

MGS-TBG-12-

-X-

GEARBOX MODEL

MPG-062 _____

MRG-062 _____

RATIO: _____

ENTER Z-AXIS TRAVEL

TRAVEL IN INCREMENTS OF 250mm
TRAVEL LIMITS: 250mm-1000mm

ENTER X-AXIS TRAVEL

TRAVEL IN INCREMENTS OF 250mm
TRAVEL LIMITS: 250mm-2000mm

IF TRAVEL IS OUTSIDE LIMITS LISTED, CONTACT MACRON

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

MOTOR INFORMATION

MANUFACTURER: _____

MODEL: _____

SENSOR INFORMATION X-AXIS:

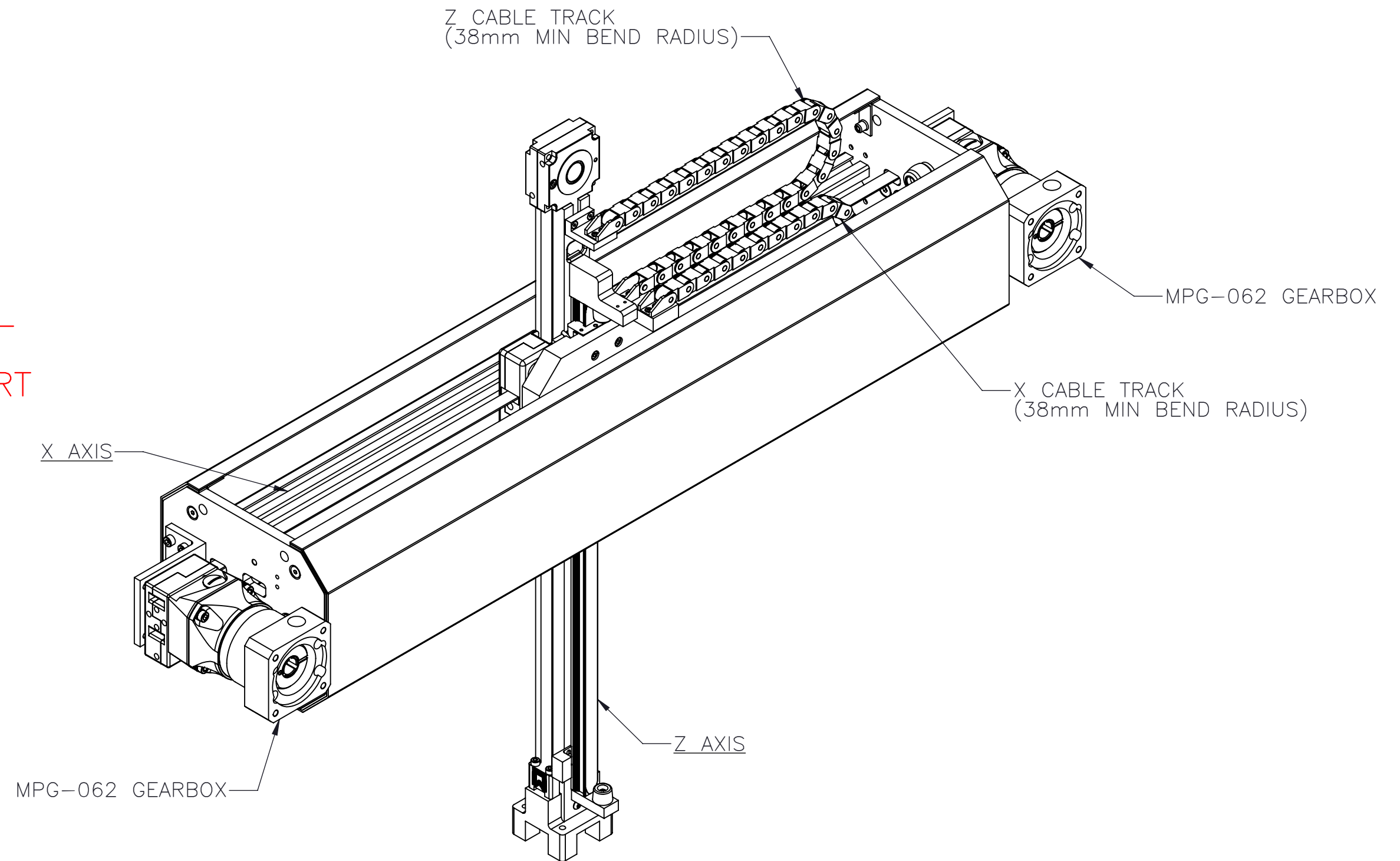
HOME-QTY ____ 244-____-____-____

EOT-QTY ____ 244-____-____-____

SENSOR INFORMATION Z-AXIS:

EOT-QTY (2 MAX) ____ 244-____-____-____

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

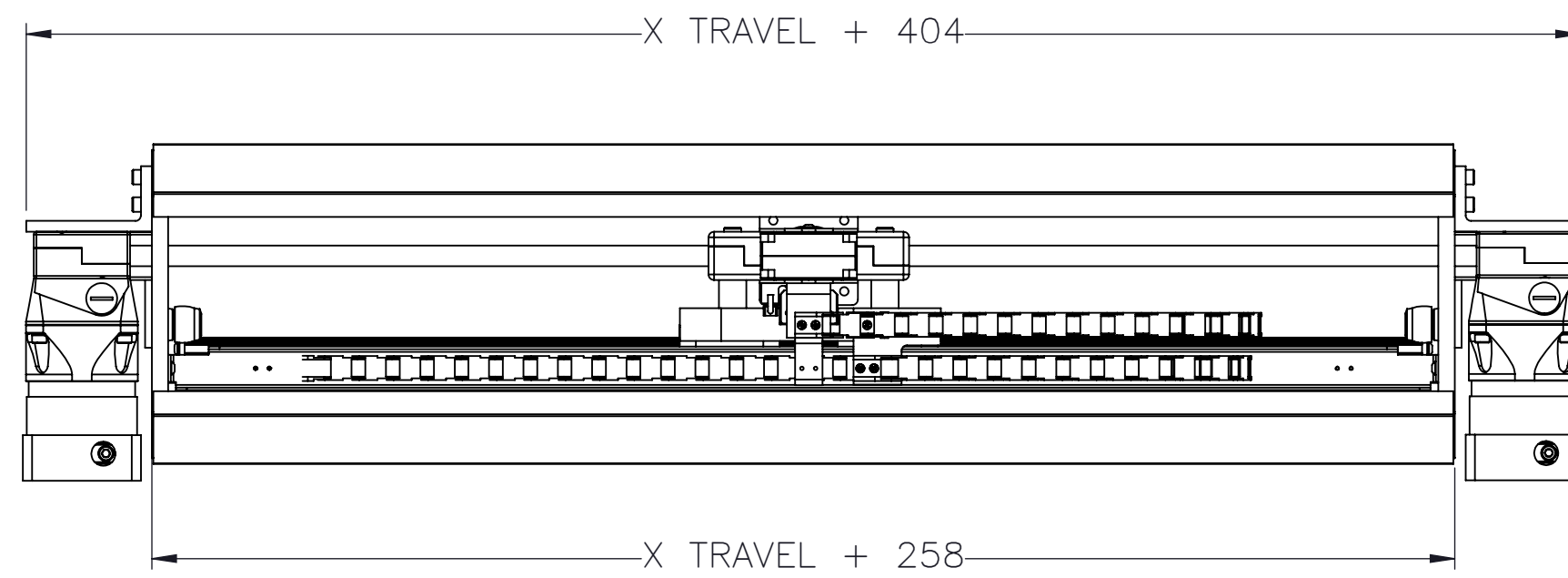


APPROVED: _____
SIGN & PRINT

DATE: _____

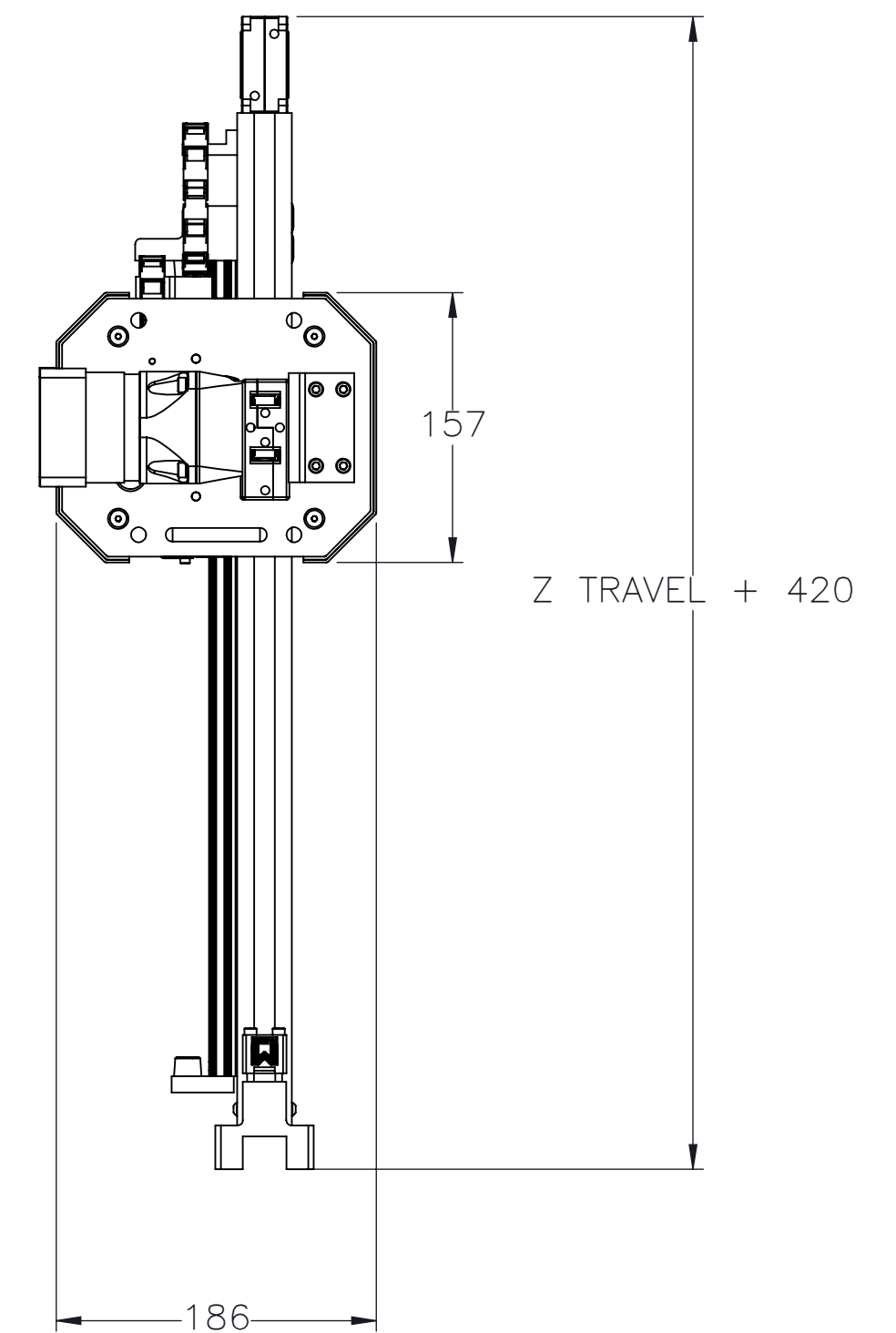
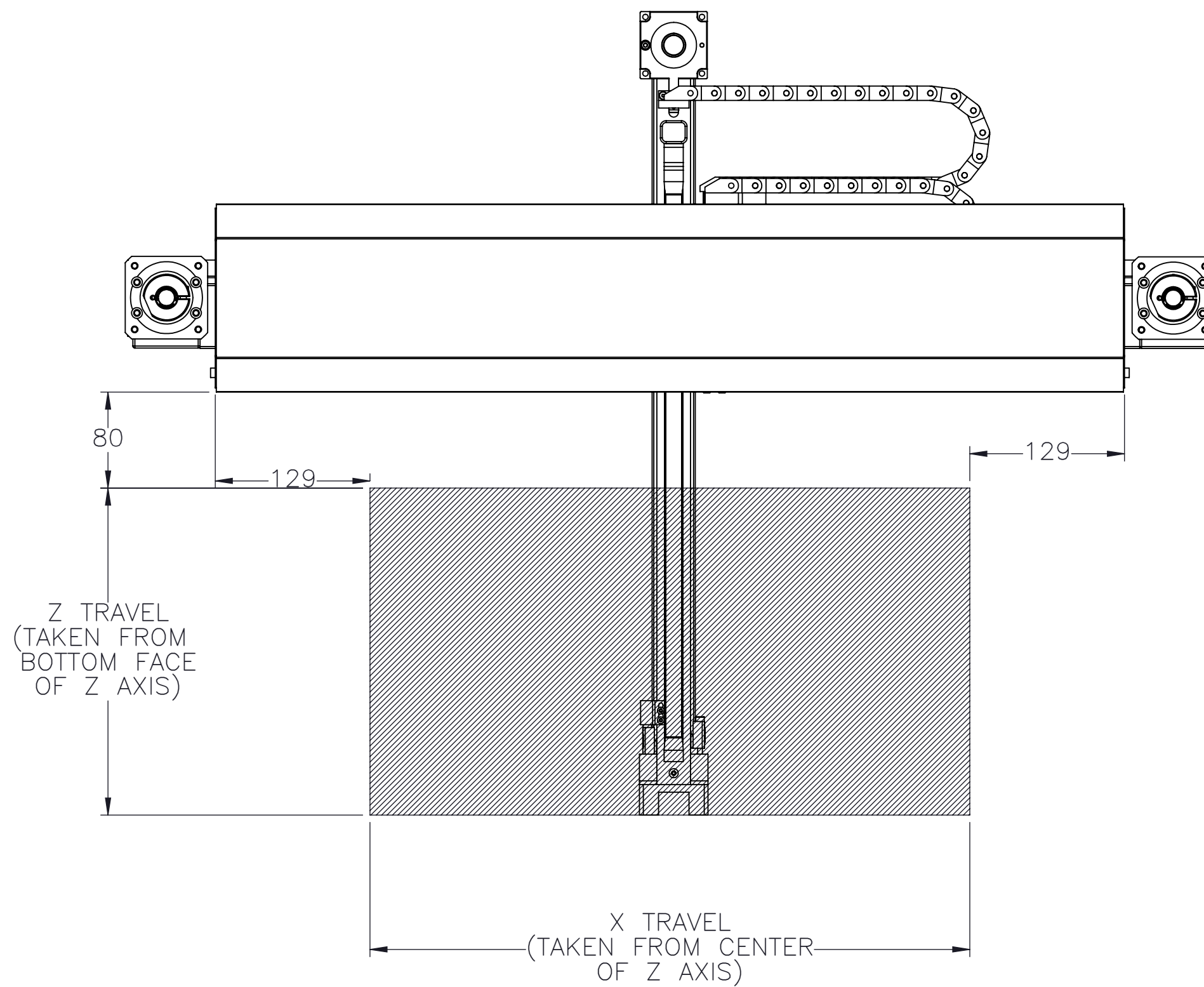
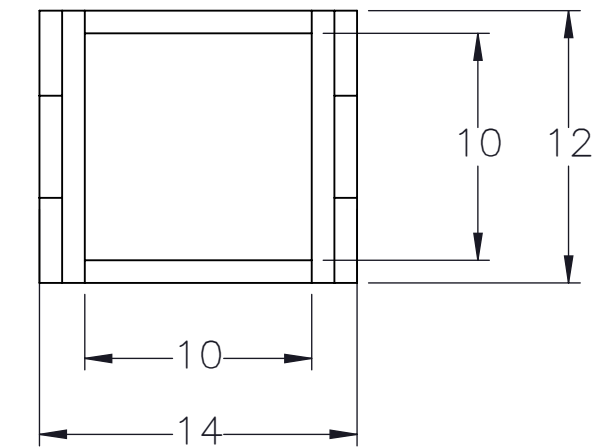
PO:REFERENCE#: _____


<p>MACRON DYNAMICS INC</p> <p><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></p>	DRAWN BY: JA CHECKED BY: LAST SAVED BY: TH	DATE: 4/24/2019 DATE: DD/MM/YYYY DATE: 2/9/2021	MATERIAL: FINISH:	TITLE: MACRON T-BOT 12 GANTRY	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETER. TOLERANCES UNLESS NOTED OTHERWISE: .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'		SCALE 1:1 SHEET SIZE C	REV	
	SURFACE FINISH 63/		SHEET 1 OF 9	PART NUMBER MGS-TBG-12-X-X-X	00
	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION				



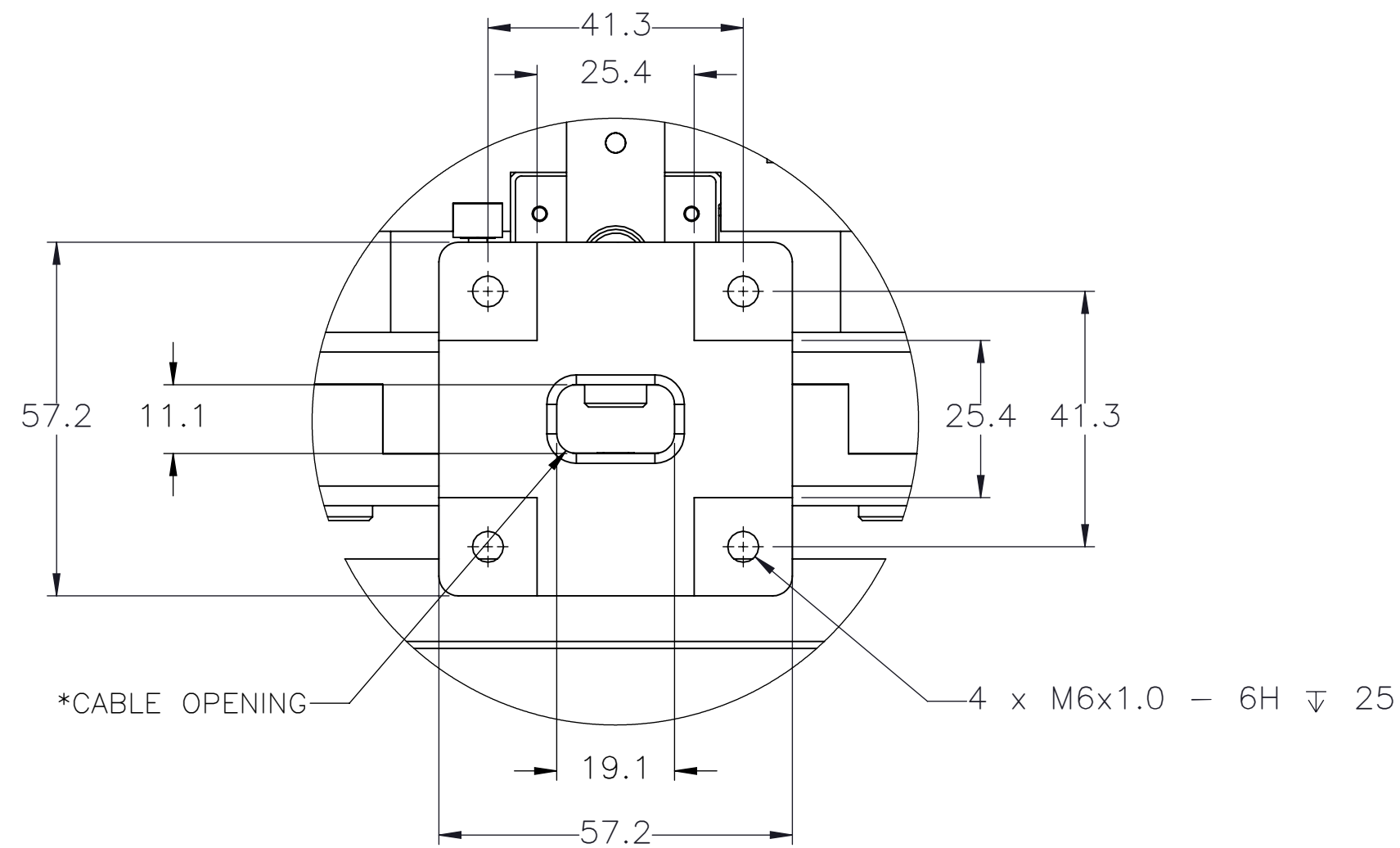
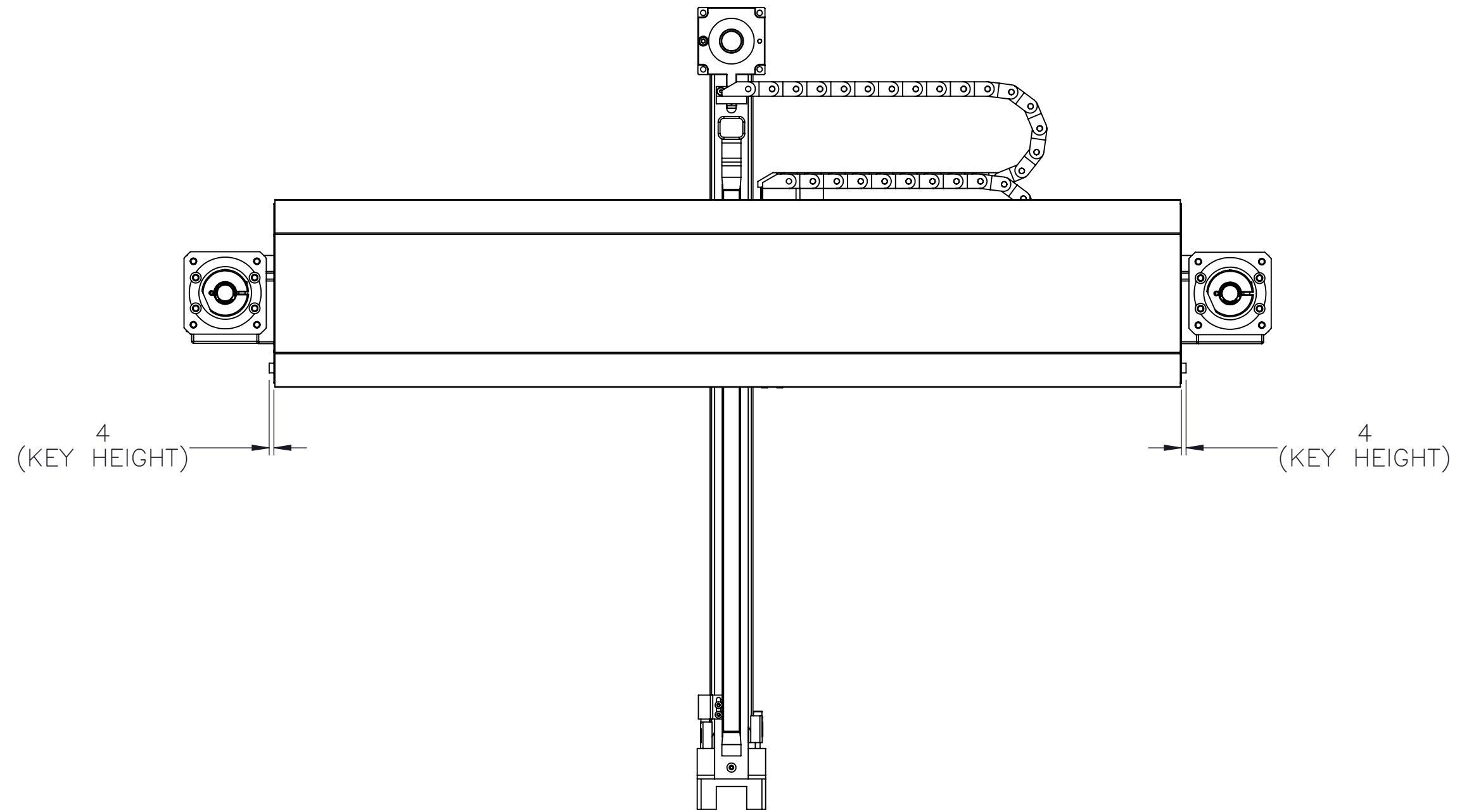
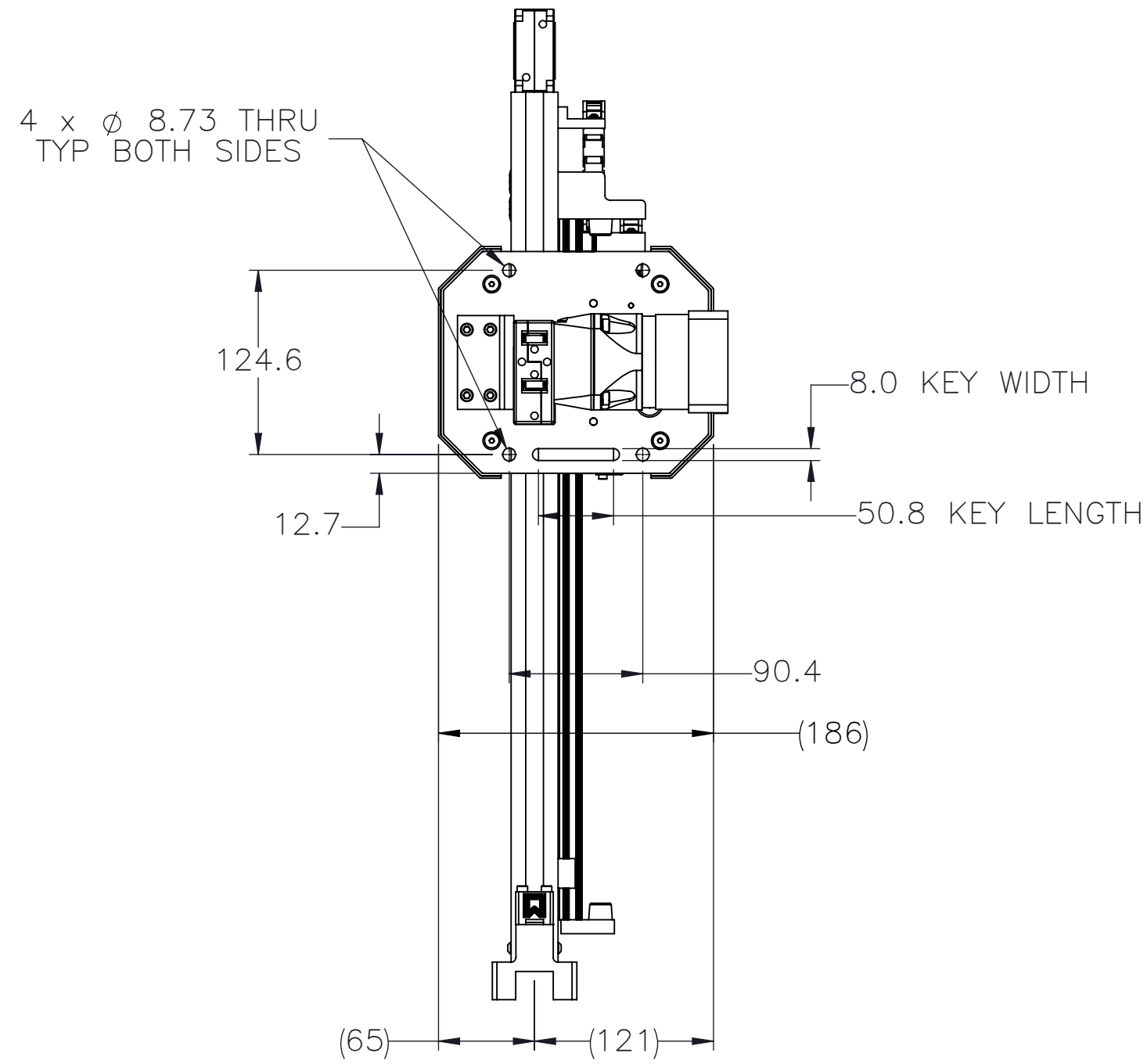
GANTRY FOOTPRINT

CABLE TRACK CROSS SECTION
(SAME FOR BOTH AXES)

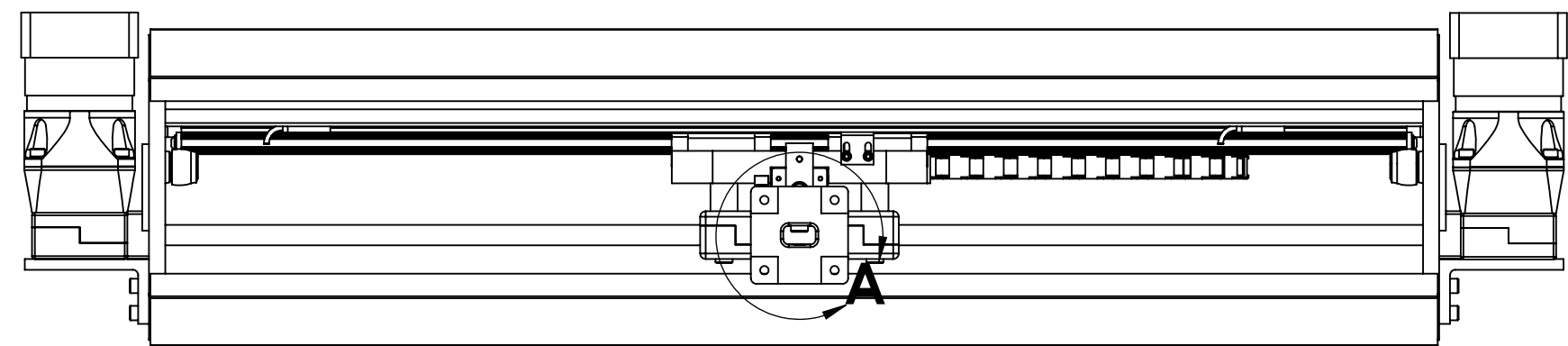



 MACRON DYNAMICS INC	DRAWN BY: JA CHECKED BY: LAST SAVED BY: TH	DATE: 4/24/2019 DATE: DD/MM/YYYY DATE: 2/9/2021	MATERIAL: FINISH:	TITLE: MACRON T-BOT 12 GANTRY	
	<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS NOTED OTHERWISE:</small>		<small>.X ± .03 .XX ± .010 .XXX ± .005 ANG ± 0°30'</small>	SCALE 1:1 SHEET SIZE C	
	SURFACE FINISH 63		SHEET 2 OF 9	PART NUMBER MGS-TBG-12-X-X-X	REV 00
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GANTRY MOUNTING FEATURES



DETAIL A
SCALE 1 : 1

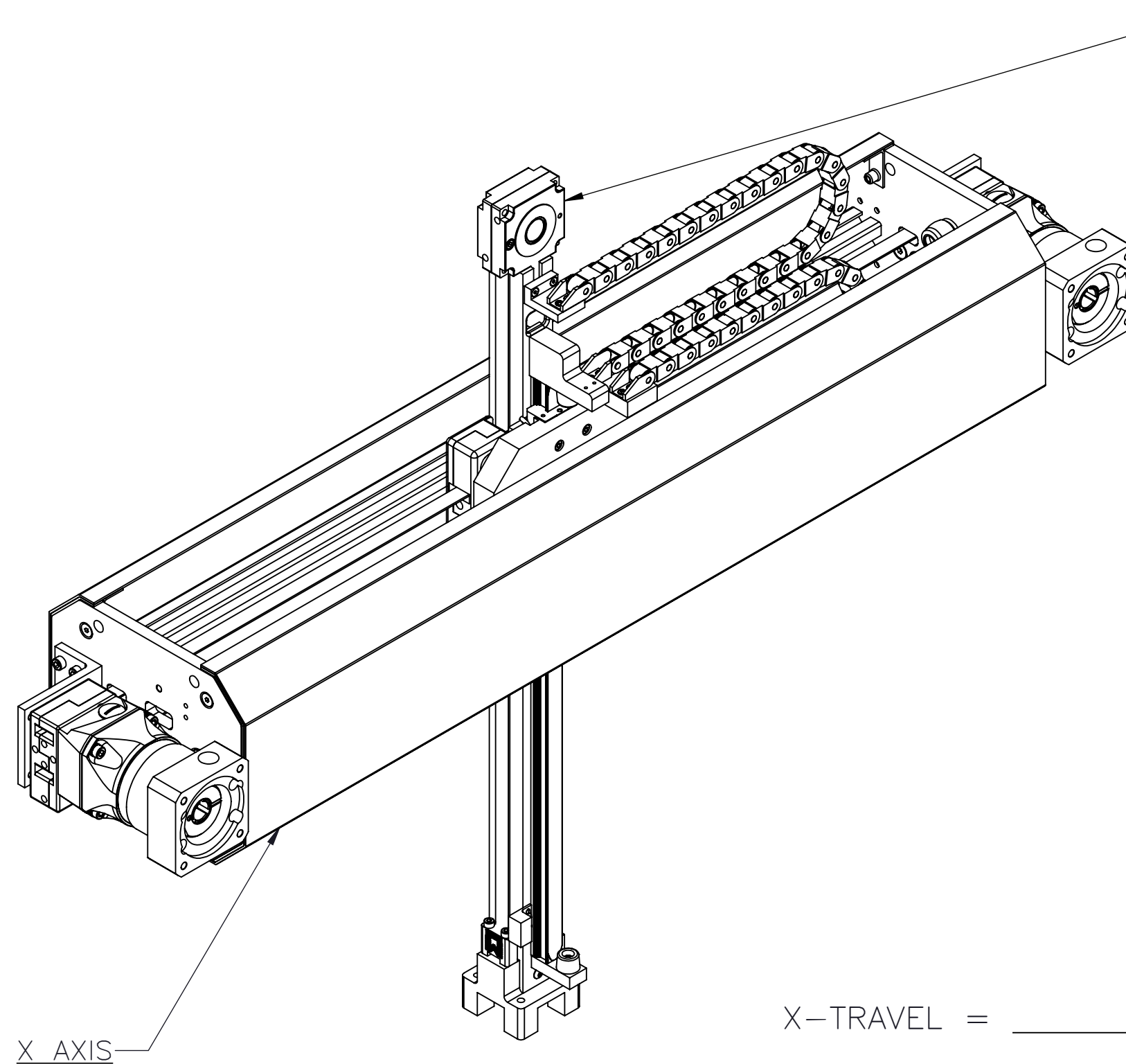


 MACRON DYNAMICS INC	DRAWN BY: JA CHECKED BY: LAST SAVED BY: TH	DATE: 4/24/2019 DATE: DD/MM/YYYY DATE: 2/9/2021	MATERIAL: FINISH:	TITLE: MACRON T-BOT 12 GANTRY	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .X \pm .762 .XX \pm .254 .XXX \pm .127 ANG \pm 0°30'		SCALE 1:1 SHEET SIZE C	REV	
	SURFACE FINISH ∇ 63 BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		SHEET 3 OF 9	PART NUMBER MGS-TBG-12-X-X-X	00
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MOTOR SIZING INFORMATION

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

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



PROPERTY	BASE VALUE (T=250mm)
MOVING MASS	2.134kg(+0.063kg/25mm)
SYSTEM MASS	4.195kg(+0.063kg/25mm)
BELT MASS OF Z-AXIS	0.045kg(+0.002kg/25mm)
PULLEY PITCH ϕ	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	105mm

PROPERTY	BASE VALUE (T=250mm)
*MOVING MASS	0.094kg(+0.002kg/25mm)
BELT MASS OF X-AXIS	0.051kg(+0.002kg/25mm)
PULLEY PITCH ϕ	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	105mm

*Z AXIS SYSTEM MASS NEEDS TO BE ADDED TO THIS


X-TRAVEL = _____ mm

Y-TRAVEL = _____ mm

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

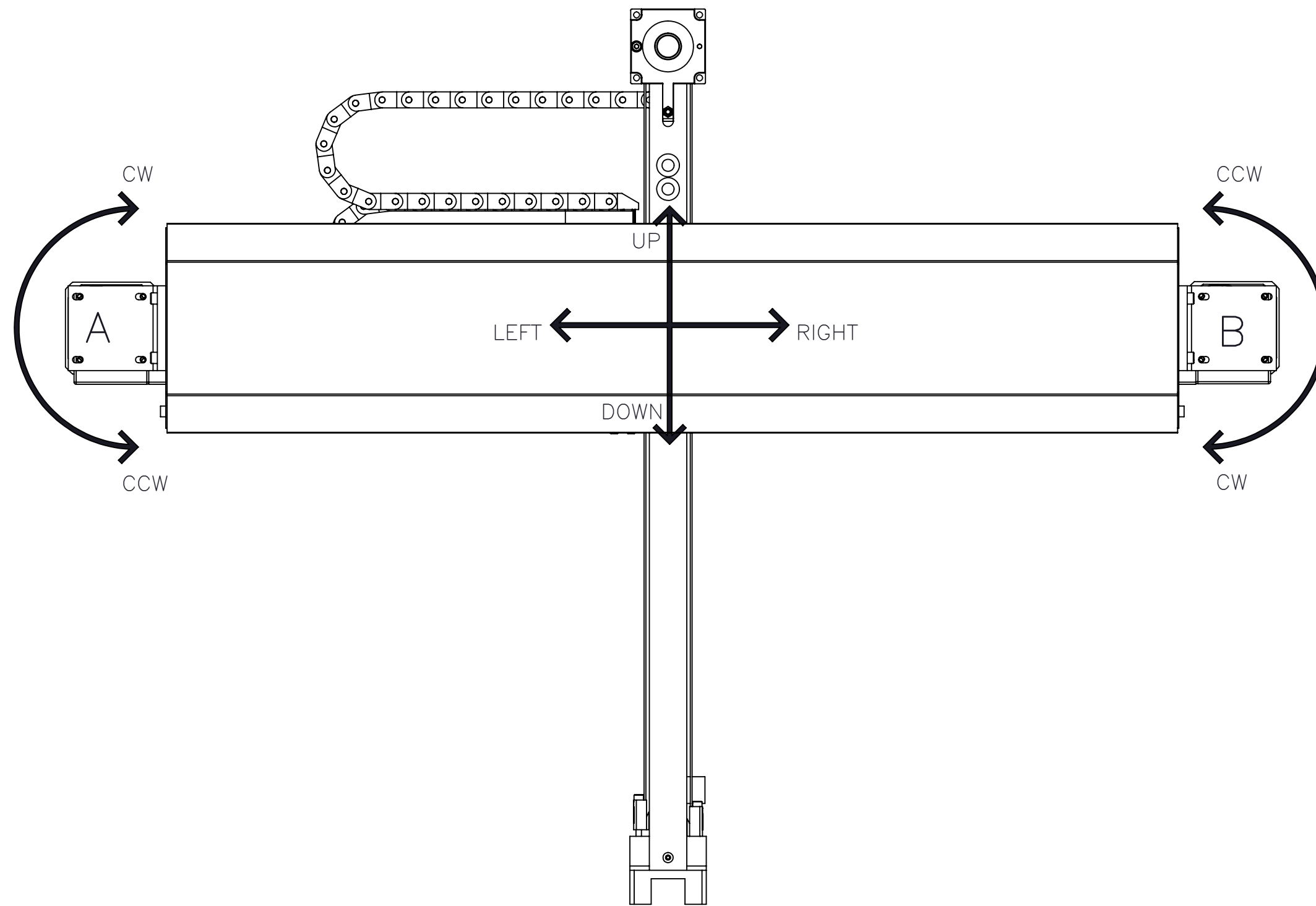
GEARBOX MASS (ADD TO SYSTEM MASSES)	MPG-062	1.0kg
	MRG-062	3.0kg

TOTAL BELT MASS	$(X \text{ TRAVEL} \times .00008) + (Z \text{ TRAVEL} \times .00008) + .057 = \text{kg}$
TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0092) + (Z \text{ TRAVEL} \times .0028) + 8.71 = \text{kg}$

 MACRON DYNAMICS INC	DRAWN BY: JA DATE: 4/24/2019 CHECKED BY: DATE: DD/MM/YYYY LAST SAVED BY: TH DATE: 2/9/2021	MATERIAL:	TITLE: MACRON T-BOT 12 GANTRY	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	FINISH:		
	SURFACE FINISH \checkmark	SCALE 1:1 SHEET SIZE C		
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MOTOR DYNAMICS

(ASSUMES MOTORS ARE ROTATING AT SAME ANGULAR VELOCITY)



ROTATIONAL DIRECTION		Z-AXIS MOVEMENT
PULLEY A	PULLEY B	
CW	CW	LEFT
CW	CCW	UP
CCW	CW	DOWN
CCW	CCW	RIGHT

*PULLEY ROTATION AND Z-AXIS MOVEMENT ARE WITH RESPECT TO THIS GANTRY VIEW

 MACRON DYNAMICS INC	DRAWN BY: JA DATE: 4/24/2019	MATERIAL:	TITLE:
	CHECKED BY: DATE: DD/MM/YYYY	FINISH:	SCALE 1:1 SHEET SIZE C
	LAST SAVED BY: TH DATE: 2/9/2021		
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SHEET 5 OF 9 PART NUMBER MGS-TBG-12-X-X-X REV
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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

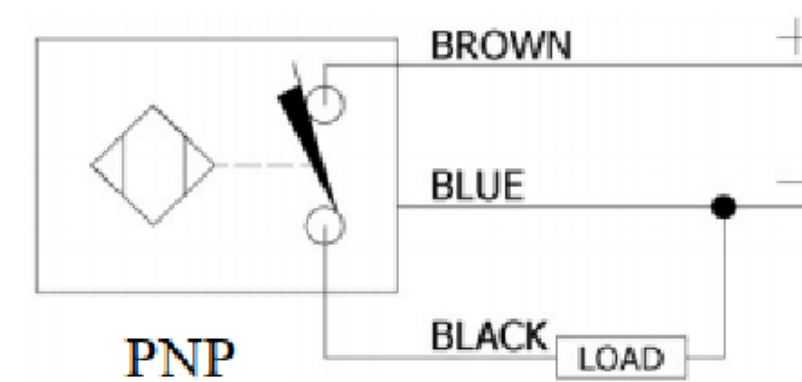
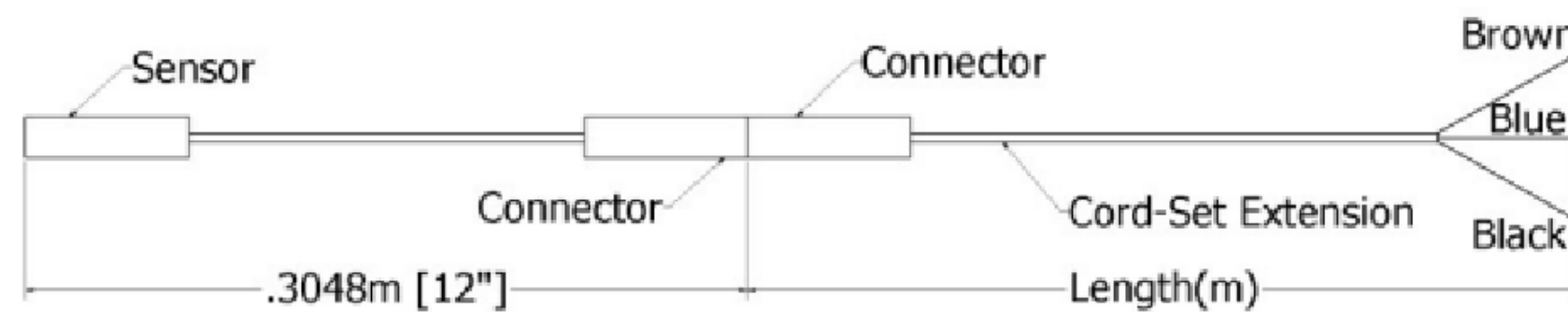
Part Number Configuration

244-____-____-____

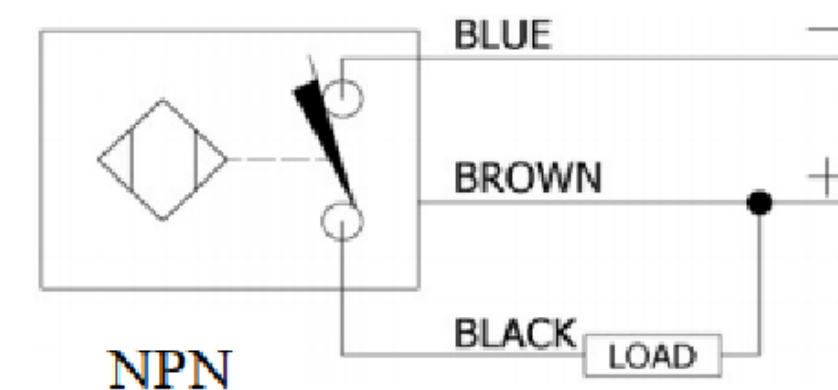
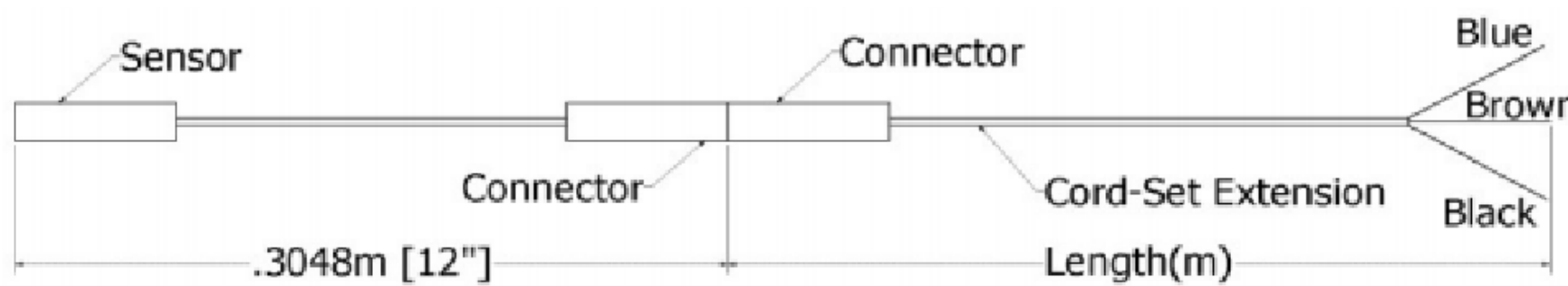
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

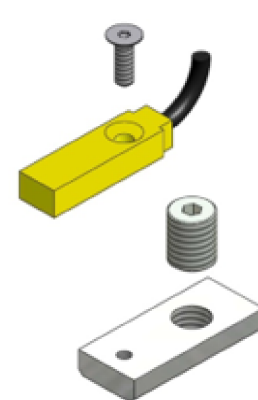
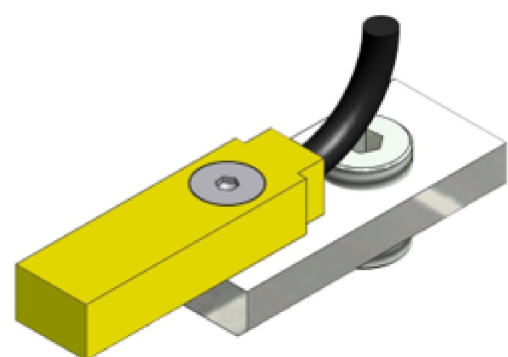
PNP Diagrams



NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: PHW CHECKED BY: LAST SAVED BY: Paul	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 2/9/2021	MATERIAL: FINISH:	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'	SURFACE FINISH: 63 ✓ BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET: 6 OF 9 PART NUMBER:	SCALE: 1:1 SHEET SIZE: C REV: