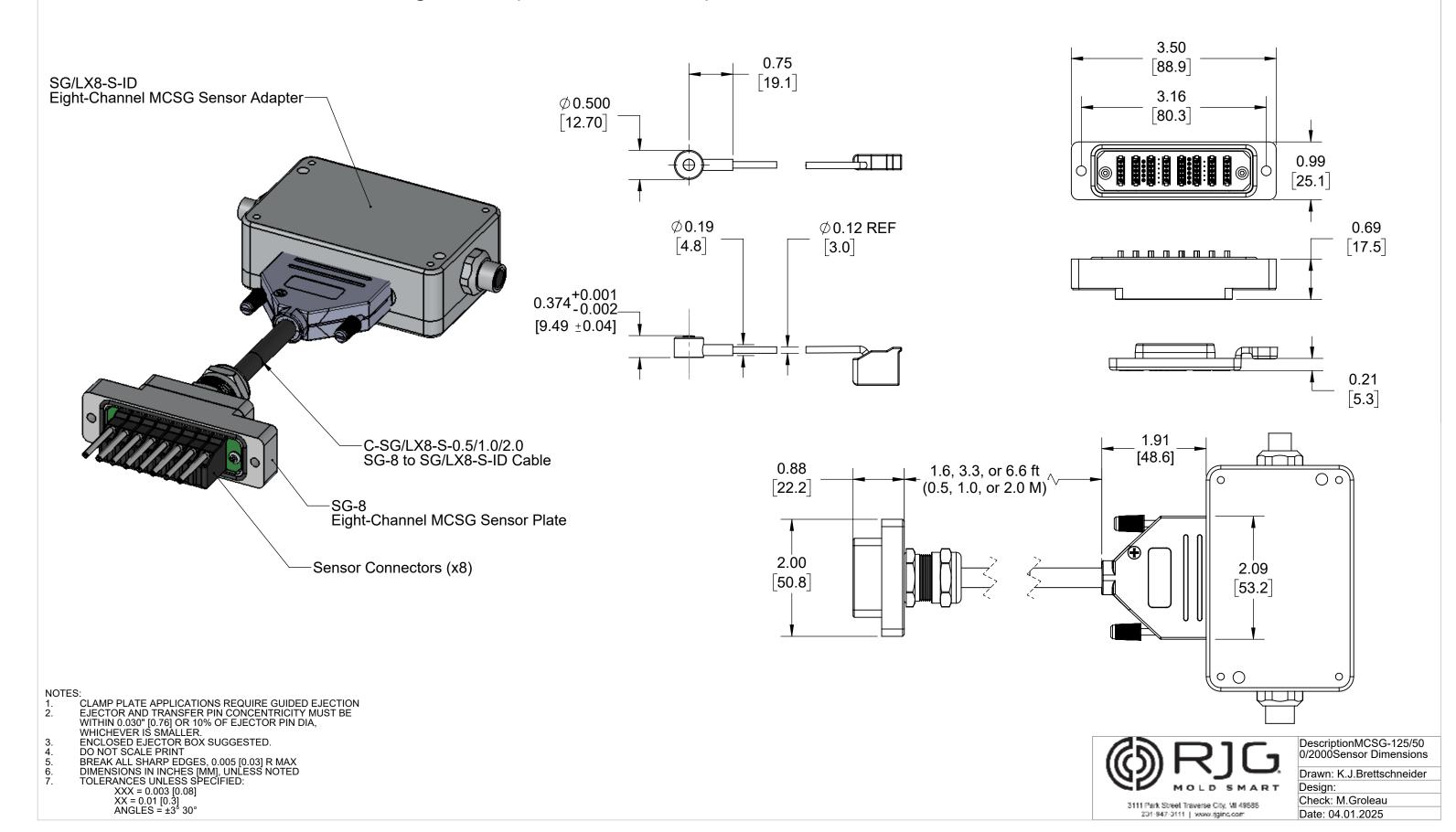
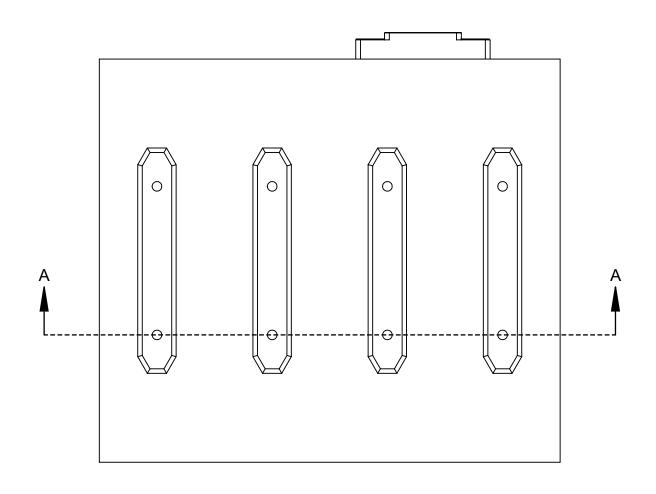
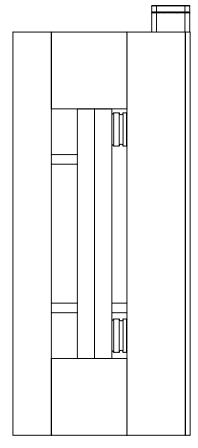
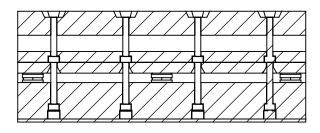
#### Multi-Channel Strain Gage Sensor (MCSG-125/500/2000) Installation—Sensor, Sensor Connector, and Sensor Cable Dimensions



## Multi-Channel Strain Gage Sensor (MCSG-125/500/2000) Installation—Clamp Plate Installation







SECTION A-A SCALE 1 : 2.5

#### NOTES:

- CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.

  ENCLOSED EJECTOR BOX SUGGESTED.
  DO NOT SCALE PRINT

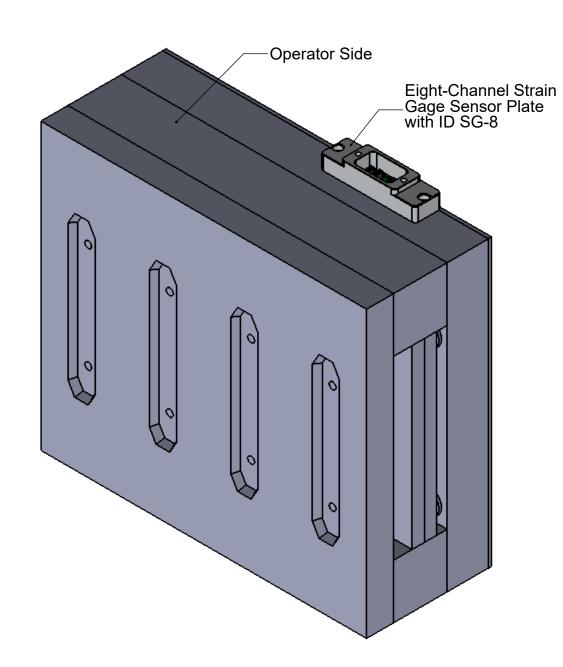
  BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
  DIMENSIONS IN INCHES [MM], UNLESS NOTED

  TOLERANCES UNLESS SPECIFIED:

  XXX = 0.003 [0.08]

  XX = 0.01 [0.3]

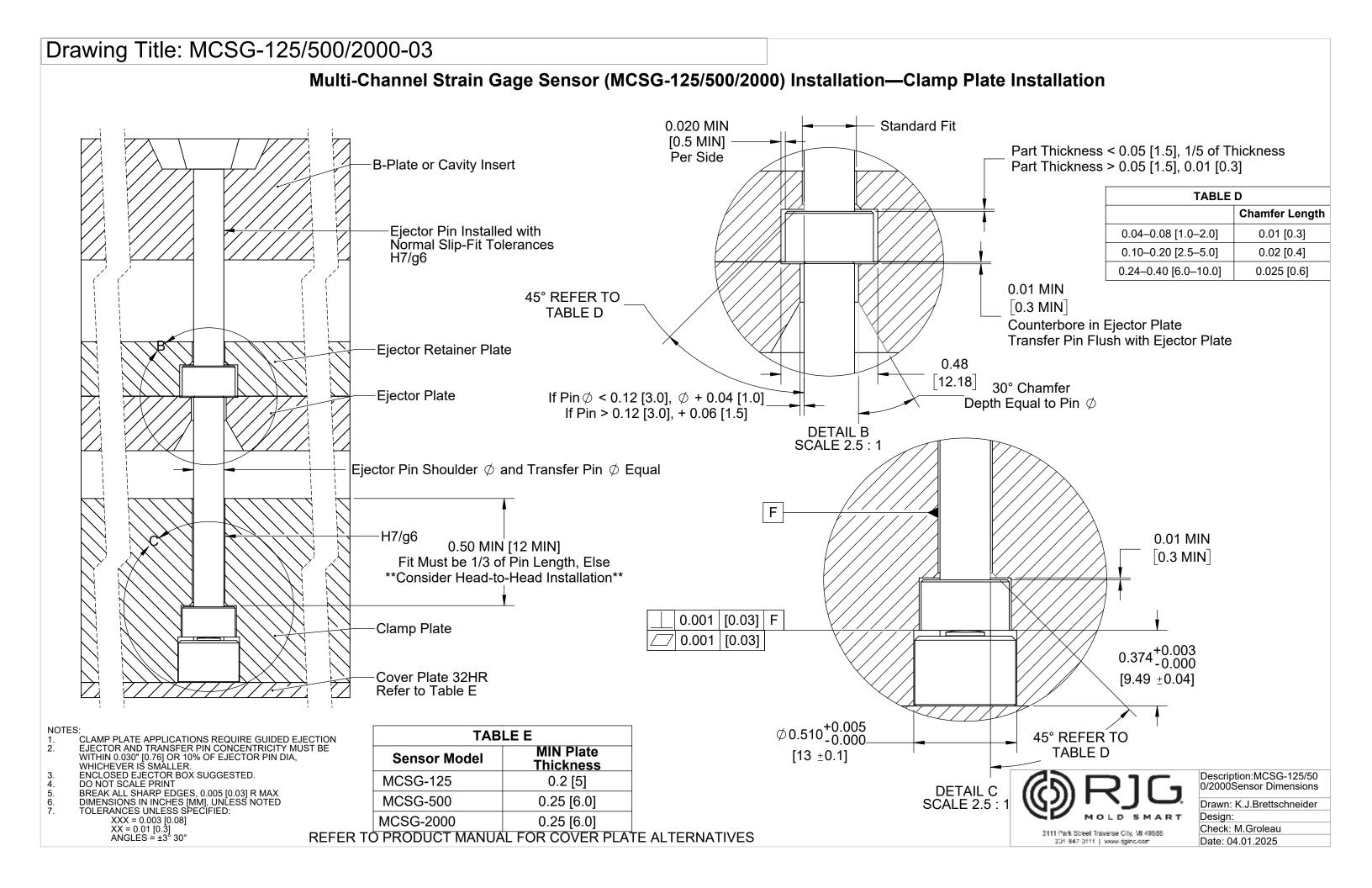
  ANGLES = ±3° 30°



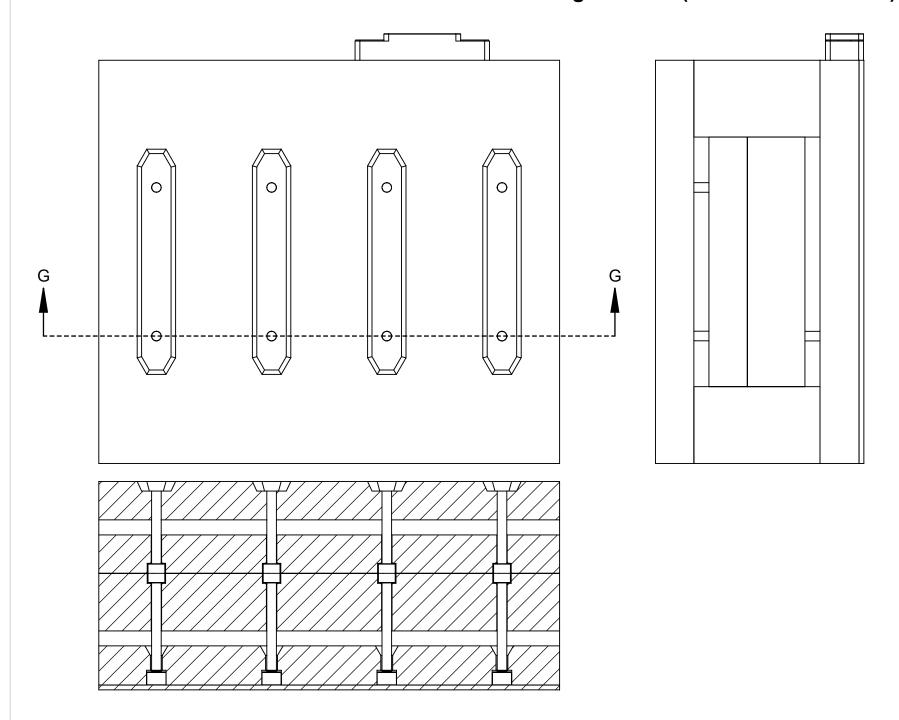


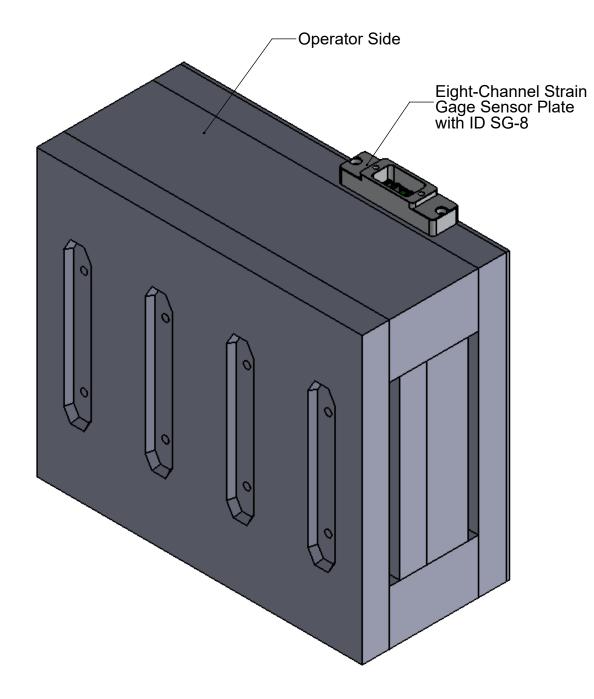
Description:MCSG-125/50 0/2000 SensorDimensions

Drawn: K.J.Brettschneider Design:



#### Multi-Channel Strain Gage Sensor (MCSG-125/500/2000) Installation—Head-to-Head Installation





# SECTION G-G SCALE 1 : 2.5

#### NOTES:

CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.

ENCLOSED EJECTOR BOX SUGGESTED.
DO NOT SCALE PRINT

BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
DIMENSIONS IN INCHES [MM], UNLESS NOTED

TOLERANCES UNLESS SPECIFIED:

XXX = 0.003 [0.08]

XX = 0.01 [0.3]

ANGLES = ±3° 30°

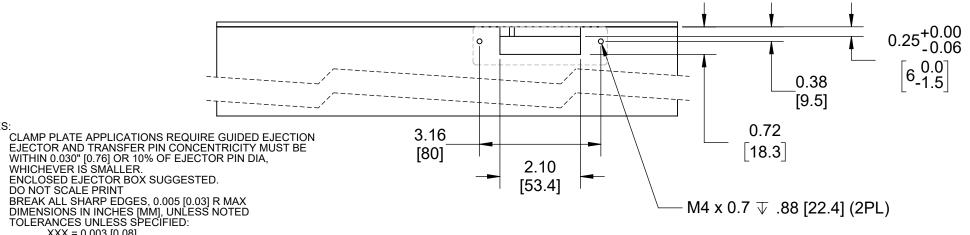


Description:MCSG-125/50 0/2000Sensor Dimensions

Drawn: K.J.Brettschneider Design:

#### Drawing Title: MCSG-125/500/2000-05 Multi-Channel Strain Gage Sensor (MCSG-125/500/2000) Installation—Head-to-Head Installation Standard Fit **B-Plate or Cavity Insert** 45° 0.02 MIN **REFER TO** 0.5 MIN **TABLE J** Per Side Part Thickness < 0.05 [1.5], 1/5 of Thickness Part Thickness > 0.05 [1.5], 0.01 [0.3] Ejector Pin Installed with Normal Slip-Fit Tolernaces H7/g6 **TABLE J Chamfer Length** Ejector Retainer Plate 0.04-0.08 [1.0-2.0] 0.01 [0.3] 0.10-0.20 [2.5-5.0] 0.02 [0.4] 0.24-0.40 [6.0-10.0] 0.025 [0.6] 0.01 MIN 45° 0.3 MIN REFER TO-**TABLE J** Counterbore in Ejector Plate Transfer Pin Flush with Ejector Plate **Ejector Plate** H7/g6 for 0.02 MIN 0.5 MIN 0.5 MIN [12 MIN] Per Side DETAIL H SCALE 2:1 Transfer Pin ∅ H7/g6 0.04 IF < 0.12 [1.0 IF < 3.0] 0.06 IF > 0.12 [1.5 IF > 3.0] 30° Chamfer Ejector Pin Shoulder $\emptyset$ and Tranfer Pin $\emptyset$ Equal Depth Equal to Pin Ø Clamp Plate 0.01 MIN L 0.3 MIN 0.001 [0.03] L 0.001 | [0.03] $0.374^{+0.002}_{-0.001}$ Cover Plate 32HRC REFER TO TABLE K $[9.49 \pm 0.04]$ **TABLE K** S: CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER. ENCLOSED EJECTOR BOX SUGGESTED. DO NOT SCALE PRINT BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX DIMENSIONS IN INCHES [MM], UNLESS NOTED TOLERANCES UNLESS SPECIFIED: XXX = 0.003 [0.08] XX = 0.01 [0.3] ANGLES = ±3° 30° **MIN Plate Sensor Model Thickness** $\emptyset$ 0.510 $^{+0.005}_{-0.000}$ MCSG-125 0.2 [5] Description:MCSG-125/50 0/2000Sensor Dimensions $[13.0 \pm 0.1]$ MCSG-500 0.25 [6.0] Drawn: K.J.Brettschneider MCSG-2000 0.25 [6.0] DETAIL I Design: **SCALE 2:1** Check: M.Groleau REFER TO PRODUCT MANUAL FOR COVER PLATE ALTERNATIVES 3111 Park Street Traverse City, VII 49686 Date: 04.01.2025

#### Drawing Title: MCSG-125/500/2000-06 Multi-Channel Strain Gage Sensor (MCSG-125/500/2000) Installation—Clamp Plate/Head-to-Head Installation M \_\_\_ $\emptyset$ 0.510 $^{+0.005}_{-0.000}$ [13.0 ±0.1] $\bigcirc$ $\bigcirc$ $\bigcirc$ 1.0 MIN NOTE: Refer to Product [25 MIN] Manual for Cable Channel and Before Cable Bend **Cable Pocket Cover Options** 1.6 MIN [40 MIN] and for Electronics Mounting for Pin $\emptyset$ <3/32" [<2.5] Options When Mold Temperature is Greater Than 0.25 140 °F [60 °C] REFER TO PRODUCT MANUAL IF MULTIPLE CABLES PRESENT IN SINGLE CHANNEL Excess Cable Pocket [26] 0.655 REF [17] 0.8±0.005 $[20.3 \pm 0.13]$ Cover Plate Thickness MIN 1.50 MIN REF R0.125 MIN (2PL) FOR CLAMP PLATE for Plate as Shown. [38.1 MIN] [3.18 MIN] **INSTALLATIONS ONLY** REFER TO TABLE E on page MCSG-125/500/2000-03 or TABLE K on page **SECTION M-M** MCSG-125/500/2000-05 SCALE 1: 2.5 \*\*IF RECESSED IN CLAMP PLATE. 0.125" [3] MIN\*\*





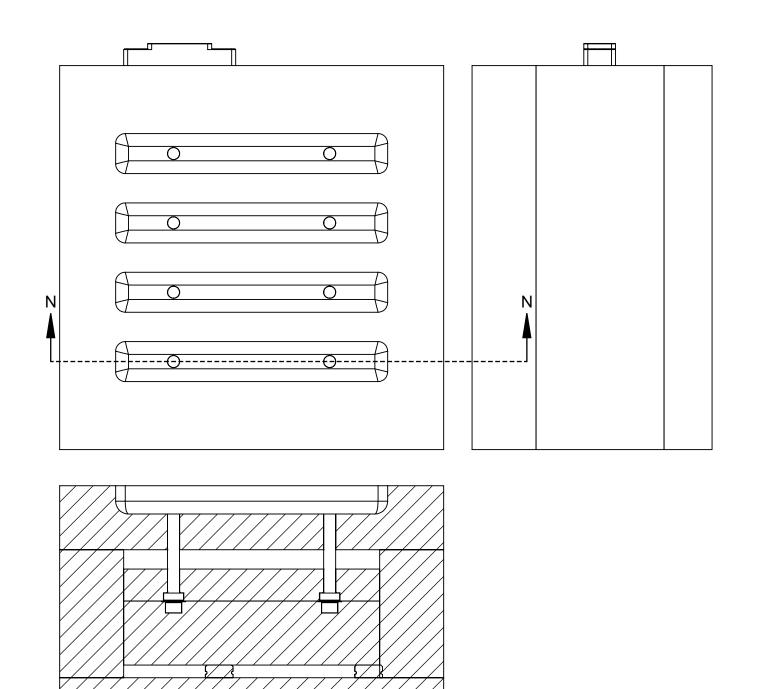
Description:MCSG-125/50 0/2000Sensor Dimensions

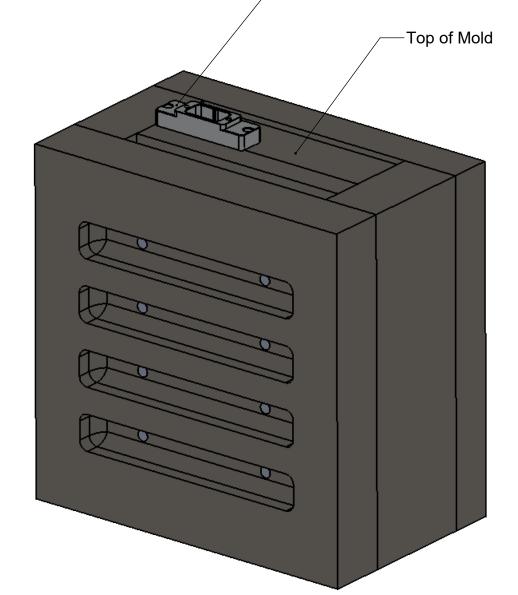
Drawn: K.J.Brettschneider
Design:

Check: M.Groleau Date: 04.01.2025

XXX = 0.003 [0.08] XX = 0.01 [0.3] ANGLES = ±3° 30°

#### Multi-Channel Strain Gage Sensor (MCSG-125/500/2000) Installation—Ejector Plate Installation





CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.

ENCLOSED EJECTOR BOX SUGGESTED.
DO NOT SCALE PRINT

BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
DIMENSIONS IN INCHES [MM], UNLESS NOTED

TOLERANCES UNLESS SPECIFIED:

XXX = 0.003 [0.08]

XX = 0.01 [0.3]

ANGLES = ±3° 30° **SECTION N-N SCALE 1:3** 



SG-8 Sensor Plate with ID

Description:MCSG-125/50 0/2000Sensor Dimensions

Drawn: K.J.Brettschneider Design:

# Drawing Title: MCSG-125/500/2000-08 Multi-Channel Strain Gage Sensor (MCSG-125/500/2000) Installation—Ejector Plate Installation

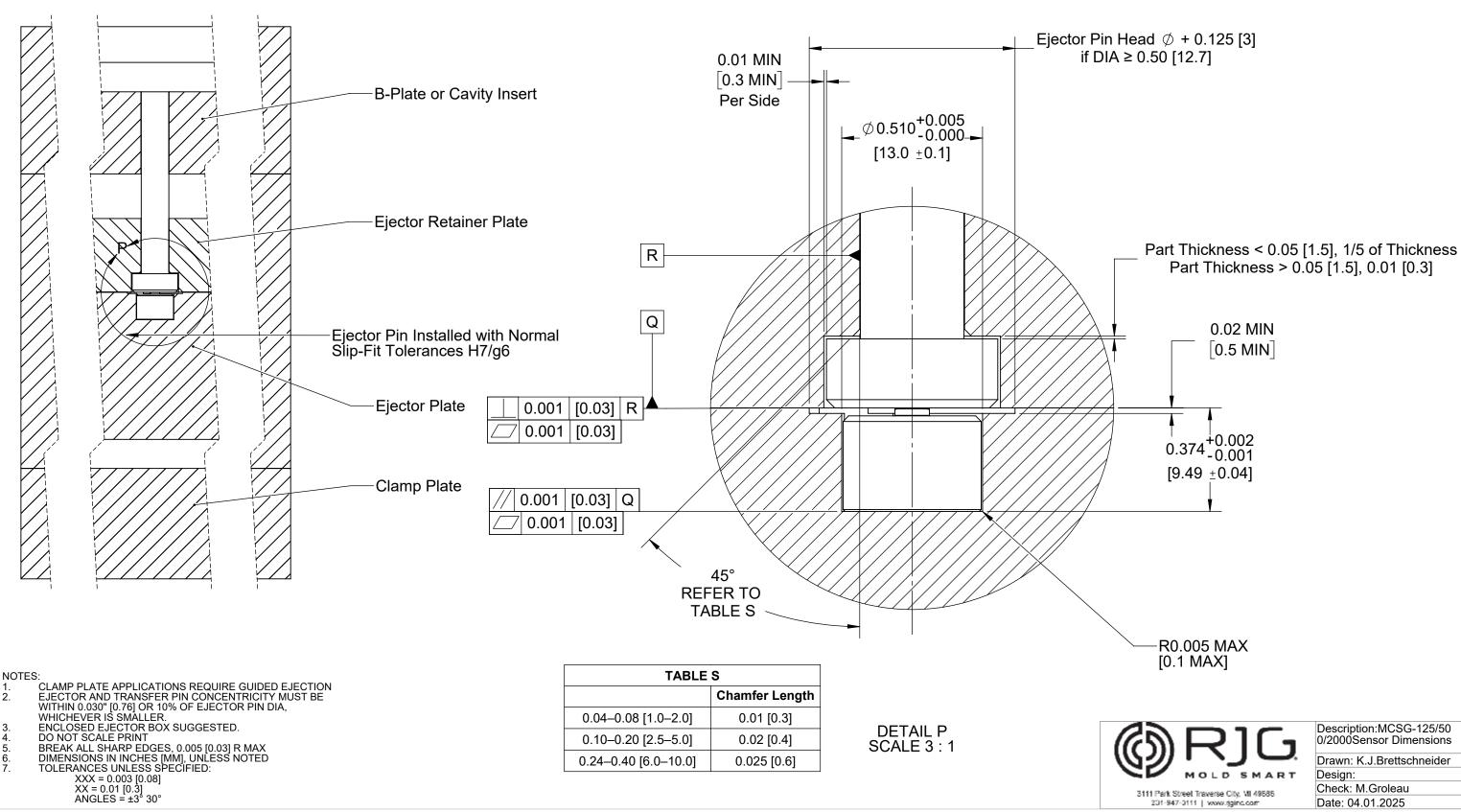


TABLE S		
		Chamfer Length
0.0	4–0.08 [1.0–2.0]	0.01 [0.3]
0.10	0-0.20 [2.5-5.0]	0.02 [0.4]
0.24	-0.40 [6.0-10.0]	0.025 [0.6]

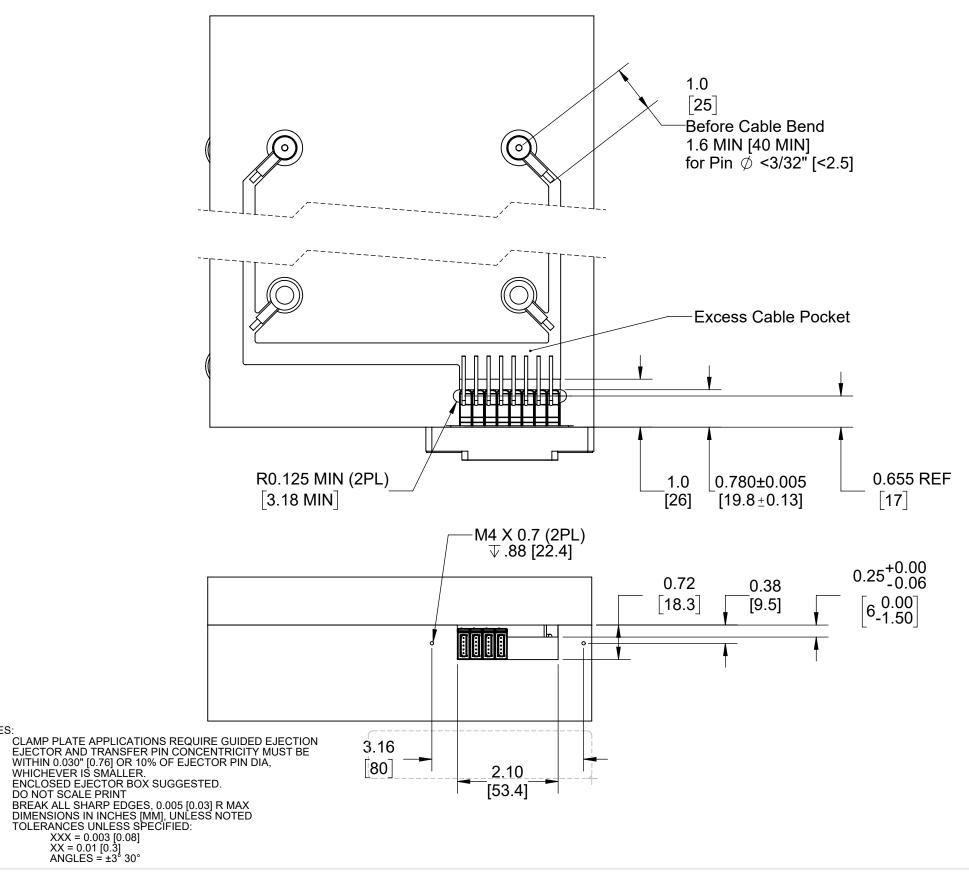
**DETAIL P SCALE 3:1** 

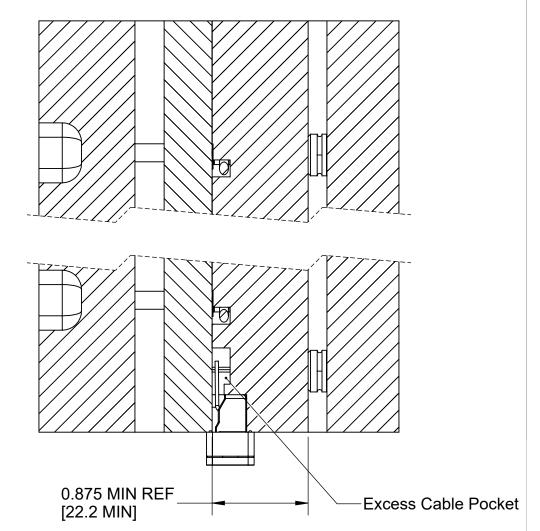


Description:MCSG-125/50 0/2000Sensor Dimensions

Drawn: K.J.Brettschneider Design:

#### Multi-Channel Strain Gage Sensor (MCSG-125/500/2000) Installation—Ejector Plate Installation







Description:MCSG-125/50 0/2000Sensor Dimensions

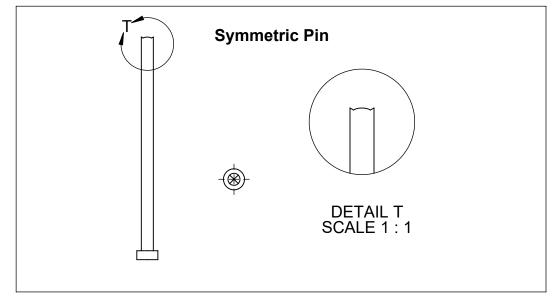
Drawn: K.J.Brettschneider Design:

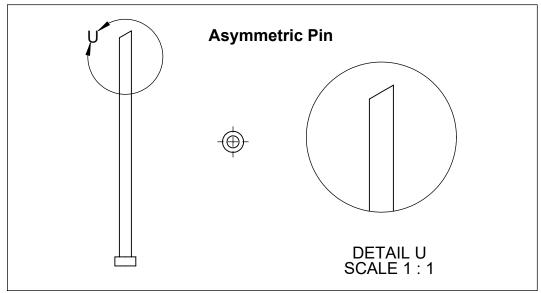
Check: M.Groleau Date: 04.01.2025

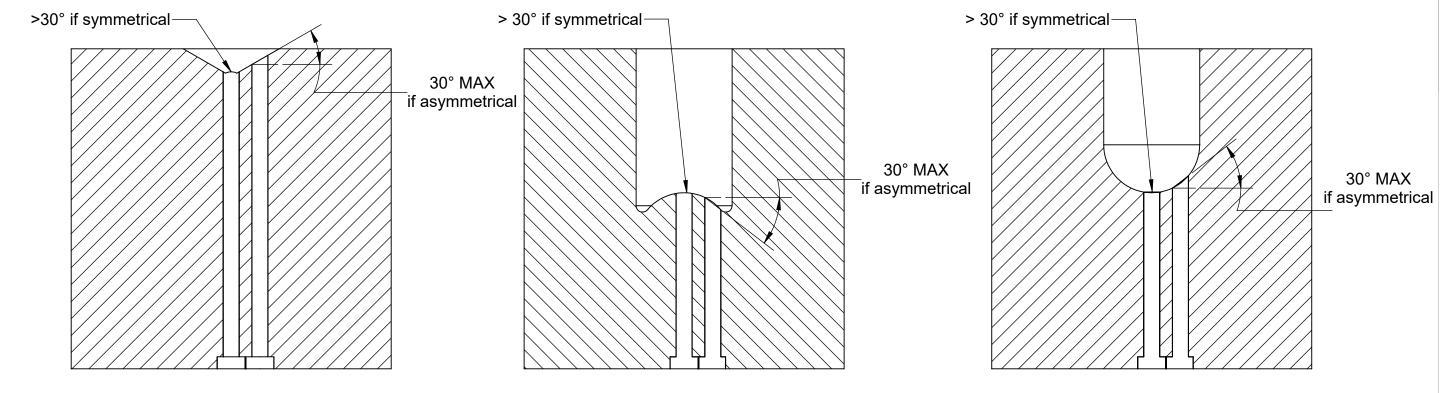
NOTES:

#### MCSG-125/500/2000 Sensor Installation—Contoured Pin Angle Specification

NOTE: Contoured/angled pins (asymmetric) not to exceed 30° MAX unless pin design is symmetrical to provide even, downward pressure across pin surface to loading of sensor. Contact RJG Customer Support for assistance in verification of contoured/angled pin use.







#### NOTES:

- CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.

  ENCLOSED EJECTOR BOX SUGGESTED.

  DO NOT SCALE PRINT

  BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX

  DIMENSIONS IN INCHES [MM], UNLESS NOTED

  TOLERANCES UNLESS SPECIFIED:

  XXX = 0.003 [0.08]

  XX = 0.01 [0.3]

  ANGLES = ±3° 30°



Description:MCSG-125/50 0/2000Sensor Dimensions

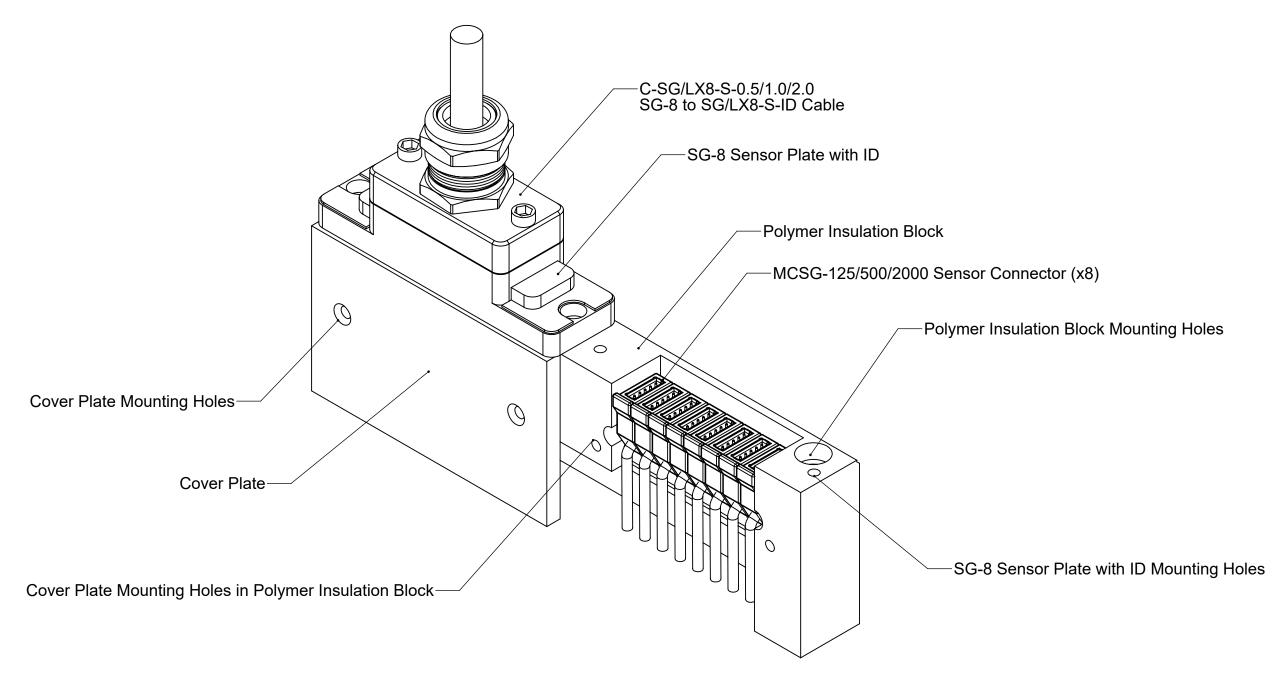
Drawn: K.J.Brettschneider Design:

Check: M.Groleau

3111 Park Street Traverse City, VII 49888 Date: 04.01.2025

#### Multi-Channel Strain Gage Sensor MCSG-125/500/2000) Installation—High Temperature Installation

NOTE: The sensor electronics must be kept below 140 °F (60 °C) for all MCSG-125/500/2000 sensor models. Refer to the drawing below as a guide; RJG does NOT provide polymer assembly pictured below—polymer assembly and design is responsibility of customer. Contact RJG Customer Support for assistance with high-temperature sensor protection designs.



- S:
  CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
  EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE
  WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA,
  WHICHEVER IS SMALLER.
  ENCLOSED EJECTOR BOX SUGGESTED.
  DO NOT SCALE PRINT
  BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
  DIMENSIONS IN INCHES [MM], UNLESS NOTED
  TOLERANCES UNLESS SPECIFIED:
  XXX = 0.003 [0.08]

XXX = 0.003 [0.08] XX = 0.01 [0.3] ANGLES = ±3° 30°



Description:MCSG-125/50 0/2000Sensor Dimensions

Drawn: K.J.Brettschneider Design: