

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- _____

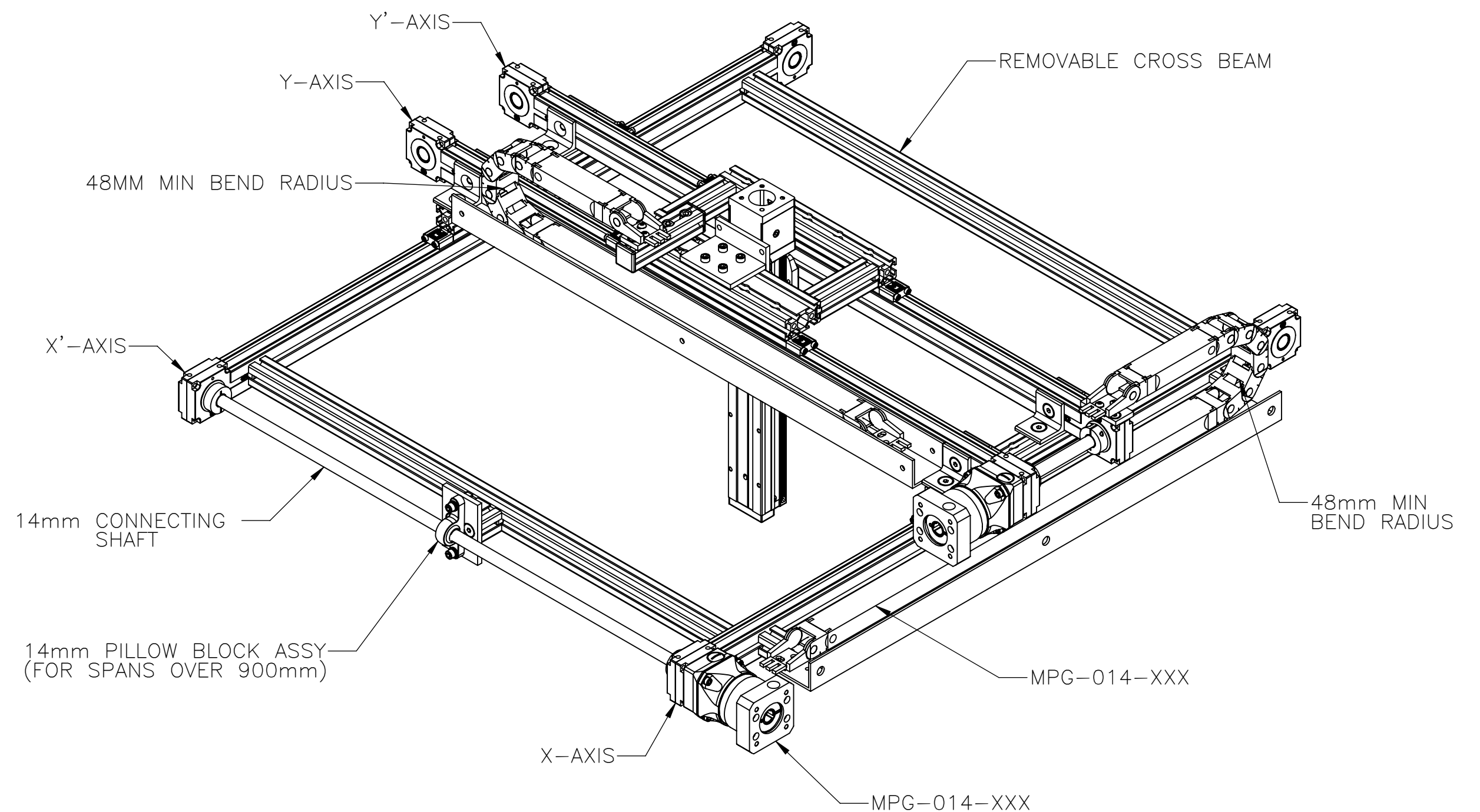
(SEE T-SLOT SENSOR KIT SHEET FOR
PART NUMBER CONFIGURATION)

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: _____

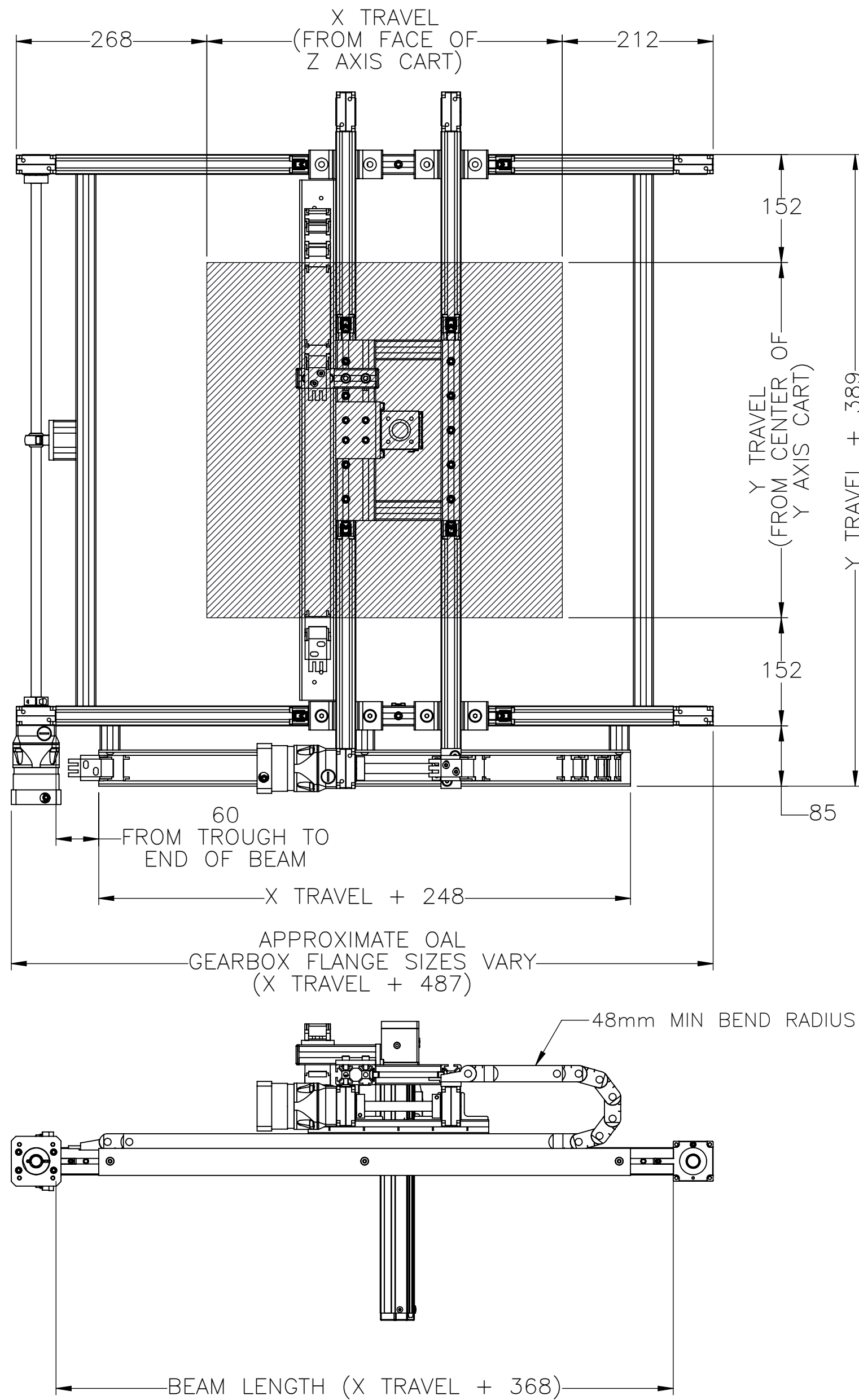
DATE: _____

PO:REFERENCE#: _____

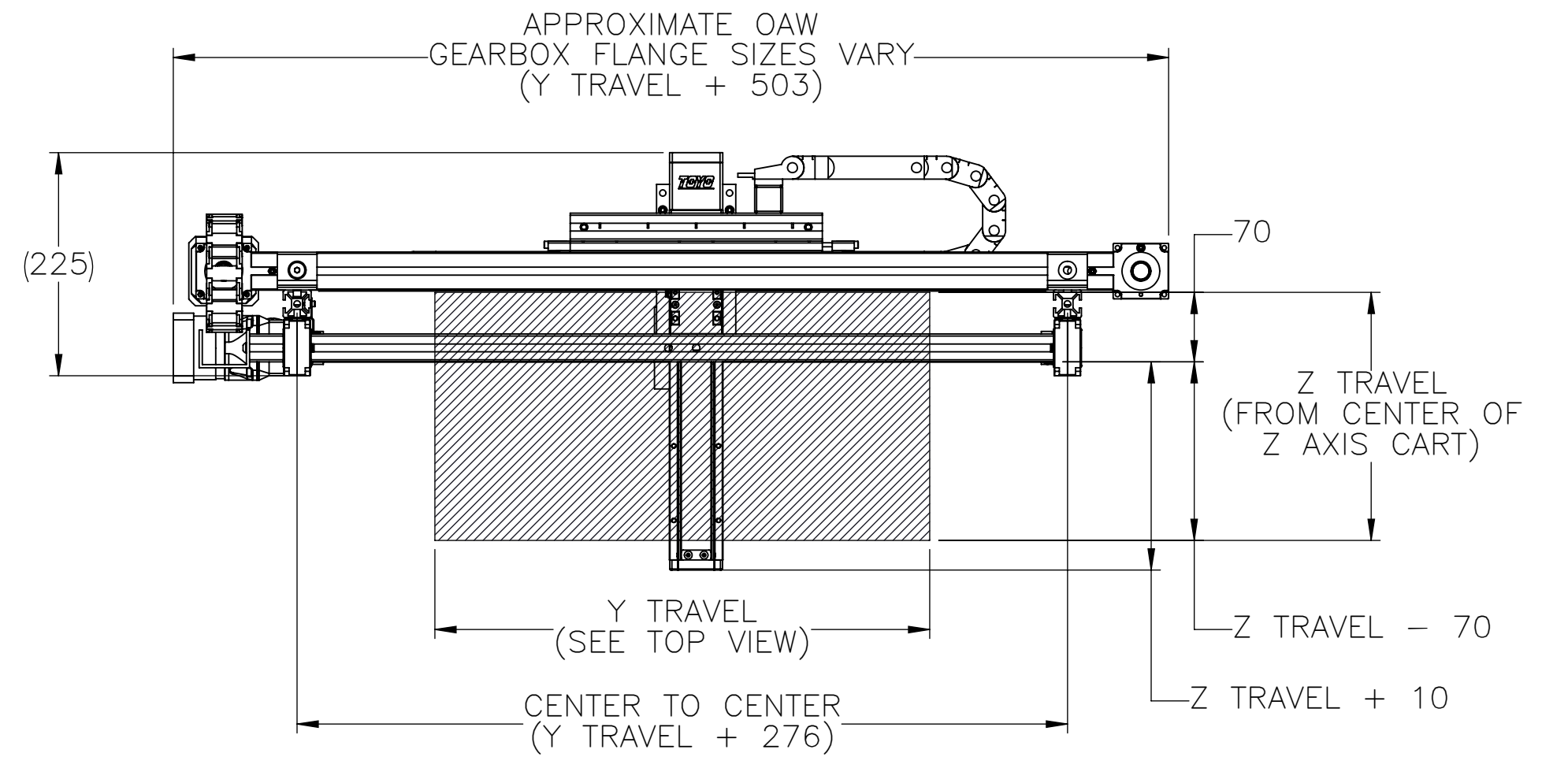
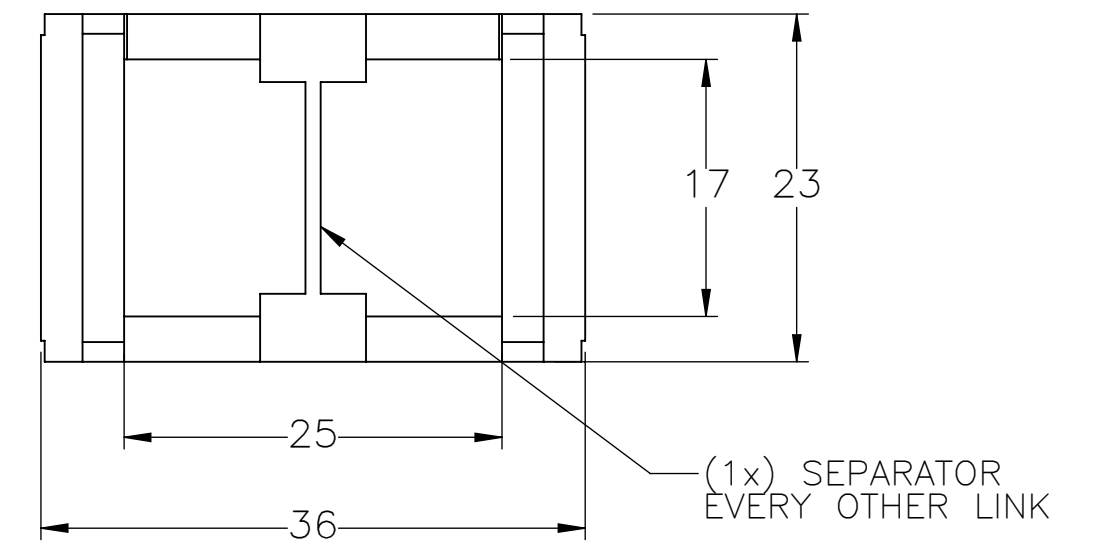
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 MACRON DYNAMICS INC	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: TH	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 5/11/2021	MATERIAL:	TITLE: MACRON PSC GANTRY SYSTEM
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		FINISH:	SCALE 1:1 SHEET SIZE C
	SURFACE FINISH \checkmark		SHEET 1 OF 6 PART NUMBER MCS-PSC-XX-YY-Z SCREW	
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WORK ENVELOPE AND GANTRY FOOTPRINT




CABLE TRACK CROSS SECTION (SAME FOR BOTH AXES)



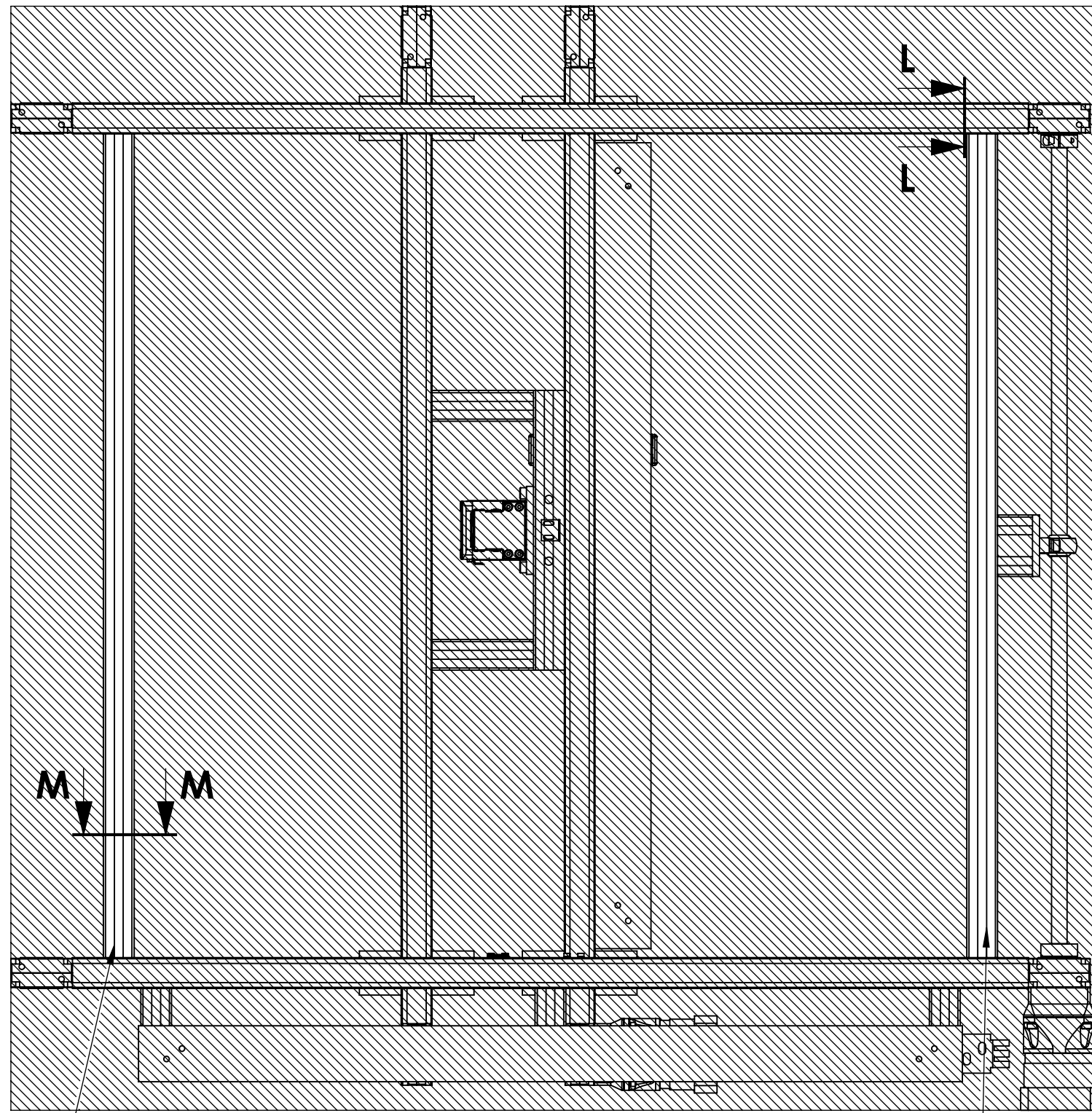
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	SURFACE FINISH \checkmark		SHEET	PART NUMBER	REV
	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		2 OF 6	MCS-PSC-XX-YY-Z SCREW	C

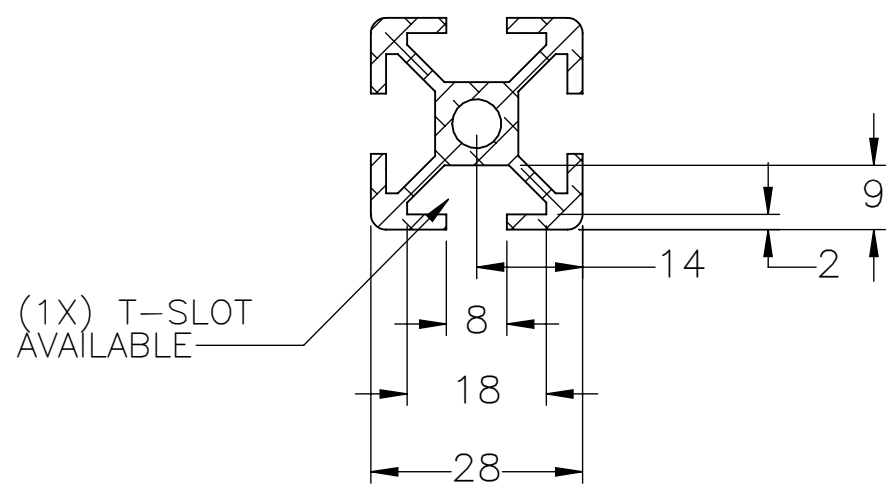
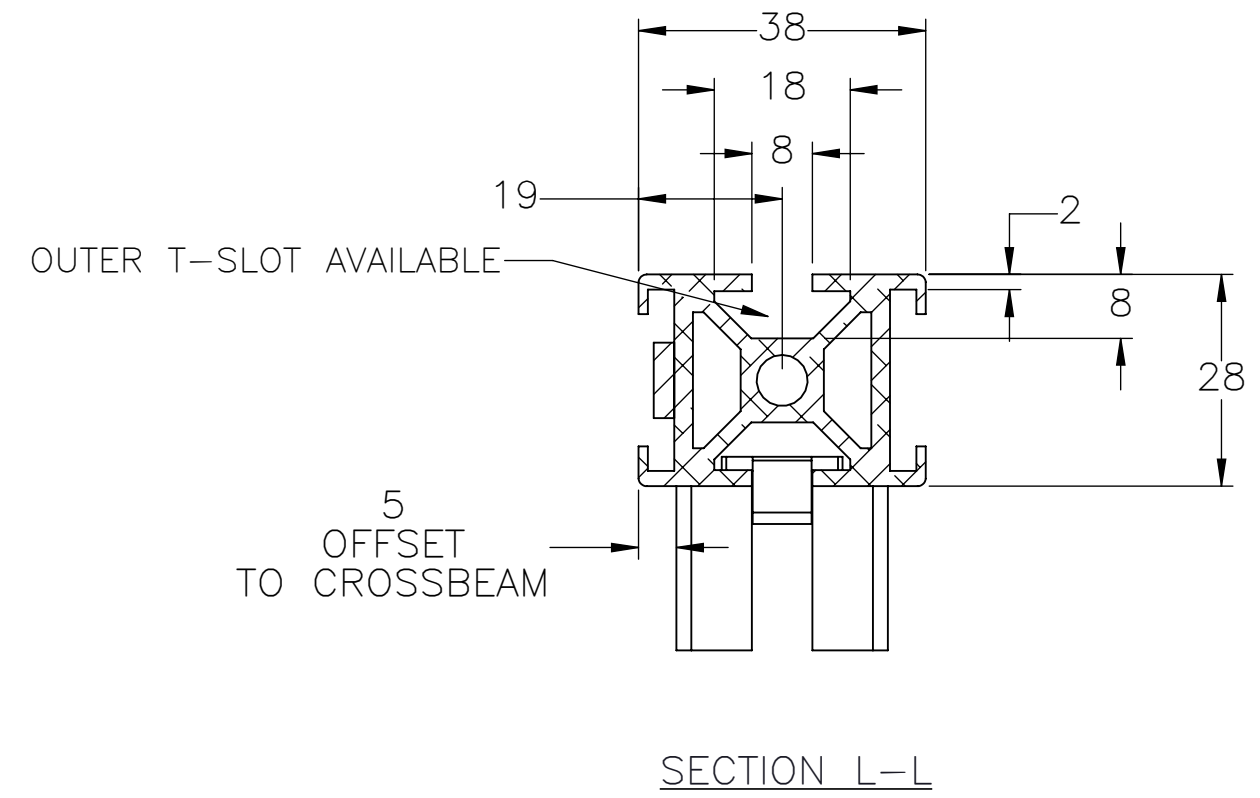
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GANTRY MOUNTING FEATURES



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

(1x) T-SLOT AVAILABLE



SECTION M-M
CROSSBEAM T-SLOT

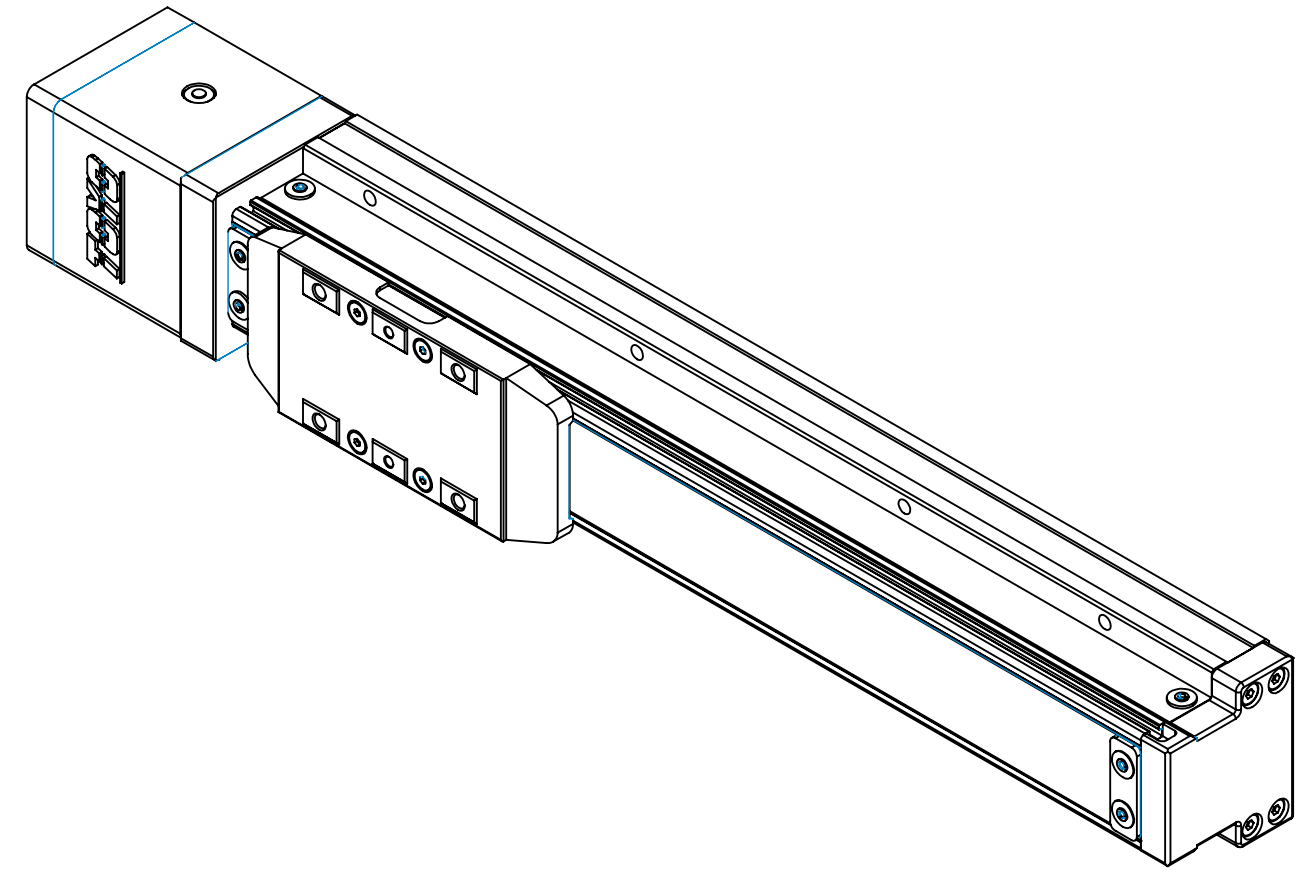
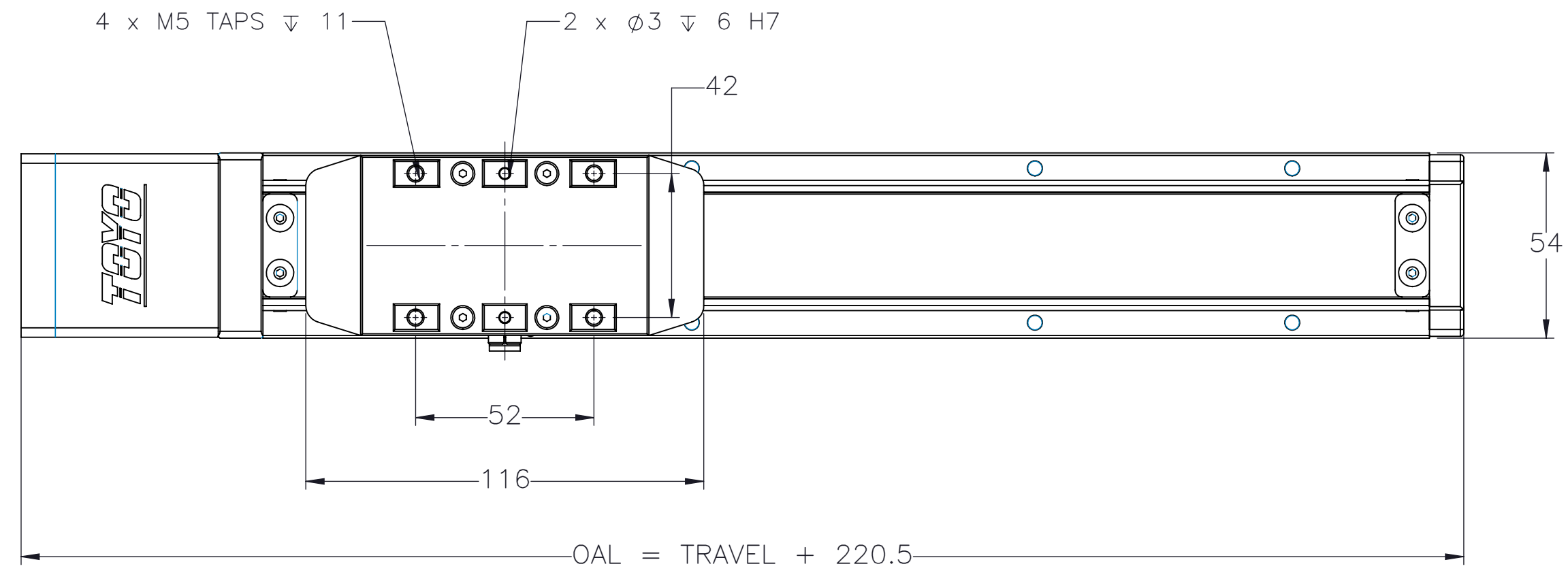
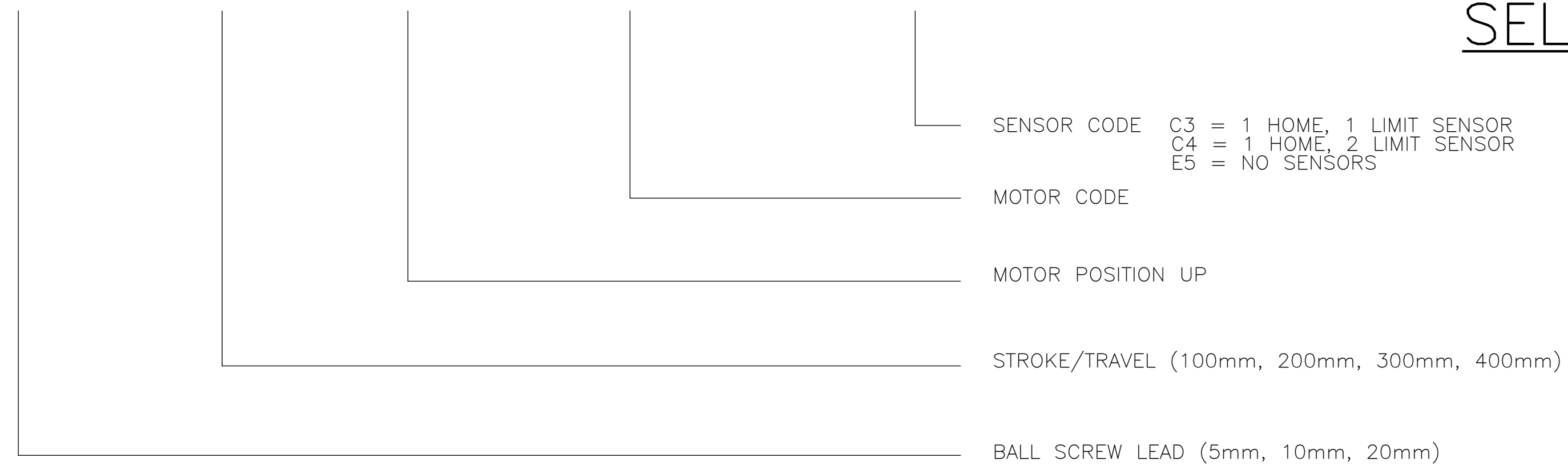
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	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	FINISH:	MACRON PSC GANTRY SYSTEM
	SURFACE FINISH $\sqrt{\text{✓}}$	SHEET: 3 OF 6 PART NUMBER: MCS-PSC-XX-YY-Z SCREW DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SCALE: 1:1 SHEET SIZE: C

REVISION HISTORY			
REV.	DESCRIPTION	DATE	REVISED BY:

GTH5-L - -BC-M10B-


Z-AXIS SCREW TABLE SELECTION



MOTOR INFORMATION (Z-AXIS)

MANUFACTURER: _____
MODEL: _____

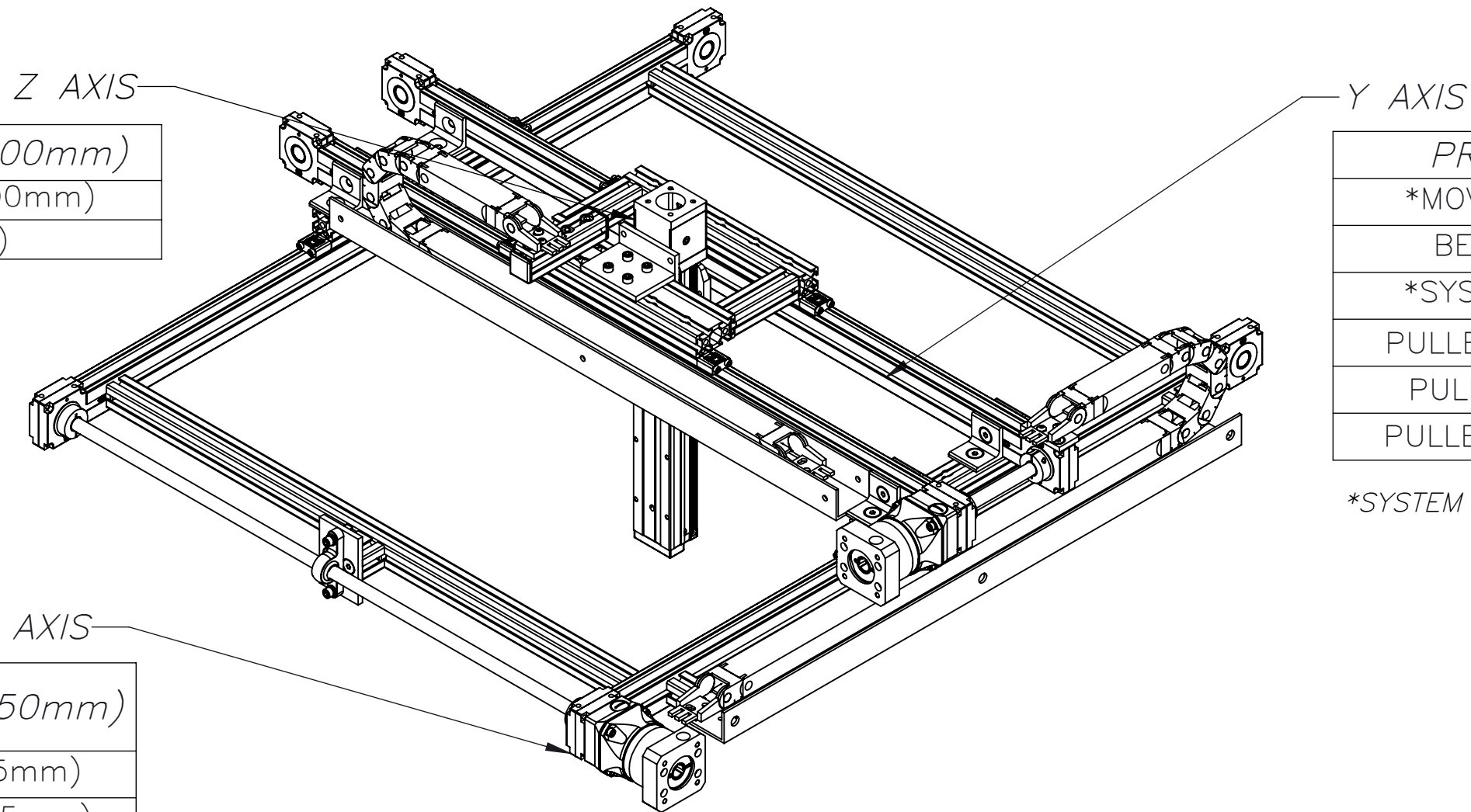
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 MACRON DYNAMICS INC	DRAWN BY: JA CHECKED BY: -- LAST SAVED BY: TH	DATE: 10/15/2019 DATE: DD/MM/YYYY DATE: 5/11/2021	MATERIAL:	TITLE: SCREW TABLE SELECTION SHEET
	<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:</small>		FINISH:	SCALE 1:1 SHEET SIZE C
<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 ∇ ⁶³	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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	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: <table border="0"> <tr><td>.X</td><td>±</td><td>.762</td></tr> <tr><td>.XX</td><td>±</td><td>.254</td></tr> <tr><td>.XXX</td><td>±</td><td>.127</td></tr> <tr><td>ANG</td><td>±</td><td>0°30'</td></tr> </table>		.X	±	.762	.XX	±	.254	.XXX	±	.127	ANG	±	0°30'	FINISH:
.X	±	.762													
.XX	±	.254													
.XXX	±	.127													
ANG	±	0°30'													
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SPECIFICATIONS

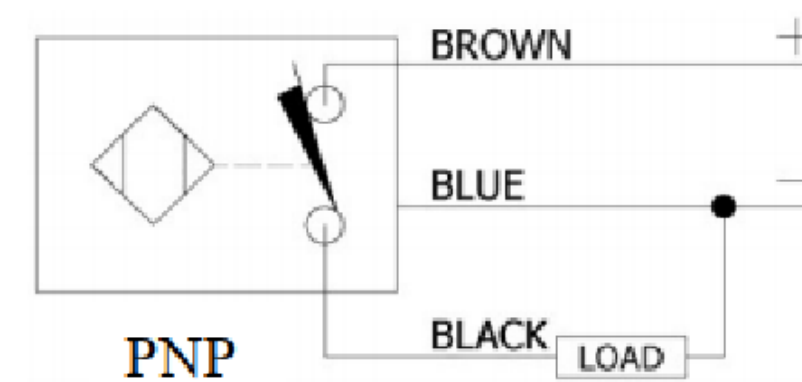
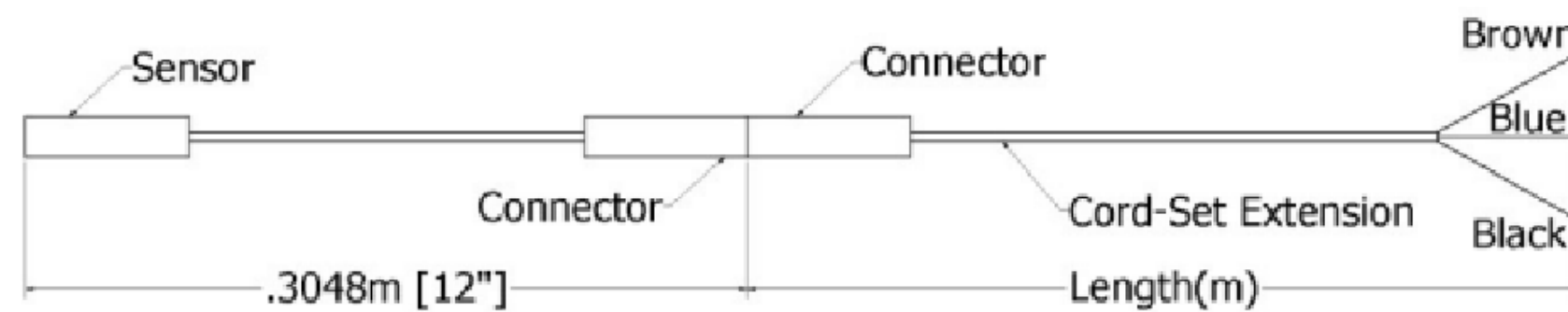
Sensor Type	Inductive
Sensor Size	Fits all 8mm wide T-Slots
Operating Voltage	10–30 VDC
Voltage Drop Across Conducting Sensor	≤1.8 V at 100 mA
Number of Conductors (AWG)	3x26 AWG
Temperature Range	-40°C to 105°C

Part Number Configuration
244-_-_-_-_-_-_-

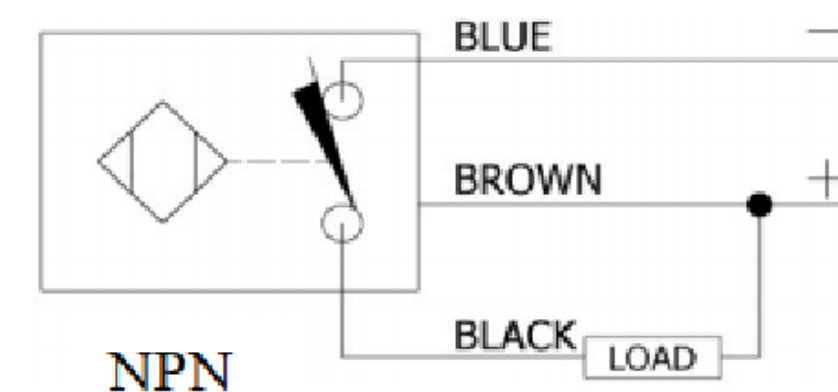
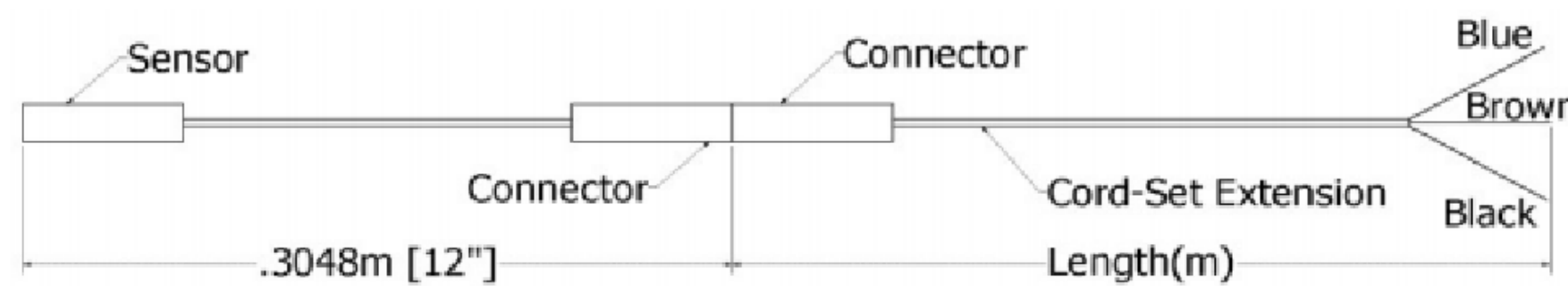
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

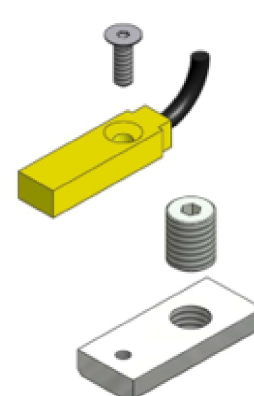
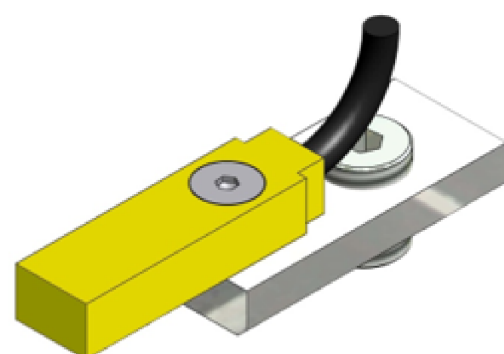
PNP Diagrams




NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



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	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 6 PART NUMBER: SENSOR CALL-OUT	SCALE: 1:1 SHEET SIZE: C REV: