

GEARBOX MODEL (X-AXIS)

MPG-014 _____

MRG-014 _____

RATIO: _____

GEARBOX MODEL (Y-AXIS)

MPG-014 _____

MRG-014 _____

RATIO: _____

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

MOTOR INFORMATION (X-AXIS)

MANUFACTURER: _____

MODEL: _____

MOTOR INFORMATION (Y-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 Y-AXIS:

HOME-QTY _____ 244- _____

EOT-QTY _____ 244- _____

SENSOR INFORMATION Z-AXIS:

HOME-QTY _____ 244- _____

EOT-QTY _____ 244- _____

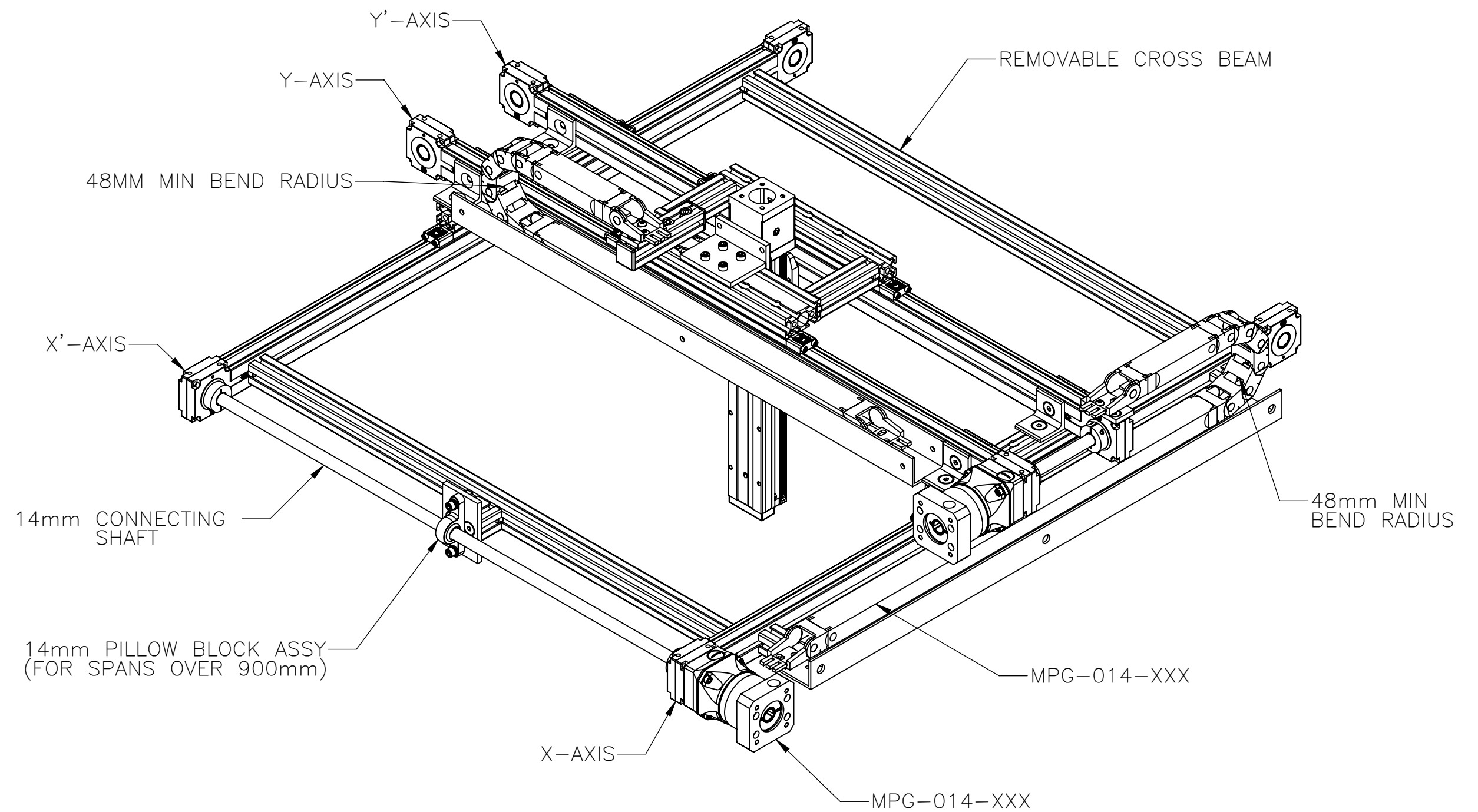
(SEE T-SLOT SENSOR KIT SHEET FOR
PART NUMBER CONFIGURATION)

MCS-PSC- [] - [] - S []

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

ENTER Y-AXIS TRAVEL
TRAVEL IN INCREMENTS OF 25mm
TRAVEL LIMITS: 500mm-1000mm

ENTER X-AXIS TRAVEL
TRAVEL IN INCREMENTS OF 25mm
TRAVEL LIMITS: 150mm-5575mm



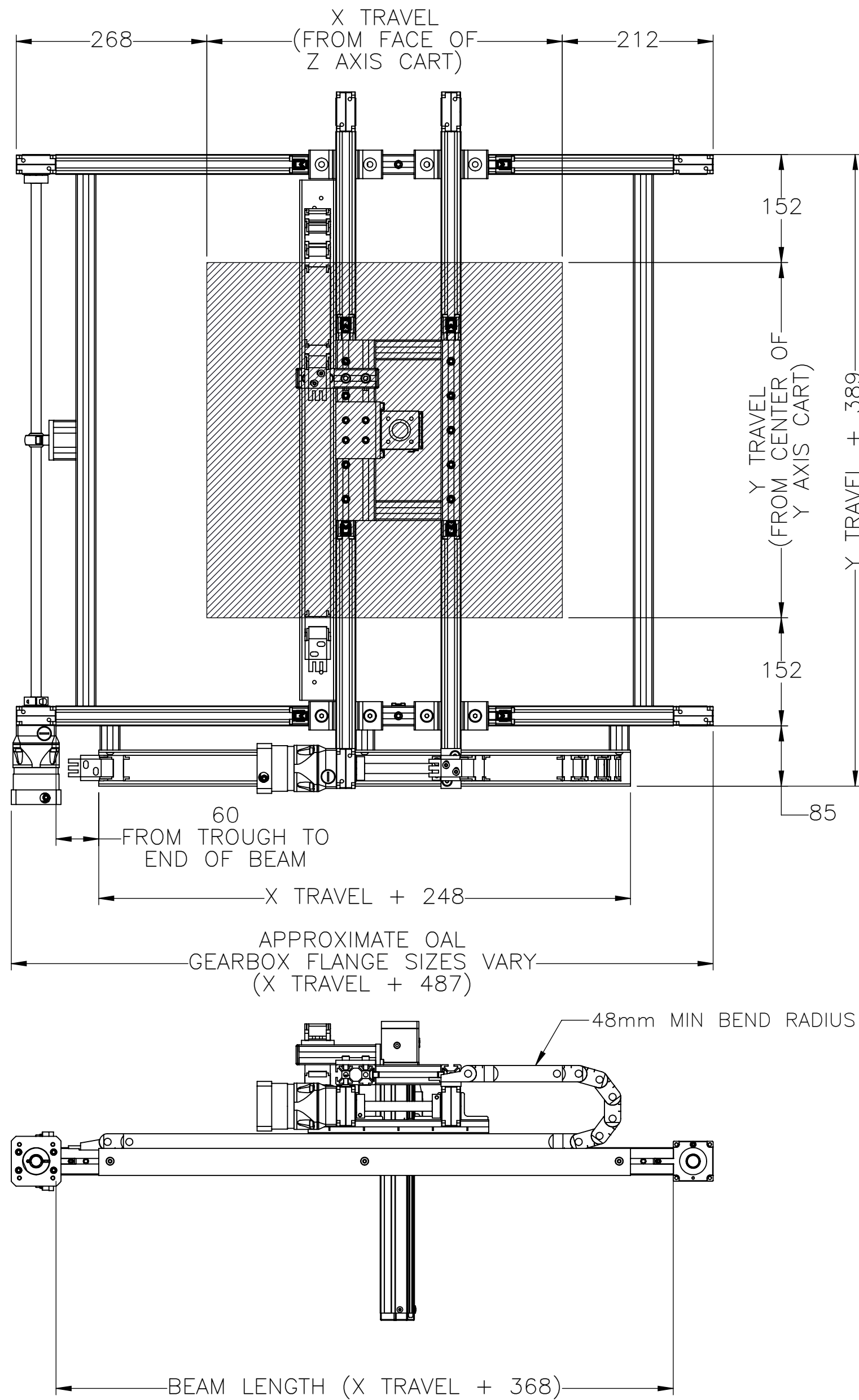
APPROVED: _____

DATE: _____

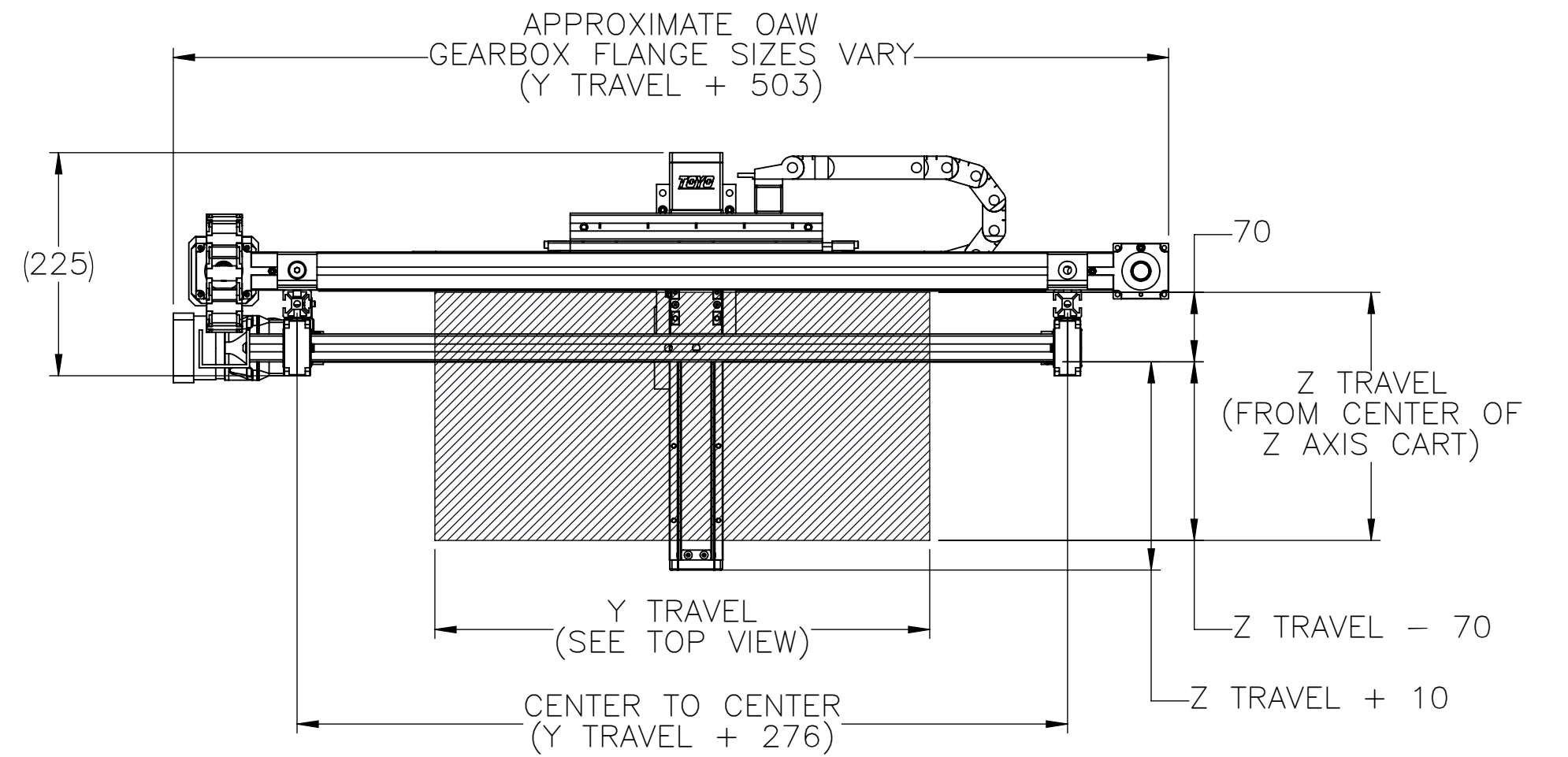
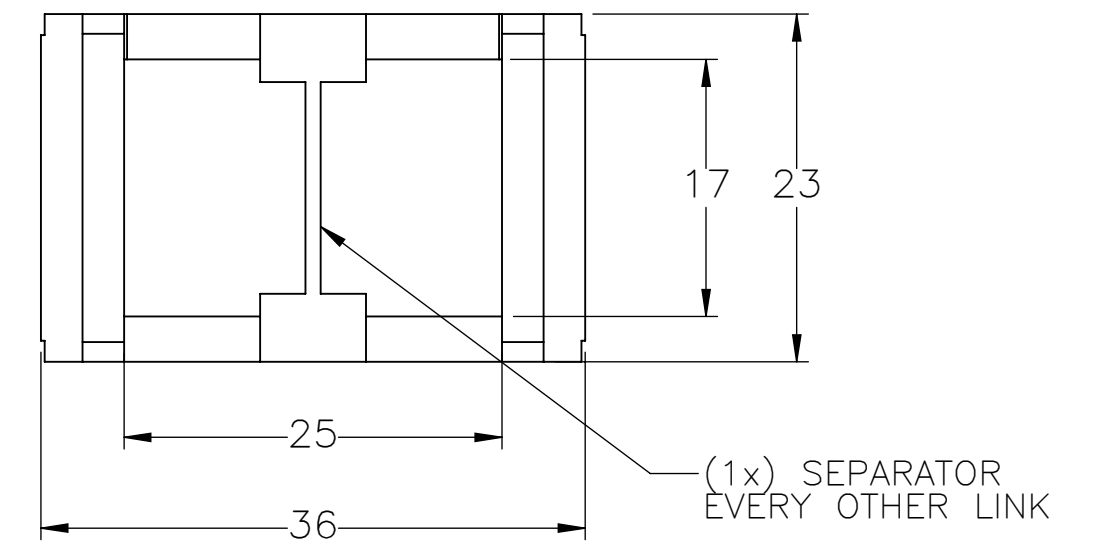
PO:REFERENCE#: _____

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	SURFACE FINISH \checkmark		SCALE 1:1 SHEET SIZE C	SHEET 1 OF 6 PART NUMBER MCS-PSC-XX-YY-Z SCREW REV	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		.X \pm .762 .XX \pm .254 .XXX \pm .127 ANG \pm 0°30'	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	

WORK ENVELOPE AND GANTRY FOOTPRINT

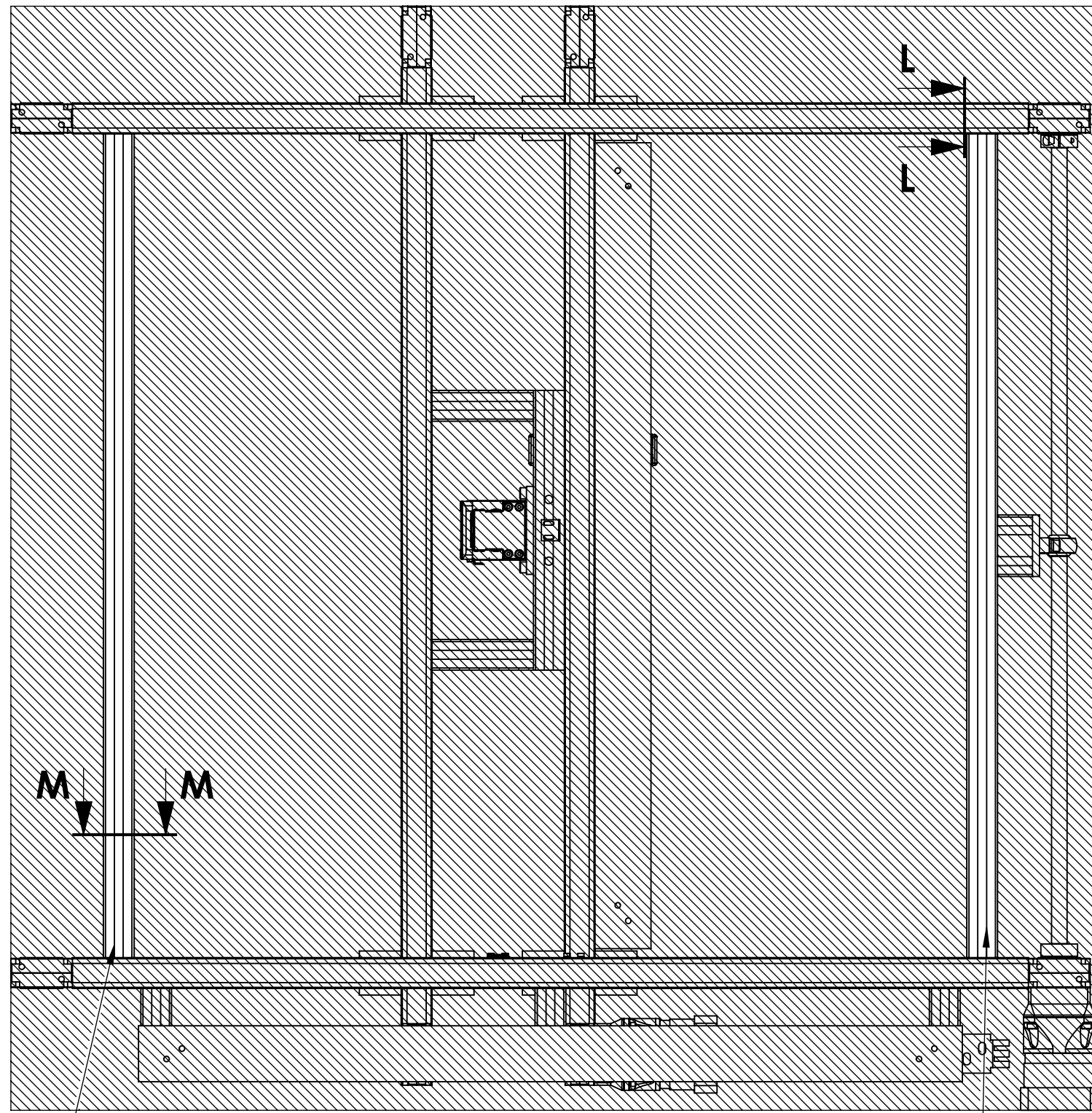


CABLE TRACK CROSS SECTION (SAME FOR BOTH AXES)



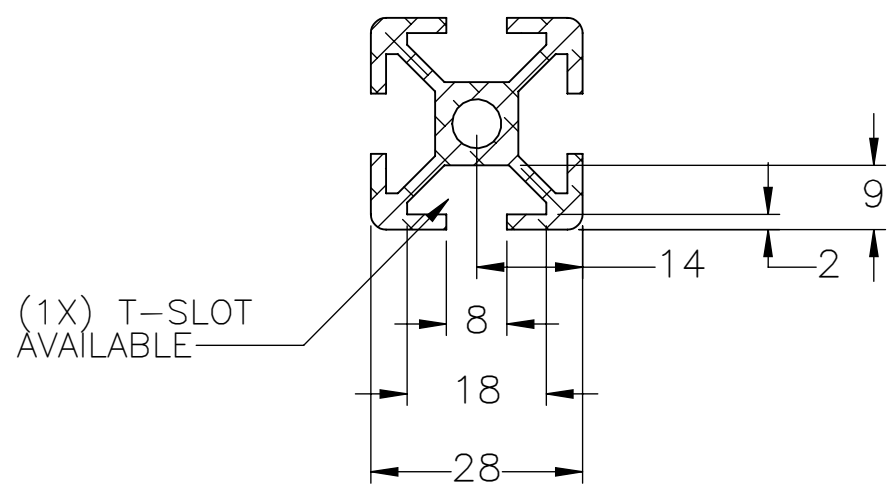
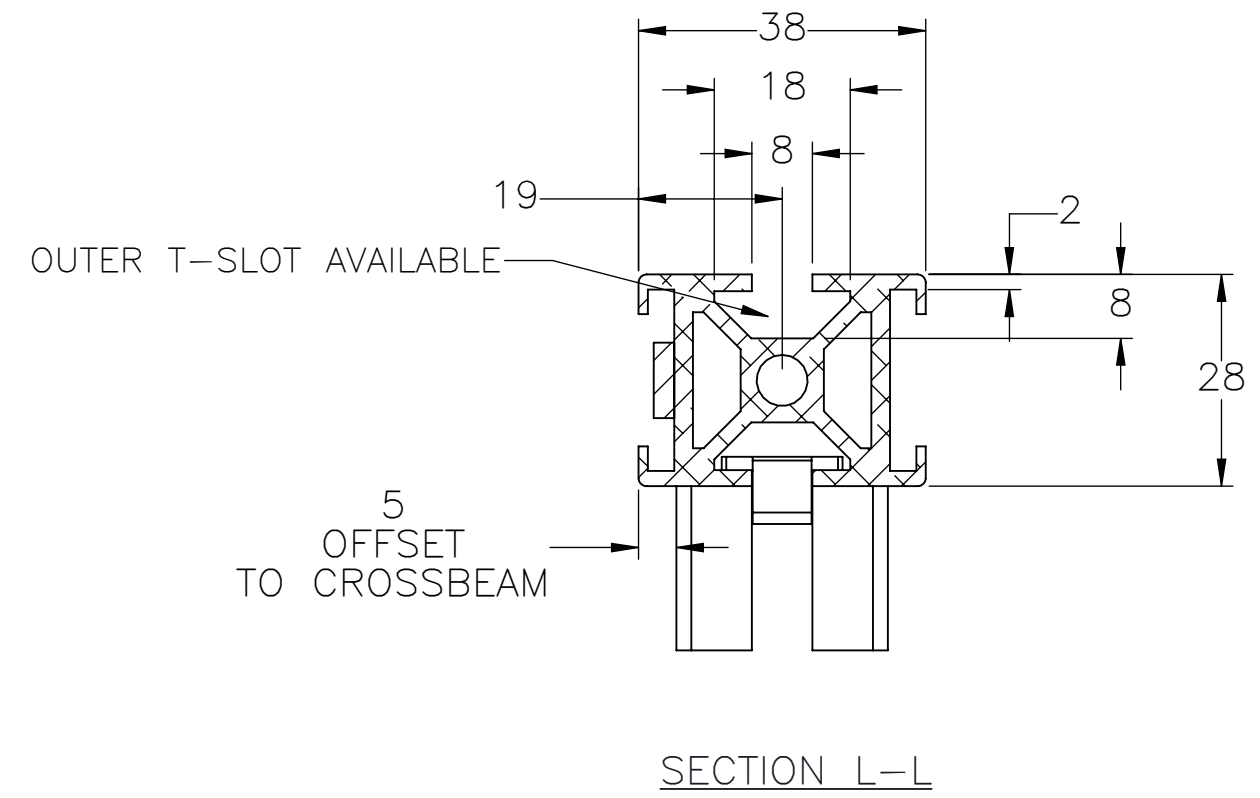
<p>MACRON DYNAMICS INC</p>	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: TH	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 5/11/2021	MATERIAL: FINISH:	TITLE:	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE 1:1 SHEET SIZE C	
	SURFACE FINISH ✓		SHEET 2 OF 6	PART NUMBER MCS-PSC-XX-YY-Z SCREW	REV
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GANTRY MOUNTING FEATURES




(1x) T-SLOT AVAILABLE
IF BEAM IS NOT REMOVED

(1x) T-SLOT AVAILABLE



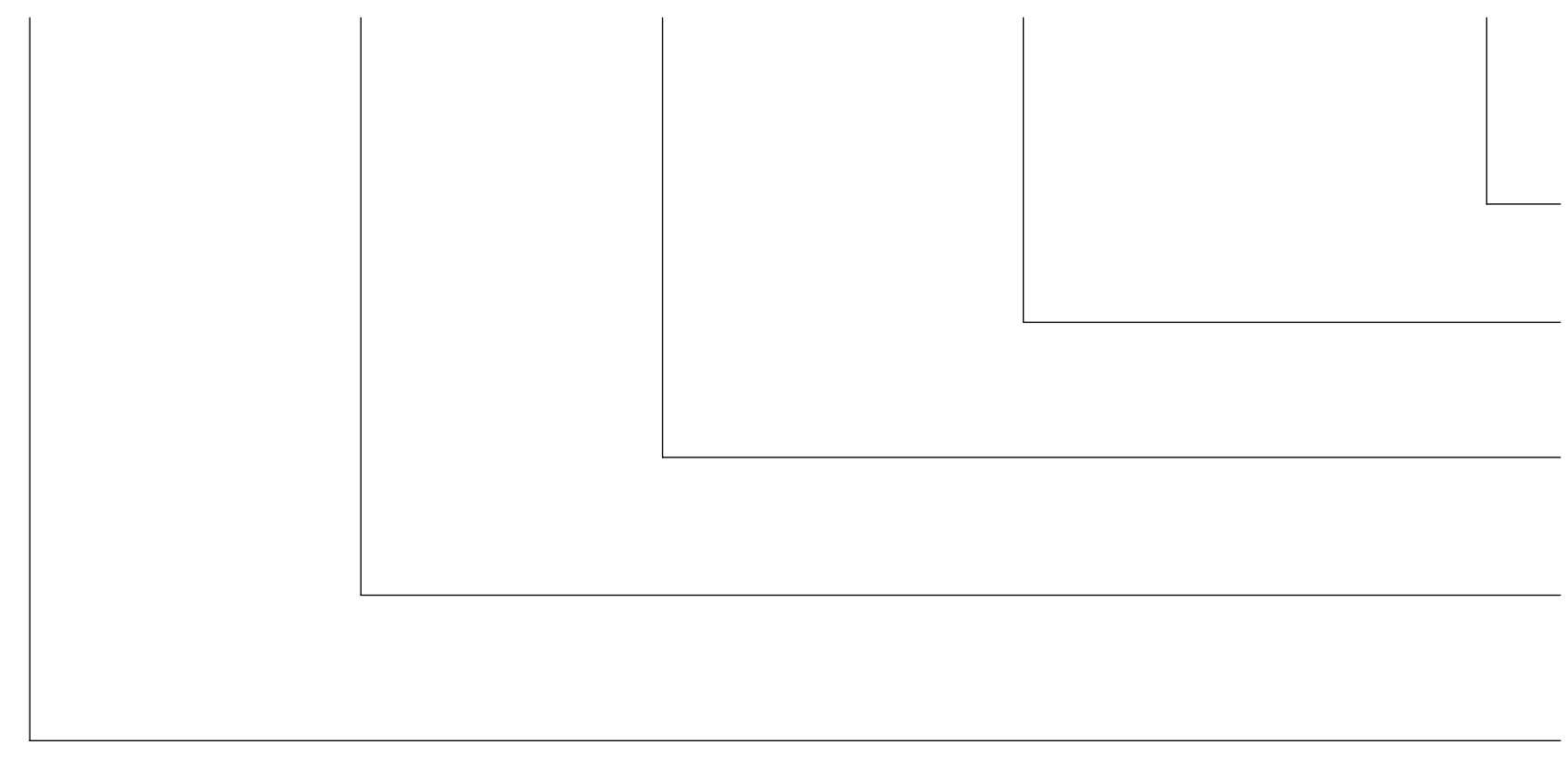
SECTION M-M
CROSSBEAM T-SLOT

 MACRON DYNAMICS INC	DRAWN BY: PHW DATE: 11/26/2017	MATERIAL:	TITLE:
	CHECKED BY: -- DATE: DD/MM/YYYY	FINISH:	MACRON PSC GANTRY SYSTEM
	LAST SAVED BY: TH DATE: 5/11/2021		
	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 \checkmark BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 3 OF 6 PART NUMBER MCS-PSC-XX-YY-Z SCREW	REV C

REVISION HISTORY			
REV.	DESCRIPTION	DATE	REVISED BY:

GTH5-L - - - - - BC-M10B- - - - -

Z-AXIS SCREW TABLE SELECTION



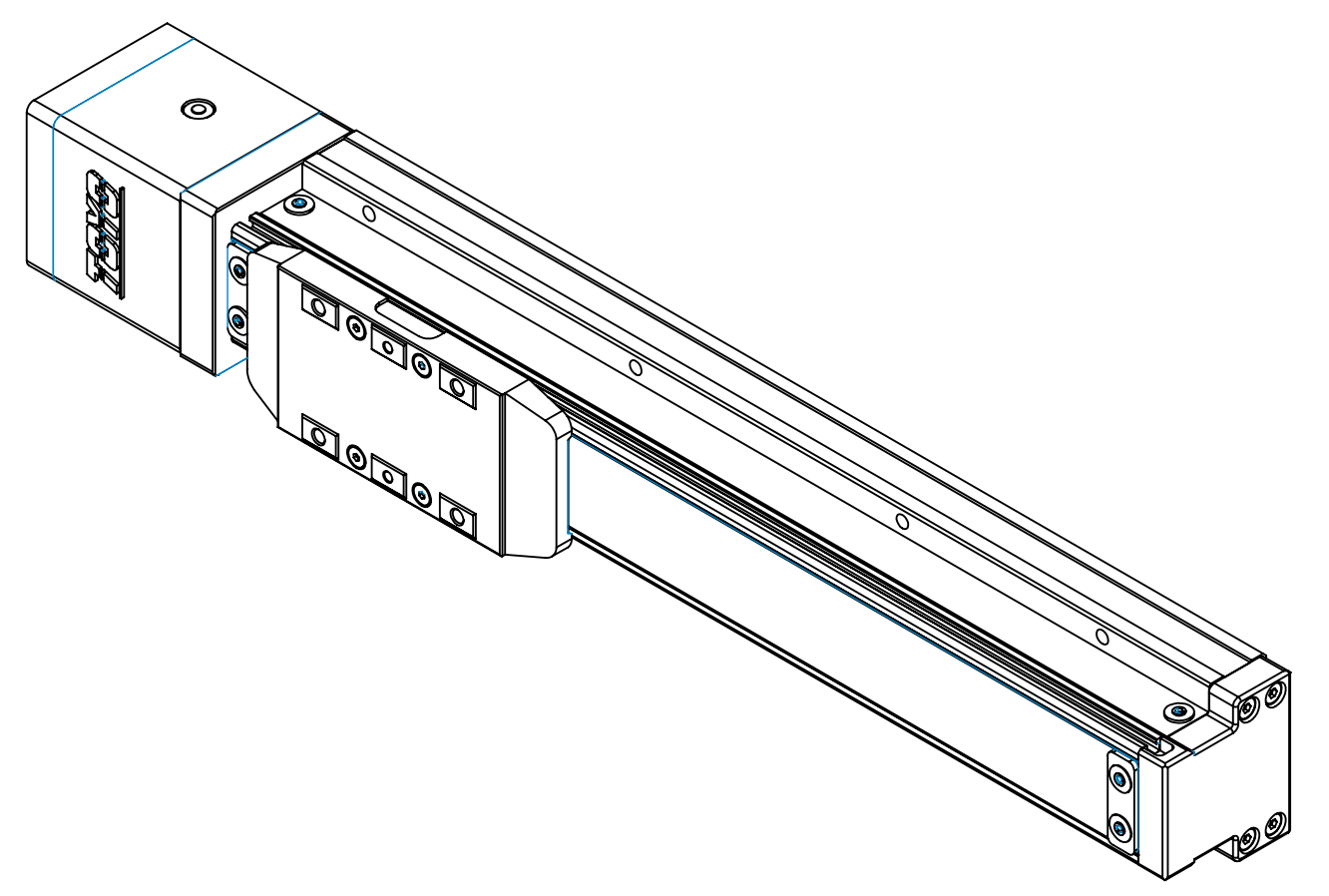
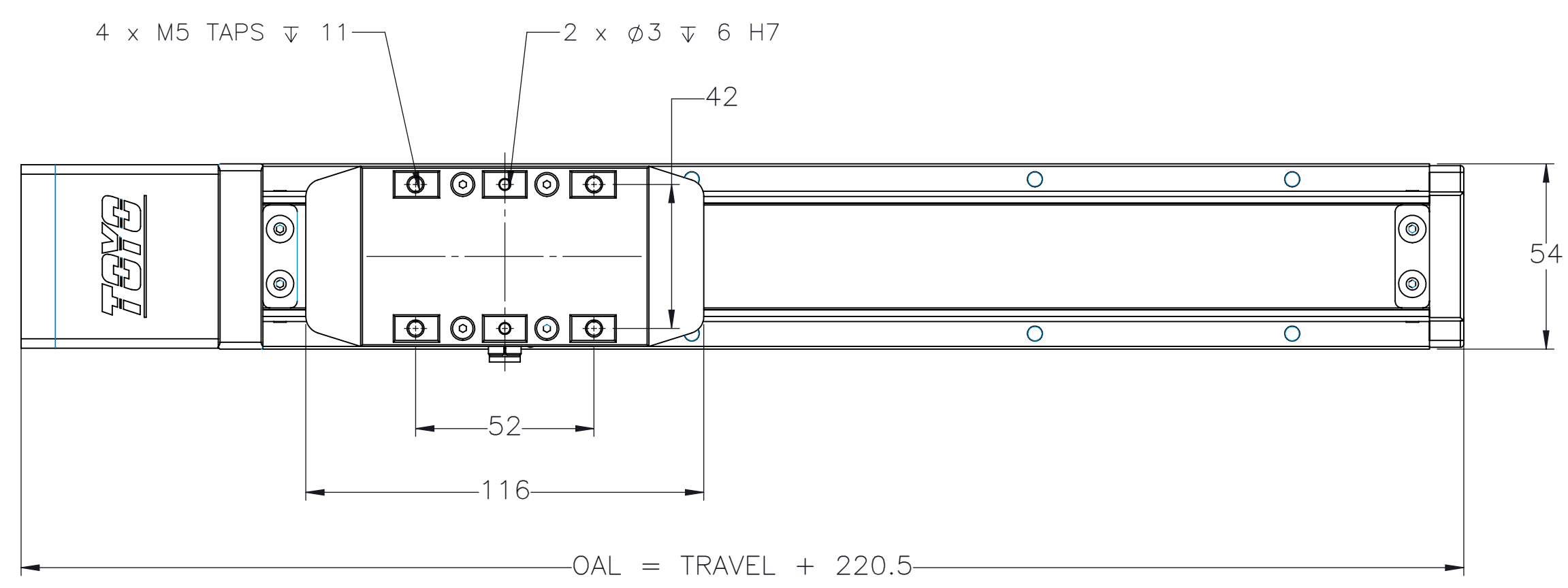
SENSOR CODE C3 = 1 HOME, 1 LIMIT SENSOR
 C4 = 1 HOME, 2 LIMIT SENSOR
 E5 = NO SENSORS

MOTOR CODE

MOTOR POSITION UP


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

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



MOTOR INFORMATION (Z-AXIS)

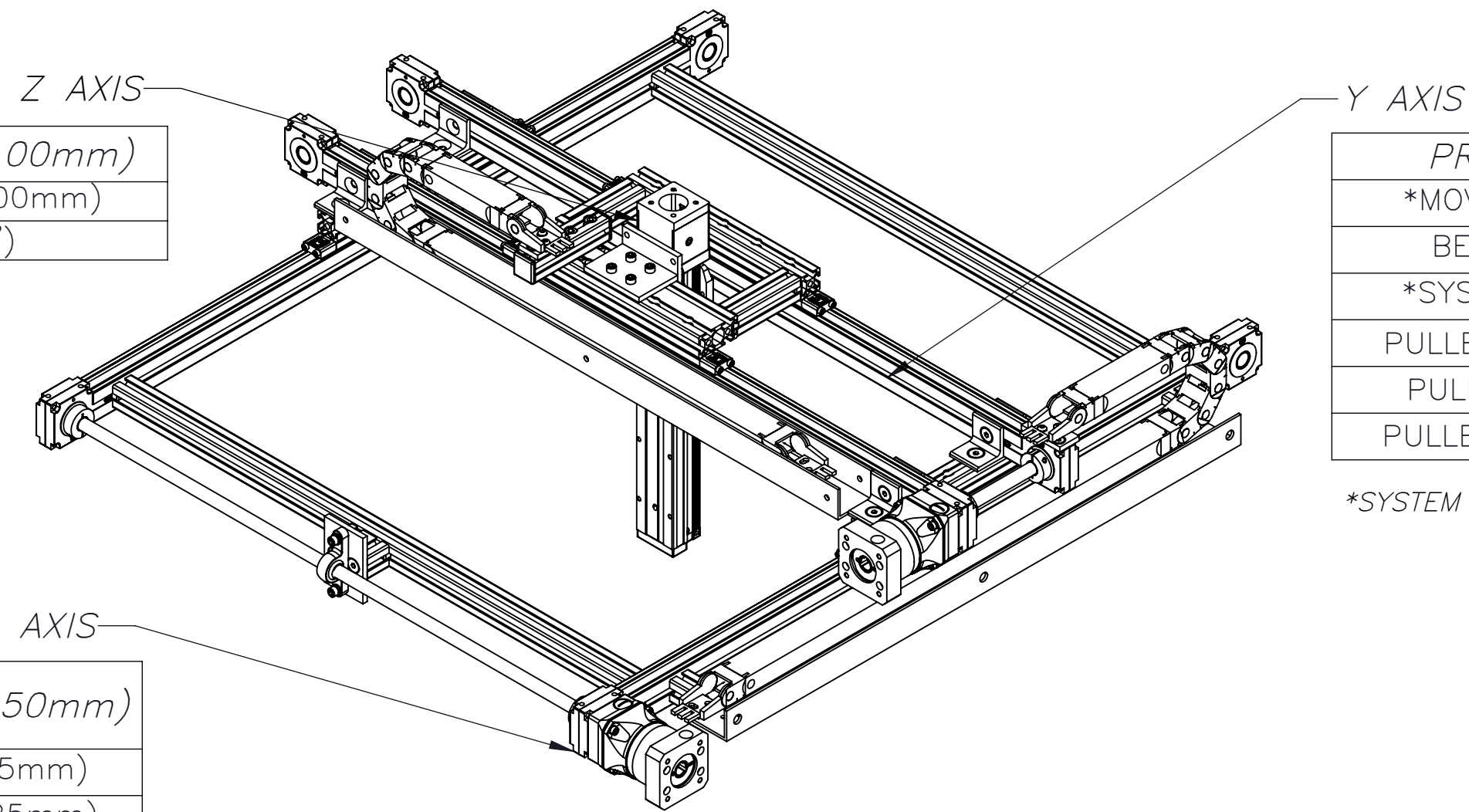
MANUFACTURER: _____
 MODEL: _____

 MACRON DYNAMICS INC	DRAWN BY: JA DATE: 10/15/2019	MATERIAL:	TITLE:
	CHECKED BY: -- DATE: DD/MM/YYYY	FINISH:	SCREW TABLE SELECTION SHEET
	LAST SAVED BY: TH DATE: 5/11/2021	<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:</small> .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE 1:1
<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>	SURFACE FINISH \checkmark BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 4 OF 6 PART NUMBER SCREW TABLE	REV

MOTOR SIZING INFORMATION

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE TRAVELS USED:
 X-TRAVEL = 150mm
 Y-TRAVEL = 500mm
 Z-TRAVEL = 100mm



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

PROPERTY	BASE VALUE (T=500mm)
*MOVING MASS	1.959kg(+0.01kg/25mm)
BELT MASS	0.135kg(+0.004kg/25mm)
*SYSTEM MASS	6.639kg(+0.0952kg/25mm)
PULLEY PITCH ϕ	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL

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

PROPERTY	BASE VALUE (T=150mm)
**MOVING MASS	.961kg(+0.01kg/25mm)
BELT MASS	0.135kg(+.004kg/25mm)
PULLEY PITCH ϕ	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	105mm
***CONN. SHAFT LENGTH	826
CONN. SHAFT ϕ	14mm
***CONN. SHAFT MASS	.979kg(+.029kg/25mm)
CONN. SHAFT MATERIAL	STEEL

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


***BASE VALUE AT Y TRAVEL = 500mm

X-TRAVEL = _____ mm
 Y-TRAVEL = _____ mm
 Z-TRAVEL = _____ mm

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

GEARBOX MASS (ADD TO SYSTEM MASSES)	MPG-014	1.0kg
	MRG-014	3.0kg

TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0038) + (Y \text{ TRAVEL} \times .0054) + (Z \text{ TRAVEL} \times .004) + 13.59 =$ kg
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 MACRON DYNAMICS INC	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: TH	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 5/11/2021	MATERIAL:	TITLE: MACRON PSC GANTRY SYSTEM
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		FINISH:	SCALE 1:1 SHEET SIZE C
	SURFACE FINISH \checkmark		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 5 OF 6

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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

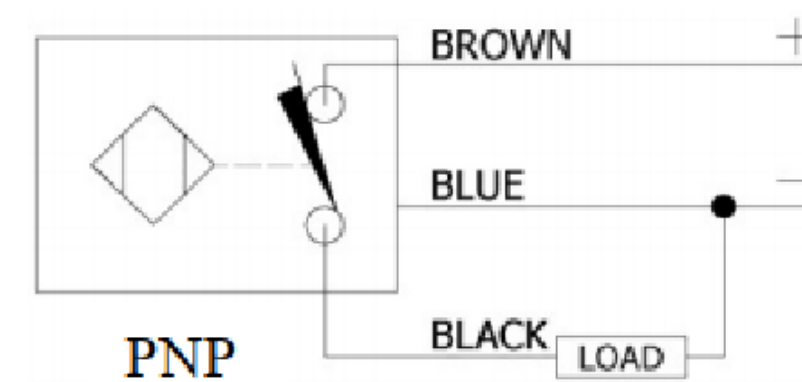
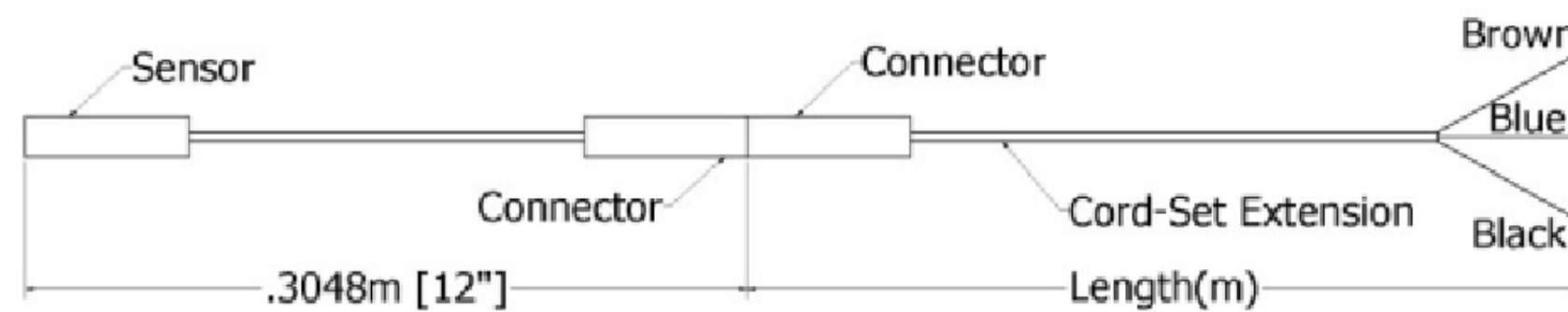
Part Number Configuration

244-_-_-_-_-_-

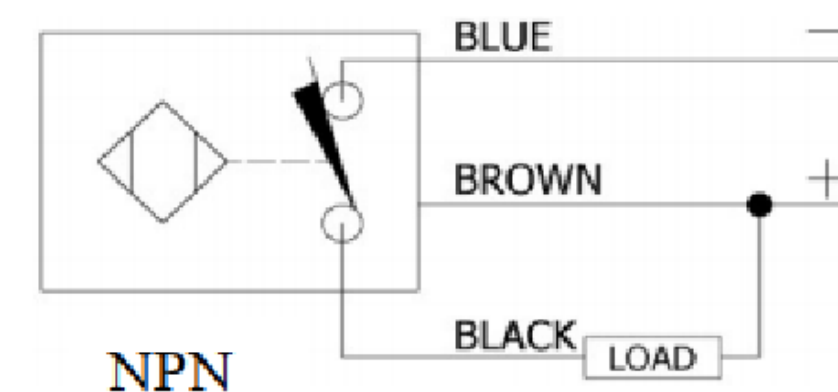
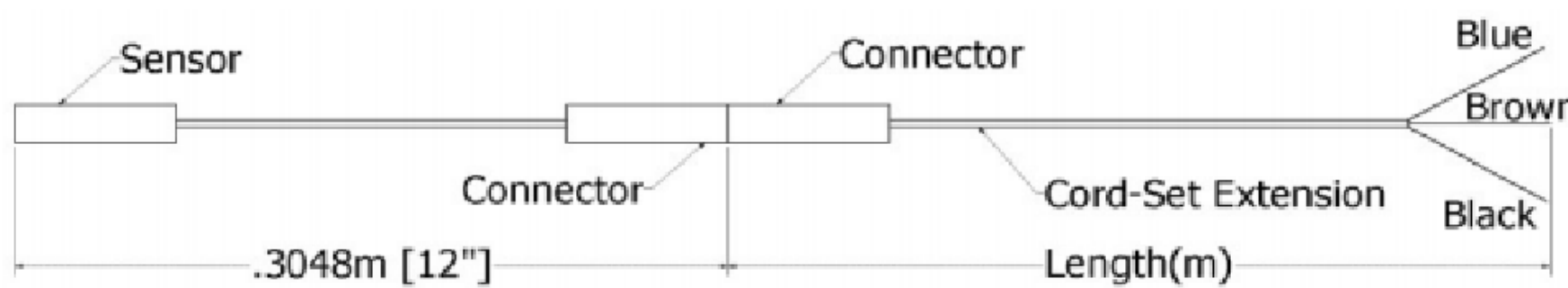
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

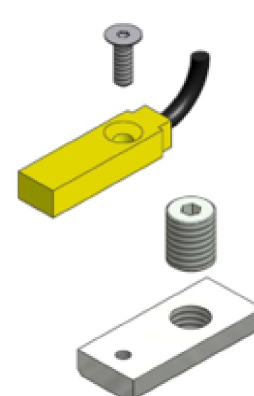
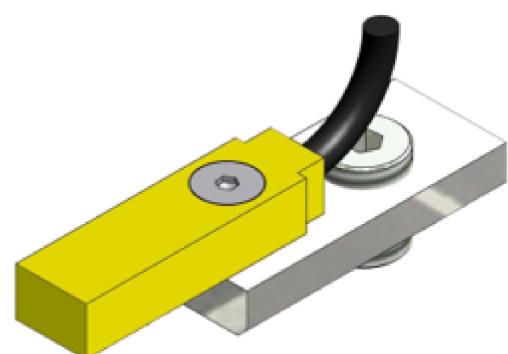
PNP Diagrams



NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: JA CHECKED BY: -- LAST SAVED BY: TH	DATE: 10/15/2019 DATE: DD/MM/YYYY DATE: 5/11/2021	MATERIAL:	TITLE: T-SLOT SENSOR KIT
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	SURFACE FINISH	FINISH:	SCALE 1:1 SHEET SIZE C
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