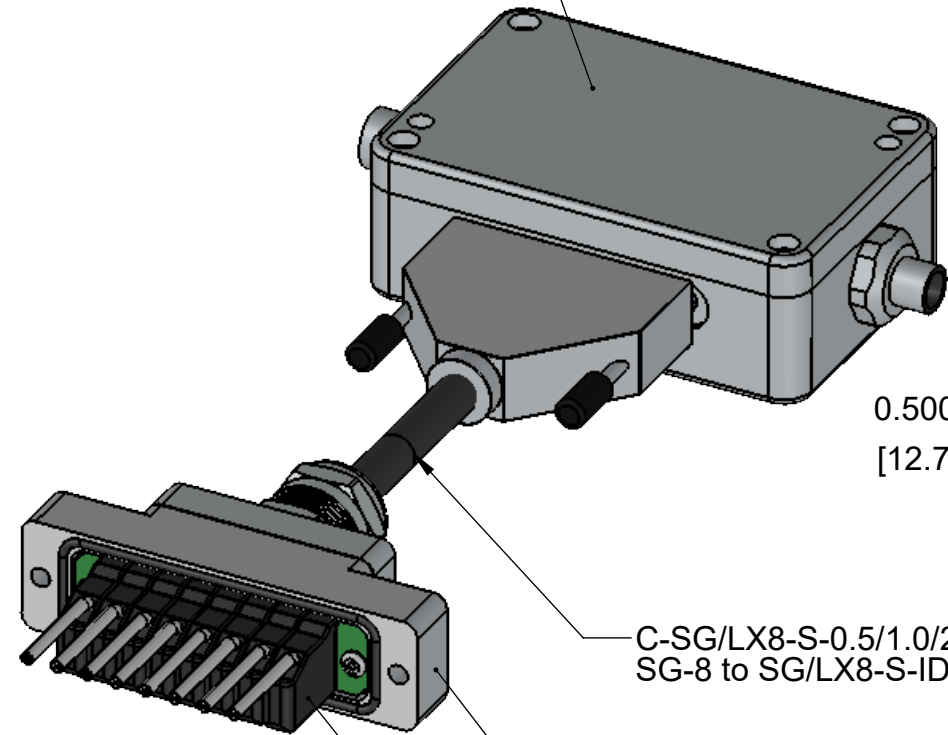


# Drawing Title: MCSG-B-159-4000-01

## Multi-Channel Strain Gage 4,000 lb. Sensor (MCSG-B-159-4000) Installation—Sensor, Sensor Connector, and Sensor Cable Dimensions

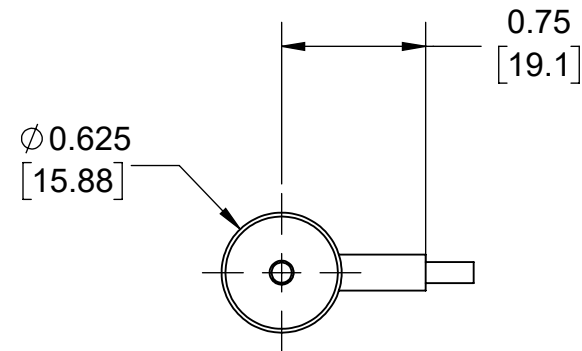
SG/LX8-S-ID  
Eight-Channel MCSG Sensor Adapter



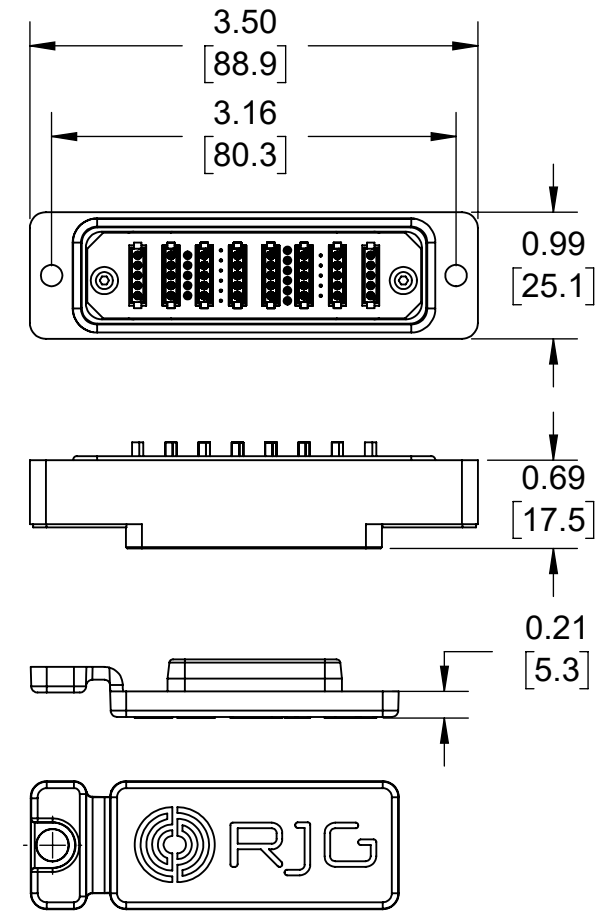
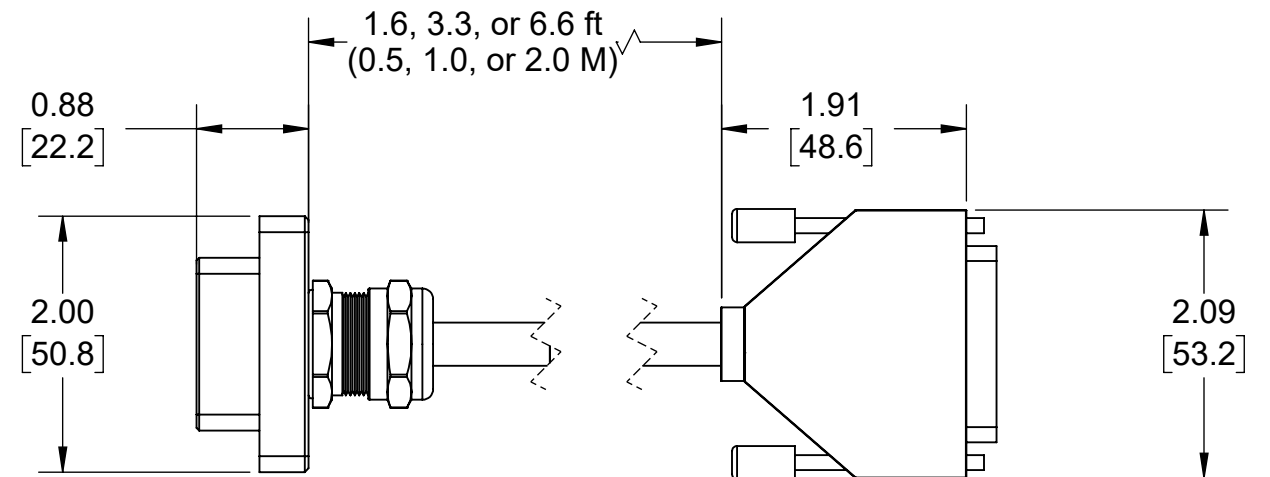
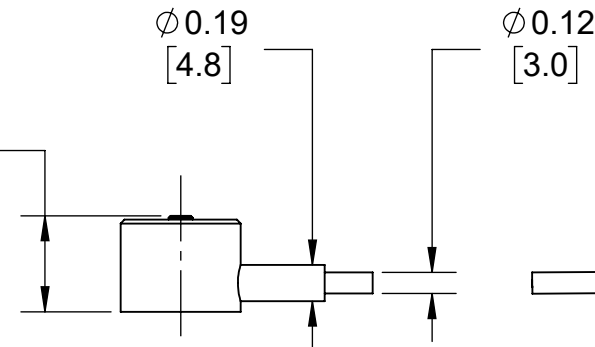
C-SG/LX8-S-0.5/1.0/2.0  
SG-8 to SG/LX8-S-ID Cable

SG-8  
Eight-Channel MCSG Sensor Plate

Sensor Connectors (x8)



$0.500^{+0.001}_{-0.002}$   
[12.7 ±0.04]



### NOTES:

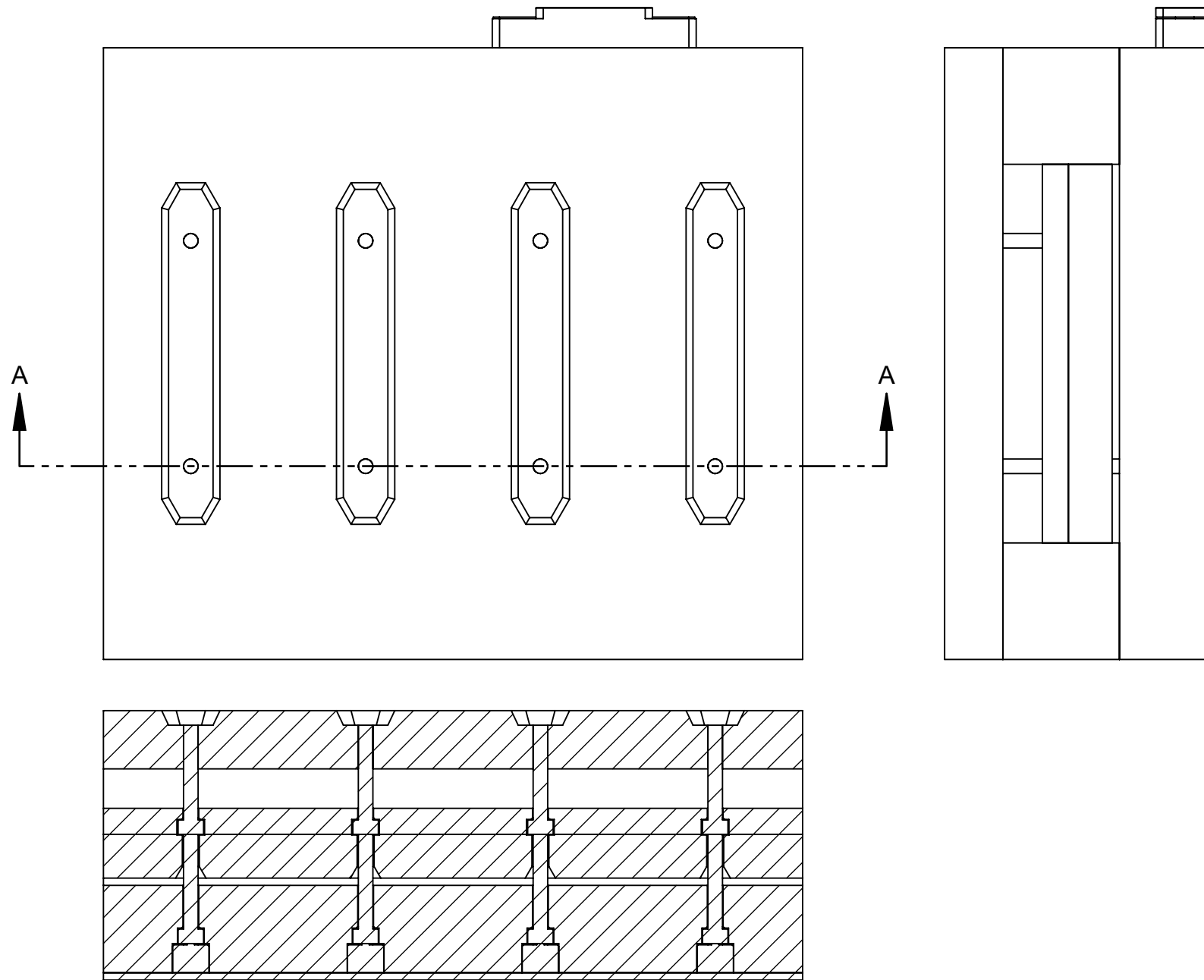
1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
3. ENCLOSED EJECTOR BOX SUGGESTED.
4. DO NOT SCALE PRINT
5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
7. TOLERANCES UNLESS SPECIFIED:  
 XXX = ±0.003 [0.08]  
 XX = ±0.01 [0.3]  
 ANGLES = ±3° 30°



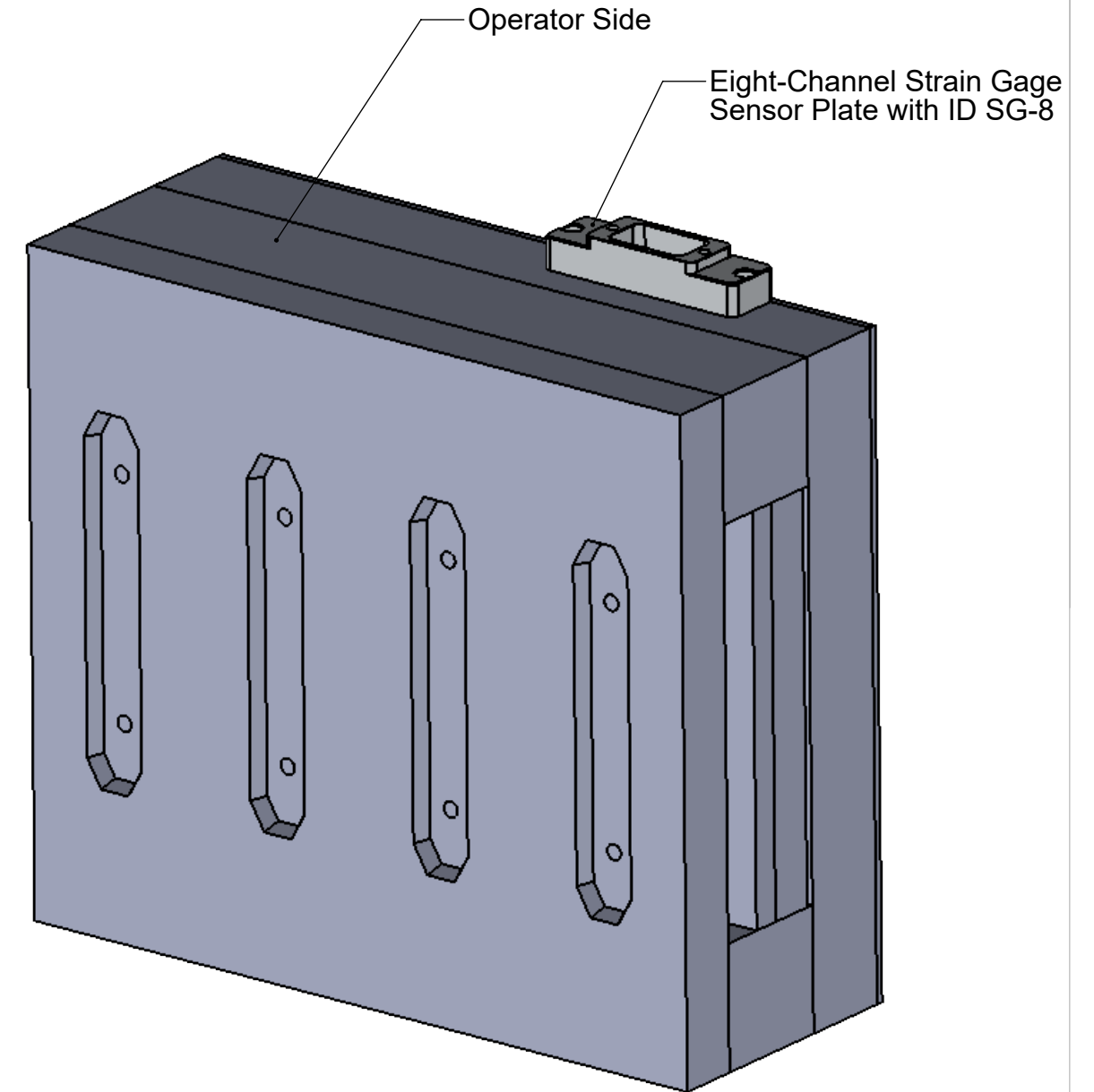
Description: MCSG-B-159-4000 Sensor Installation  
 Drawn: K.J.Brettschneider  
 Design:  
 Check: M.Groleau  
 Date: 04.02.2025

# Drawing Title: MCSG-B-159-4000-02

## Multi-Channel Strain Gage 4,000 lb. Sensor (MCSG-B-159-4000) Installation—Clamp Plate Installation



SECTION A-A  
SCALE 1 : 2.5



NOTES:

1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
3. ENCLOSED EJECTOR BOX SUGGESTED.
4. DO NOT SCALE PRINT
5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
7. TOLERANCES UNLESS SPECIFIED:  
 XXX =  $\pm 0.003$  [0.08]  
 XX =  $\pm 0.01$  [0.3]  
 ANGLES =  $\pm 3^\circ$  30°

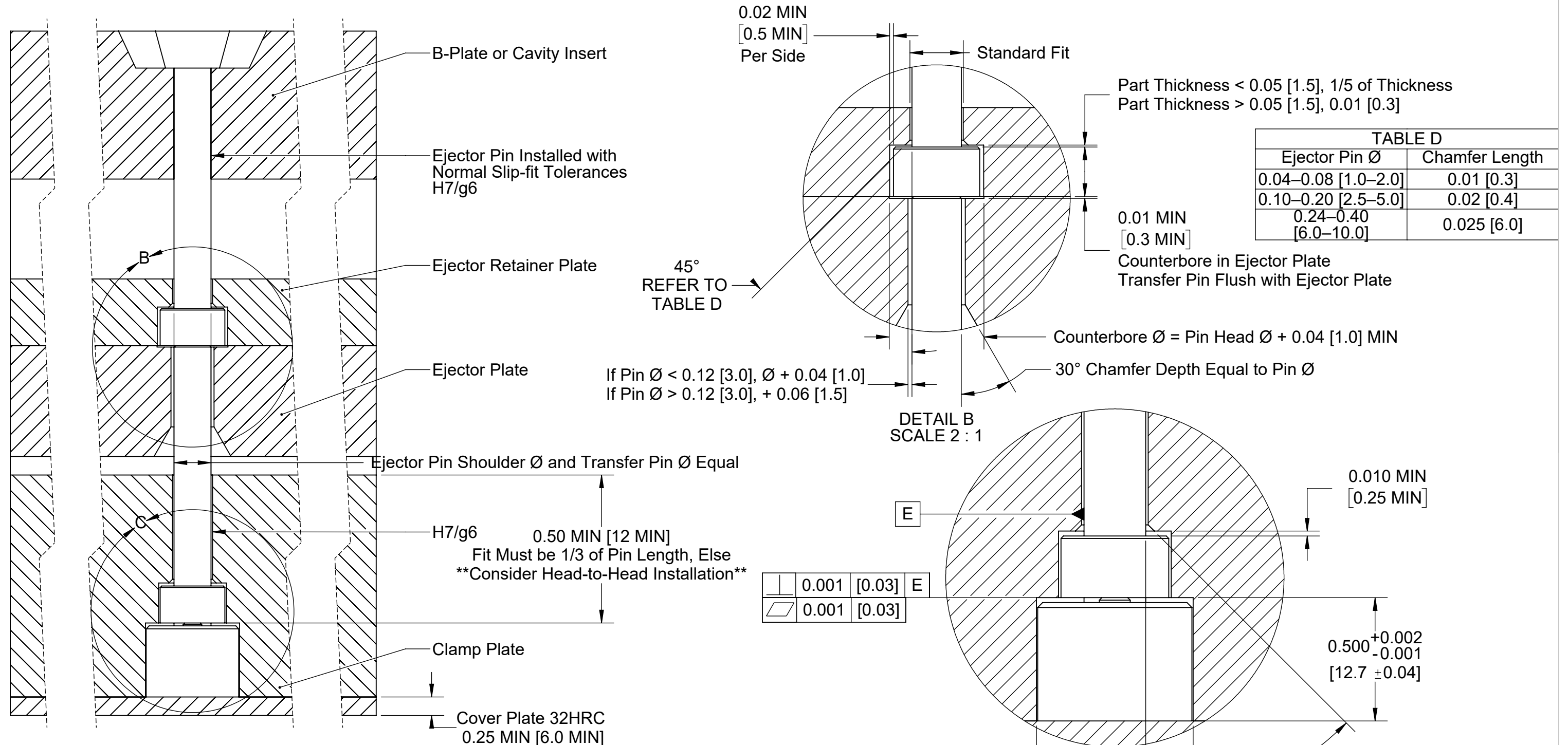


Description: MCSG-B-159-4000 Sensor Installation  
 Drawn: K.J.Brettschneider  
 Design:  
 Check: M.Groleau  
 Date: 04.02.2025

# Drawing Title: MCSG-B-159-4000-03

## Multi-Channel Strain Gage 4,000 lb. Sensor (MCSG-B-159-4000) Installation—Clamp Plate Installation

**\*\*CLAMP PLATE INSTALLATION FOR PINS  $\leq \varnothing 0.25$  [7.0]; PINS  $> \varnothing 0.25$  [7.0] USE HEAD-TO-HEAD INSTALLATION ON SHEET MCSG-B-159-4000-04 & -05.\*\***



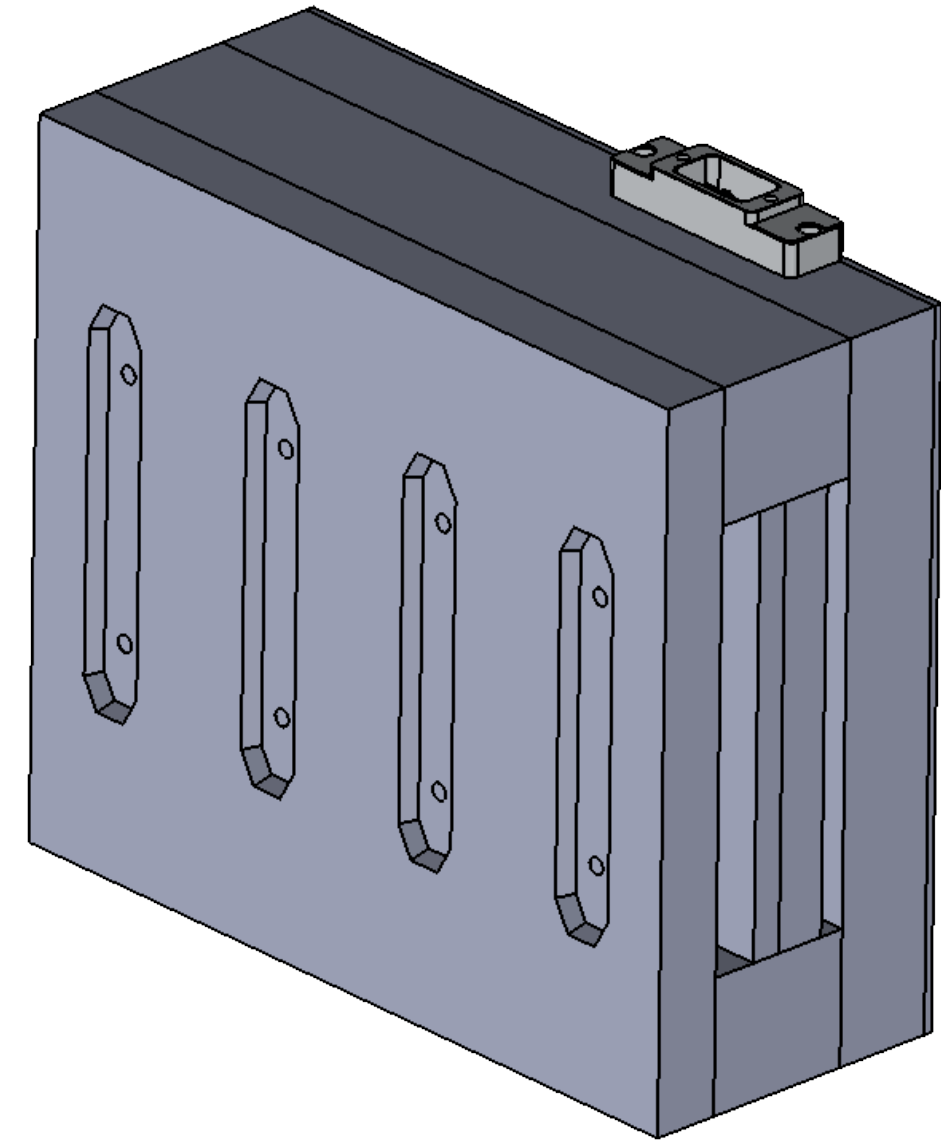
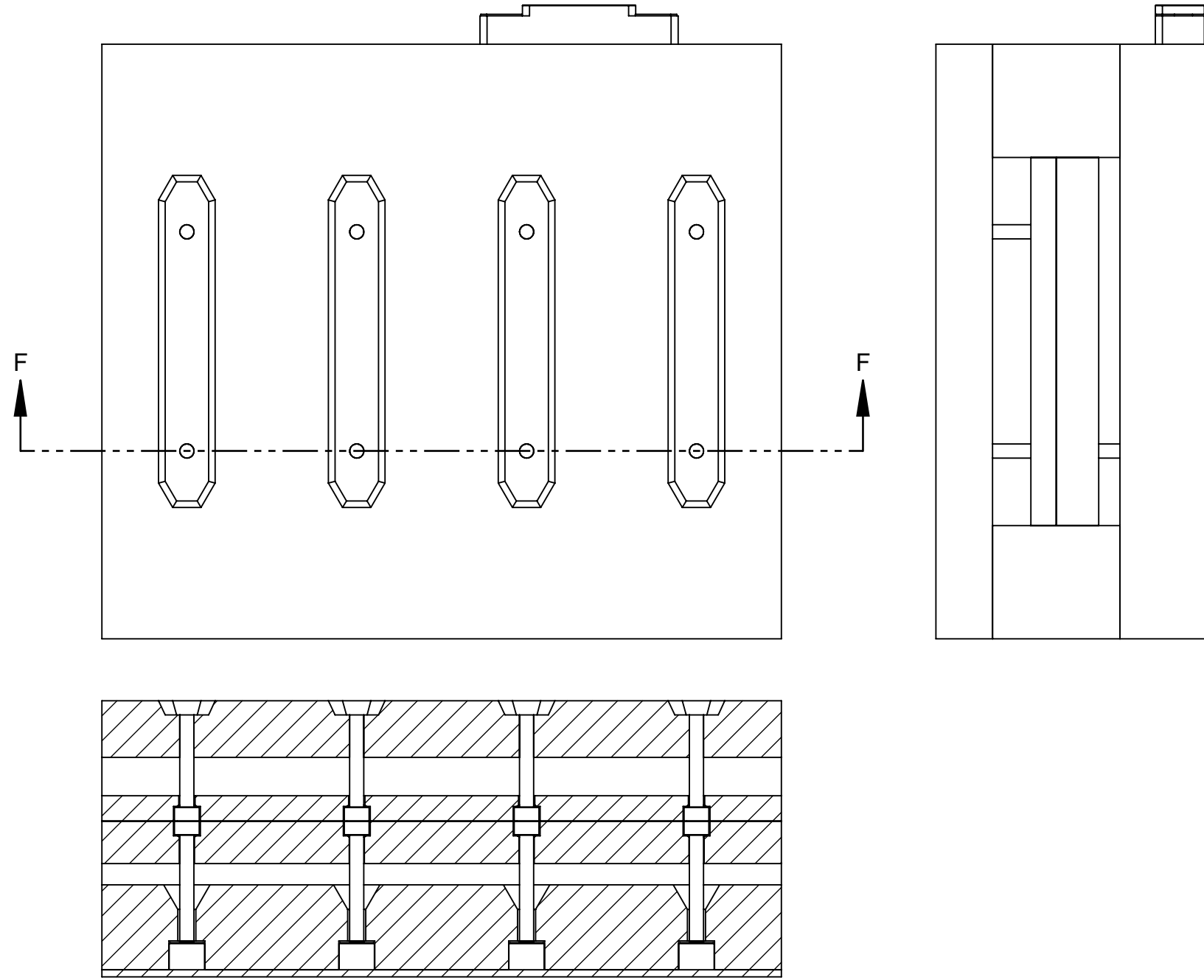
- NOTES:**
1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
  2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
  3. ENCLOSED EJECTOR BOX SUGGESTED.
  4. DO NOT SCALE PRINT
  5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
  6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
  7. TOLERANCES UNLESS SPECIFIED:  
 XXX =  $\pm 0.003$  [0.08]  
 XX =  $\pm 0.01$  [0.3]  
 ANGLES =  $\pm 3^\circ$  30°

**RJG**  
MOLD SMART

3111 Park Street, Traverse City, MI 49606  
231-944-2111 | WWW.RJGUSA.COM

Description: MCSG-B-159-4000 Sensor Installation  
 Drawn: K.J.Brettschneider  
 Design:  
 Check: M.Groleau  
 Date: 04.02.2025

**Multi-Channel Strain Gage 4,000 lb. Sensor (MCSG-B-159-4000) Installation—Head-to-Head Installation**  
**\*\*CLAMP PLATE INSTALLATION FOR PINS  $\leq \varnothing 0.25$  [7.0]; PINS  $> \varnothing 0.25$  [7.0] USE HEAD-TO-HEAD INSTALLATION.\*\***



SECTION F-F  
SCALE 1 : 2.5

NOTES:

1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
3. ENCLOSED EJECTOR BOX SUGGESTED.
4. DO NOT SCALE PRINT
5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
7. TOLERANCES UNLESS SPECIFIED:  
 XXX =  $\pm 0.003$  [0.08]  
 XX =  $\pm 0.01$  [0.3]  
 ANGLES =  $\pm 3^\circ 30'$

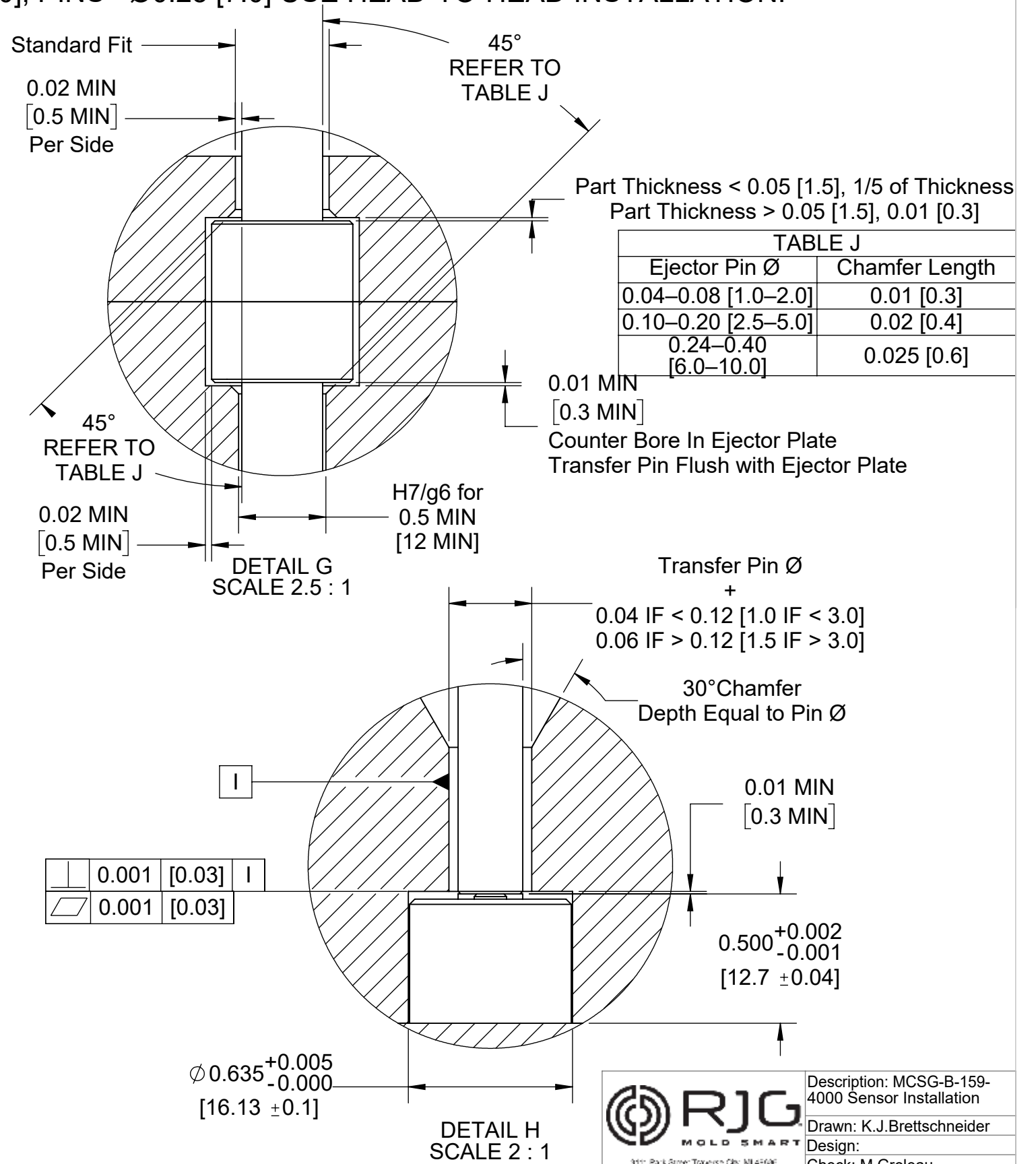
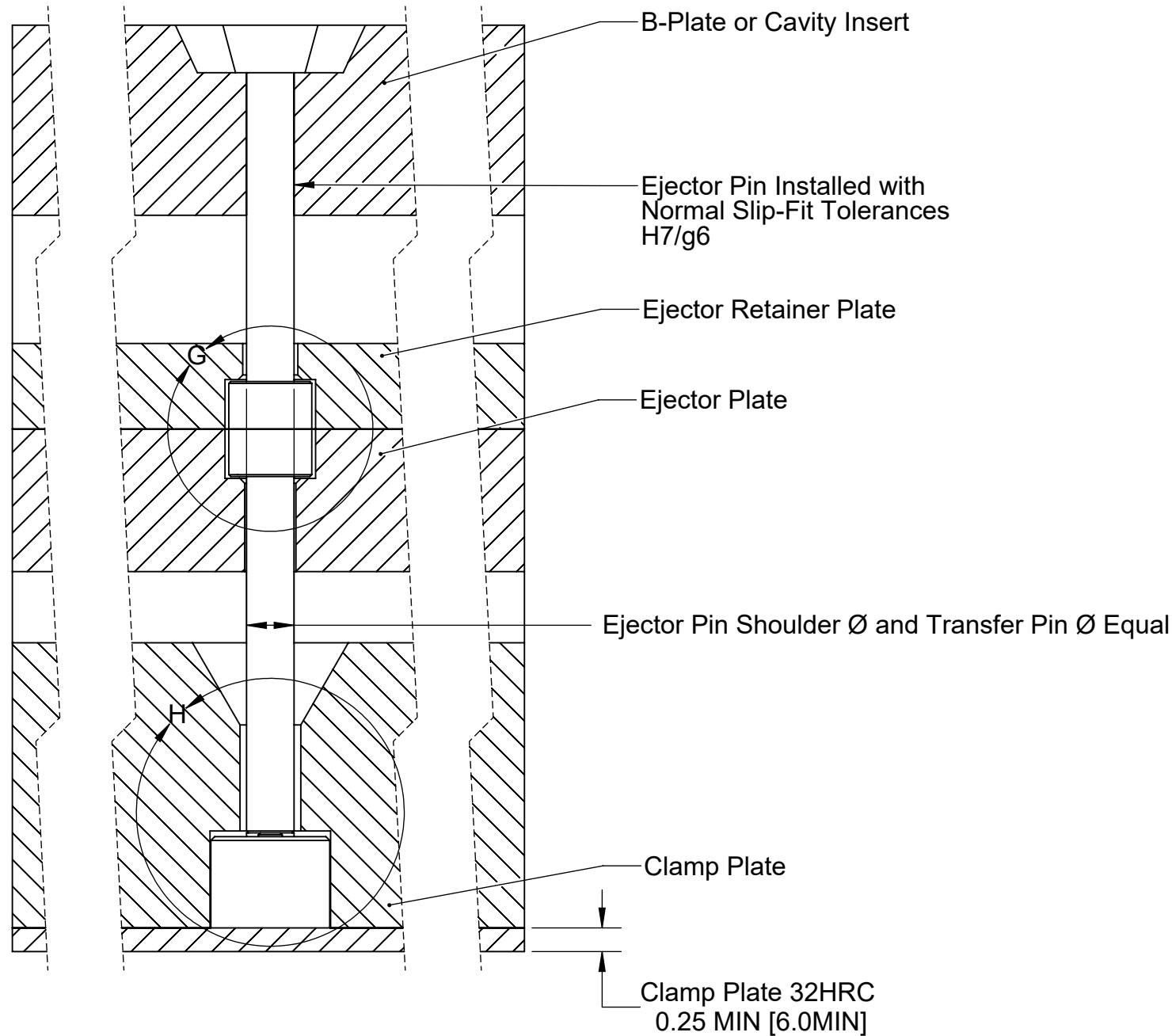


Description: MCSG-B-159-4000 Sensor Installation  
 Drawn: K.J.Brettschneider  
 Design:  
 Check: M.Groleau  
 Date: 04.02.2025

# Drawing Title: MCSG-B-159-4000-05

## Multi-Channel Strain Gage 4,000 lb. Sensor (MCSG-B-159-4000) Installation—Clamp Plate Installation

**\*\*CLAMP PLATE INSTALLATION FOR PINS  $\leq \varnothing 0.25$  [7.0]; PINS  $> \varnothing 0.25$  [7.0] USE HEAD-TO-HEAD INSTALLATION.\*\***



### NOTES:

1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
3. ENCLOSED EJECTOR BOX SUGGESTED.
4. DO NOT SCALE PRINT
5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
7. TOLERANCES UNLESS SPECIFIED:  
 XXX =  $\pm 0.003$  [0.08]  
 XX =  $\pm 0.01$  [0.3]  
 ANGLES =  $\pm 3^\circ$  30°

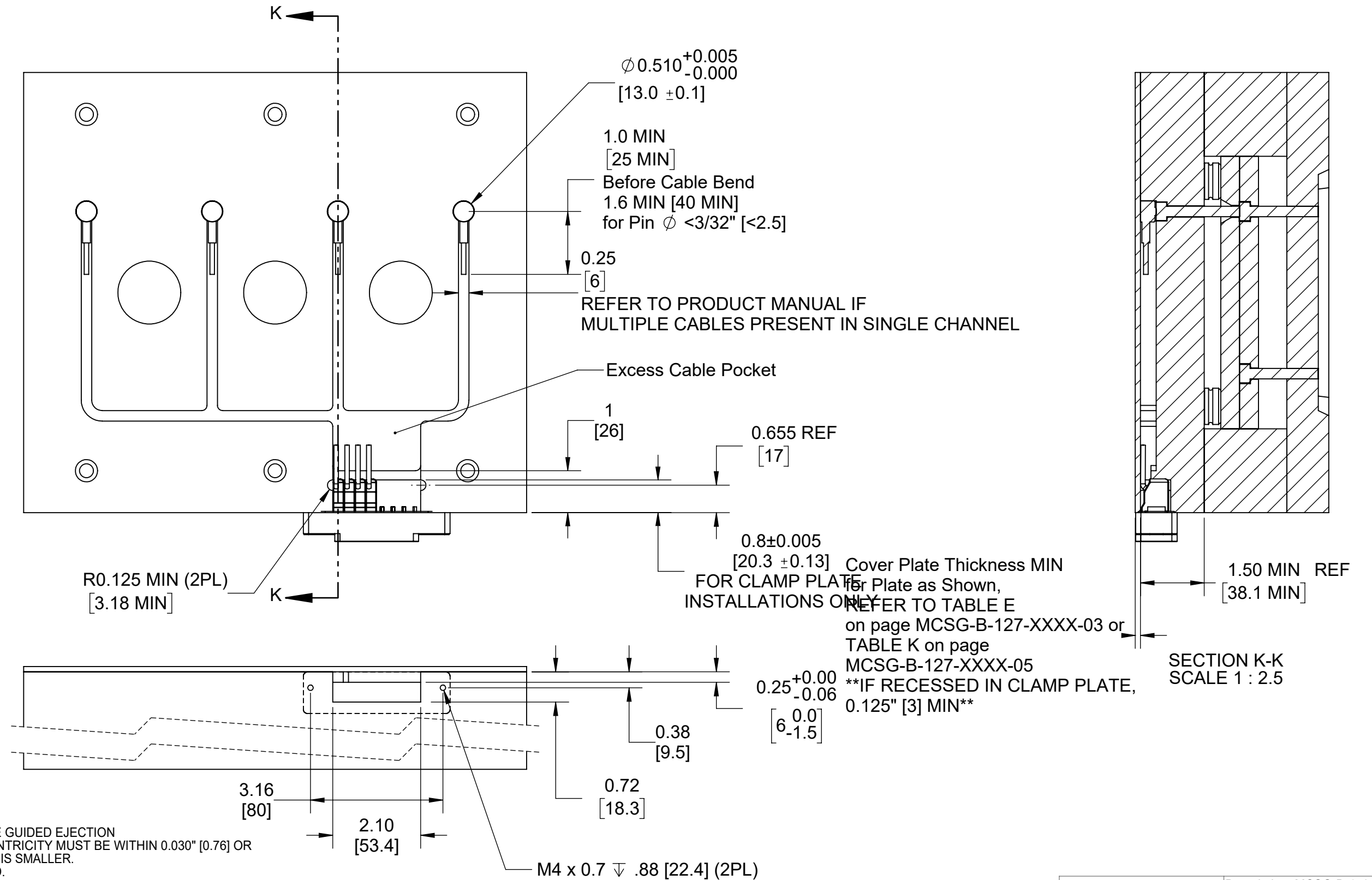


Description: MCSG-B-159-4000 Sensor Installation  
 Drawn: K.J.Brettschneider  
 Design:  
 Check: M.Groleau  
 Date: 04.02.2025

# Drawing Title: MCSG-B-159-4000-06

## Multi-Channel Strain Gage Sensor (MCSG-B-127-XXXX) Installation—Clamp Plate/Head-to-Head Installation

NOTE: Refer to Product Manual for Cable Channel and Cable Pocket Cover Options and for Electronics Mounting Options When Mold Temperature is Greater Than 140 °F [60 °C]



### NOTES:

1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
3. ENCLOSED EJECTOR BOX SUGGESTED.
4. DO NOT SCALE PRINT
5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
7. TOLERANCES UNLESS SPECIFIED:  
 XXX = ±0.003 [0.08]  
 XX = ±0.01 [0.3]  
 ANGLES = ±3° 30°

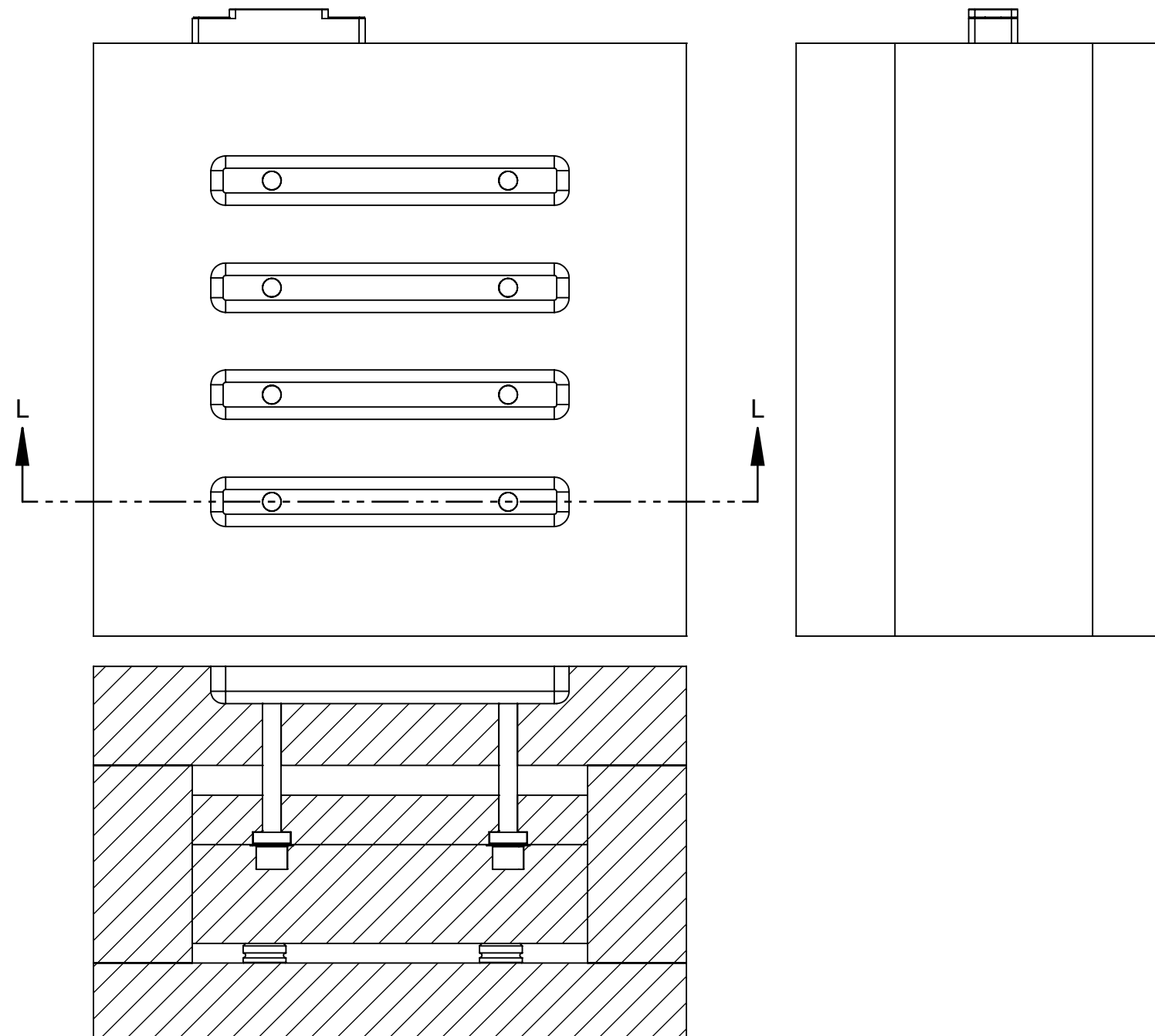


Description: MCSG-B-159-4000 Sensor Installation  
 Drawn: K.J.Brettschneider  
 Design:  
 Check: M.Groleau  
 Date: 04.02.2025

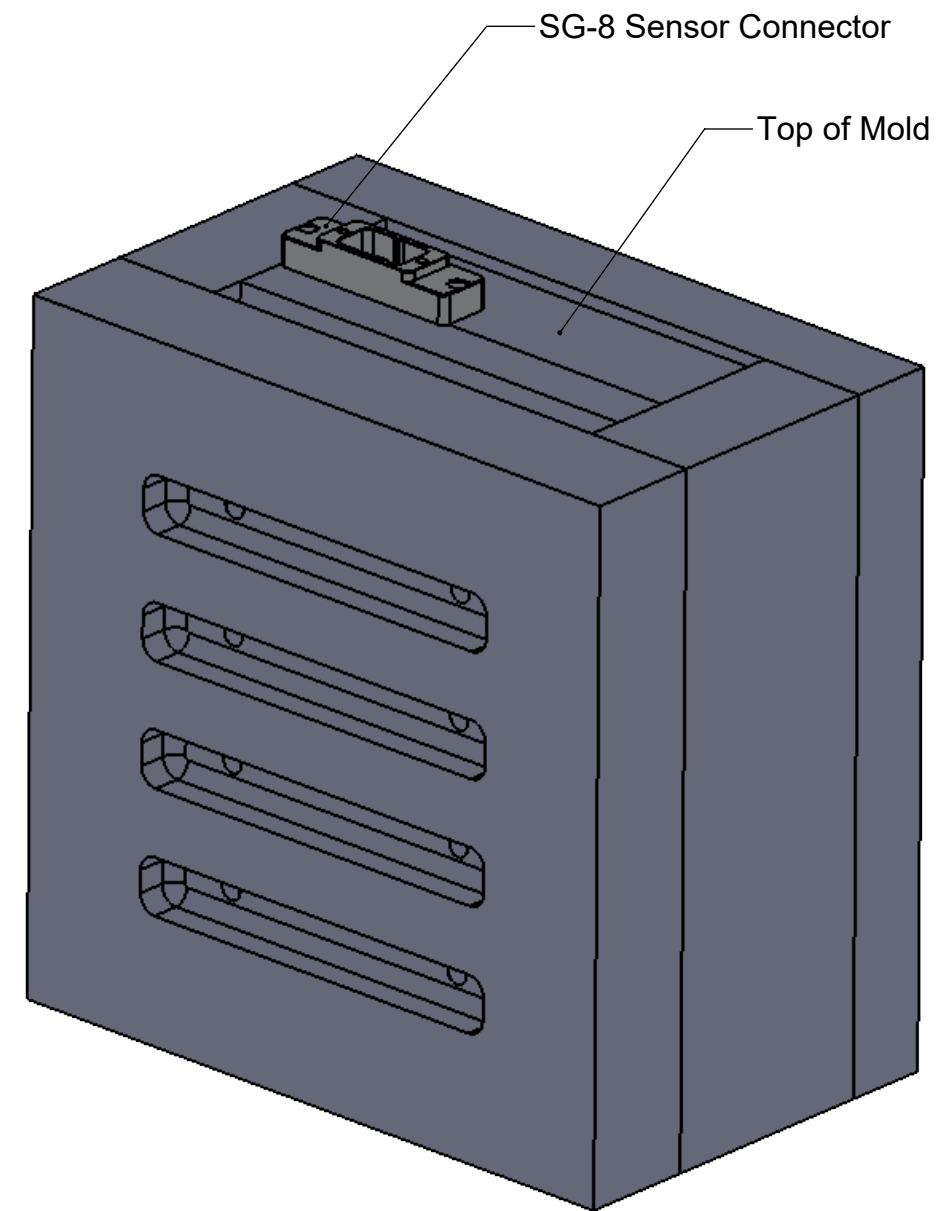


# Drawing Title: MCSG-B-159-4000-07

## Multi-Channel Strain Gage 4,000 lb. Sensor (MCSG-B-159-4000) Installation—Ejector Plate Installation



SECTION L-L  
SCALE 1 : 3



**NOTES:**

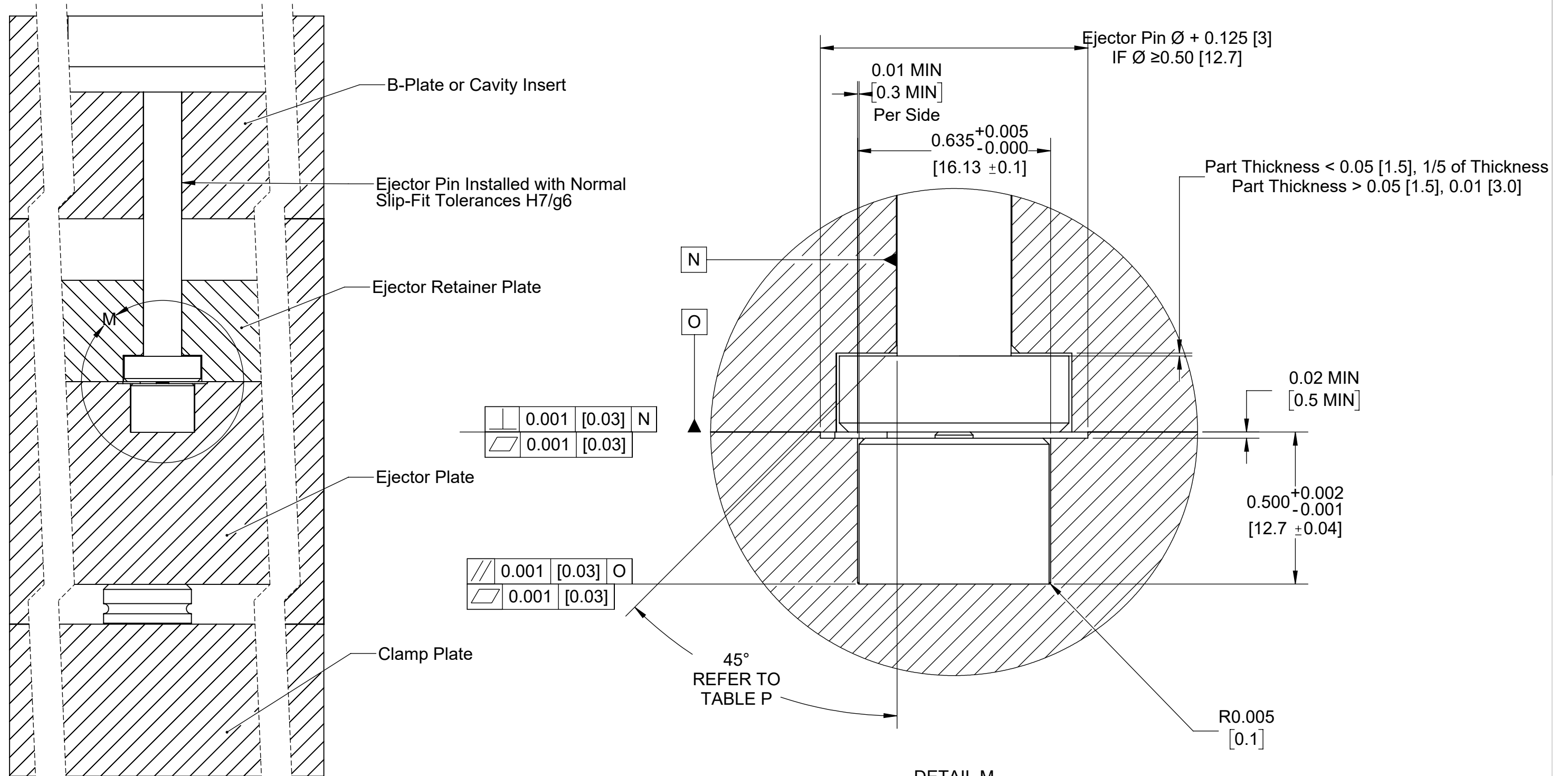
1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
3. ENCLOSED EJECTOR BOX SUGGESTED.
4. DO NOT SCALE PRINT
5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
7. TOLERANCES UNLESS SPECIFIED:  
 XXX =  $\pm 0.003$  [0.08]  
 XX =  $\pm 0.01$  [0.3]  
 ANGLES =  $\pm 3^\circ$  30°



Description: MCSG-B-159-4000 Sensor Installation  
 Drawn: K.J.Brettschneider  
 Design:  
 Check: M.Groleau  
 Date: 04.02.2025

# Drawing Title: MCSG-B-159-4000-08

## Multi-Channel Strain Gage 4,000 lb. Sensor (MCSG-B-159-4000) Installation—Ejector Plate Installation



- NOTES:**
1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
  2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
  3. ENCLOSED EJECTOR BOX SUGGESTED.
  4. DO NOT SCALE PRINT
  5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
  6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
  7. TOLERANCES UNLESS SPECIFIED:  
 XXX =  $\pm 0.003$  [0.08]  
 XX =  $\pm 0.01$  [0.3]  
 ANGLES =  $\pm 3^\circ$  30°

TABLE P	
Ejector Pin $\varnothing$	Chamfer Length
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]

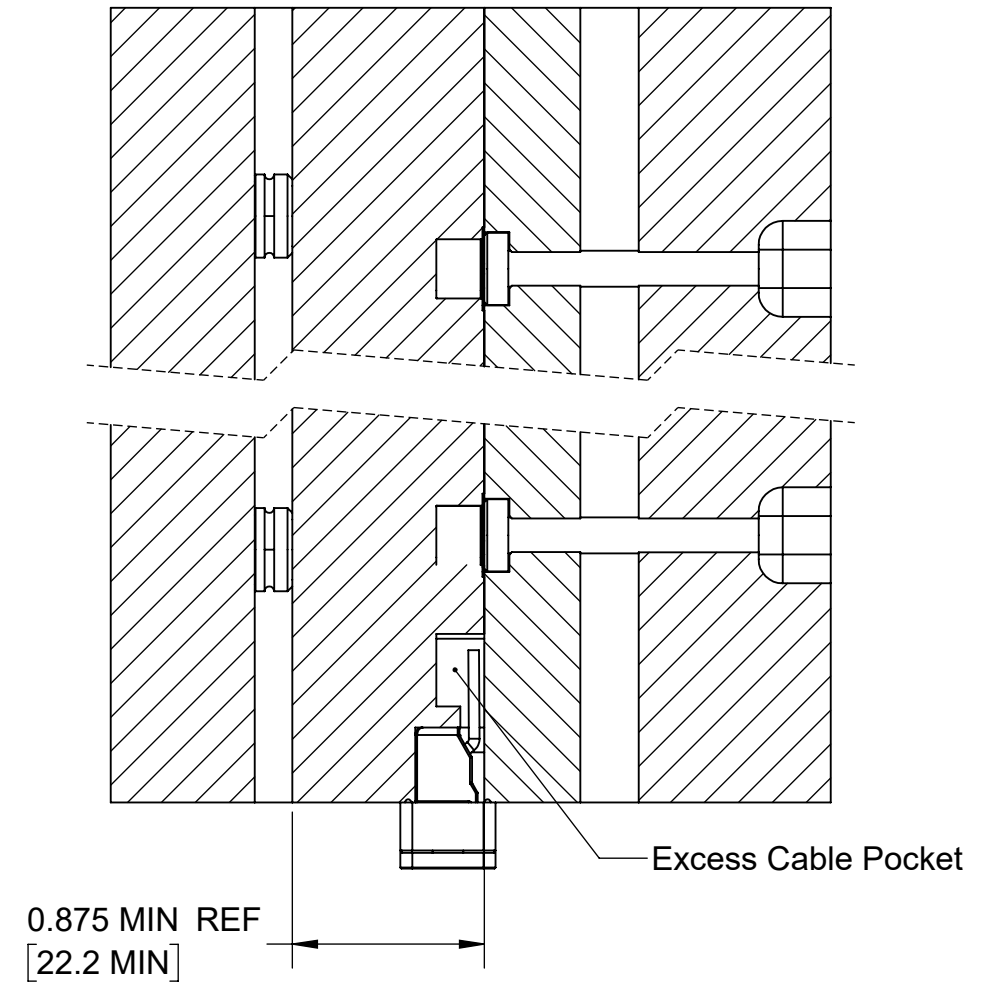
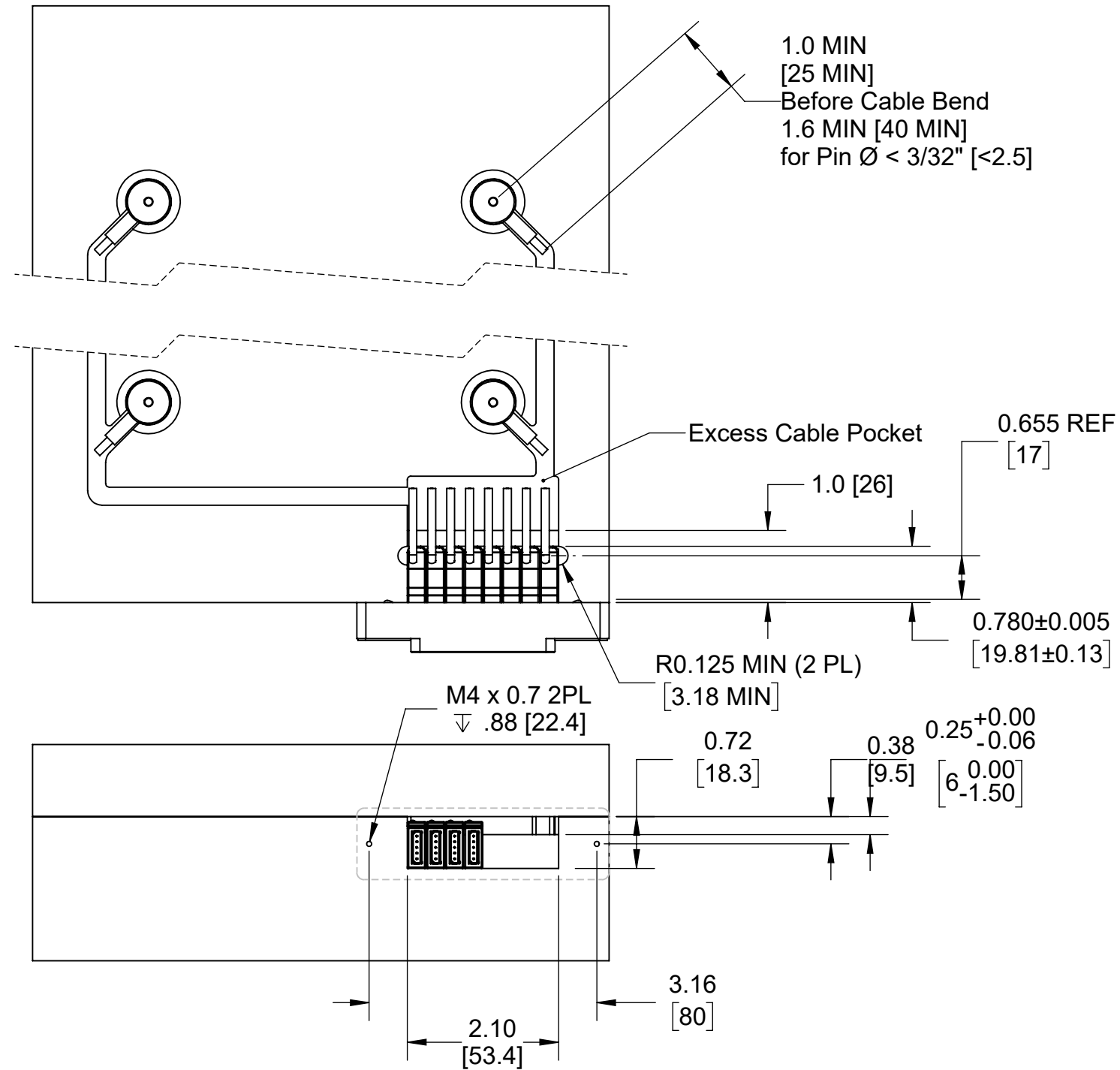
DETAIL M  
SCALE 3 : 1

 3111 Park Street, Traverse City, MI 49686 231-944-2111   WWW.RJG.MI	Description: MCSG-B-159-4000 Sensor Installation
	Drawn: K.J.Brettschneider
	Design:
	Check: M.Groleau
Date: 04.02.2025	



# Drawing Title: MCSG-B-159-4000-09

## Multi-Channel Strain Gage 4,000 lb. Sensor (MCSG-B-159-4000) Installation—Ejector Plate Installation



### NOTES:

1. 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
2. ENCLOSED EJECTOR BOX SUGGESTED.
3. DO NOT SCALE PRINT
4. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
5. DIMENSIONS IN INCHES [MM], UNLESS NOTED
6. TOLERANCES UNLESS SPECIFIED:  
 XXX =  $\pm 0.003$  [0.08]  
 XX =  $\pm 0.01$  [0.3]  
 ANGLES =  $\pm 3^\circ 30'$

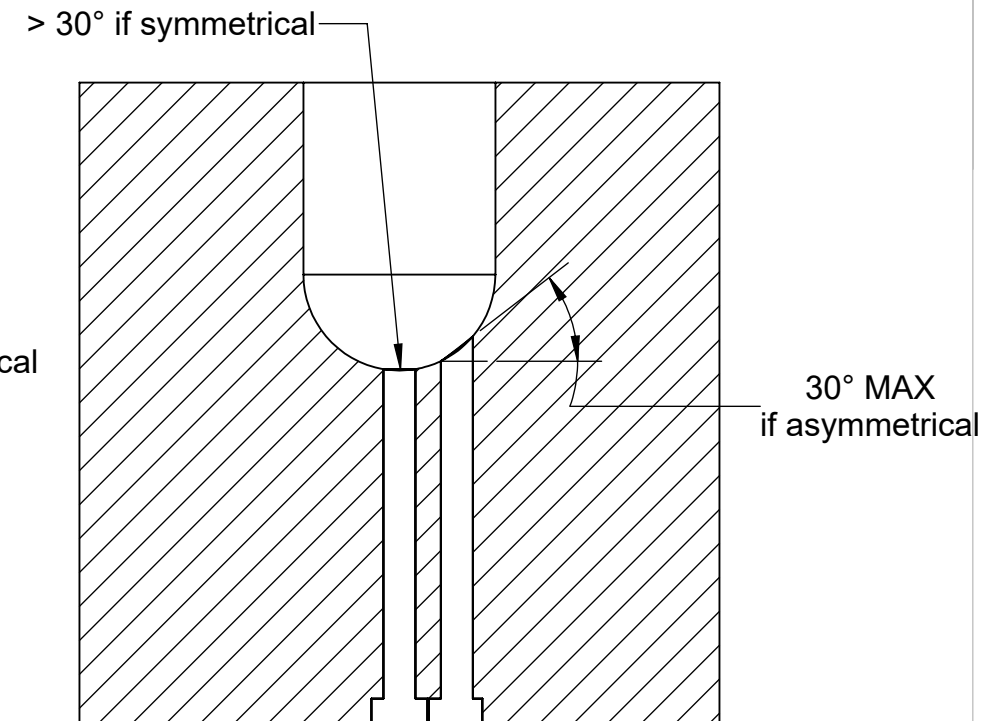
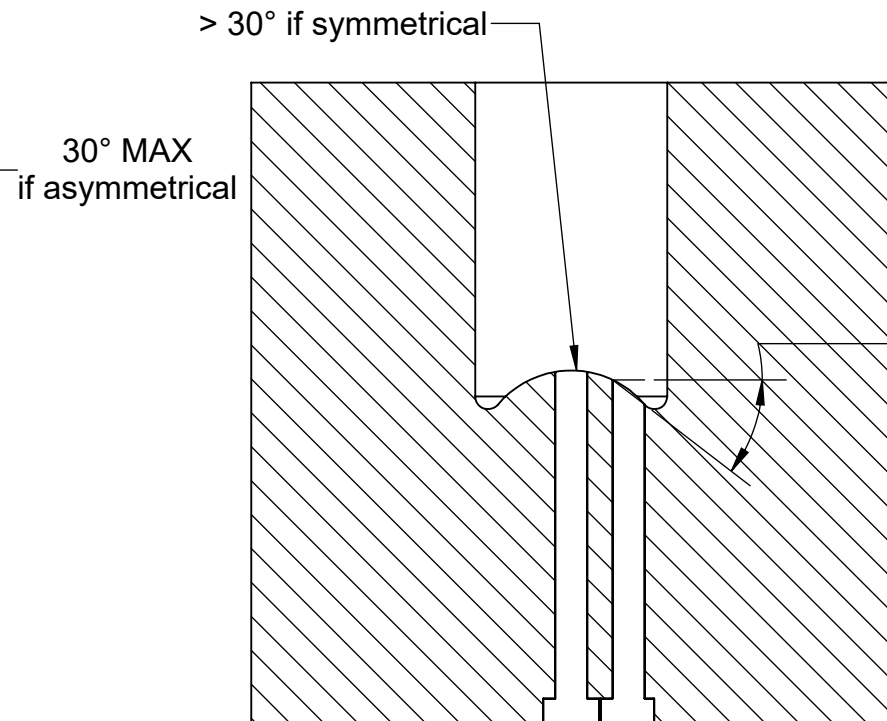
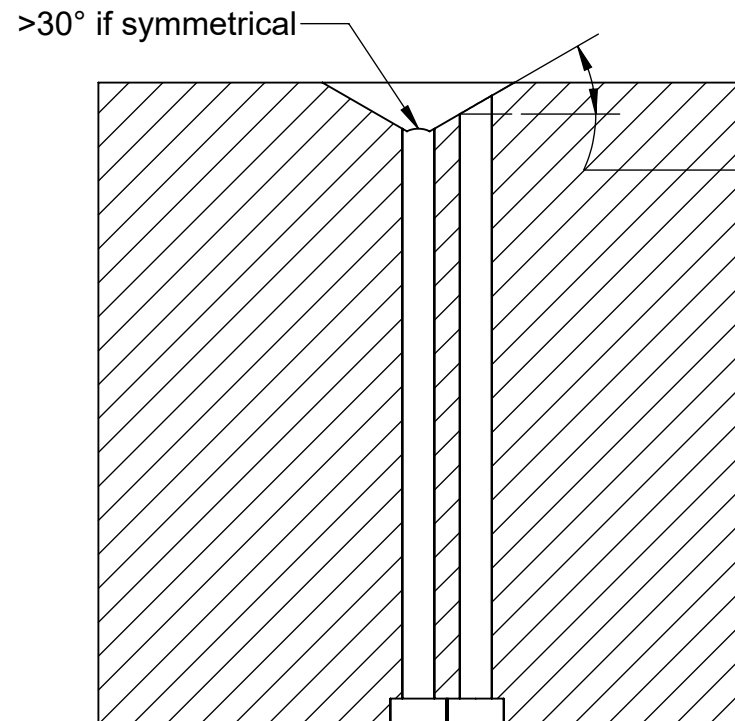
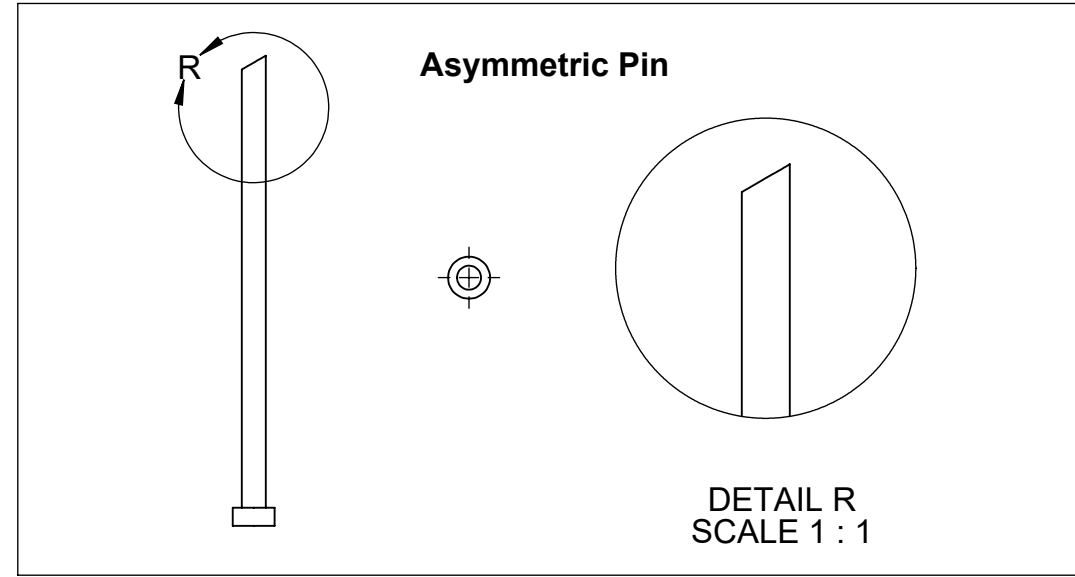
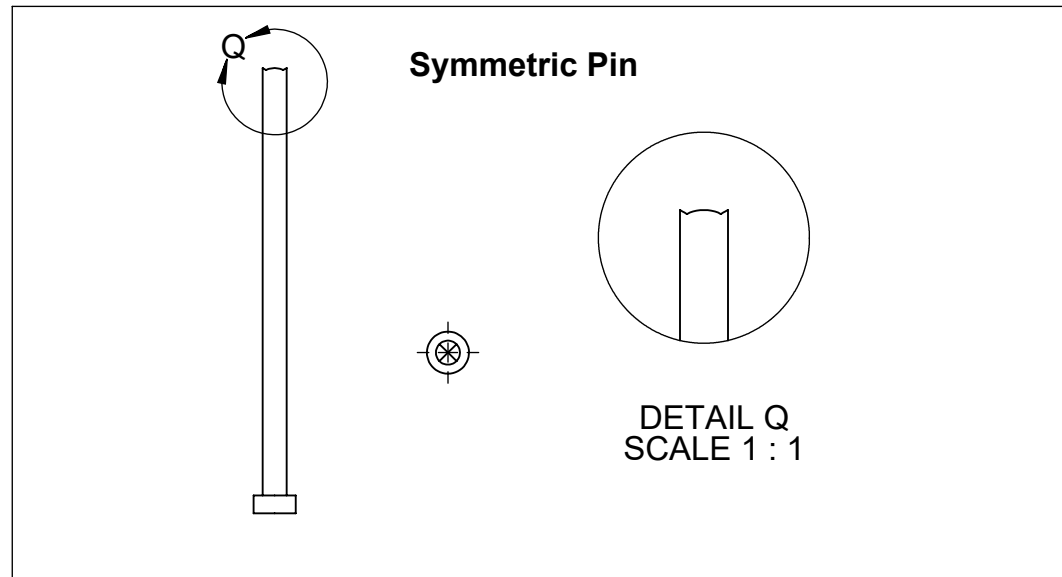


Description: MCSG-B-159-4000 Sensor Installation  
 Drawn: K.J.Brettschneider  
 Design:  
 Check: M.Groleau  
 Date: 04.02.2025

# Drawing Title: MCSG-B-159-4000-10


## Multi-Channel Strain Gage 4,000 lb. Sensor MCSG-B-159-4000 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:**

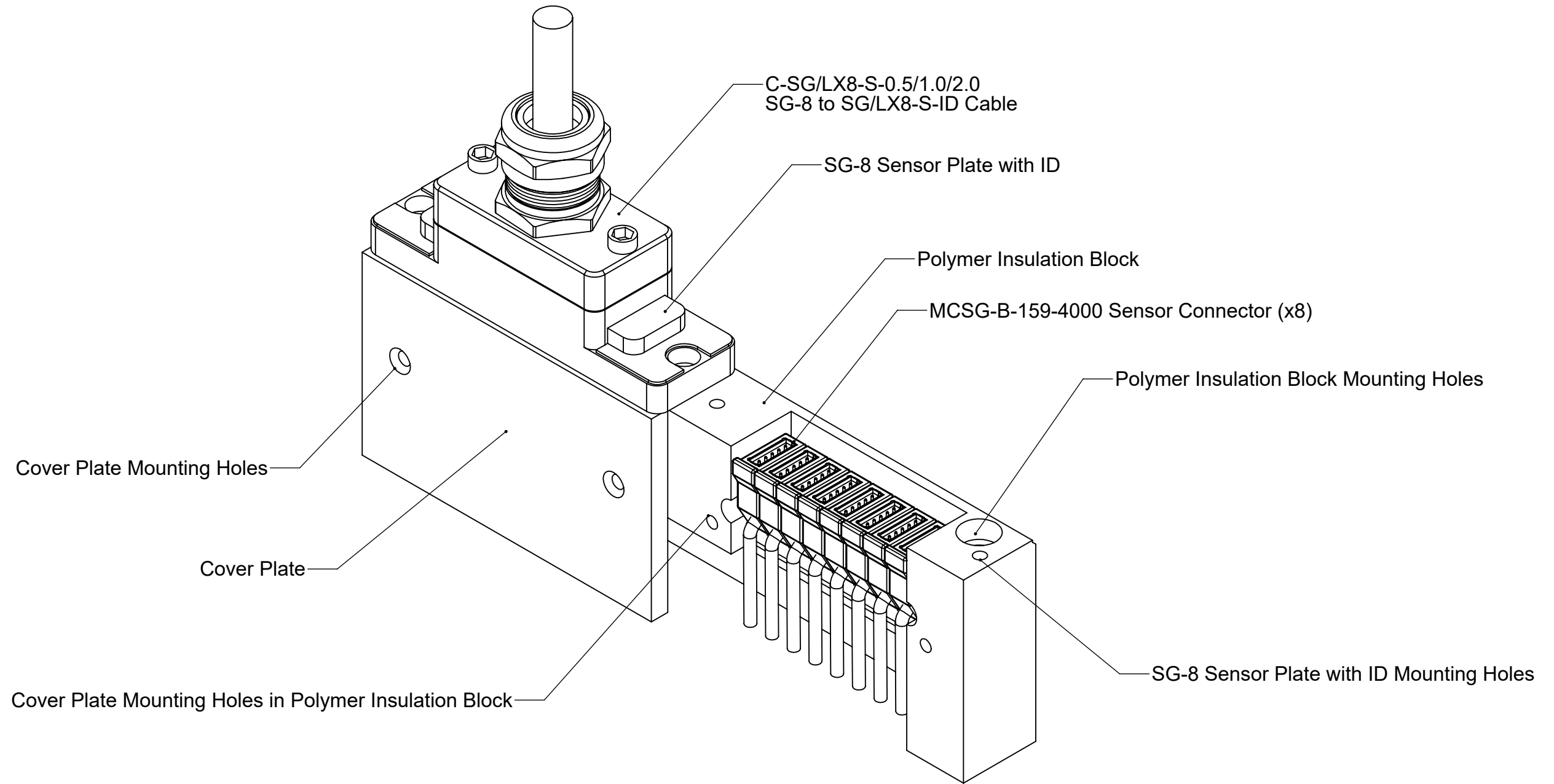
1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
3. ENCLOSED EJECTOR BOX SUGGESTED.
4. DO NOT SCALE PRINT
5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
7. TOLERANCES UNLESS SPECIFIED:  
 XXX = ±0.003 [0.08]  
 XX = ±0.01 [0.3]  
 ANGLES = ±3° 30°

 <p>3111 Park Street, Traverse City, MI 49686 231-944-2111   WWW.RJG.MI</p>	Description: MCSG-B-159-4000 Sensor Installation
	Drawn: K.J.Brettschneider
	Design:
	Check: M.Groleau
Date: 04.02.2025	

# Drawing Title: MCSG-B-159-4000-11

## Multi-Channel Strain Gage 4,000 lb. MCSG-B-159-4000 Sensor Installation—High Temperature Installation

NOTE: The sensor electronics must be kept below 140 °F (60 °C) for all MCSG-B-159-4000 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.



### NOTES:

1. CLAMP PLATE APPLICATIONS REQUIRE GUIDED EJECTION
2. EJECTOR AND TRANSFER PIN CONCENTRICITY MUST BE WITHIN 0.030" [0.76] OR 10% OF EJECTOR PIN DIA, WHICHEVER IS SMALLER.
3. ENCLOSED EJECTOR BOX SUGGESTED.
4. DO NOT SCALE PRINT
5. BREAK ALL SHARP EDGES, 0.005 [0.03] R MAX
6. DIMENSIONS IN INCHES [MM], UNLESS NOTED
7. TOLERANCES UNLESS SPECIFIED:  
XXX = ±0.003 [0.08]  
XX = ±0.01 [0.3]  
ANGLES = ±3° 30°



Description: MCSG-B-159-4000 Sensor Installation  
Drawn: K.J.Brettschneider  
Design:  
Check: M.Groleau  
Date: 04.02.2025