

GEARBOX MODEL (X-AXIS)  
 MPG-062 \_\_\_\_  
 RATIO: \_\_\_\_\_  
 GEARBOX MODEL (Y-AXIS)  
 MPG-062 \_\_\_\_  
 RATIO: \_\_\_\_\_

MGS-628- [ ] - [ ] - X

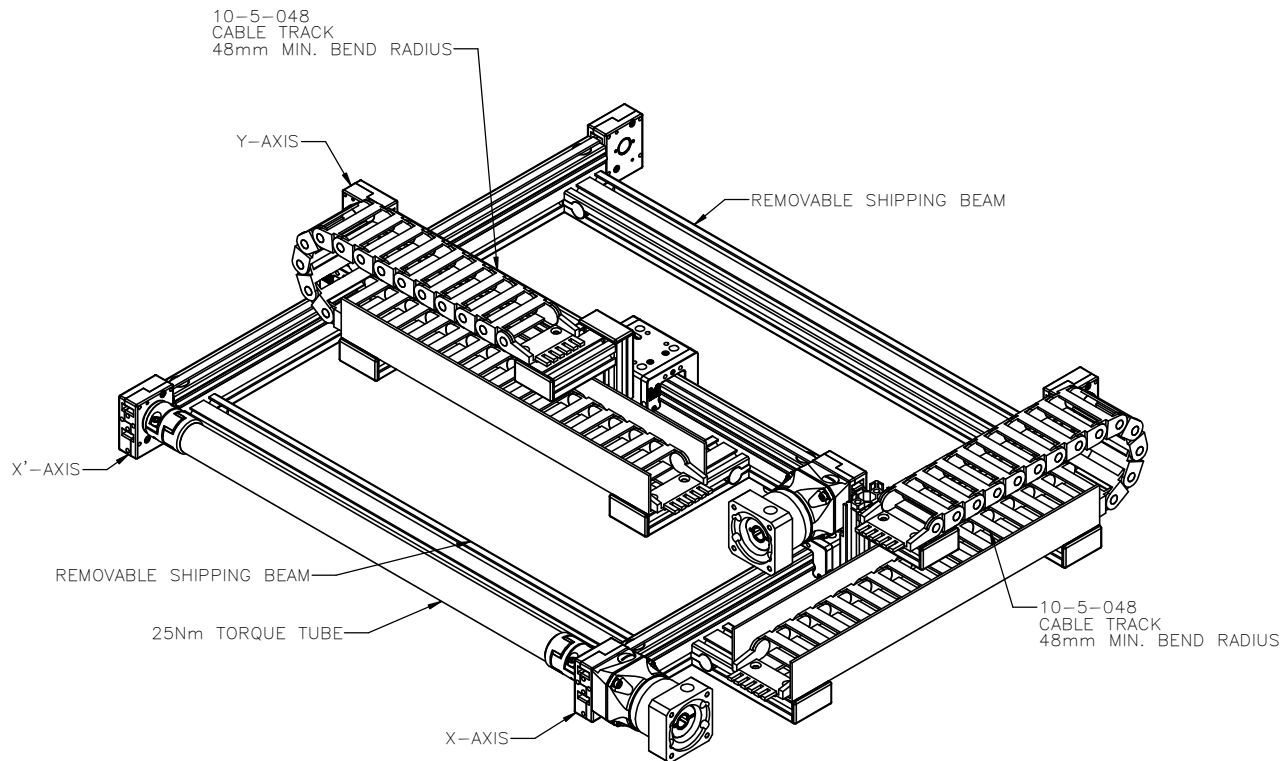
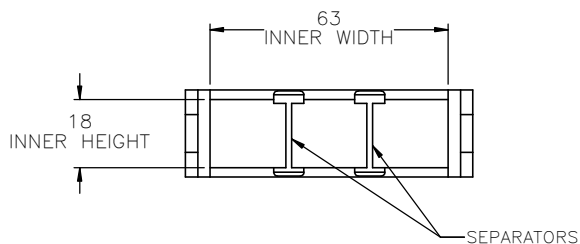
MOTOR INFORMATION (X-AXIS)  
 MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_  
 MOTOR INFORMATION (Y-AXIS)  
 MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

**ENTER Y-AXIS TRAVEL**  
 TRAVEL IN INCREMENTS OF 150mm  
 TRAVEL LIMITS: 150mm-1000mm  
**ENTER X-AXIS TRAVEL**  
 TRAVEL IN INCREMENTS OF 25mm  
 TRAVEL LIMITS: 150mm-4850mm

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)

**CABLE TRACK DIMENSIONS**



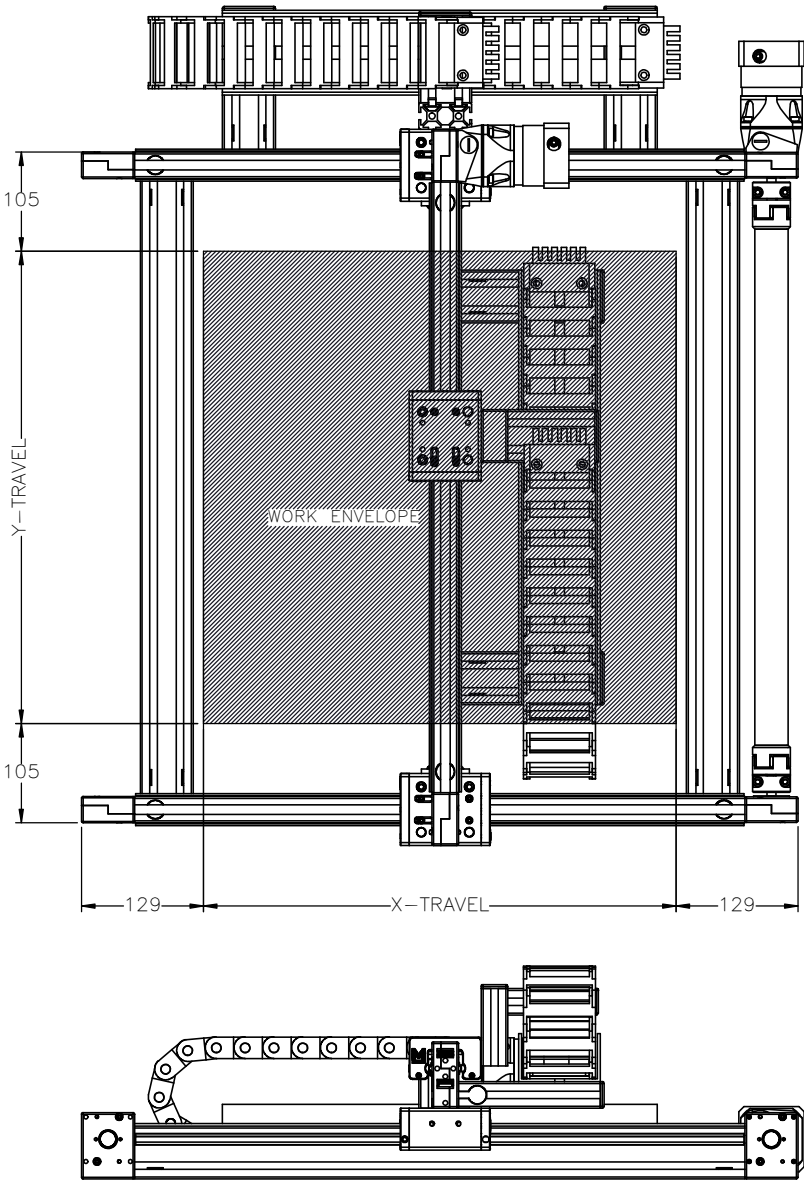
APPROVED: \_\_\_\_\_

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

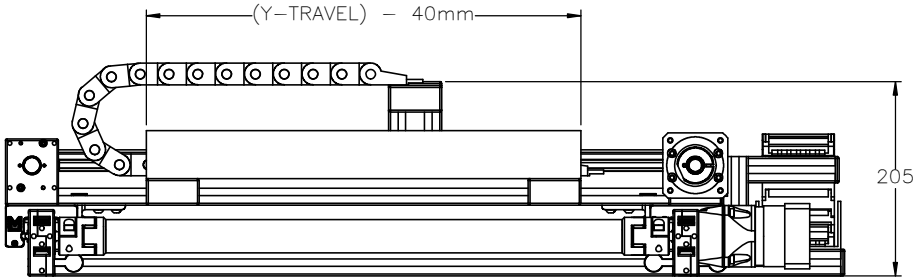
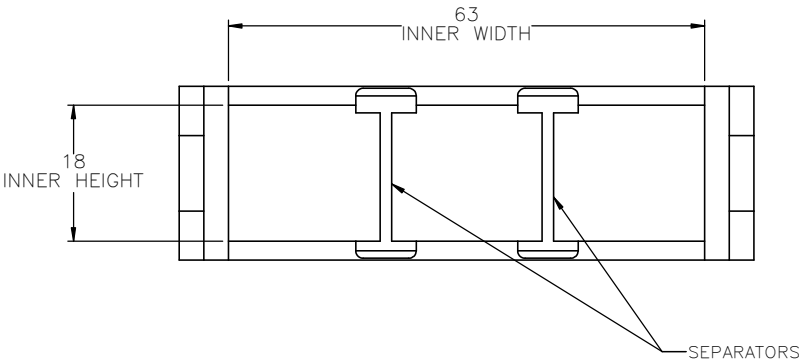
PO:REFERENCE#: \_\_\_\_\_


 <b>MACRON DYNAMICS INC</b>	DRAWN BY: JA      DATE: 10/11/2019 CHECKED BY: --      DATE: DD/MM/YYYY LAST SAVED BY: JA      DATE: 1/13/2020	MATERIAL:	TITLE: <b>MACRON 628          GANTRY</b>
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS NOTED: .XX ± .254 .XXX ± .127 OTHERWISE: 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      ✓ BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING <b>THIRD ANGLE PROJECTION</b>	SHEET: 1 OF 16 PART NUMBER: MGS-628-XXXX-XXXX-X	SCALE: 1:1      SHEET SIZE: C REV: 00

# WORK ENVELOPE AND GANTRY FOOTPRINT

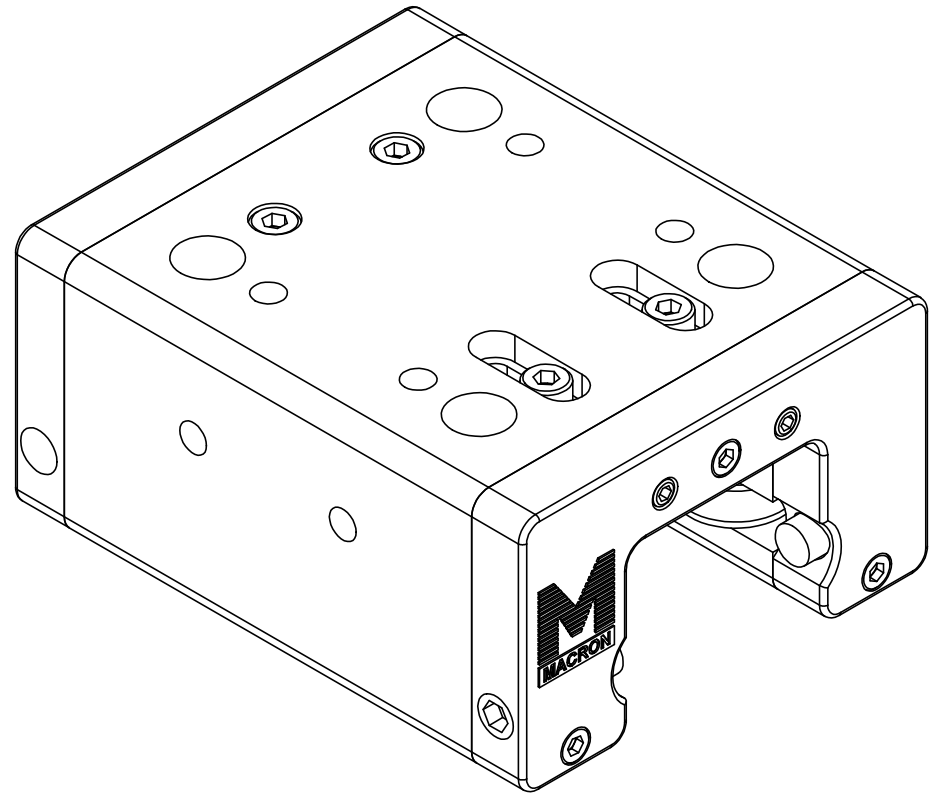
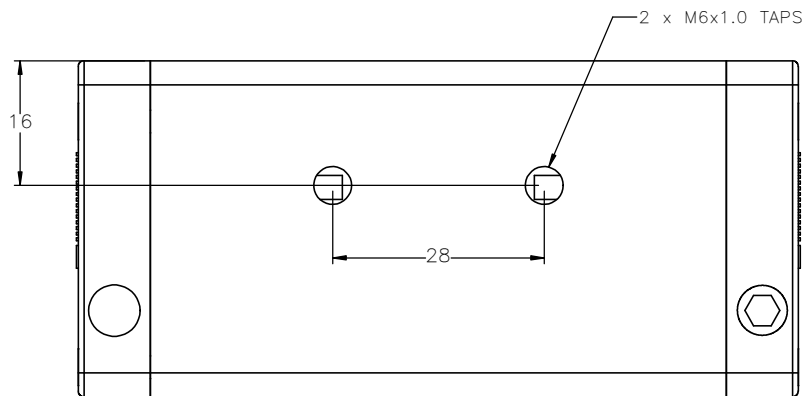
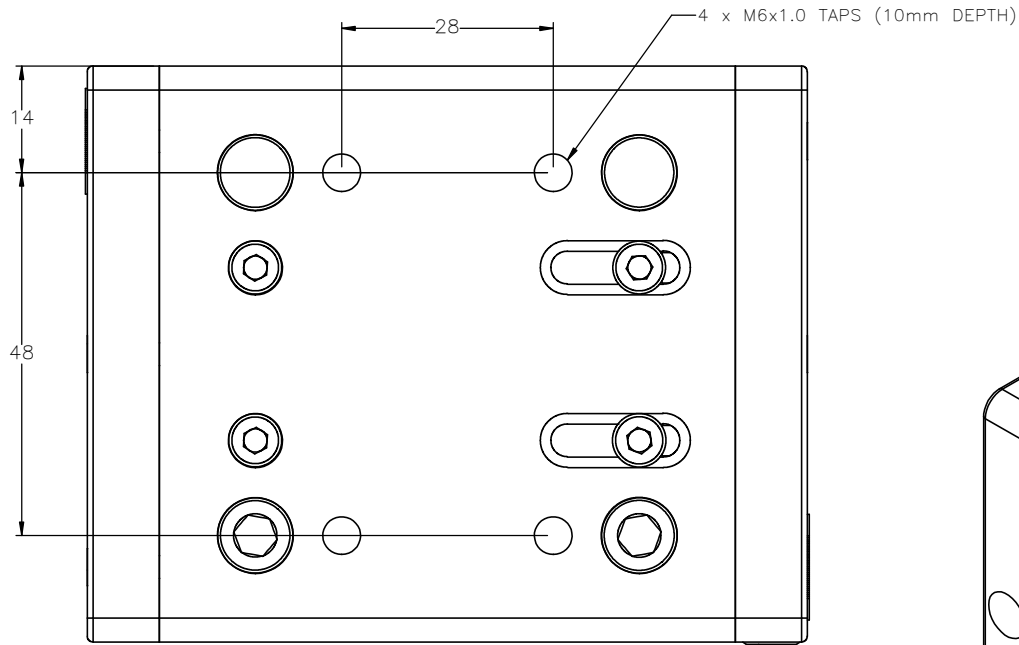



## CABLE TRACK DIMENSIONS



 <b>MACRON DYNAMICS INC</b>	DRAWN BY: JA      DATE: 10/11/2019	MATERIAL:	TITLE: <b>MACRON 628 GANTRY</b>
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: JA      DATE: 1/14/2020	UNLESS OTHERWISE SPECIFIED: .XX ± .254 DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED: .XXX ± .127 OTHERWISE: ANG ± 0°30'	
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		SCALE: 1:1      SHEET SIZE: C	

# CART MOUNTING FEATURES

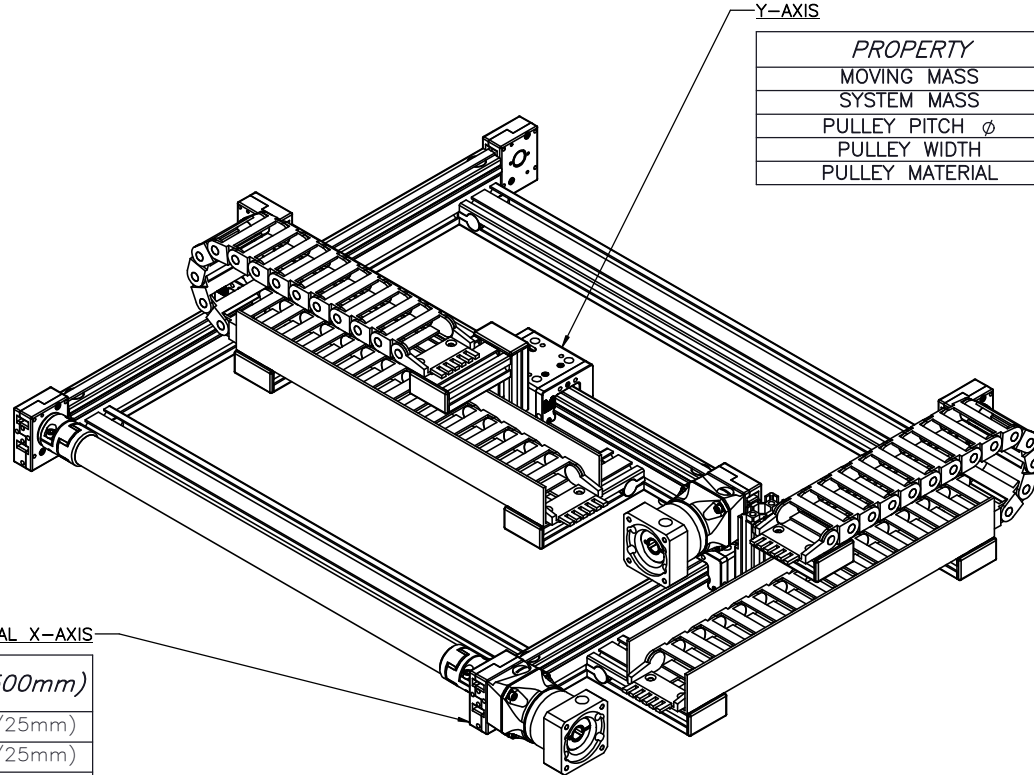


 <b>MACRON DYNAMICS INC</b>	DRAWN BY: JA      DATE: 10/11/2019	MATERIAL:	TITLE: MACRON MINI 6 CART ASSEMBLY								
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	SCALE: 1:1      SHEET SIZE: C								
	LAST SAVED BY: JA      DATE: 1/13/2020	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES, UNLESS NOTED OTHERWISE: <table border="0"> <tr><td>.X ±</td><td>.762</td></tr> <tr><td>.XX ±</td><td>.254</td></tr> <tr><td>.XXX ±</td><td>.127</td></tr> <tr><td>ANG ±</td><td>0°30'</td></tr> </table>	.X ±	.762	.XX ±	.254	.XXX ±	.127	ANG ±	0°30'	
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.XX ±	.254										
.XXX ±	.127										
ANG ±	0°30'										
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# MOTOR SIZING WORKSHEET

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE X-TRAVEL = 500mm  
 BASE Y-TRAVEL = 500mm



PROPERTY	BASE VALUE (T=500mm)
MOVING MASS	1.334kg (+0.0179kg/25mm)
SYSTEM MASS	7.540kg (+0.0975kg/25mm)
PULLEY PITCH $\phi$	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL

DUAL X-AXIS

PROPERTY	BASE VALUE (T=500mm)
**MOVING MASS	1.817kg (+0.0143kg/25mm)
BELT MASS	0.129kg (+0.0043kg/25mm)
PULLEY PITCH $\phi$	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL
TORQUE TUBE LENGTH	464mm
TORQUE TUBE $\phi$	35mm
TORQUE TUBE MASS	0.418kg (+0.0225kg/25mm)
TORQUE TUBE MATERIAL	ANODIZED ALUMINUM ELASTOMER STYLE COUPLINGS WITH HUB
TRAVEL PER REV	105mm

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

Y-AXIS	MOVING MASS	$(Y-TRAVEL \times .000716) + 0.976 = \text{kg}$
	SYSTEM MASS {1}	$(Y-TRAVEL \times 0.00390) + 5.590 = \text{kg}$
X-AXIS	MOVING MASS	$\{1\} + (X-TRAVEL \times .000802) + 1.416 = \text{kg}$
	BELT MASS	$[(4(X-TRAVEL) + 2(Y-TRAVEL)) \times .000043] + 0.0645 = \text{kg}$

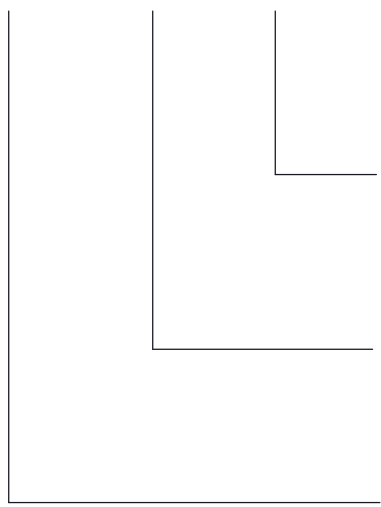
\*\*SYSTEM MASS OF Y-AXIS NEEDS TO BE ADDED TO THIS

MACRON DYNAMICS INC	DRAWN BY: JA	DATE: 10/11/2019	MATERIAL:	TITLE: MACRON 628 GANTRY
	CHECKED BY: --	DATE: DD/MM/YYYY	FINISH:	SCALE: 1:1 SHEET SIZE: C
	LAST SAVED BY: JA	DATE: 1/13/2020		
<small>UNLESS OTHERWISE SPECIFIED                  DIMENSIONS ARE IN MILLIMETERS                  TOLERANCES UNLESS NOTED</small>		<small>.XX <math>\pm</math> .254                  .XXX <math>\pm</math> .127                  ANG <math>\pm</math> 0.30'</small>	SURFACE FINISH <input checked="" type="checkbox"/> BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	
<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>		SHEET: 4 OF 16	PART NUMBER: MGS-628	REV: 00

# SENSOR KIT PART NUMBER CONFIGURATION

\*NOTE SENSOR INFORMATION X-AXIS:  
 HOME-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 EOT-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 SENSOR INFORMATION Z-AXIS:  
 HOME-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 EOT-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_-\_\_\_\_

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



- 02 (2 METER CORD LENGTH)
- 06 (6 METER CORD LENGTH)
- 12 (12 METER CORD LENGTH)
  
- NC (NORMALLY CLOSED)
- NO (NORMALLY OPEN)
  
- PNP (POSITIVE-NEGATIVE-POSITIVE)
- NPN (NEGATIVE-POSITIVE-NEGATIVE)

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	SHEET	PART NUMBER	SCALE 1:1	SHEET SIZE C
	5 OF 16			REV