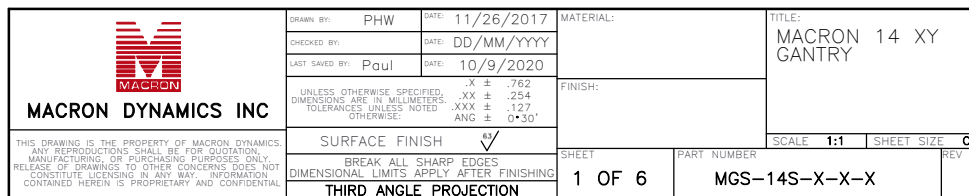


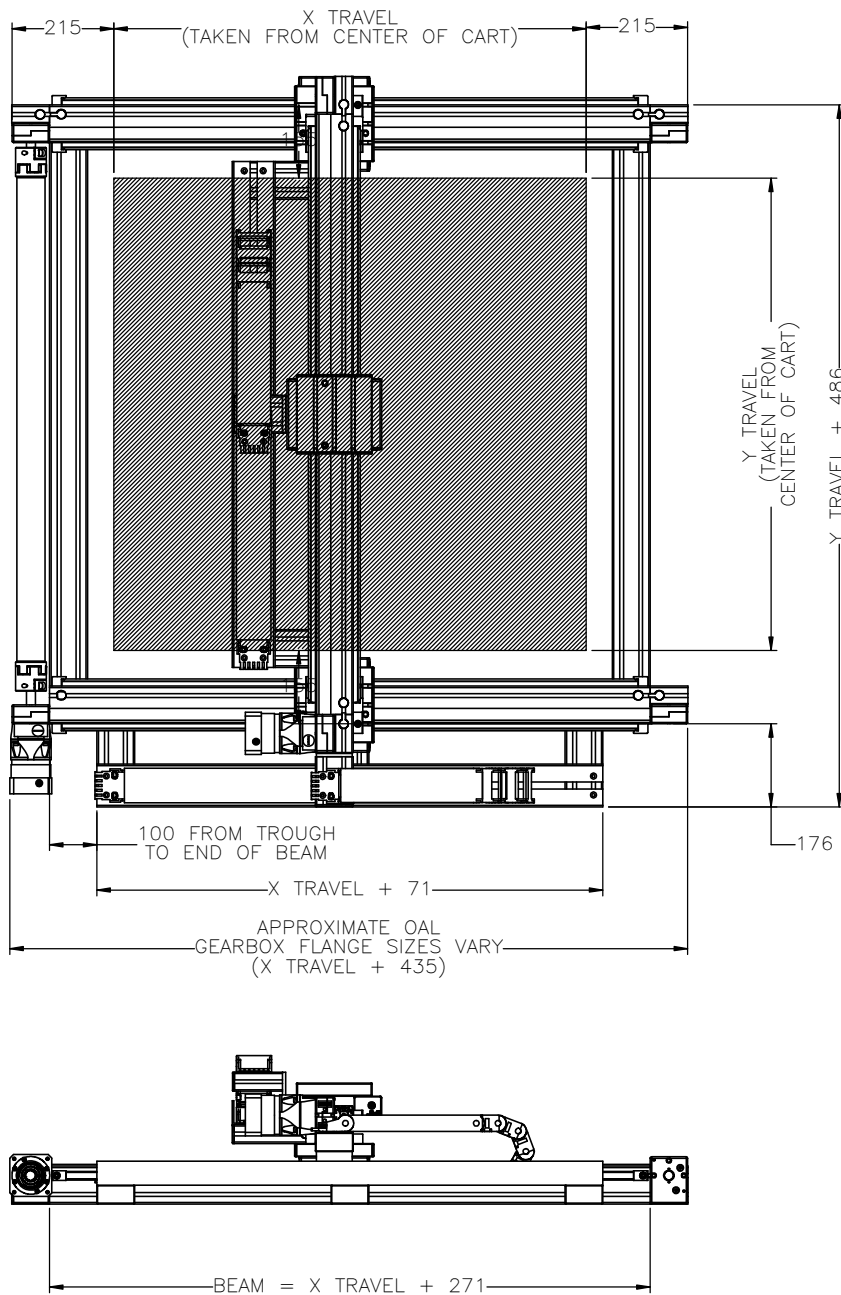
APPROVED: \_\_\_\_\_

SIGN &amp; PRINT

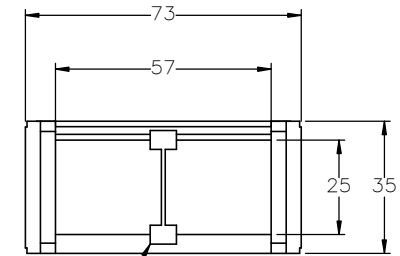
DATE: \_\_\_\_\_

PO:REFERENCE#:



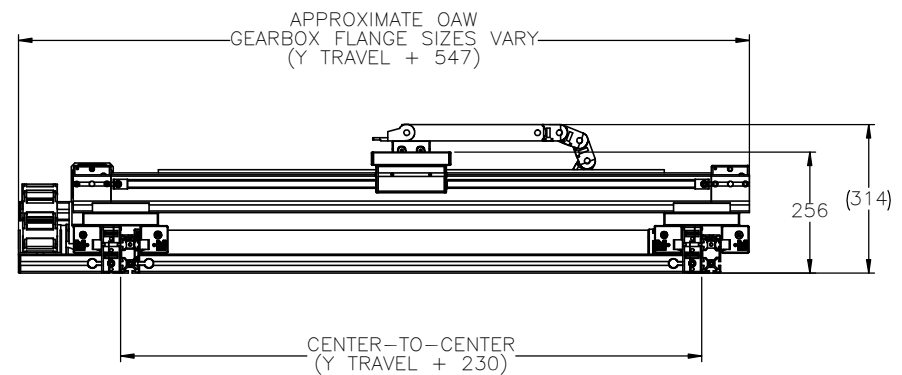



## GANTRY FOOTPRINT



(1x) SEPARATOR EVERY OTHER LINK

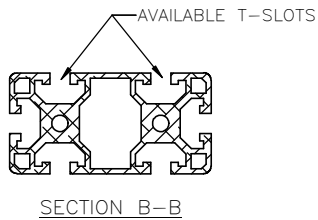
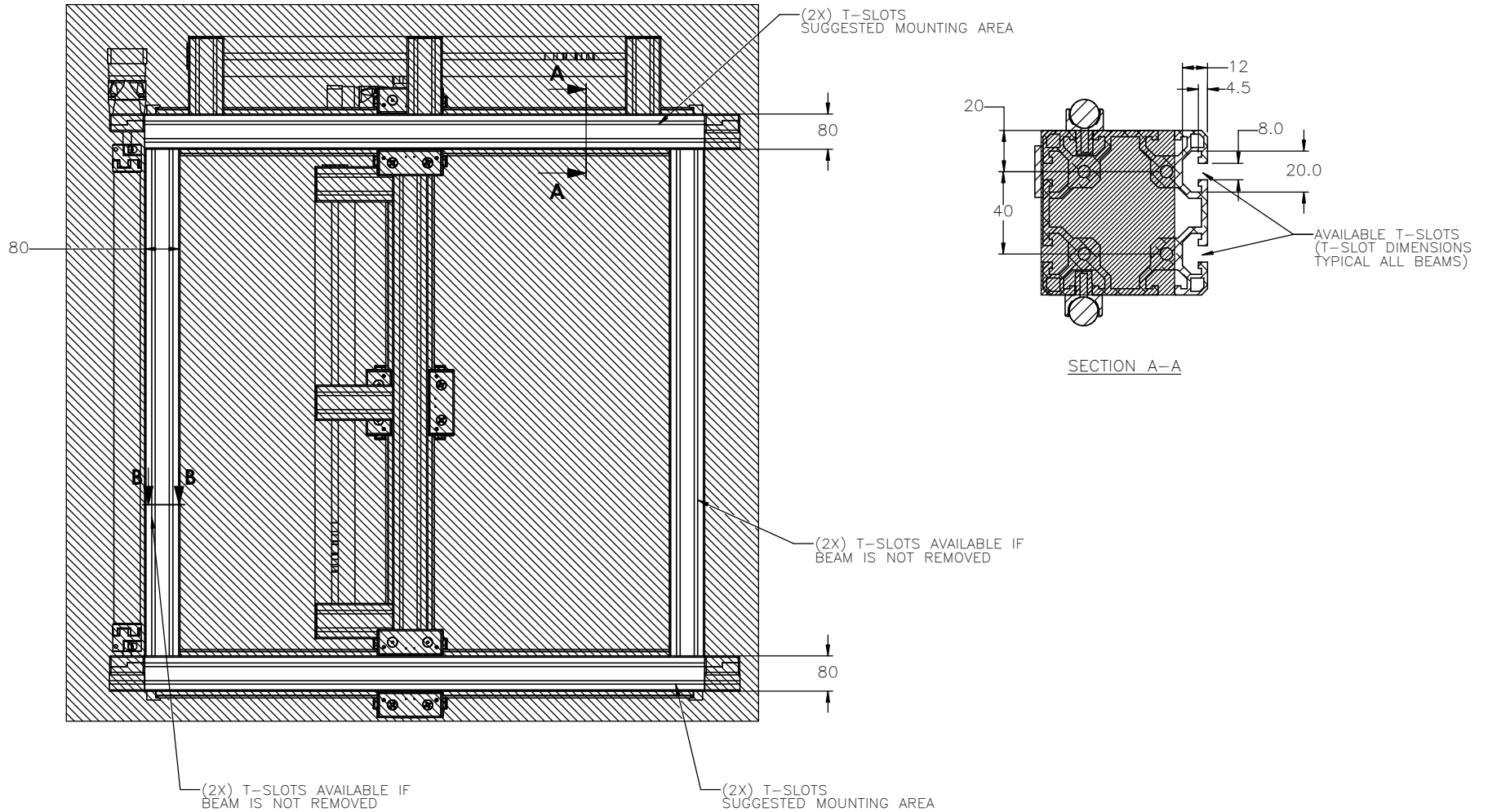
CABLE TRACK CROSS SECTION  
(SAME FOR BOTH AXES)




 <b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW	DATE: 11/26/2017	MATERIAL:	<b>MACRON 14 XY GANTRY</b>
	CHECKED BY:	DATE: DD/MM/YYYY		
	LAST SAVED BY: Paul	DATE: 10/9/2020		
	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 <b>THIRD ANGLE PROJECTION</b>		SHEET: 2 OF 6 PART NUMBER: MGS-14S-X-X-X SCALE: 1:1 SHEET SIZE: C REV:	

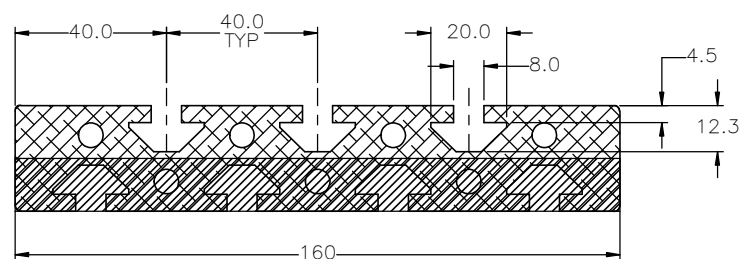
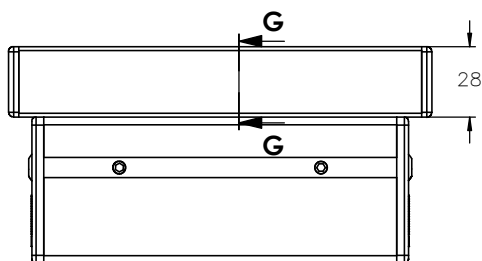
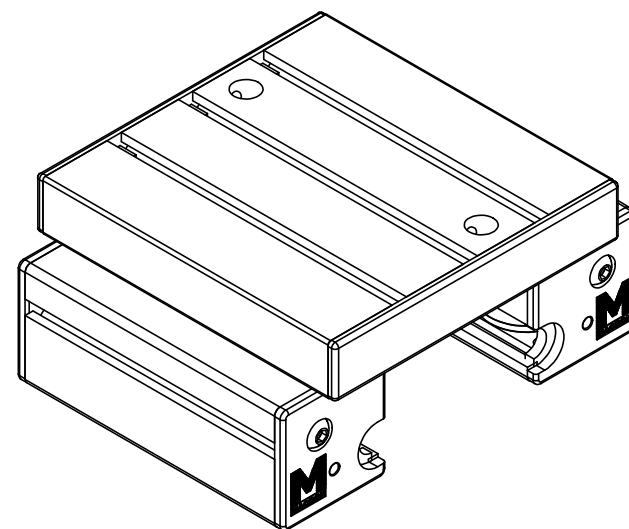
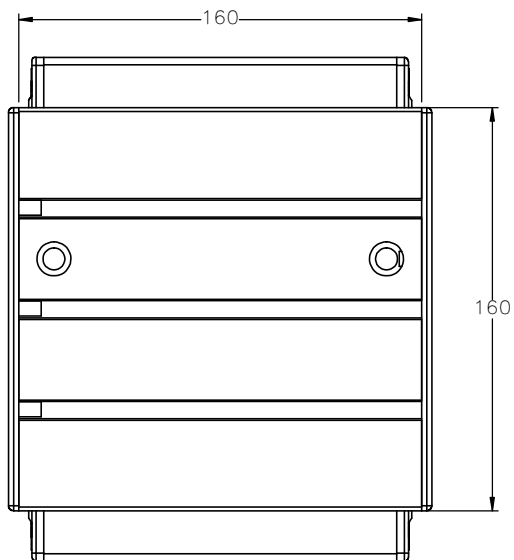
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 <b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW CHECKED BY: LAST SAVED BY: Paul	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 10/9/2020	MATERIAL:  FINISH:	TITLE: <b>MACRON 14 XY GANTRY</b>
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS NOTED OTHERWISE:		.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE: 1:1 SHEET SIZE: C
	SURFACE FINISH: <input checked="" type="checkbox"/> BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING		SHEET: 3 OF 6 PART NUMBER: MGS-14S-X-X-X	REV:
	THIRD ANGLE PROJECTION			

# CART MOUNTING FEATURES



SECTION G-G

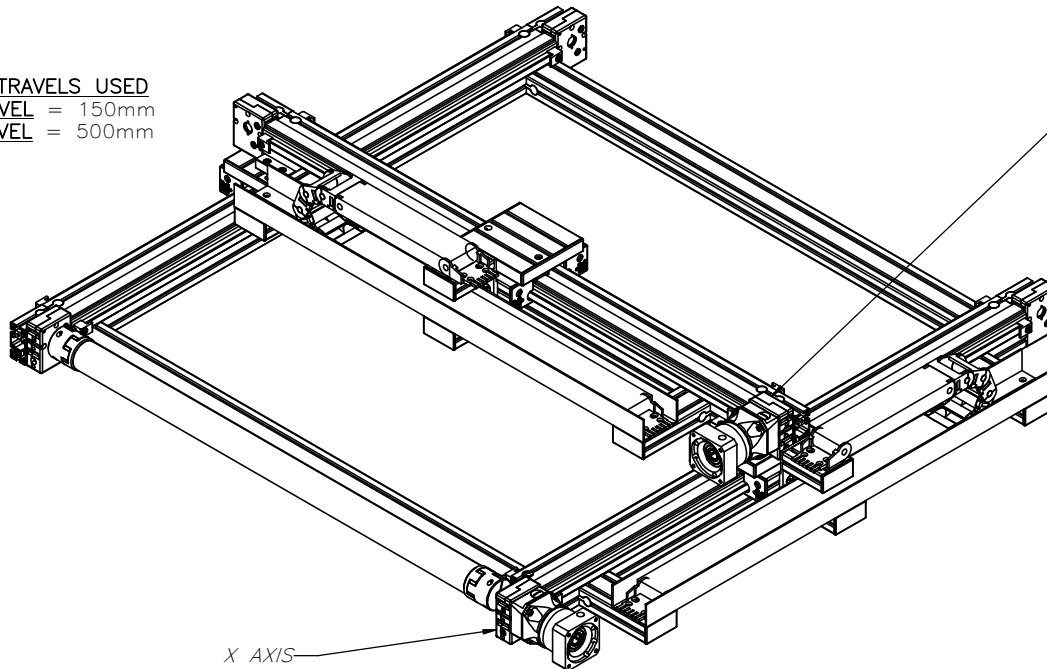
 <b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW CHECKED BY: LAST SAVED BY: Paul	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 10/9/2020	MATERIAL:  FINISH:	TITLE: CSA-14S
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .XX ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'		SCALE: 1:1 SHEET SIZE: C	REV
	SURFACE FINISH: <input checked="" type="checkbox"/> BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING		SHEET: 4 OF 6 PART NUMBER: MGS-14S-X-X-X	REV
	THIRD ANGLE PROJECTION			

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# MOTOR SIZING WORKSHEET

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE TRAVELS USED  
X-TRAVEL = 150mm  
Y-TRAVEL = 500mm




PROPERTY	BASE VALUE (T=500mm)
MOVING MASS	4.275(+0.018kg/25mm)
BELT MASS	
SYSTEM MASS	15.283(+0.188kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL

PROPERTY	BASE VALUE (T=150mm)
*MOVING MASS	8.742kg(+0.024kg/25mm)
BELT MASS	0.276kg(+0.012kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL
**TORQUE TUBE LENGTH	421mm
TORQUE TUBE $\phi$	65mm
**TORQUE TUBE MASS	0.95kg(+0.0563kg/25mm)
TORQUE TUBE MATERIAL	ANODIZED ALUMINUM ELASTOMER STYLE COUPLINGS WITH HUB
TRAVEL PER REV	150mm

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

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

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

TOTAL SYSTEM MASS		(X TRAVEL x .0125) + (Y TRAVEL x .0145) + 34.55 = kg	
 <b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW	DATE: 11/26/2017	MATERIAL:
	CHECKED BY:	DATE: DD/MM/YYYY	
	LAST SAVED BY: Paul	DATE: 10/9/2020	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .XX $\pm$ .254 .XXX $\pm$ .127 ANG $\pm$ 0°30'		FINISH:
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SHEET 5 OF 6		PART NUMBER MGS-14S-X-X-X	

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

\*\*BASE VALUE AT Y TRAVEL = 500mm

## SPECIFICATIONS

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

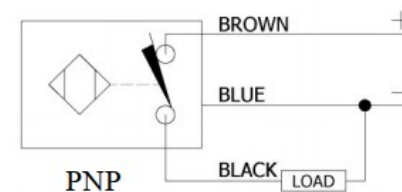
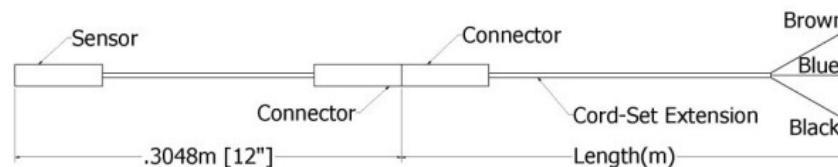
## Part Number Configuration

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

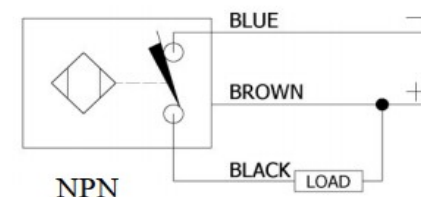
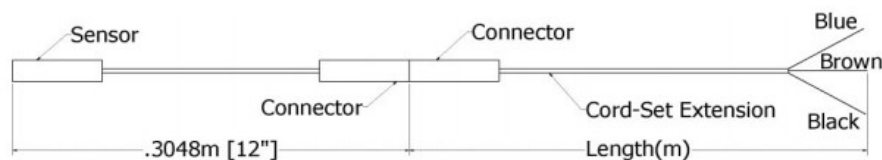
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

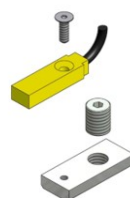
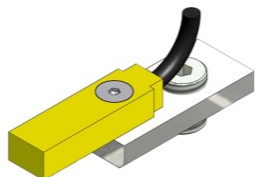
### PNP Diagrams




### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



 <b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW	DATE: 11/26/2017	MATERIAL:	TITLE: T-SLOT SENSOR KIT
	CHECKED BY:	DATE: DD/MM/YYYY		
	LAST SAVED BY: Paul	DATE: 10/9/2020	FINISH:	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'			
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	BREAK ALL SHARP EDGES		SHEET	
	DIMENSIONAL LIMITS APPLY AFTER FINISHING		PART NUMBER	
	THIRD ANGLE PROJECTION		REV C	
	6 OF 6		MGS-14S-X-X-X	