



RELIEF VALVES

Crissair Inc. designs and manufactures Pilot Operated High Pressure Relief Valves and Direct Acting Relief Valves.

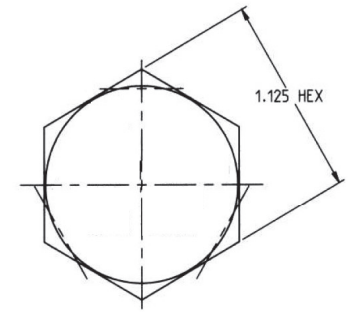
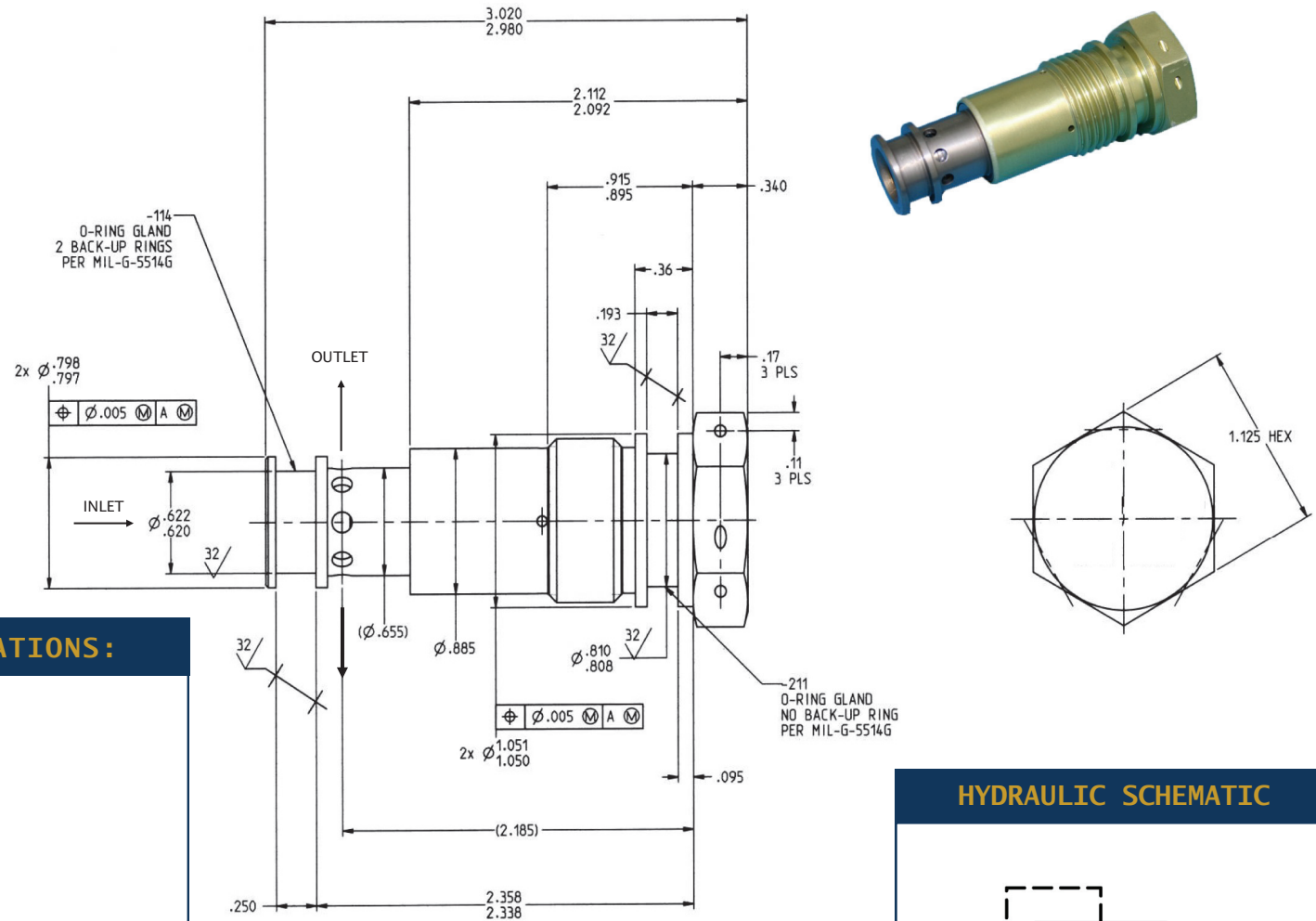
- Pilot Operated High Pressure Relief Valves offer very high flow rates and low leakage rates with a tight window (steep performance curve) between cracking pressure, full flow pressure, and reseal pressure; utilizing relatively small packages.
- Direct Acting Relief Valves are less complex and more suitable for systems with lower pressures (less than 3000 PSI) or high pressure systems with larger envelope availability and larger window between cracking pressure, full flow pressure, and reseal pressure.



This catalog contains a small sample of drawings. Please contact Crissair for additional drawings and/or configurations.



PART NUMBER: 36730-X SYSTEM PRESSURE RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: HOUSING 6061-T6/CF AL

SEAT / POPPET 440C CRES

TEMPERATURE RANGE: -65°F TO 275°F

OPERATING PRESSURE: 3000 PSIG

PROOF PRESSURE: 4500 PSIG

CRACKING PRESSURE: 3400—3600 PSID*

FLOW: 3800 PSID MAX AT 63 GPM*

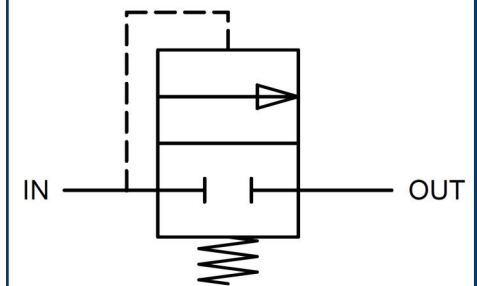
RESEAT: 3300 PSID MINIMUM*

INTERNAL LEAKAGE: 10 CC/MIN MAXIMUM AT 3000 PSID

WEIGHT: 0.240 LBS MAX

*CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

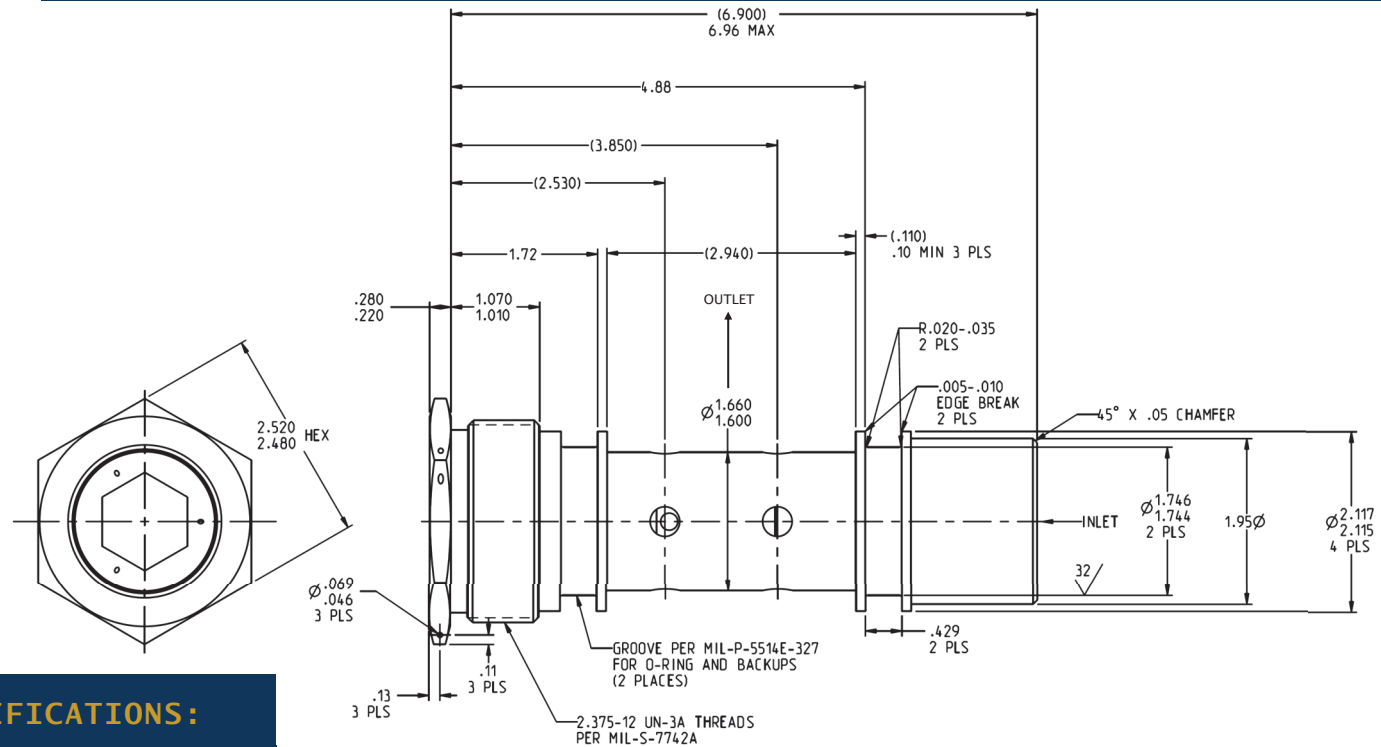
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, HIGH PRESSURE, PILOT OPERATED



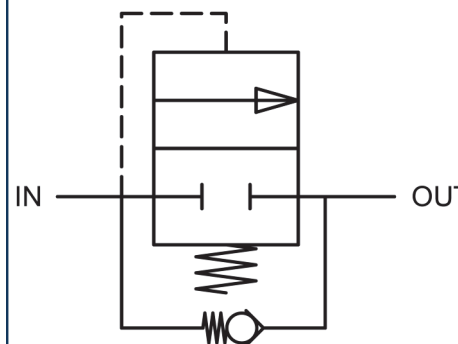
PART NUMBER: 36740-X SYSTEM PRESSURE RELIEF VALVE/CHECK VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID
 MATERIAL: HOUSING 6061-T6/CF AL
 SEAT / POPPET 440C CRES
 TEMPERATURE RANGE: -65°F TO 160°F
 OPERATING PRESSURE: 3000 PSIG
 PROOF PRESSURE: 4500 PSIG
 CRACKING PRESSURE (RELIEF): 3450 TO 3650 PSID*
 FLOW (RELIEF): 3850 PSID MAX AT 40 GPM*
 RESEAT (RELIEF): 3350 PSID MINIMUM*
 INTERNAL LEAKAGE: 10 CC/MIN MAX AT 3000 PSID
 REVERSE FLOW (CHECK VALVE): 500 PSID MAX @ 40 GPM
 WEIGHT: 2.20 LBS MAX
 *CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

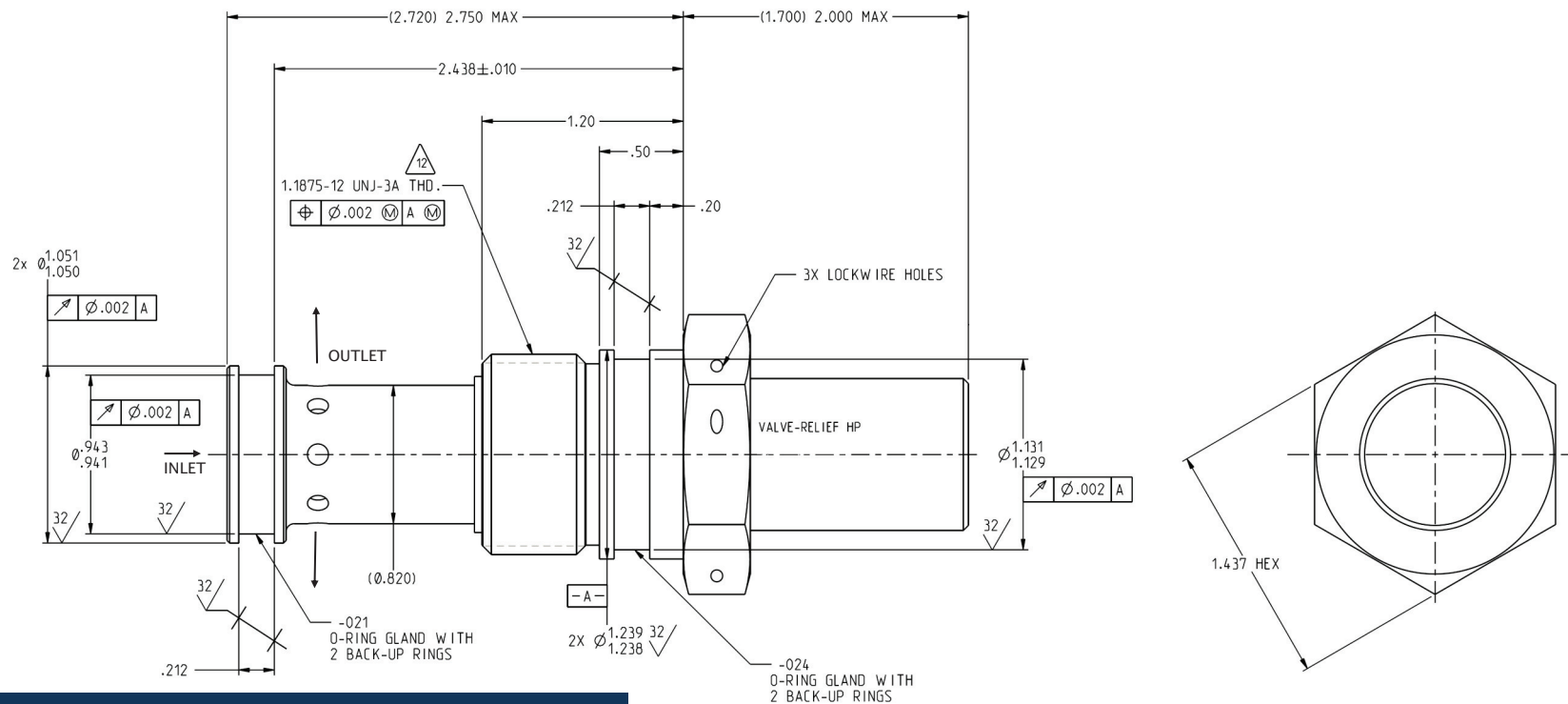
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, HIGH PRESSURE, PILOT OPERATED



PART NUMBER: 37000-X SYSTEM PRESSURE RELIEF VALVE

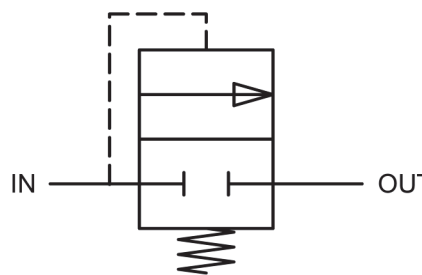


PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID
 MATERIAL: HOUSING 17-4 PH
 SEAT / POPPET 440C CRES
 TEMPERATURE RANGE: -65°F TO 275°F
 OPERATING PRESSURE: 5000 PSIG MINIMUM
 PROOF PRESSURE: 7500 PSIG MINIMUM
 CRACKING PRESSURE: 5650 PSID MINIMUM*
 FLOW: 56 GPM MINIMUM AT 6150 PSID MAXIMUM*
 RESEAT: 5400 PSID MINIMUM*
 INTERNAL LEAKAGE: 10 CC/MIN MAXIMUM AT 5000 PSID
 WEIGHT: 1.00 LBS MAX

*CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

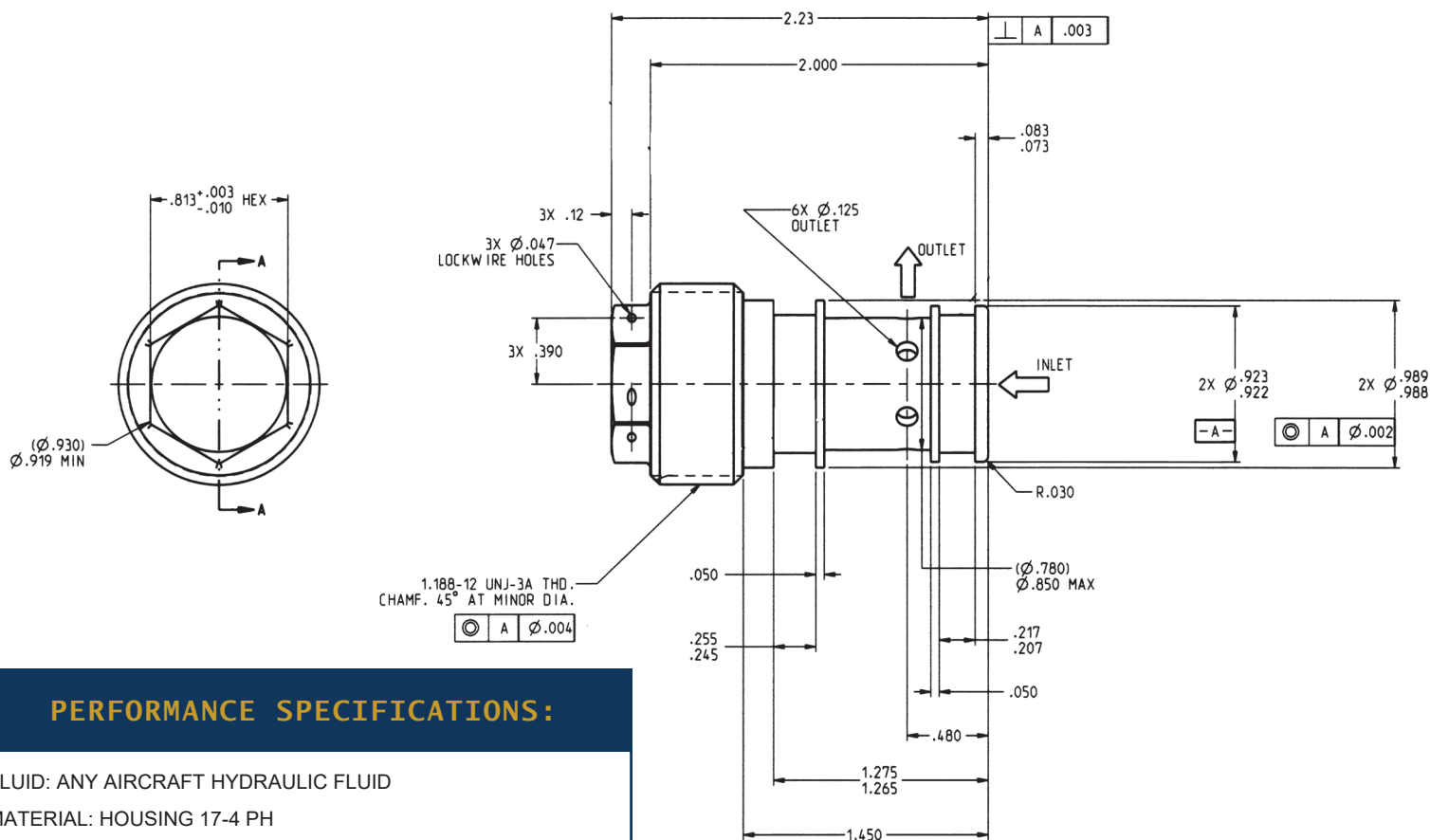
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, HIGH PRESSURE, PILOT OPERATED



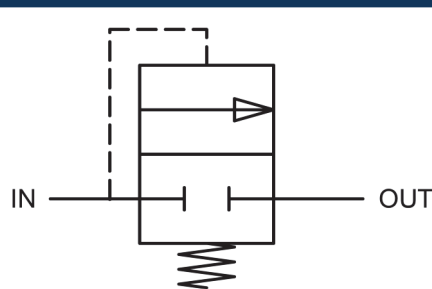
PART NUMBER: 37380-X SYSTEM PRESSURE RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

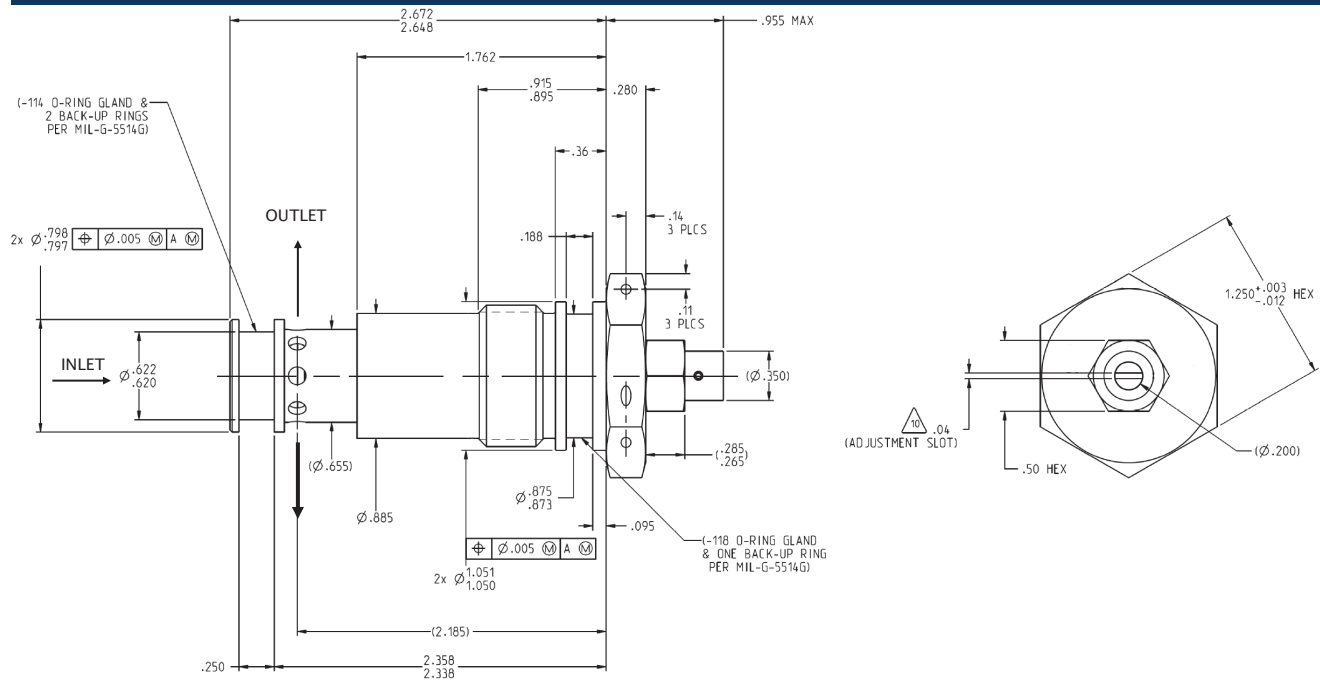
FLUID: ANY AIRCRAFT HYDRAULIC FLUID
 MATERIAL: HOUSING 17-4 PH
 SEAT / POPPET 440C CRES
 TEMPERATURE RANGE: -65°F TO 275°F
 PROOF PRESSURE: 6000 PSIG
 CRACKING PRESSURE: 4200—4750 PSID*
 FLOW: 38 GPM AT 4750 PSID MAXIMUM*
 RESEAT: 4200 PSID MINIMUM*
 INTERNAL LEAKAGE: 3 CC/MIN MAXIMUM AT 4000 PSID
 WEIGHT: 0.35 LBS MAX
 *CRACK, FLOW, AND RESEAT CAN MOVE UP OR
 DOWN BY USING SHIMS OR REPLACING THE SPRING

HYDRAULIC SCHEMATIC





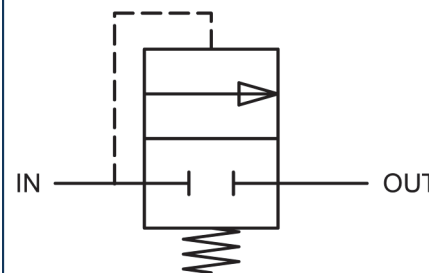
PART NUMBER: 4R0006-X SYSTEM PRESSURE RELIEF VALVE, ADJUSTABLE



PERFORMANCE SPECIFICATIONS:

- FLUID: ANY AIRCRAFT HYDRAULIC, LUBRICATION, OR FUEL FLUID
- MATERIAL: HOUSING 15-5PH
POPPET 440C CRES
- TEMPERATURE RANGE: -65°F TO 275°F
- OPERATING PRESSURE: 3200 PSIG MAX AT PRESSURE PORT
AND 215 PSIG MAX AT RETURN PORT
- PROOF PRESSURE: 4800 PSIG AT PRESSURE AND RETURN PORT
- CRACKING PRESSURE: 3600 TO 3800 PSID*
- FLOW: 72 GPM AT 3745 PSID MAX*
(WITH RETURN PRESSURE BETWEEN 55 PSID TO 215 PSID)
- RESEAT: 3350 PSID MINIMUM AT 15 CC/MIN MAX)*
- INTERNAL LEAKAGE: 15 CC/MIN MAX FROM 0 TO 3200 PSID
AND FROM 3200 TO 0 PSID
- WEIGHT: 0.50 LBS MAX
- *CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

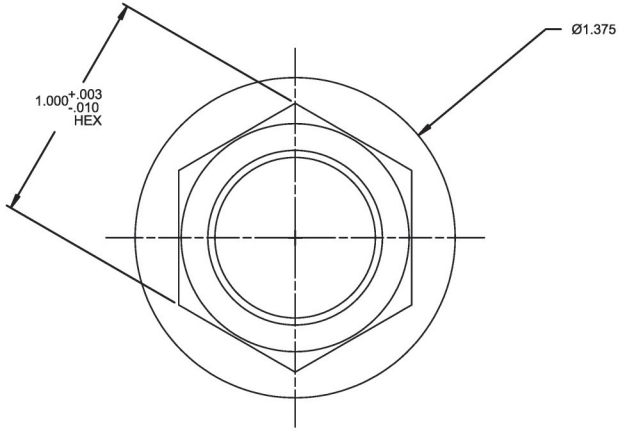
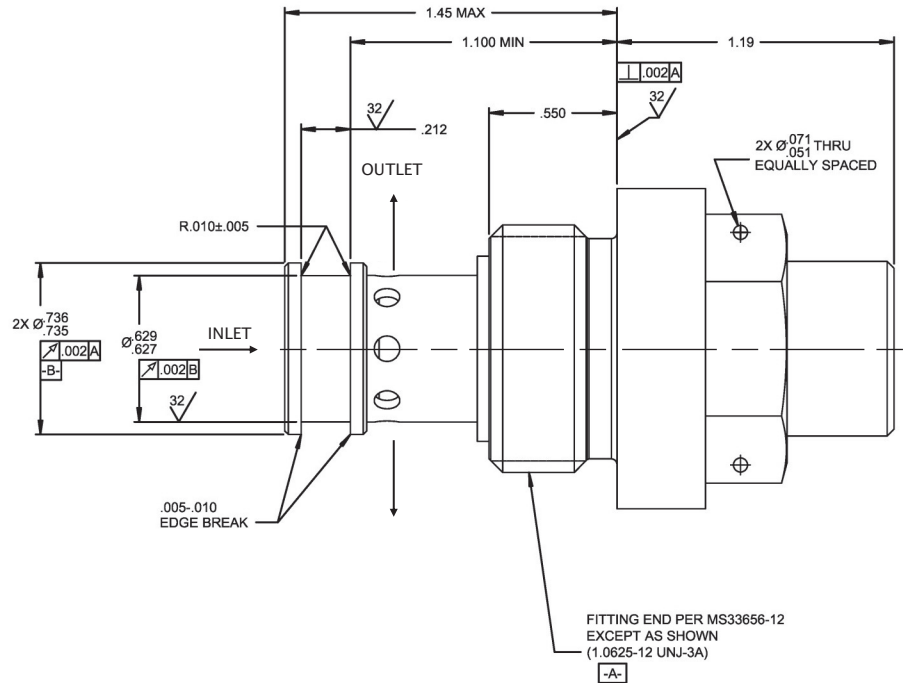
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, PILOT OPERATED



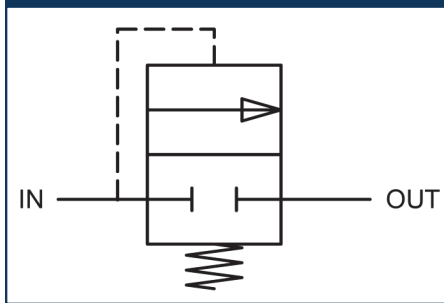
PART NUMBER: 37710-X SYSTEM RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID
 MATERIAL: HOUSING 2024 AL
 BODY 15-5 PH
 POPPET 440C CRES
 TEMPERATURE RANGE: -40°F TO 275°F (FLUID)
 -67°F TO 200°F (AMBIENT)
 OPERATING PRESSURE: 3050 PSIG NOMINAL
 PROOF PRESSURE: 4575 PSIG
 CRACKING PRESSURE: 3640 PSID MAX AT 20 CC/MIN*
 FLOW: 32.7 GPM 3640 PSID MAX*
 RESEAT: 3200 PSIG MINIMUM AT 12 CC/MIN*
 INTERNAL LEAKAGE: 4 CC/MIN MAX AT ANY DIFFERENTIAL PRESSURE
 FROM 0 TO 3000 PSID
 (FLUID TEMP UP TO 275°F)
 WEIGHT: 0.50 LBS MAX
 *CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY
 USING SHIMS OR REPLACING THE SPRING

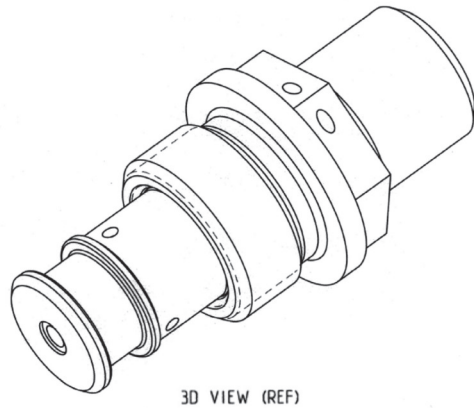
HYDRAULIC SCHEMATIC



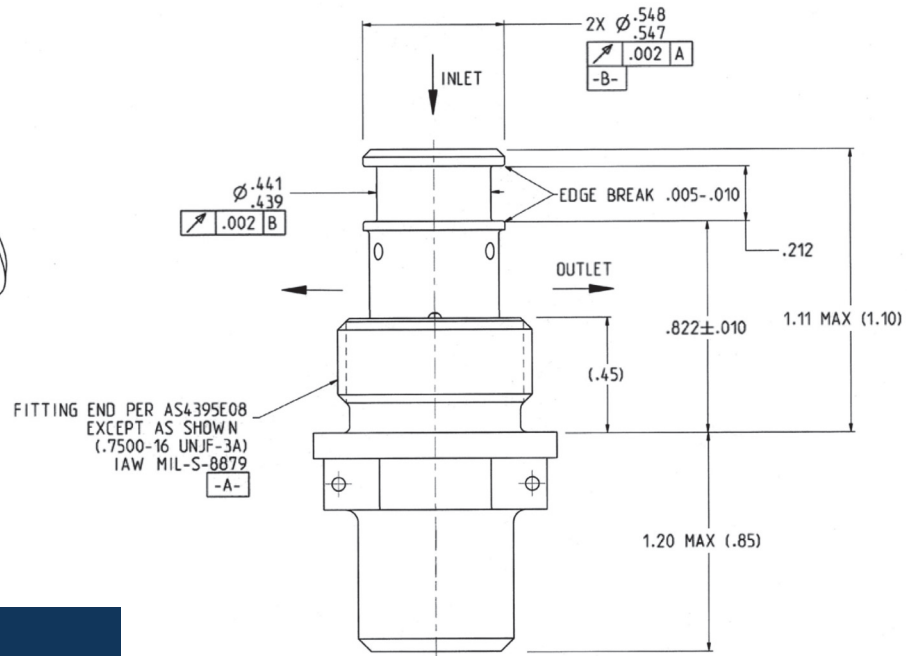
CATEGORY 2: RELIEF VALVES, PILOT OPERATED



PART NUMBER: 2R4626 RELIEF VALVE



3D VIEW (REF)



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: SEAT 440C CRES

POPPET PH13-8MO CRES

CAP 15-5PH CRES

TEMPERATURE RANGE: -65°F TO 275°F

OPERATING PRESSURE: 3000 PSIG

PROOF PRESSURE: 4500 PSIG

CRACKING PRESSURE: $3425 \pm 175 \text{ PSID}^*$

FLOW: 3.7 GPM AT 3600 PSID MAX*

RESEAT: 3250 PSID MIN*

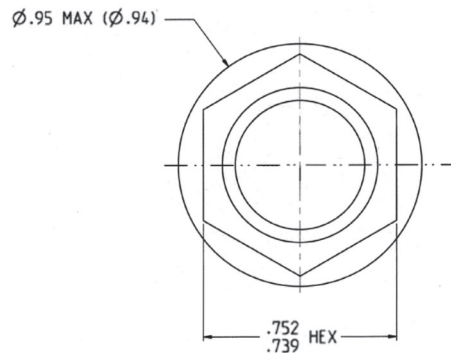
INTERNAL LEAKAGE: 4 CC/MIN MAX AT 0 TO 3000 PSID (INLET)

12 CC/MIN MAX AT 3000 TO 3250 PSID (INLET)

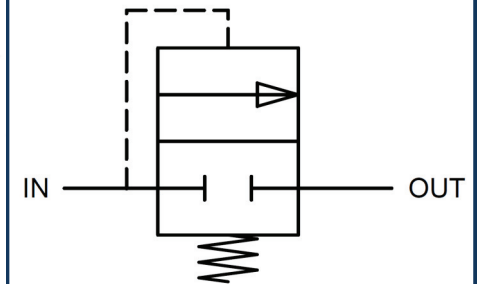
12 CC/MIN MAX AT 150 PSID (OUTLET)

WEIGHT: 0.165 LBS MAX

*CRACK, FLOW AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING



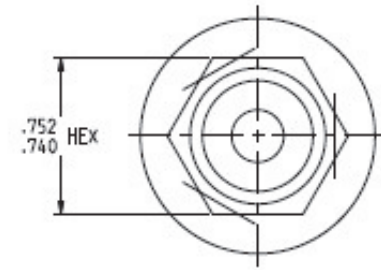
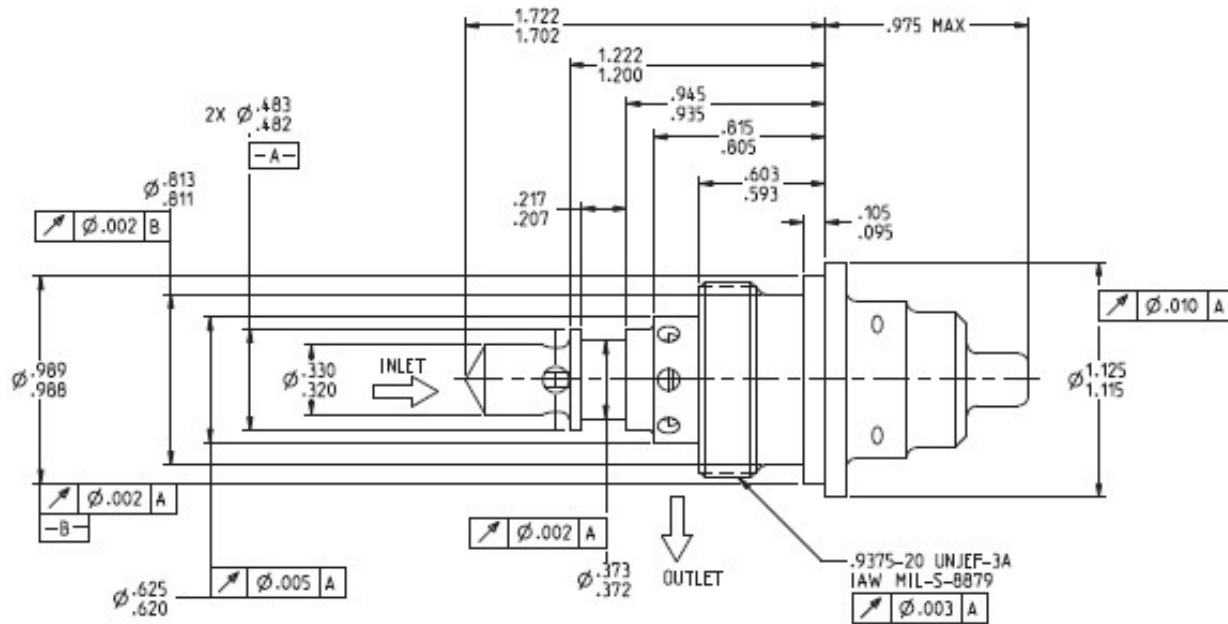
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES

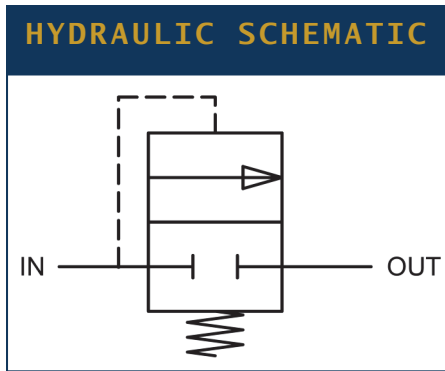


PART NUMBER: 31900-X PRESSURE RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

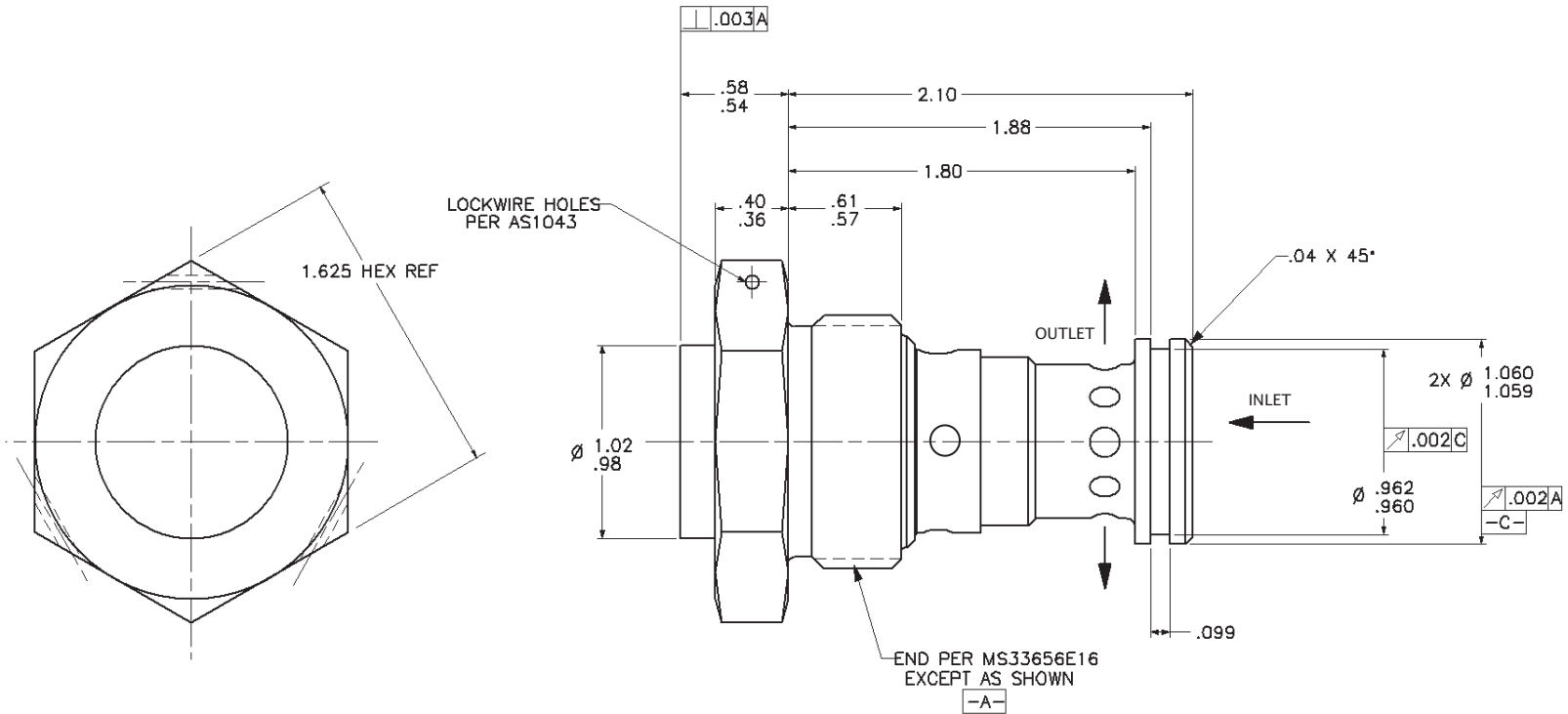
FLUID: ANY AIRCRAFT HYDRAULIC FLUID
 MATERIAL: BODY 15-5 CRES
 SEAT / POPPET 440C CRES
 TEMPERATURE RANGE: -65°F TO 275°F
 PROOF PRESSURE: 7500 PSIG
 CRACKING PRESSURE: 6000 PSID*
 FLOW: 5 GPM MINIMUM AT 6650 PSID MAXIMUM*
 RESEAT: 5800 PSID MINIMUM*
 INTERNAL LEAKAGE: INCREASING—2 DPM MAXIMUM AT 5000 PSID
 DECREASING—20 CC/MIN MAXIMUM AT 5800 PSID
 WEIGHT: 0.20 LBS MAX.
 *CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 35460-X RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC, LUBRICATION OR FUEL FLUID

MATERIAL: HOUSING 2024-T351 AL

POPPET 15-5 PH CRES

TEMPERATURE RANGE: -65°F TO 400°F

PROOF PRESSURE: 710 PSIG

CRACKING PRESSURE: 480 PSID MINIMUM*

FLOW: 36 GPM AT 635 PSID MAX*

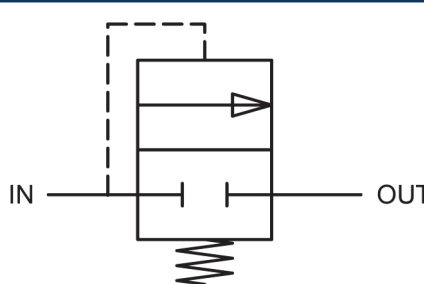
RESEAT: 480 PSID MINIMUM*

INTERNAL LEAKAGE: 300 CC/MIN MAX AT LESS THAN 480 PSID

WEIGHT: 0.35 LBS MAX

*CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

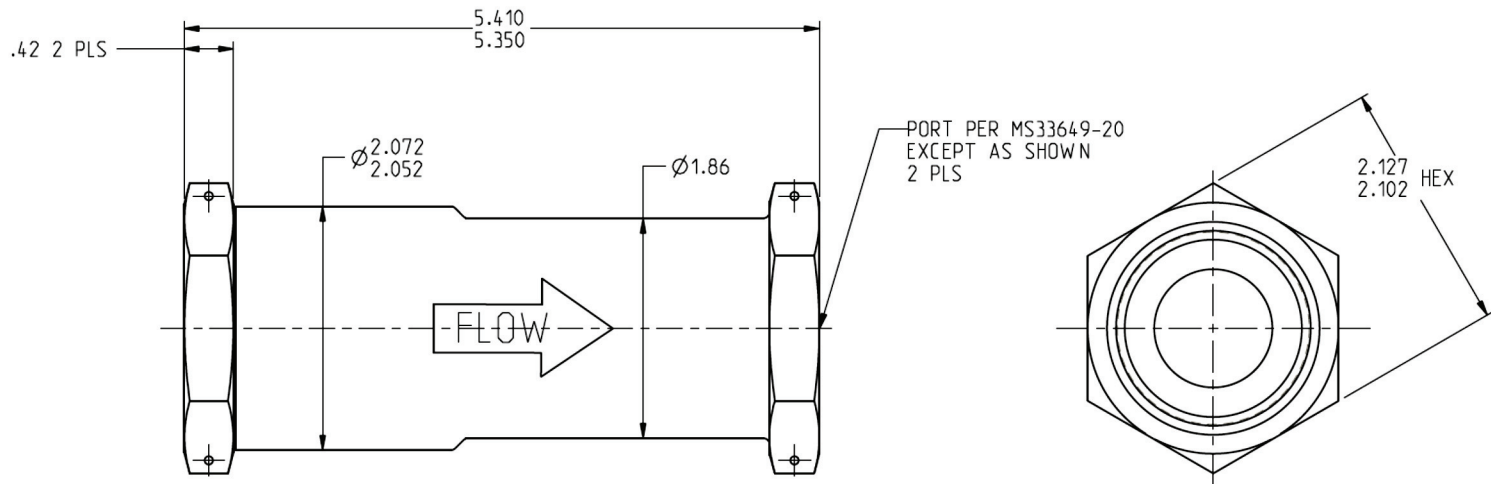
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 35600-X RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ETHYLENE GLYCOL/WATER

MATERIAL: BODY 6061-T6 AL

POPPET 6061-T6 AL

TEMPERATURE RANGE: -65 TO 185°F

PROOF PRESSURE: 185 PSIG

CRACKING PRESSURE: 83±4 PSID*

FLOW: 26 GPM AT 95 PSID MAX*

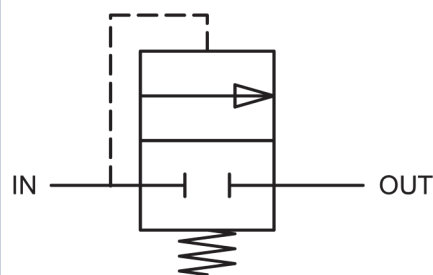
RESEAT: 75 PSID MINIMUM*

INTERNAL LEAKAGE: 0 DPM AT 70 PSID

WEIGHT: 0.88 LBS MAX

*CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

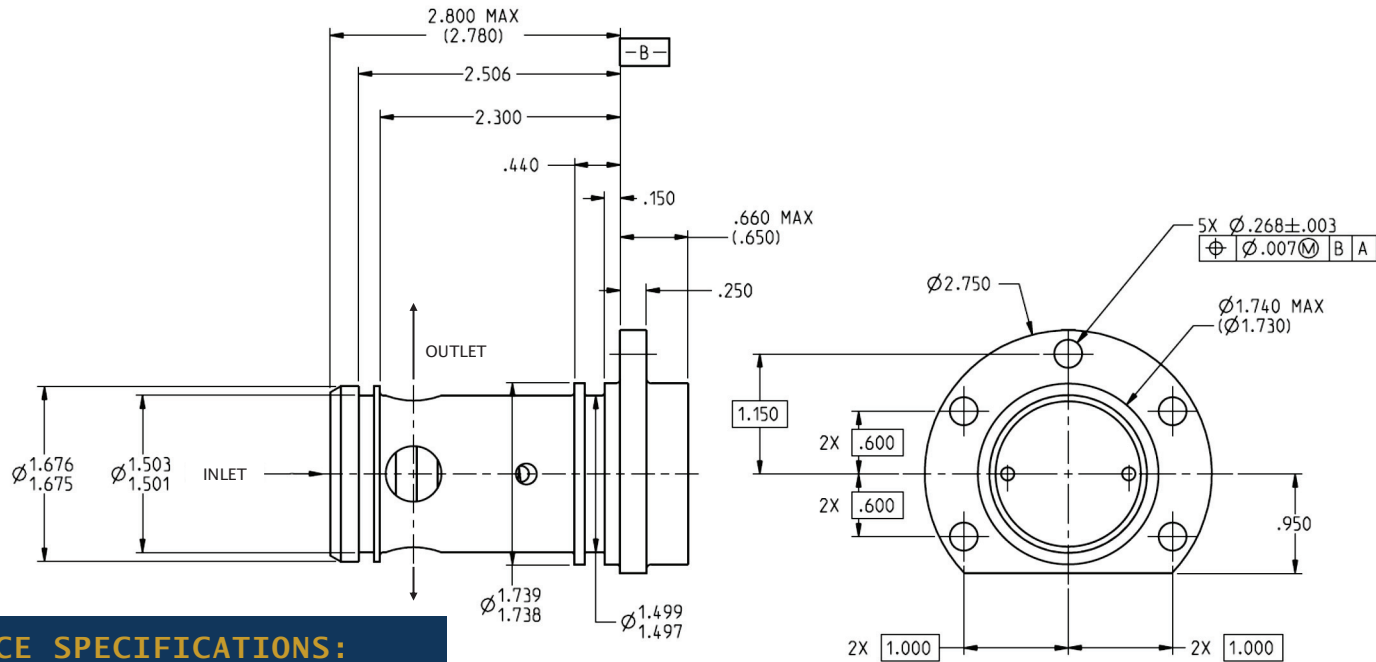
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 37270-X RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 2024-T851 AL

POPPET 440C CRES

TEMPERATURE RANGE: -65 TO 275°F

OPERATING PRESSURE: 1015 PSIG

PROOF PRESSURE: 1500 PSIG

CRACKING PRESSURE: 116 TO 130 PSID*

FLOW: 66 GPM AT 170 PSID MAX*

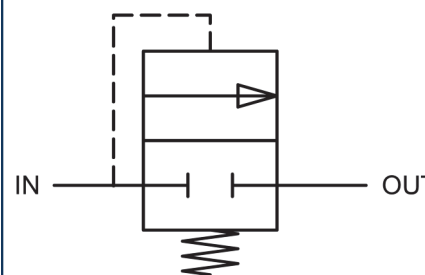
RESEAT: 94 PSID MINIMUM*

INTERNAL LEAKAGE (CHECKED): 1 DPM MAX AT 5 PSID
0 DPM AT 1015 PSID

WEIGHT: 0.74 LBS MAX

*CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

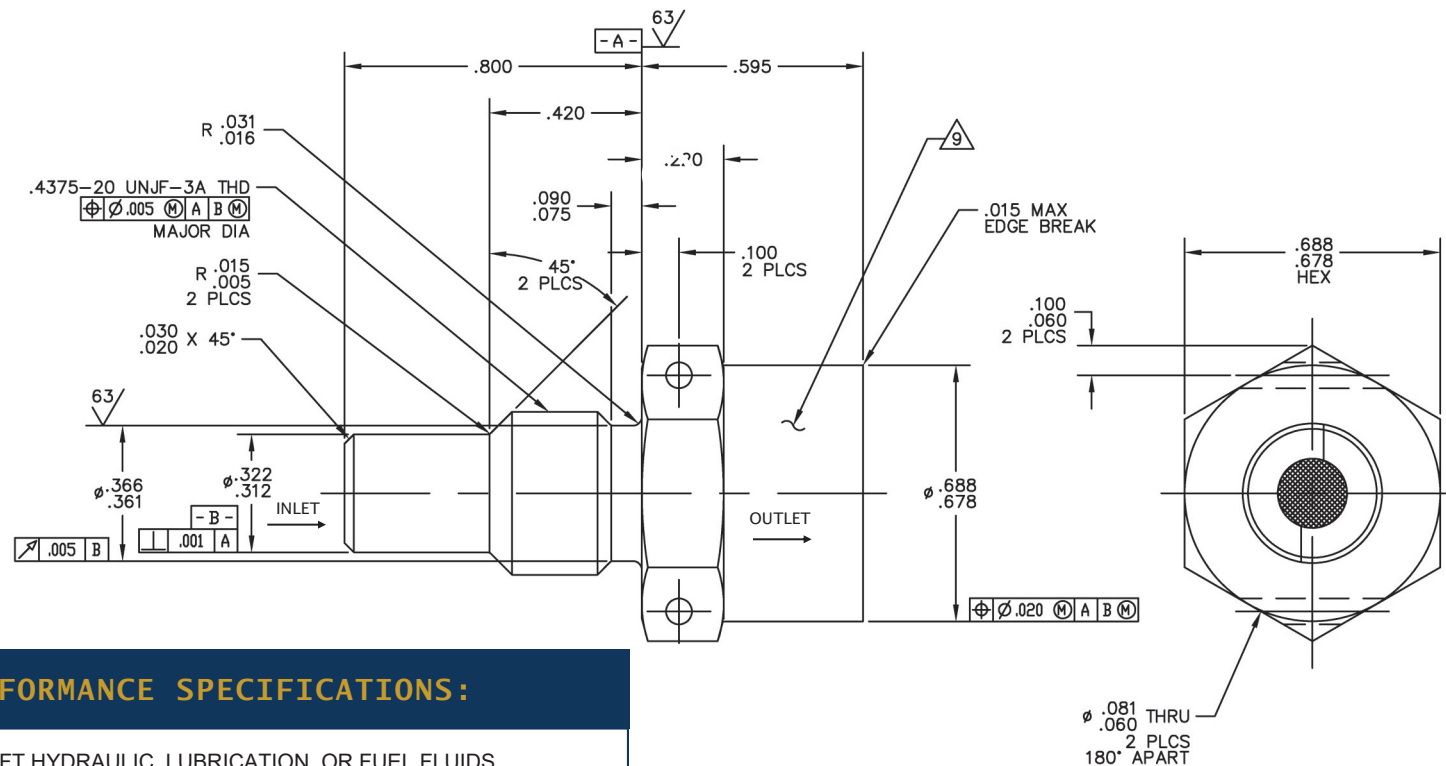
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 2R3600 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC, LUBRICATION, OR FUEL FLUIDS

MATERIAL: BODY 17-4PH CRES

POPPET 440C CRES

TEMPERATURE RANGE: -40°F TO 370°F

OPERATING PRESSURE: 5000 PSIG

PROOF PRESSURE: 7500 PSIG

CRACKING PRESSURE: 3460—3860 PSID*

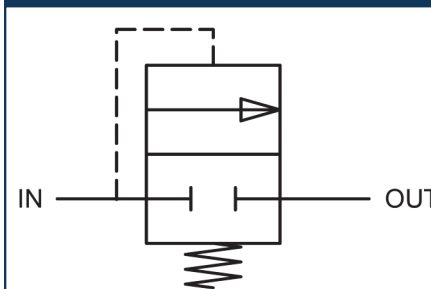
FLOW: .10 GPM AT 4800 PSID MAX AT 70°F TO 90°F*

RESEAT: 2660 PSID MIN*

INTERNAL LEAKAGE: INCREASING 1) NONE FROM 0 TO 2600 PSID
 INCREASING 2) 3 DPM MAX FROM 2601 TO 3204 PSID
 DECREASING 1) 3 DPM MAX AT 2660 PSID MIN (RESEAT)
 DECREASING 2) 1 DPM MAX FROM 2660 TO 0 PSID

*CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN
 BY USING SHIMS OR REPLACING THE SPRING

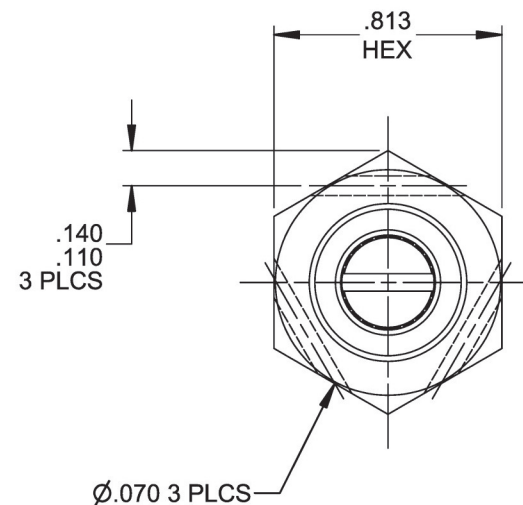
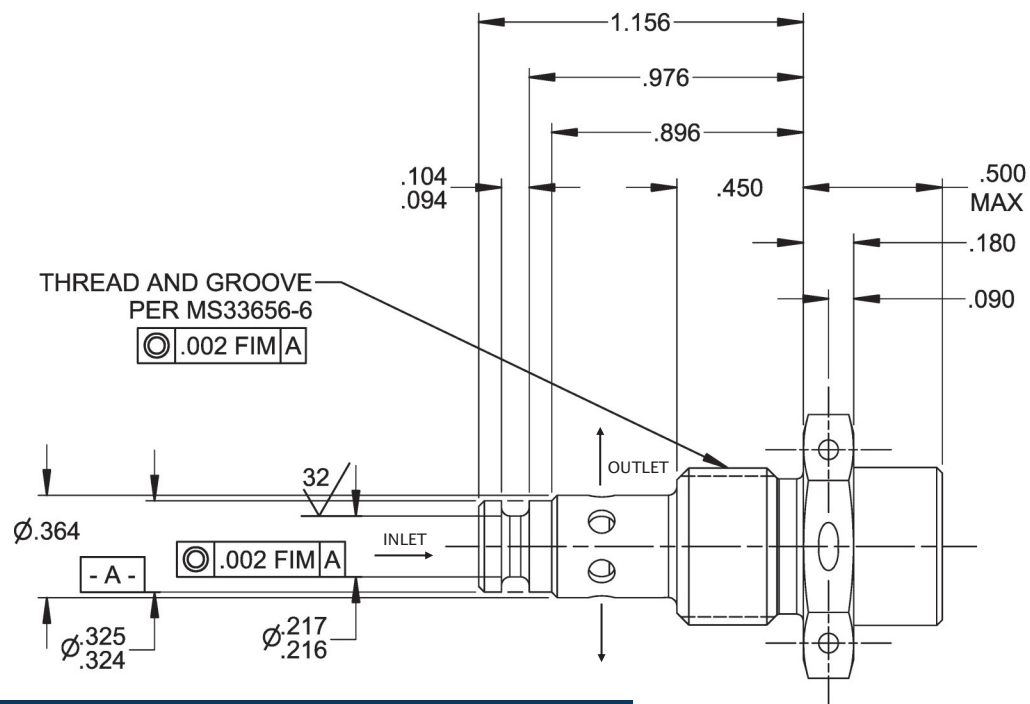
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



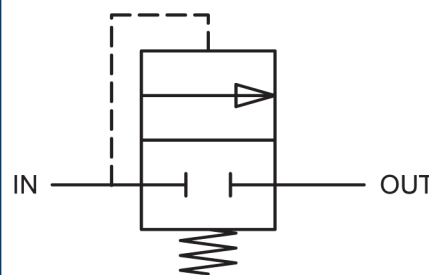
PART NUMBER: 2R3634-X RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID
 MATERIAL: BODY 2024-T351 AL
 POPPET 440C CRES
 TEMPERATURE RANGE: -65°F TO 275°F
 OPERATING PRESSURE: 3000 PSIG
 PROOF PRESSURE: 4500 PSIG
 CRACKING PRESSURE: SEE TABULATION*
 FLOW: .06 LIT/MIN AT 1200 PSID MAX*
 RESEAT: SEE TABULATION*
 INTERNAL LEAKAGE: 1 CC/MIN MAX AT MINIMUM RESEAT PRESSURE ON DECREASING PRESSURE
 WEIGHT: .035 LBS MAX
 *CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

HYDRAULIC SCHEMATIC



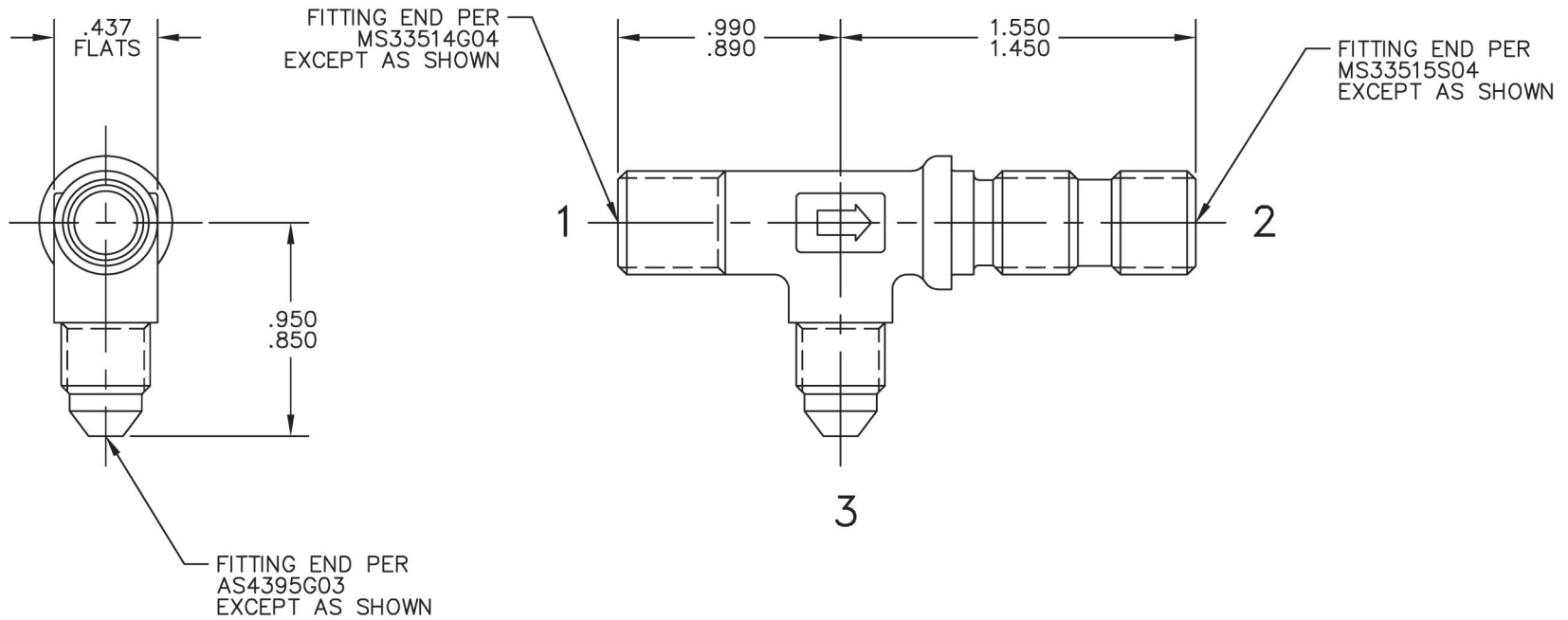
PART NO. OF TABULATION

DASH NO	CRACKING PRESSURE	RESEAT PRESSURE
-1	900 ± 100 PSID	720 PSID MIN
-2	1100 ± 100 PSID	720 PSID MIN
-3	250 ± 50 PSID	180 PSID MIN
-4	700 ± 50 PSID	560 PSID MIN
-5	180 ± 50 PSID	120 PSID MIN

CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 2R3746 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUIDS OR FUELS

MATERIAL: BODY 304 CRES

POPPET 440C CRES

TEMPERATURE RANGE: -65°F TO 400°F

OPERATING PRESSURE: 900 PSIG

PROOF PRESSURE: 2000 PSIG

CRACKING PRESSURE: 125 ± 10 PSID*

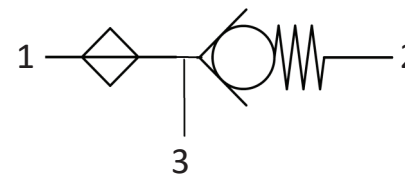
FLOW: 0.05 GPM MIN AT 135 PSID (PORT 1 TO PORT 2)*
0.5 GPM MIN AT 200 PSID (PORT 1 TO PORT 2)*

INTERNAL LEAKAGE: 20 DPM MAX AT 100 PSID
2 CC/MIN MAX AT 115 PSID

FILTER: SINTERED WOVEN MESH 40 MICRON NOMINAL
60 MICRON ABSOLUTE

*CRACK AND FLOW CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

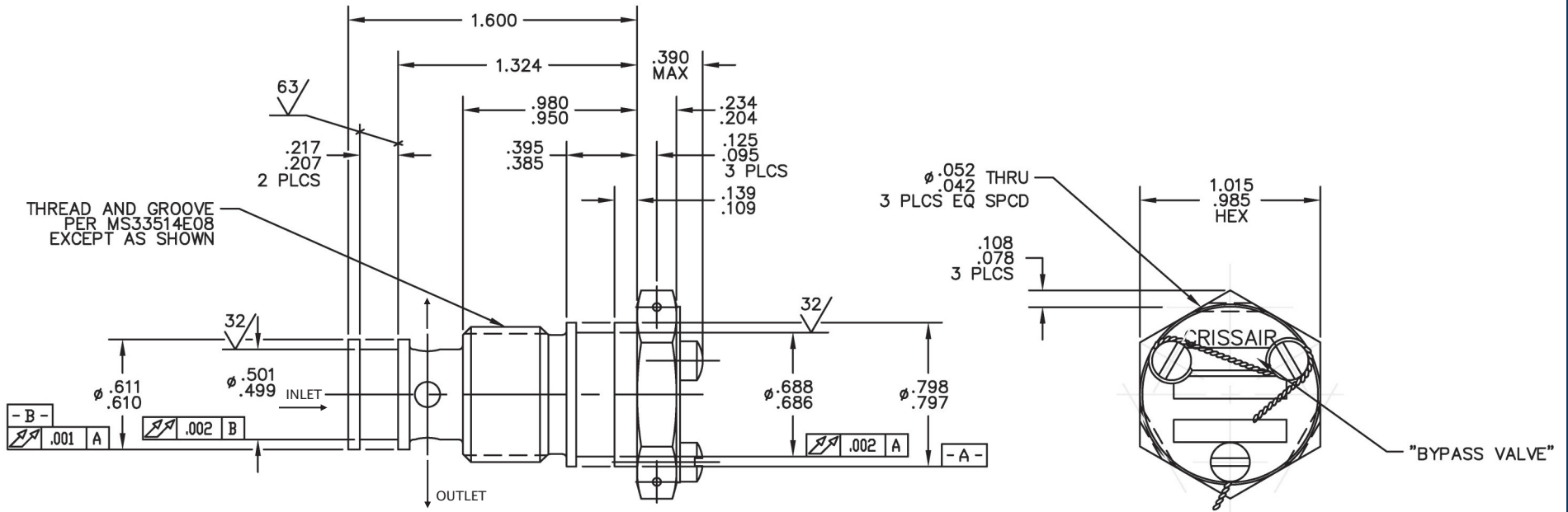
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 2R3860 RELIEF VALVE, BYPASS



PERFORMANCE SPECIFICATIONS:

FLUID: HYDRAULIC FLUIDS PER MIL-H-5606

MATERIAL: BODY 17-4PH CRES

POPPET 440C CRES

TEMPERATURE RANGE: FLUID: -67°F TO +230°F (NORMAL OPERATING)
 AMBIENT: -67°F TO +158°F (NORMAL OPERATING)

OPERATING PRESSURE: 1550 PSIG

PROOF PRESSURE: 3100 PSIG

CRACKING PRESSURE: 21 TO 25 PSID*

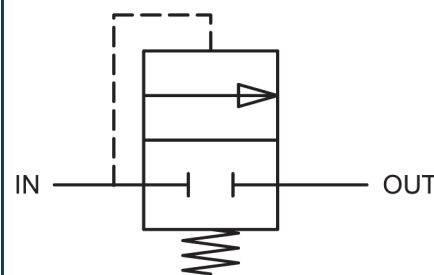
FLOW: 1.0 GPM AT 32 PSID MAX AND 90°F ± 10°F*

INTERNAL LEAKAGE: 3.0 DPM MAX AT 5 PSID
 2.0 DPM AT 1000 TO 3000 PSID AT 70°F

WEIGHT: .15 LBS MAXIMUM DRY

*CRACK AND FLOW CAN MOVE UP OR DOWN
 BY USING SHIMS OR REPLACING THE SPRING

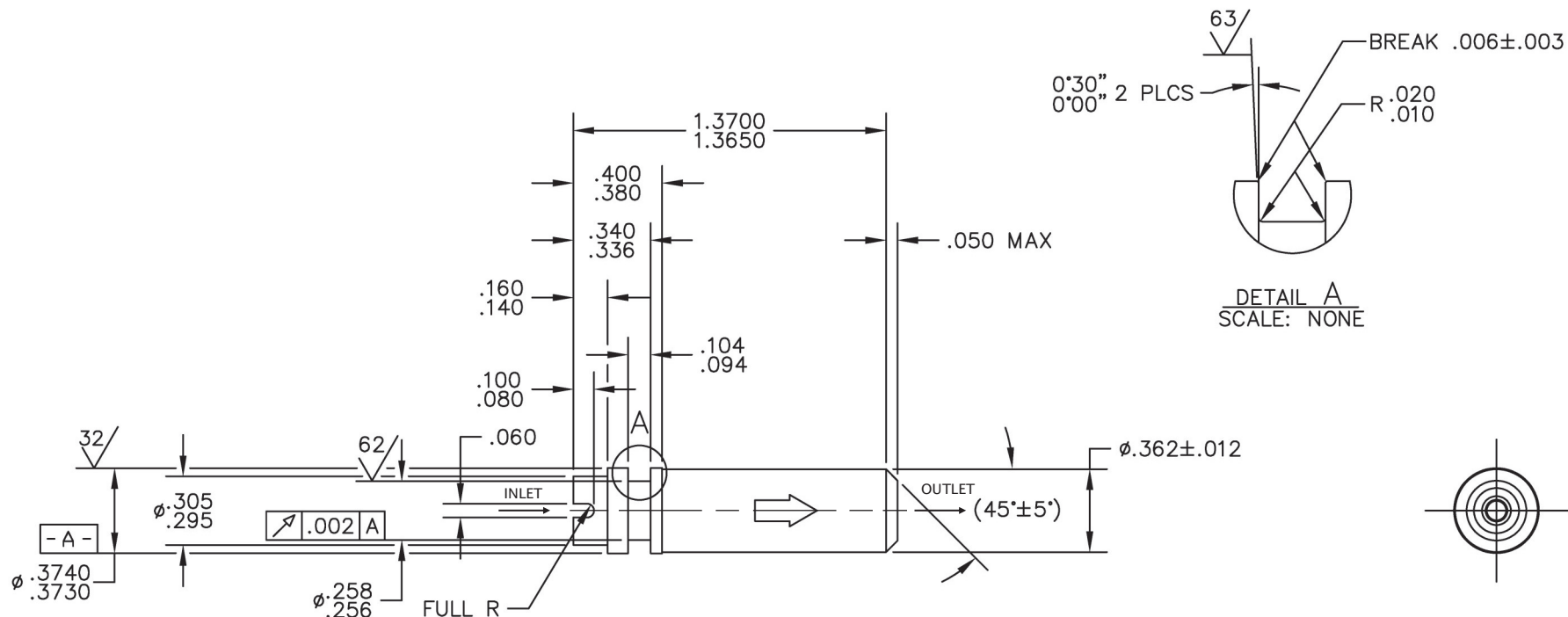
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 2R3914 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: JET A/A-1, JP4, JP8 AND MIL-C-7024 AVIATION FUEL

MATERIAL: BODY 303 CRES

POPPET 440C CRES

TEMPERATURE RANGE: -65°F TO 400°F

OPERATING PRESSURE: 900 PSIG

PROOF PRESSURE: 2000 PSIG

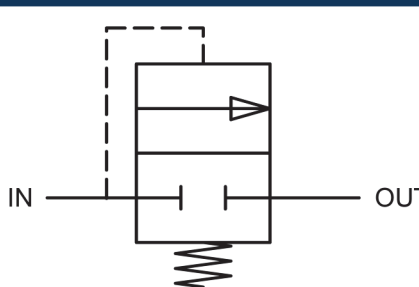
CRACKING PRESSURE: 125 ± 10 PSID*

FLOW: 20 DPM MAX AT 100 PSID*
2 CC/MIN MAX AT 115 PSID*
20 LB/HR MIN AT 135 PSID*
200 LB/HR MIN (0.5 GPM) AT 210 PSID*

INTERNAL LEAKAGE: 20 DPM MAX AT 100 PSID

*CRACK AND FLOW CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

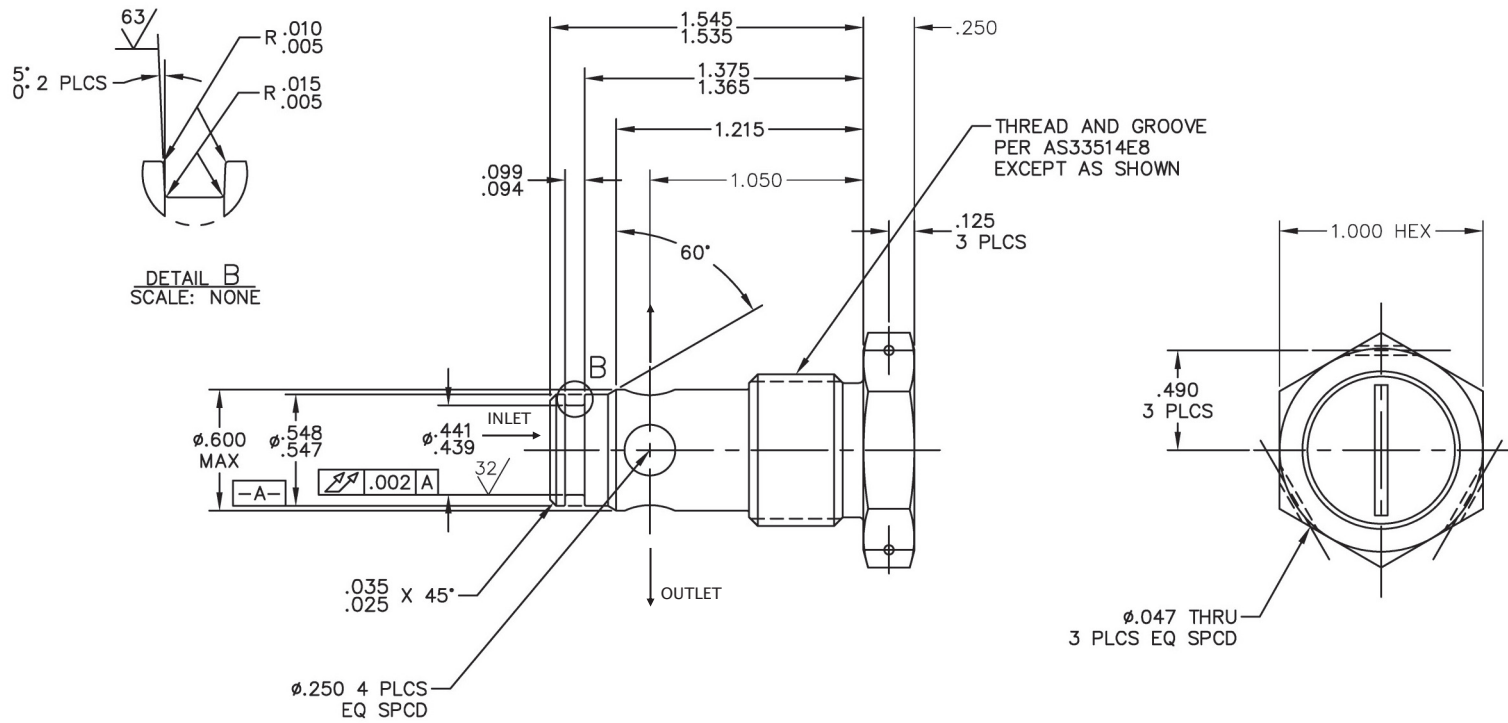
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 2R4086 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: HYDRAULIC FLUIDS PER MIL-H-5606 OR MIL-H83282

MATERIAL: BODY 2024-T351 AL

POPPET 440C CRES

TEMPERATURE RANGE: -65°F TO 275°F

OPERATING PRESSURE: 1000 PSIG

PROOF PRESSURE: 1500 PSIG

CRACKING PRESSURE: 130 TO 170 PSID*

FLOW: 30 GPM AT 720 PSID MAX*

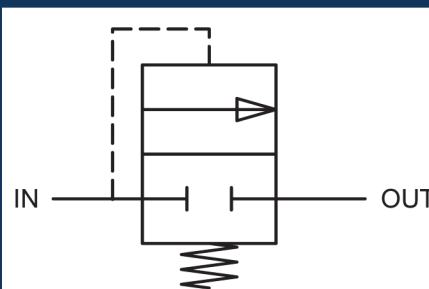
RESEAT: 90 PSID MIN*

INTERNAL LEAKAGE: 1 CC/MIN MAX AT 90 PSID
(DECREASING PRESSURE)

WEIGHT: .069 LBS MAX

*CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

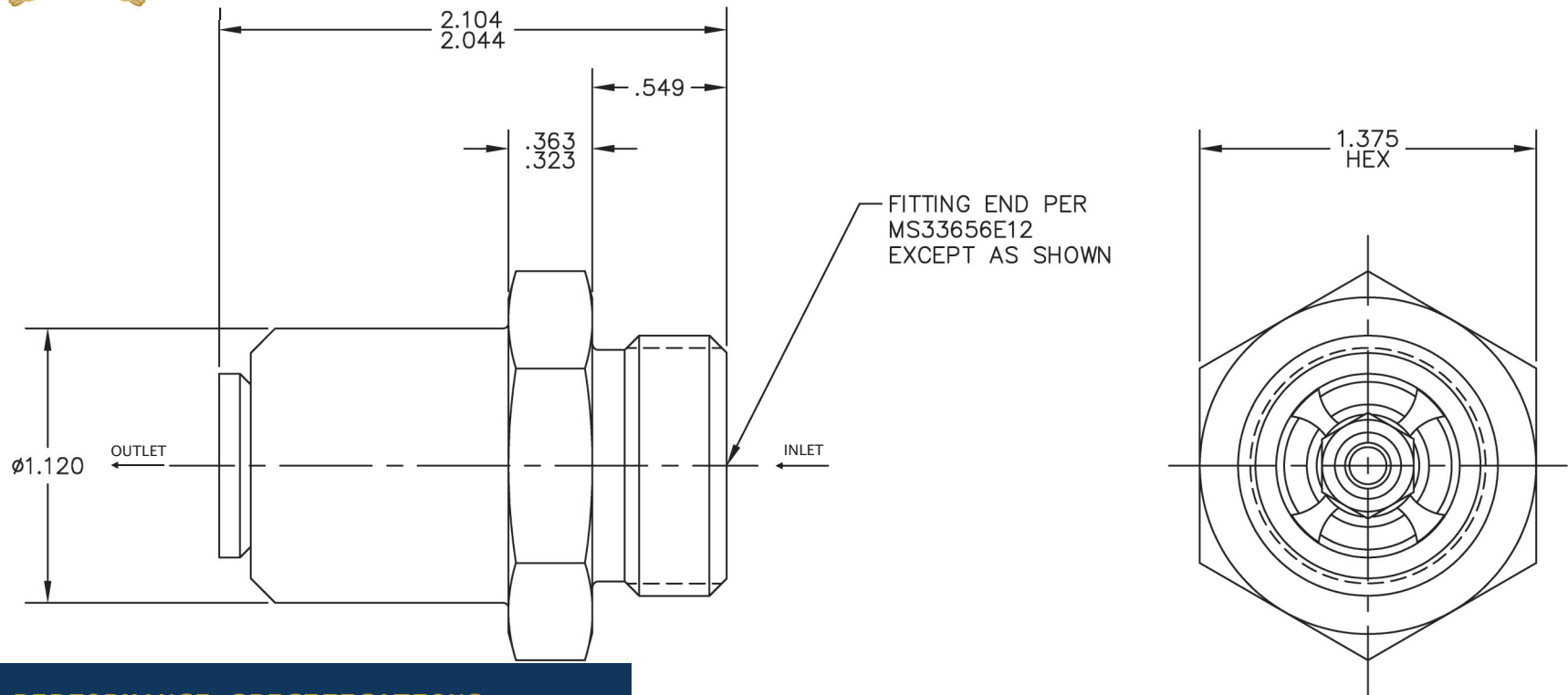
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 3R2086 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: AIR

MATERIAL: BODY 2024-T351 AL

POPPET 2024-T351 AL

TEMPERATURE RANGE: -65°F TO 225°F

OPERATING PRESSURE: 100 PSIG

PROOF PRESSURE: 150 PSIG

CRACKING PRESSURE: 5 TO 8 PSID*

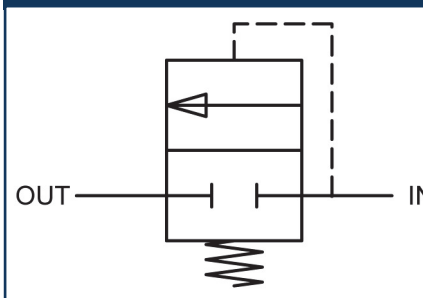
FLOW: 6.0 PPM MIN AT 60 PSID MAX AT 180°F*

INTERNAL LEAKAGE: .038 PPM AT 4 PSID

WEIGHT: .175 LBS MAX

*CRACK AND FLOW CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

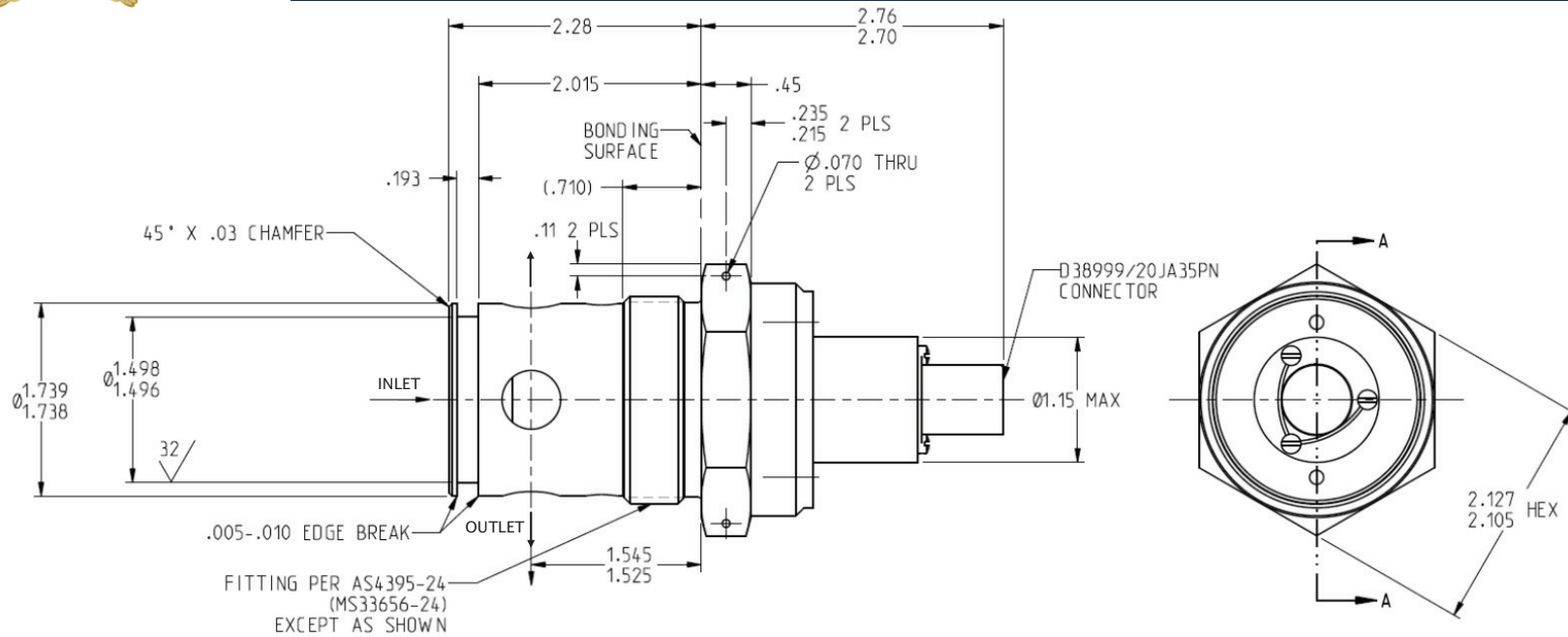
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 35620-X BYPASS RELIEF VALVE WITH INDICATION



PERFORMANCE SPECIFICATIONS:

FLUID: ETHYLENE GLYCOL/WATER*

MATERIAL: BODY 6061-T6 AL

POPPET 6061-T6 AL

TEMPERATURE RANGE: -65°F TO 160°F

OPERATING PRESSURE: 123 PSIG

PROOF PRESSURE: 185 PSIG

CRACKING PRESSURE: 2.90 ± 0.14 PSID**

FLOW: 22 GPM AT 4.5 PSID MAX**

RESEAT: 2.3 PSID MINIMUM**

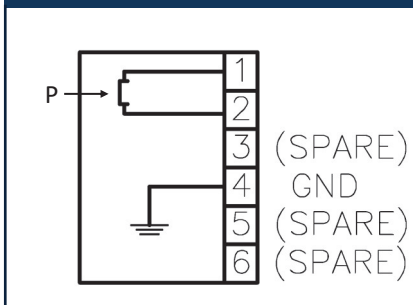
SWITCHING: CONTACTS (1 & 2) OPEN AT 2.6 ± 0.15 PSID (INCREASING PRESSURE)
CONTACTS (1 & 2) CLOSE AT 2.30-2.75 PSID (DECREASING PRESSURE)

WEIGHT: .79 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

**CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

ELECTRICAL SCHEMATIC (NORMALLY CLOSED)

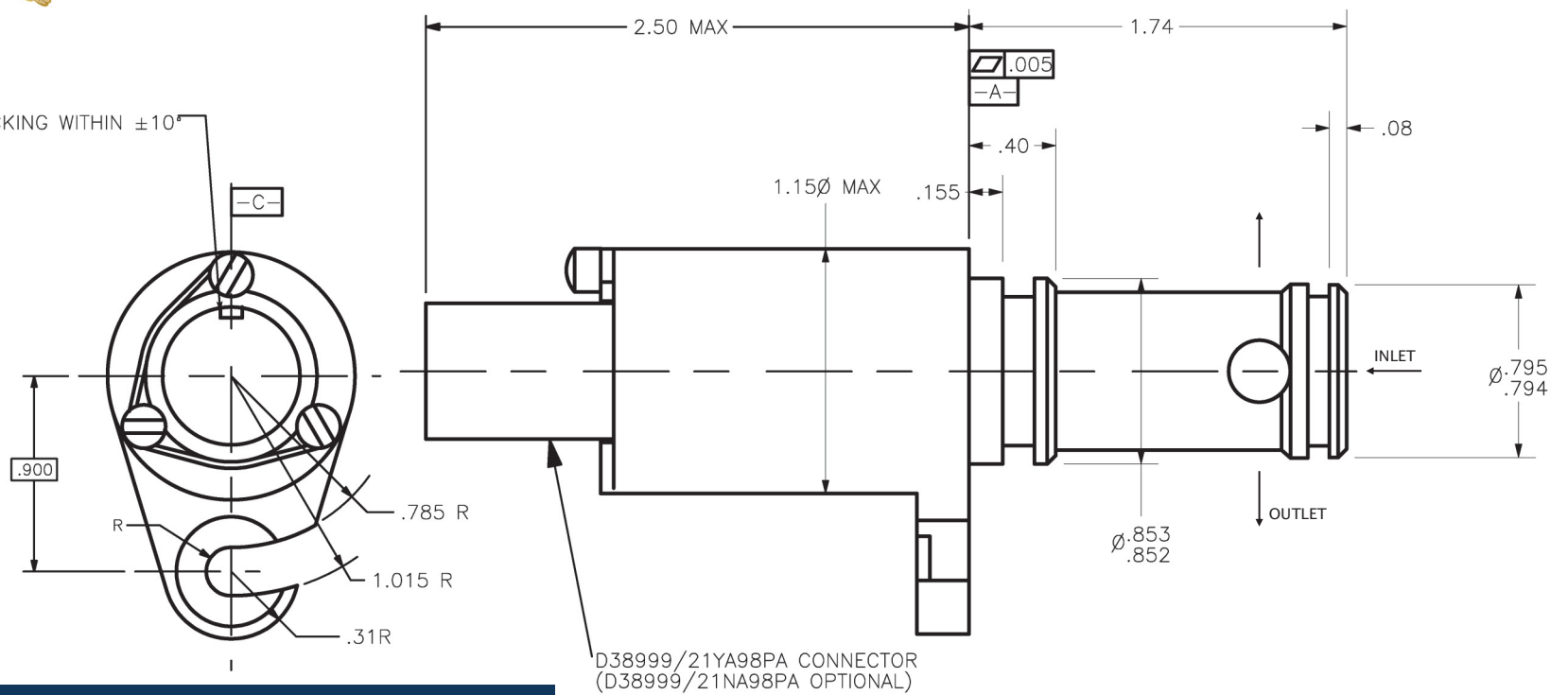


CATEGORY 2: RELIEF VALVES: FILTER BYPASS VALVES



PART NUMBER: 50350-X BYPASS RELIEF VALVE WITH INDICATION

KEYWAY CLOCKING WITHIN $\pm 10^\circ$



PERFORMANCE SPECIFICATIONS:

FLUID: MIL-L-7808 OR MIL-PRF-23699*

MATERIAL: BODY 6061-T6 AL

POPPET 6061-T6 AL

TEMPERATURE RANGE: -65°F TO 350°F

CRACKING PRESSURE: 50 PSID MINIMUM**

FLOW: 100 PSID MAX @ 12 GPM AT 100 PSID MAX**

RESEAT: 40 PSID MINIMUM**

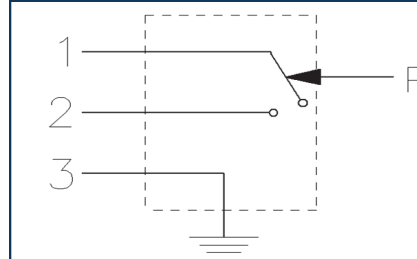
SWITCHING: CONTACTS CLOSE AT 35 ± 5 PSID (INCREASING PRESSURE);
CONTACTS OPEN BELOW 30 PSID (DECREASING PRESSURE)

WEIGHT: .25 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

**CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

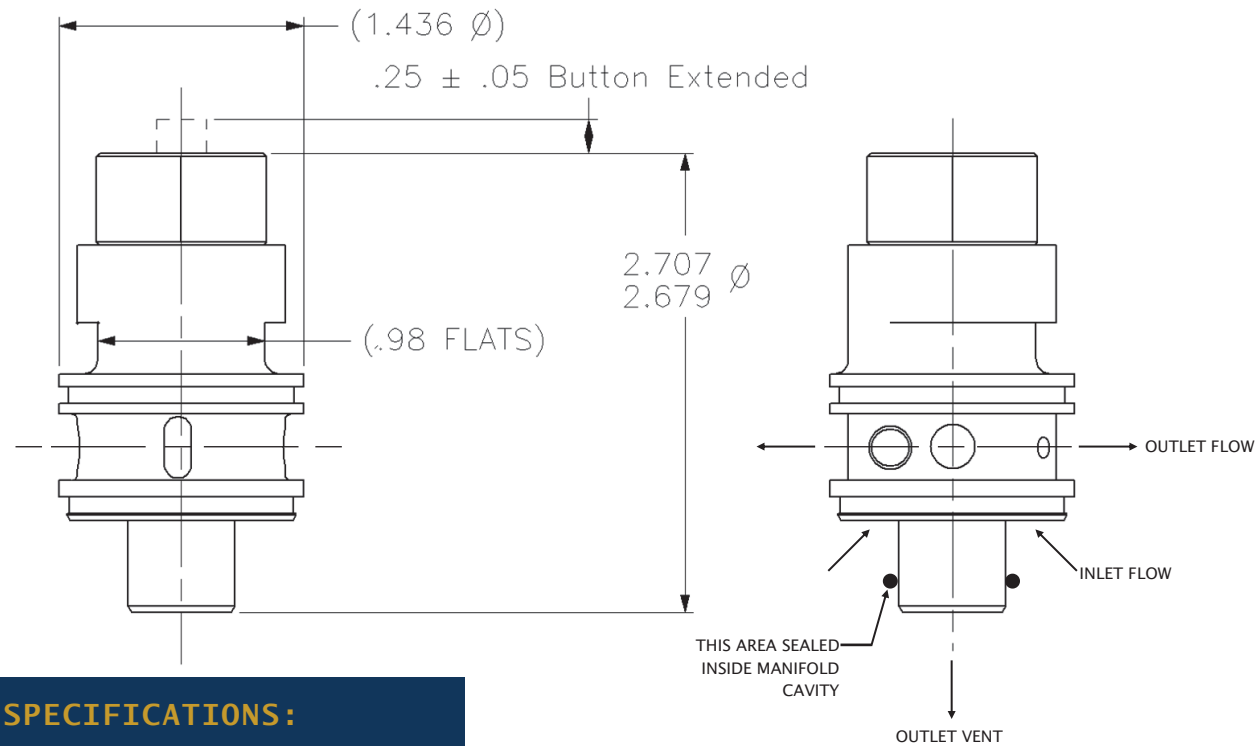
ELECTRICAL SCHEMATIC



CATEGORY 2: RELIEF VALVES: FILTER BYPASS VALVES



PART NUMBER: 50420-X BYPASS VALVE WITH DELTA P INDICATION AND THERMAL LOCKOUT



PERFORMANCE SPECIFICATIONS:

FLUID: MIL-C-7024*

MATERIAL: HOUSING 6061-T4 AL
POPPET 6061-T6 AL

TEMPERATURE RANGE: -55°F TO 325°F

OPERATING PRESSURE: 200 PSIG

PROOF PRESSURE: 300 PSIG

BUTTON ACTION: 70 \pm 10 PSID (TO BE RESET BY HAND)

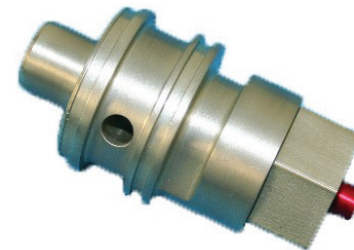
BYPASS PRESSURE: 116 \pm 10 PSID

FLOW: 2.5 GPM MINIMUM @ 200 PSID

INTERNAL LEAKAGE: 5 CC/MIN MAXIMUM @ 60 PSID

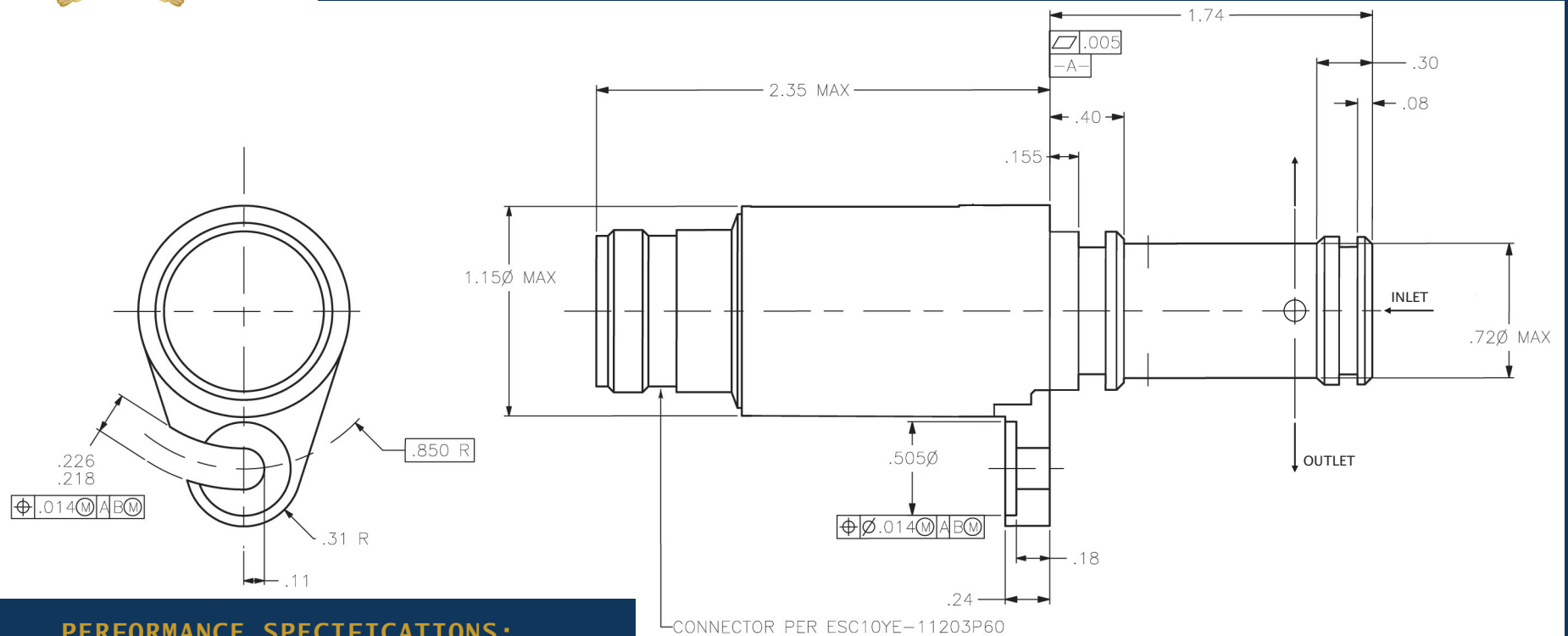
THERMAL LOCKOUT WILL PREVENT DELTA P INDICATION AT COLD TEMPERATURES (BELOW 170°F)

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE





PART NUMBER: 50110-3 BYPASS RELIEF VALVE WITH INDICATION



PERFORMANCE SPECIFICATIONS:

FLUID: MIL-PRF-23699*

MATERIAL: BODY 6061-T6 AL

POPPET 6061-T6 AL

TEMPERATURE RANGE: -65°F TO 350°F

CRACKING PRESSURE: 50 PSID MINIMUM**

FLOW: 12 GPM AT 100 PSID MAX**

RESEAT: 40 PSID MINIMUM**

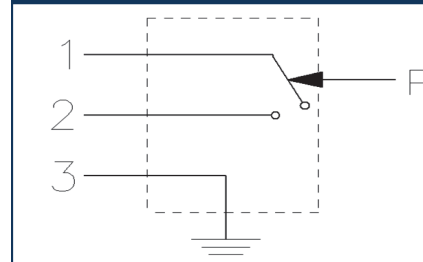
SWITCHING: CONTACTS CLOSE AT 35 ± 5 PSID (INCREASING PRESSURE);
CONTACTS OPEN BELOW 30 PSID (DECREASING PRESSURE)

WEIGHT: .25 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

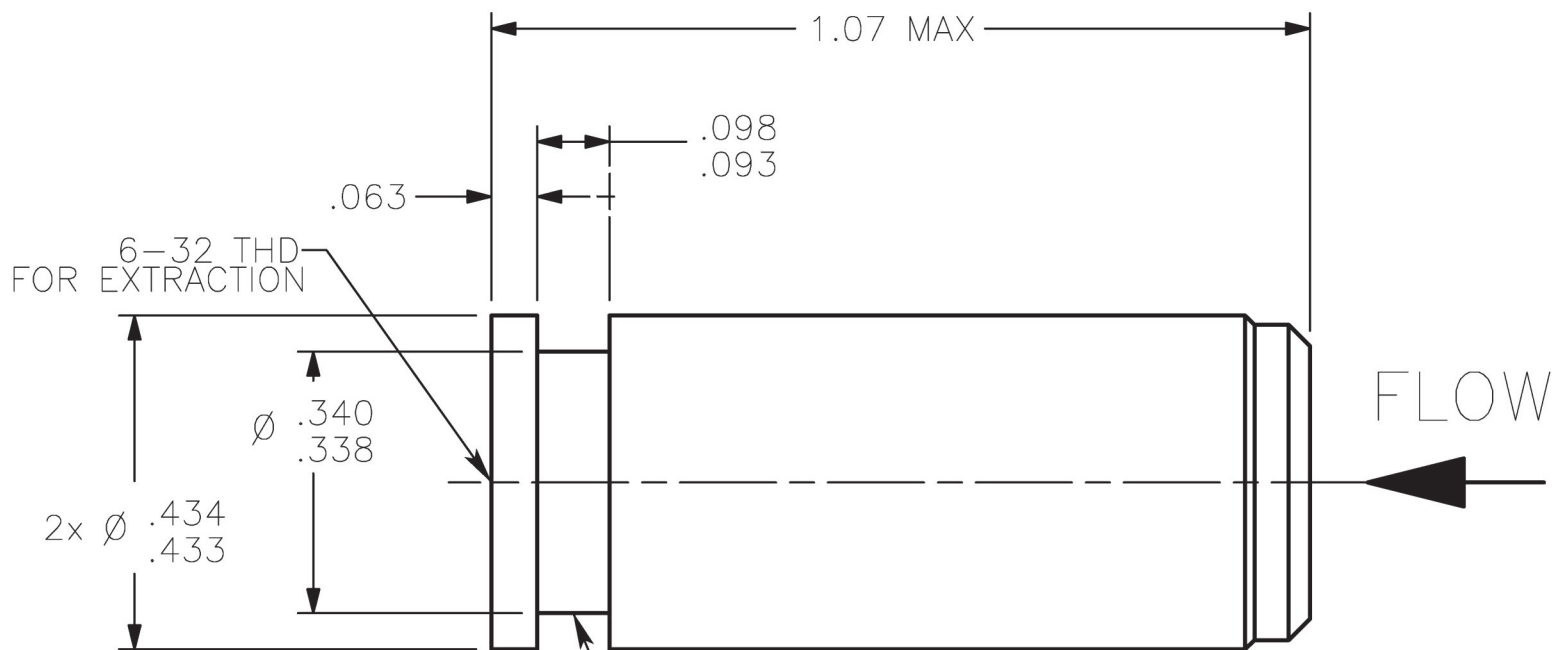
**CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN
BY USING SHIMS OR REPLACING THE SPRING

ELECTRICAL SCHEMATIC





PART NUMBER: 32140-X RELIEF VALVE



(GROOVE FITS MS83248/1-011)

PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC, LUBRICATION OR FUEL FLUID

MATERIAL: BODY 303 CRES

POPPET 303 CRES

TEMPERATURE RANGE: -40°F TO 350°F

PROOF PRESSURE: 3000 PSIG

CRACKING PRESSURE: 500±10 PSID*

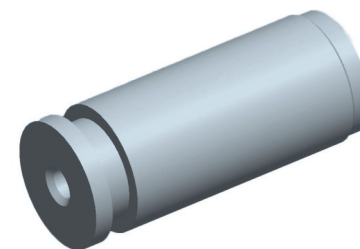
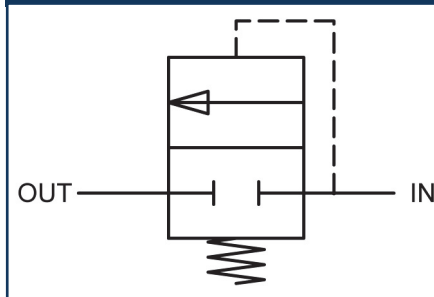
FLOW: 5 GPM AT 1500 PSID MAX*

RESEAT: 400 PSID MINIMUM*

INTERNAL LEAKAGE: 0 DPM AT 250 PSID

*CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

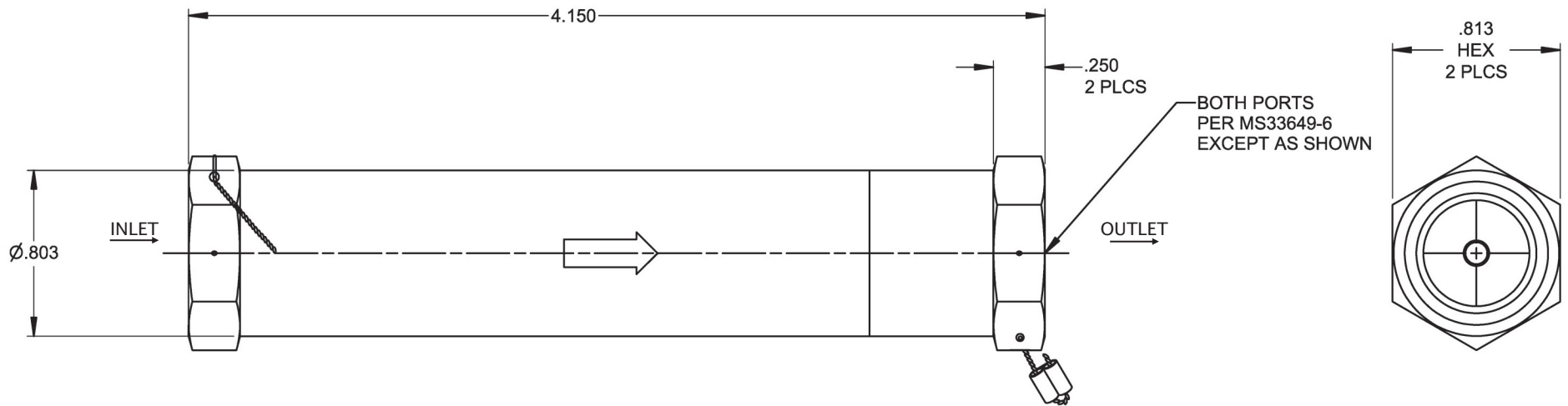
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES, DIRECT ACTING



PART NUMBER: 2R4266 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: HYDRAULIC FLUID PER MIL-H-5606*

MATERIAL: BODY 15-5PH CRES
POPPET PH13-8MO CRES

TEMPERATURE RANGE: -65°F TO 225°F

OPERATING PRESSURE: 3000 PSIG

PROOF PRESSURE: 4900 PSIG

CRACKING PRESSURE: 3480 PSID**

FLOW: 4.4 GPM AT 4100 PSID MAX**

RESEAT: 3260 PSID MIN**

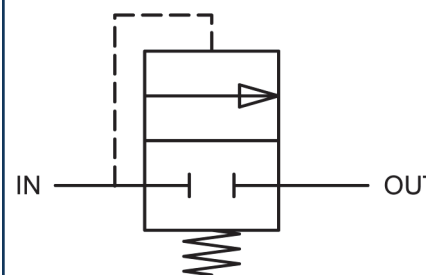
INTERNAL LEAKAGE: 1.5 CC/MIN AT 3075 PSID (INCREASING PRESSURE)
4.5 CC/MIN AT 3263 PSID (DECREASING PRESSURE)

WEIGHT: 0.52 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

**CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

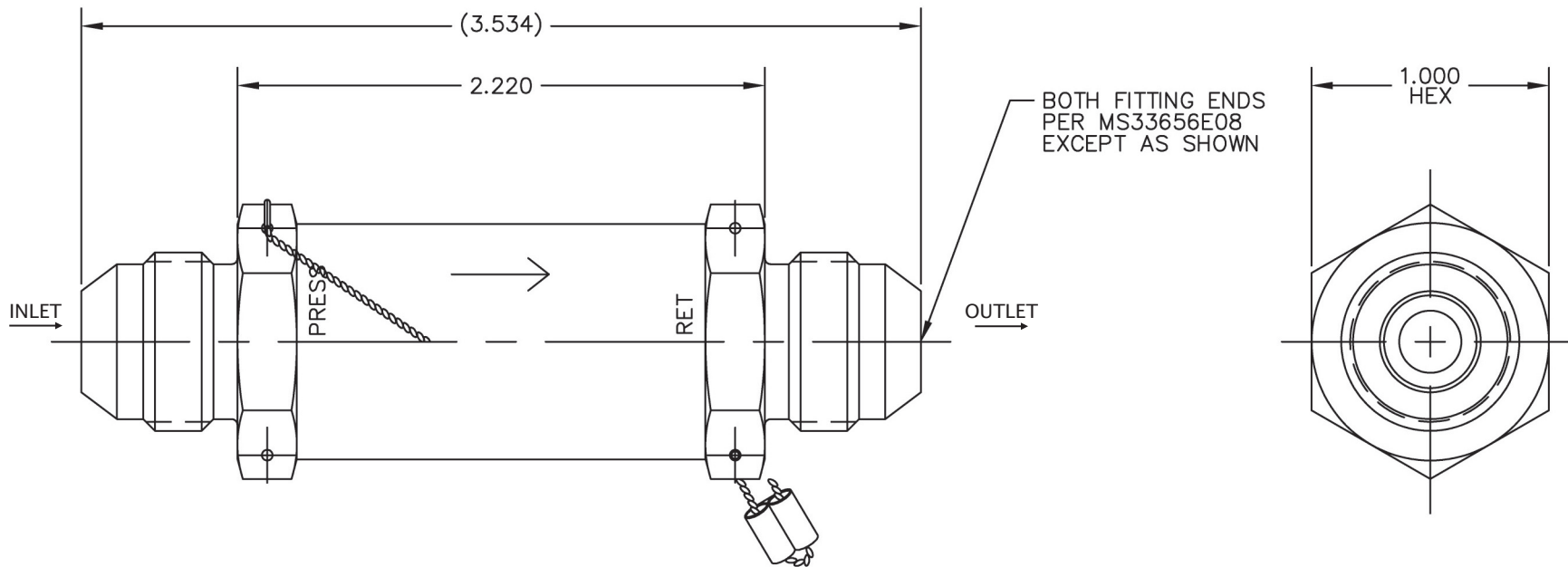
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES



PART NUMBER: 2R3896 RELIEF VALVE

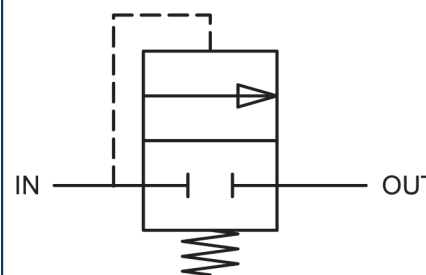


PERFORMANCE SPECIFICATIONS:

FLUID: HYDRAULIC FLUID PER MIL-H-5606*
MATERIAL: BODY 2024-T351 AL
 POPPET 440C CRES
TEMPERATURE RANGE: 23°F TO 275°F
OPERATING PRESSURE: 600 PSIG
PROOF PRESSURE: 900 PSIG
CRACKING PRESSURE: 95 TO 105 PSID**
FLOW: 4.75 GPM AT 140 PSID MAX AT ROOM TEMPERATURE**
RESEAT: 70 PSID MIN**
INTERNAL LEAKAGE: 3 CC/MIN MAX AT 0 TO 70 PSID

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE
**CRACK, FLOW, AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

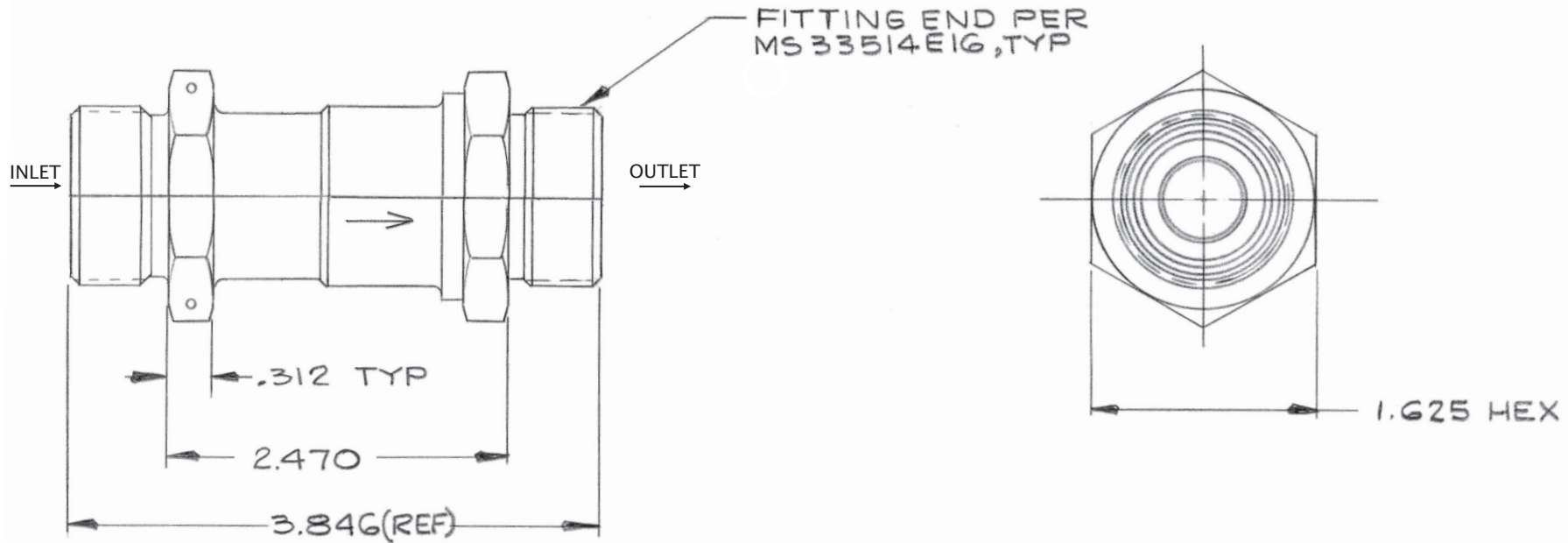
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES



PART NUMBER: 2R2766 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 303 CRES

POPPET 440C CRES

TEMPERATURE RANGE: -65°F TO 160°F

OPERATING PRESSURE: 60 PSIG

PROOF PRESSURE: 90 PSIG

CRACKING PRESSURE: 50 PSID*

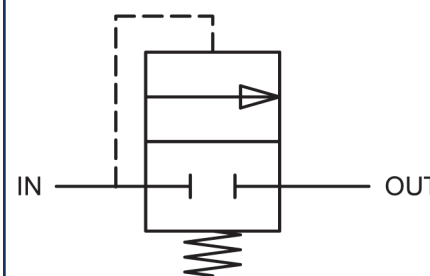
FLOW: 20 GPM AT 60 PSID MAX*

INTERNAL LEAKAGE: 2 CC/MIN AT 30 PSID

WEIGHT: 1.2 LBS MAX

*CRACK AND FLOW CAN MOVE UP OR
DOWN BY USING SHIMS OR REPLACING THE SPRING

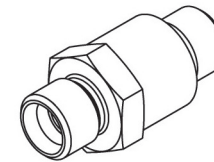
HYDRAULIC SCHEMATIC



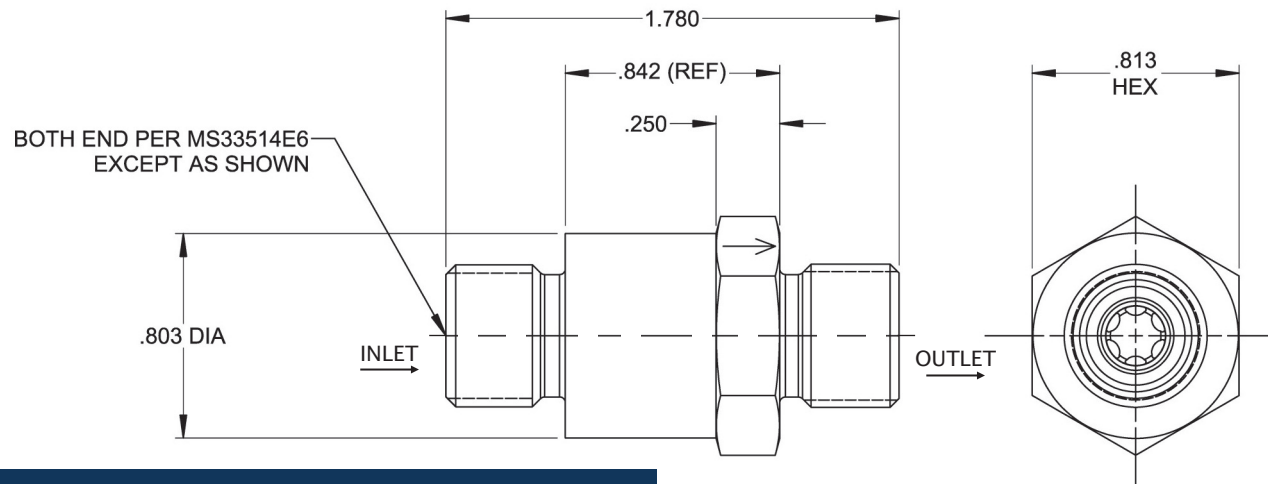
CATEGORY 2: RELIEF VALVES



PART NUMBER: 2R2606 RELIEF VALVE



ISOMETRIC VIEW
FOR REFERENCE ONLY



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 2024-T351 AL
POPPET 440C CRES

TEMPERATURE RANGE: -65°F TO 275°F

OPERATING PRESSURE: 3000 PSIG

PROOF PRESSURE: 4500 PSIG

CRACKING PRESSURE: 65 ± 5 PSID*

FLOW: 2.0 GPM AT 80 PSID MAX*

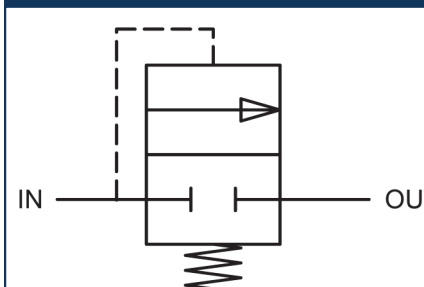
RESEAT: 45 PSID MIN*

INTERNAL LEAKAGE: NONE AT 0 TO 50 PSID (INCREASING PRESSURE)
NONE BELOW 45 PSID (DECREASING PRESSURE)

WEIGHT: 0.07 LBS MAX

*CRACK, FLOW AND RESEAT CAN MOVE UP OR
DOWN BY USING SHIMS OR REPLACING THE SPRING

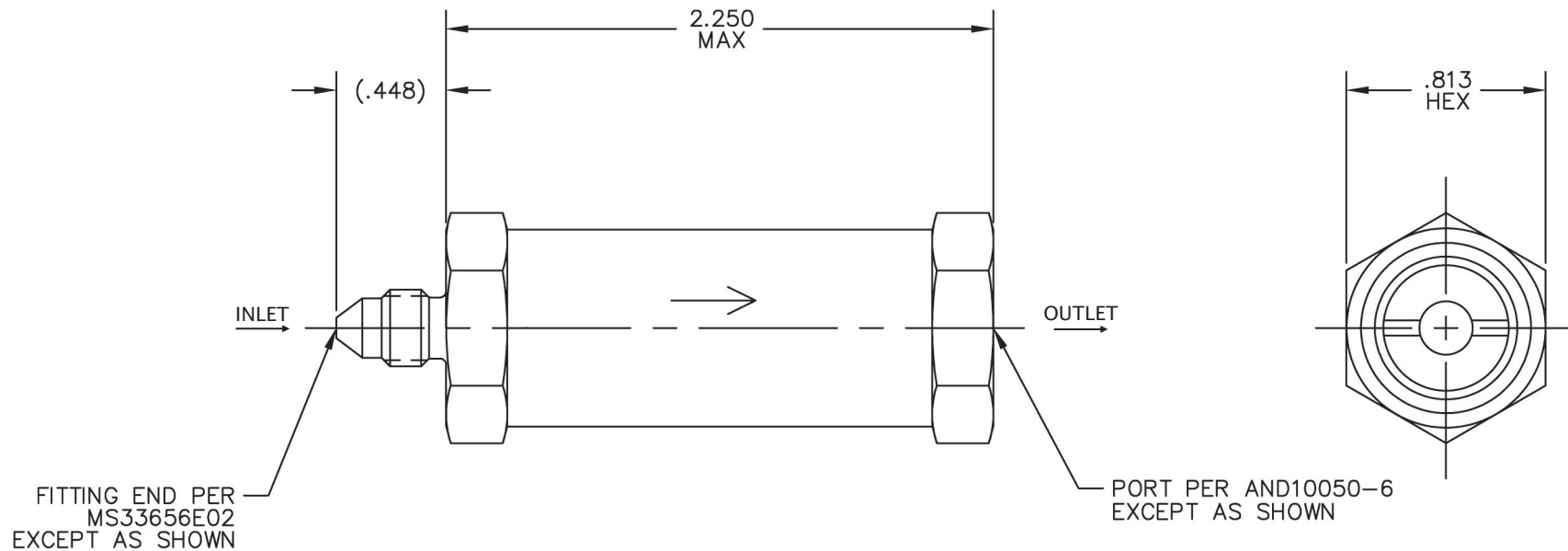
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES



PART NUMBER: 2R2656 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: HYDRAULIC FLUID PER MIL-H-5606*

MATERIAL: BODY 2024-T351 AL
POPPET 303 CRES

TEMPERATURE RANGE: -20°F TO 160°F

PROOF PRESSURE: 2000 PSIG

CRACKING PRESSURE: 450 TO 500 PSID**

FLOW: 0.10 GPM AT 600 PSID MAX**

RESEAT: 400 PSID MIN**

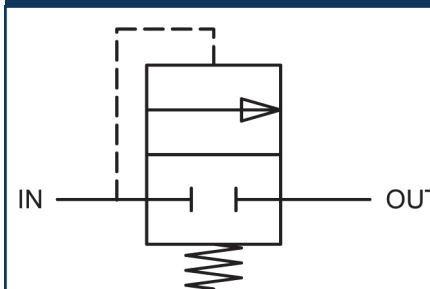
INTERNAL LEAKAGE: NONE AT 0 TO 400 PSID

WEIGHT: 0.10 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

**CRACK, FLOW, AND RESEAT CAN MOVE UP OR
DOWN BY USING SHIMS OR REPLACING THE SPRING

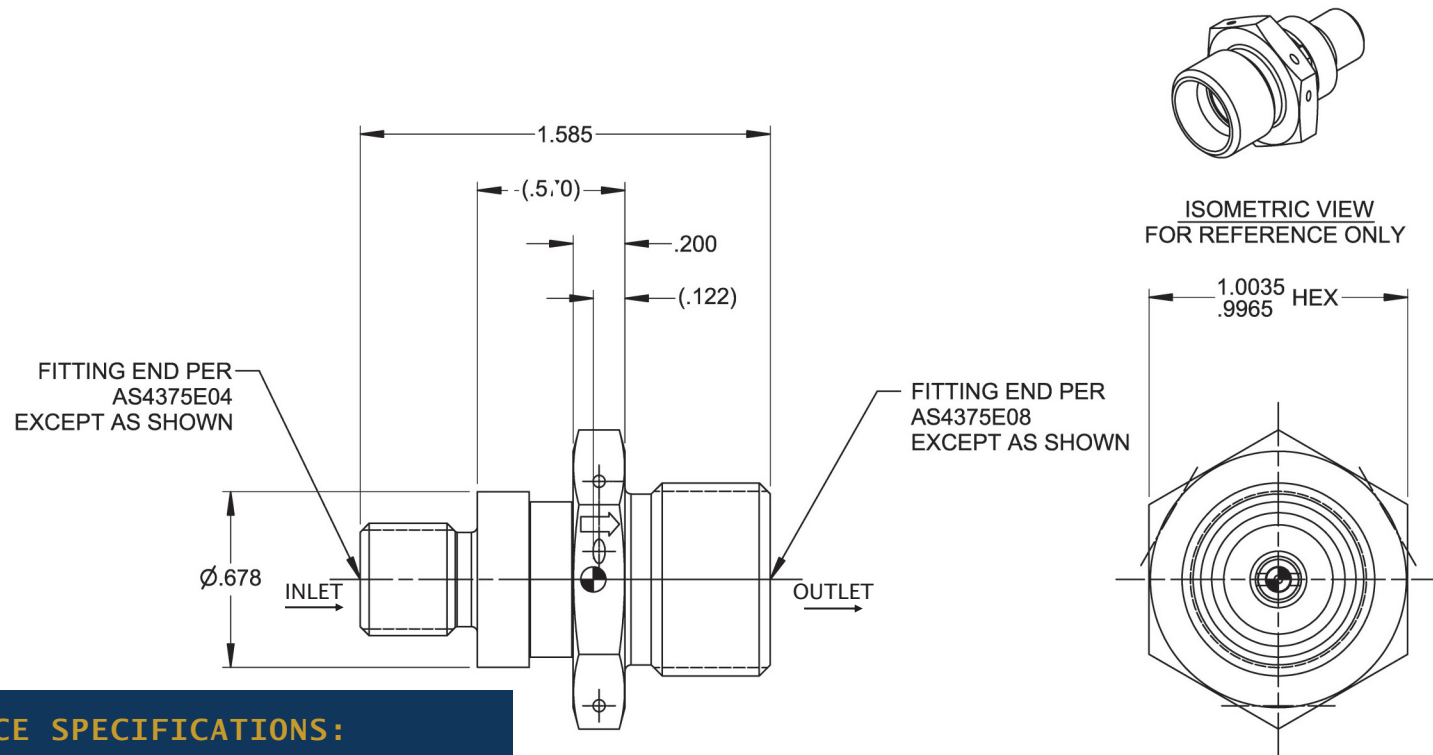
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES



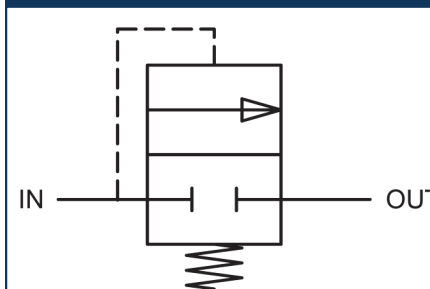
PART NUMBER: 2R4432 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID
MATERIAL: BODY 15-5PH CRES
POPPET 440C CRES
TEMPERATURE RANGE: -65°F TO 275°F
OPERATING PRESSURE: 3000 PSIG
PROOF PRESSURE: 6000 PSIG
CRACKING PRESSURE: 3900-4050 PSID*
FLOW: 15 mL/MIN MINIMUM AT 4300 PSID*
RESEAT: 3285 PSID MIN*
INTERNAL LEAKAGE: 10 DPM MAX AT 3900 PSID
1 DPM MAX AT 3285 PSID (INCREASING PRESSURE)
10 DPM MAX AT 3285 PSID (DECREASING PRESSURE)
WEIGHT: 0.149 LBS MAX
*CRACK, FLOW AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

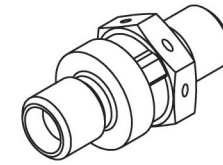
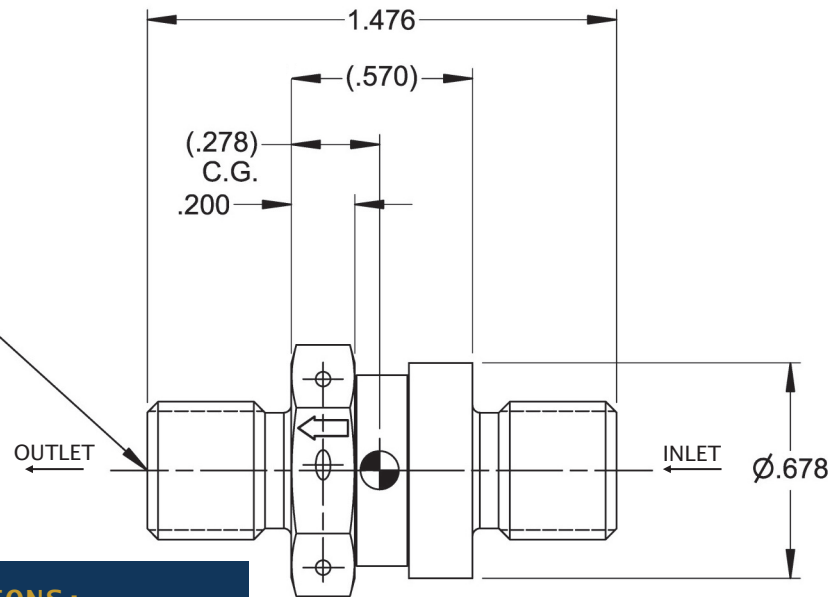
HYDRAULIC SCHEMATIC



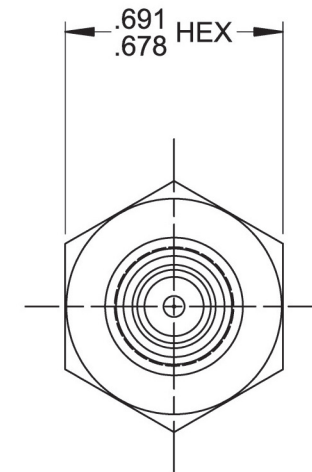


PART NUMBER: 2R4622 RELIEF VALVE

BOTH FITTING ENDS
PER AS4375E04
EXCEPT AS SHOWN



ISOMETRIC VIEW
FOR REFERENCE ONLY



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 15-5PH CRES
POPPET 440C CRES

TEMPERATURE RANGE: -65°F TO 185°F

OPERATING PRESSURE: 3000 PSIG

PROOF PRESSURE: 6250 PSIG

CRACKING PRESSURE: 3900-4050 PSID*

FLOW: 15 mL/MIN MINIMUM AT 4300 PSID*

RESEAT: 3285 PSID MIN*

INTERNAL LEAKAGE: 1 DPM MAX AT 3285 PSID (INCREASING DIRECTION)

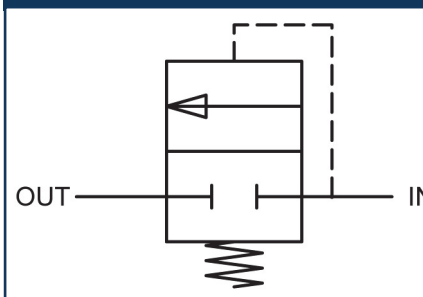
10 DPM MAX AT 3900 PSID (INCREASING PRESSURE)

10 DPM MAX AT 3285 PSID (DECREASING PRESSURE)

WEIGHT: 0.086 LBS MAX

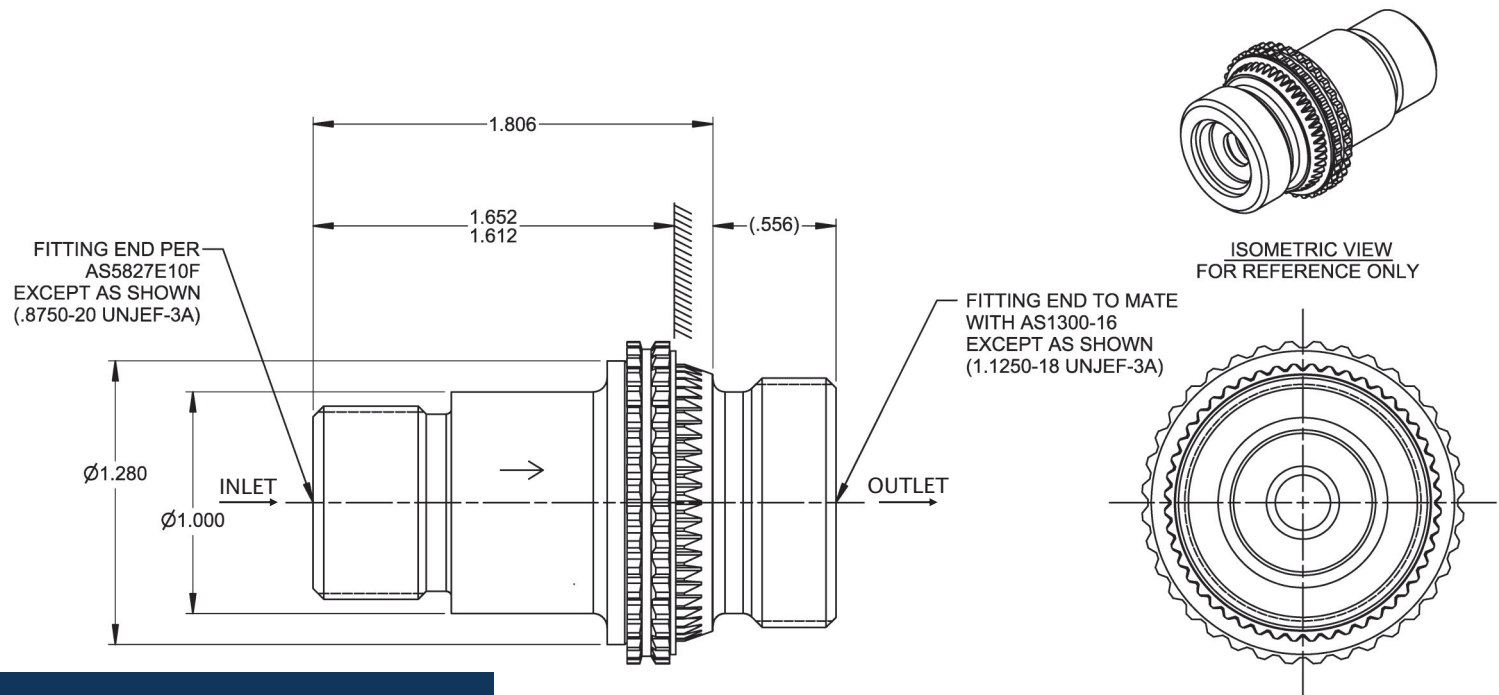
*CRACK, FLOW AND RESEAT CAN MOVE UP OR
DOWN BY USING SHIMS OR REPLACING THE SPRING

HYDRAULIC SCHEMATIC





PART NUMBER: 2R4632 RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 6AL-4V TI

POPPET PH13-8MO CRES

LOCKRING A-286 CRES

TEMPERATURE RANGE: -65°F TO 275°F

OPERATING PRESSURE: 5076 PSIG

PROOF PRESSURE: 7614 PSIG

CRACKING PRESSURE: 101 PSID*

FLOW: 1.3 GPM AT 125 PSID MAX*

10.6 GPM AT 140 PSID MAX*

RESEAT: 70 PSID MIN*

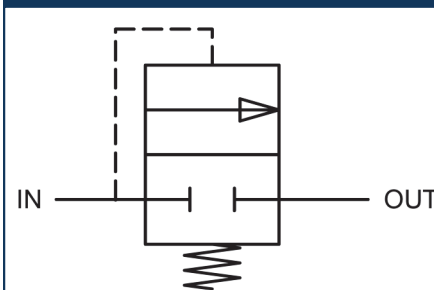
INTERNAL LEAKAGE: 1 CC/MIN MAX AT 5 PSID

5 DPM MAX AT 5076 PSID

WEIGHT: 0.300 LBS MAX

*CRACK, FLOW AND RESEAT CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

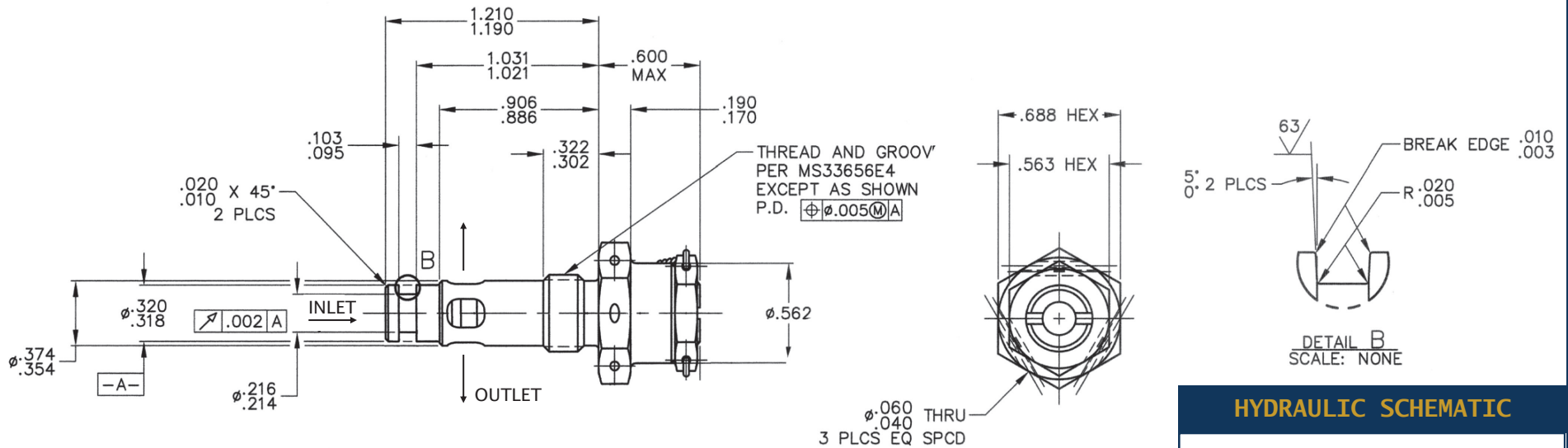
HYDRAULIC SCHEMATIC



CATEGORY 2: RELIEF VALVES



PART NUMBER: 2R4074-X RELIEF VALVE



PERFORMANCE SPECIFICATIONS:

FLUID: JP-4 & JP-5 PER MIL-DTL-5624, JET A, A-1 AND B PER ASTM D1655*

MATERIAL: BODY 304 CRES
POPPET 440C CRES

TEMPERATURE RANGE: -65°F TO 225°F

OPERATING PRESSURE: 1000 PSIG

PROOF PRESSURE: 2000 PSIG

CRACKING PRESSURE: SEE TABULATION**

FLOW: 350 PPH AT TABULATION**

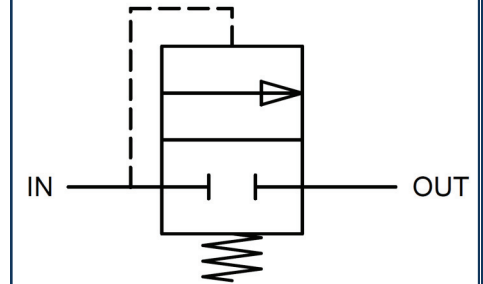
INTERNAL LEAKAGE: 0.5 CC/MIN MAX AT TABULATION (INCREASING PRESSURE)

WEIGHT: 0.10 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

**CRACK AND FLOW CAN MOVE UP OR DOWN BY USING SHIMS OR REPLACING THE SPRING

HYDRAULIC SCHEMATIC



PART NO. OF TABULATION			
DASH NO	CRACKING PRESSURE	FLOW-PRESSURE DROP	LEAKAGE AT
-1	125 - 130 PSID	145 - 160 PSID	115 PSID
-2	150 - 155 PSID	170 - 185 PSID	140 PSID

CATEGORY 2: RELIEF VALVES



CRISSAIR HAS VARIOUS OTHER RELIEF VALVES NOT LISTED IN THE CATALOG WITH DIFFERENT MATERIALS, FITTINGS, AND SIZE CONFIGURATIONS.

CONTACT CRISSAIR FOR ADDITIONAL INFORMATION/DRAWINGS AT

(661) 367-3300 OR SALES@CRISSAIR.COM.

YOU CAN ALSO VISIT WWW.CRISSAIR.COM.