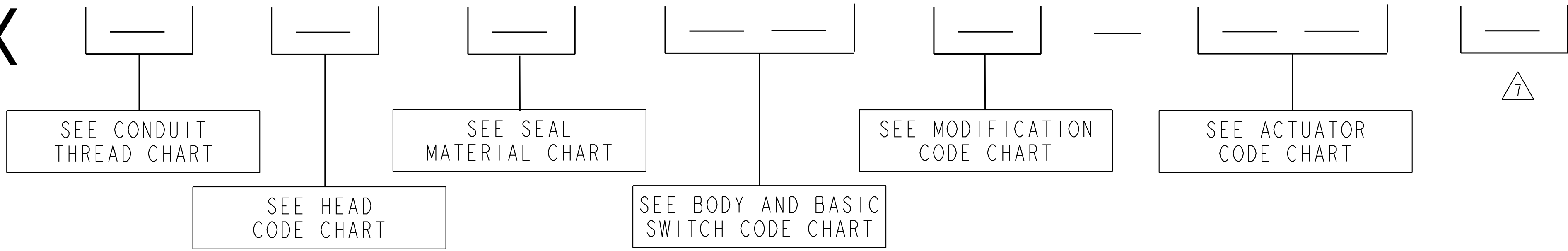


# BX



CONDUIT THREAD CHART	
CODE	DESCRIPTION
NONE	1/2 NPT OR 3/4 NPT (SEE BODY & BASIC SWITCH CODE CHART)
3	PG 13,5 CONDUIT THREAD, BLUE BODY
4	20mm CONDUIT THREAD, BLUE BODY
5	PF 1/2 CONDUIT THREAD, BLUE BODY

HEAD CODE CHART	
CODE	DESCRIPTION
A	SIDE ROTARY MOMENTARY
B	TOP ROTARY MOMENTARY
C	TOP PLUNGER PLAIN
D	TOP PLUNGER ROLLER
E	SIDE PLUNGER MOMENTARY PLAIN
F	SIDE PLUNGER MOMENTARY ROLLER
H	SIDE ROTARY MOMENTARY, LOW PRE TRAVEL & LOW TORQUE
J	WOBBLE STICK
K	WHISKER
L	SIDE ROTARY SEQUENTIAL
M	SIDE ROTARY CENTER NEUTRAL
N	SIDE ROTARY MAINTAINED
P	SIDE ROTARY MOMENTARY, LOW PRE TRAVEL & DIFF. TRAVEL
R	SIDE ROTARY MOMENTARY, LOW TORQUE
V	TOP PLUNGER ADJUSTABLE
W	SIDE PLUNGER ADJUSTABLE

SEAL MATERIAL CHART	
CODE	DESCRIPTION
NONE	FLUOROSILICONE OPERATING HEAD SEALS
C	FLUOROCARBON OPERATING HEAD SEALS

BODY AND BASIC SWITCH CODE CHART	
CODE	DESCRIPTION
1A	SLOW ACTING, 3NC - 1NO, 3/4" NPT
1E	SLOW ACTING, 3NC - 1NO, 3/4" NPT, GOLD PLATED CONTACTS
3E	HIGHT FIDELITY, 1/2" NPT
3K	1NO - 1NC, 1/2" NPT
3N	1NC DIRECT ACTING, 1/2" NPT
4K/8	1NO - 1NC, 3/4" NPT
4L	2NO - 2NC, 3/4" NPT
4M	2NO - 2NO, SEQUENCE, 3/4" NPT
4N	2NO - 2NC, CENTER NEUTRAL, 3/4" NPT
4S	2NO - 2NC, 3/4" NPT, HIGH FIDELITY CONTACTS
4T	2NO - 2NC, SEQUENCE, 3/4" NPT, HIGH FIDELITY CONTACTS
4U	2NO - 2NC, CENTER NEUTRAL, 3/4" NPT, HIGH FIDELITY CONTACTS
7L/8	2NO - 2NC, 1/2" NPT
7N/8	2NO - 2NC, CENTER NEUTRAL, 1/2" NPT
7S/8	2NO - 2NC, 1/2" NPT, HIGH FIDELITY CONTACTS
7T/8	2NO - 2NC, SEQUENCE, 1/2" NPT, HIGH FIDELITY CONTACTS
7U/8	2NO - 2NC, CENTER NEUTRAL, 1/2" NPT, HIGH FIDELITY CONTACTS

MODIFICATION CODE CHART	
CODE	DESCRIPTION
1	CW ROTATION
2	CCW ROTATION
3	HEAD ASSEMBLED WITH ACTUATOR TO RIGHT SIDE
4	HEAD ASSEMBLED WITH ACTUATOR TO LEFT SIDE
5	HEAD ASSEMBLED WITH ACTUATOR TOWARDS MOUNING SURFACE
6	ROLLER PERPENDICULAR TO MOUNTING SURFACE
8	ROLLER ON SIDE PLUNGER IN VERTICAL POSITION

ACTUATOR CODE CHART	
CODE	DESCRIPTION
1	FIXED ROLLER, 1.5" RADIUS
1A	FIXED 3/4 x 1/4 NYLON ROLLER, 1.5" RADIUS, ROLLER IS FRONT MOUNT
1C	FIXED 3/4 x 1/4 NYLON ROLLER, 1.5" RADIUS, ROLLER IS BACK MOUNT
2	ADJUSTABLE ROLLERLESS
2A	ADJUSTABLE 3/4 x 1/4 NYLON ROLLER, ROLLER IS BACK MOUNT
2C	ADJUSTABLE 3/4 x 1/4 NYLON ROLLER, ROLLER IS FRONT MOUNT
2J	ADJUSTABLE 1 x 1/2 NYLON ROLLER, ROLLER IS FRONT MOUNT
2K	ADJUSTABLE 3/2 x 1/4 NYLON ROLLER, ROLLER IS FRONT MOUNT
3E	YOKE 3/4 x 1/4 NYLON ROLLERS, ROLLERS ON OPP. SIDES
3M	YOKE 3/4 x 1 1/4 NYLON ROLLERS, ROLLERS ON OPP. SIDES
3S	YOKE 3/4 x 1/4 NYLON ROLLERS, ROLLERS ARE BACK MOUNT
4	HUB ONLY
4M	HUB ROD, ALUMINIUM
5	OFFSET, ROLLERLESS
5A	OFFSET, 3/4 x 1/4 NYLON ROLLER, ROLLER IS BACK MOUNT
5C	OFFSET, 3/4 x 1/4 NYLON ROLLER, ROLLER IS FRONT MOUNT
7A	PLASTIC WOBBLE STICK
8A	WHISKER, 5 1/2"
9A	FIXED 3/4 x 1/4 NYLON ROLLER, 1.33" RADIUS, ROLLER IS FRONT MOUNT
9C	FIXED 3/4 x 1/4 NYLON ROLLER, 1.33" RADIUS, ROLLER IS BACK MOUNT

TEMPERATURE LIMITATIONS FOR DEVICES WITH FLUOROSILICONE (BXA** & BX*A**) AND FLUOROCARBON (BXAC** & BX*AC**) SEALS		
	LOW LIMIT	HIGH LIMIT
BXA & BX*A	-40°C/-40°F	70°C/158°F
BXAC & BX*AC	-12°C/+10°F	70°C/158°F
BXB & BX*B	-29°C/-20°F	70°C/158°F
BXBC & BX*BC	-1°C/+30°F	70°C/158°F
BXC & BX*C	-40°C/-40°F	70°C/158°F
BXCC & BX*CC	-12°C/+10°F	70°C/158°F
BXD & BX*D	-40°C/-40°F	70°C/158°F
BXDC & BX*DC	-12°C/+10°F	70°C/158°F
BXE & BX*E	-40°C/-40°F	70°C/158°F
BXEC & BX*EC	-12°C/+10°F	70°C/158°F
BXF & BX*F	-40°C/-40°F	70°C/158°F
BXFC & BX*FC	-12°C/+10°F	70°C/158°F
BXH & BX*H	-29°C/-20°F	70°C/158°F
BXHC & BX*HC	-1°C/+30°F	70°C/158°F
BXJ & BX*J	-29°C/-20°F	70°C/158°F
BXJC & BX*JC	-1°C/+30°F	70°C/158°F
BXK & BX*K	-29°C/-20°F	70°C/158°F
BXKC & BX*KC	-1°C/+30°F	70°C/158°F
BXL & BX*L	-40°C/-40°F	70°C/158°F
BXLC & BX*LC	-12°C/+10°F	70°C/158°F
BXM & BX*M	-40°C/-40°F	70°C/158°F
BXMC & BX*MC	-12°C/+10°F	70°C/158°F
BXN & BX*N	-29°C/-20°F	70°C/158°F
BXNC & BX*NC	-1°C/+30°F	70°C/158°F
BXP & BX*P	-40°C/-40°F	70°C/158°F
BXPC & BX*PC	-12°C/+10°F	70°C/158°F
BXR & BX*R	-29°C/-20°F	70°C/158°F
BXRC & BX*RC	-1°C/+30°F	70°C/158°F
BXV & BX*V	-40°C/-40°F	70°C/158°F
BXVC & BX*VC	-12°C/+10°F	70°C/158°F
BXW & BX*W	-40°C/-40°F	70°C/158°F
BXWC & BX*WC	-12°C/+10°F	70°C/158°F

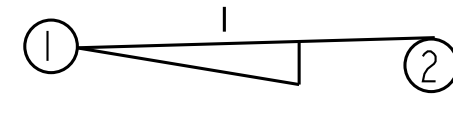
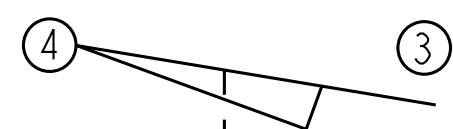
NOTES:

- 1 - CONSTRUCTED IN ACCORDANCE WITH EN-50014 / EN - 50018 GROUP II C
- 2 - VOLUME 27 CU.IN (442 CU.CM) APPROX.
- 3 - EXPLOSION PROOF - UNDER WRITERS LAB INC. LISTED FOR HAZARDOUS LOCATIONS CLASS I, GROUPS B,C AND D; CLASS II GROUPS E,F AND G.
- 4 - SIRA CERTIFIED PRODUCTS. NO MODIFICATIONS PERMITTED WITHOUT REFERENCE TO SIRA.
- 5 - CONFORMS TO EExd IIC TG  
**CE** 0518  
 SIRA 00ATEX1037X  
 CAT 112 GD.
- 6 - FURNISHED UNASSEMBLED IN A SEPARATE PLASTIC BAG.
- 7 - "B" IN THIS POSITION INDICATES BULK PACK OF 25 PRODUCTS.
- 8 - NOT AVAILABLE WITH CONDUIT CODES 3,4 OR 5.

ENVIRONMENTAL RATING	
IP67	NEMA/UL TYPES 1, 3, 4, 6, 7, 9 AND 13

DESIGN UNITS: MM [INCH]	DRAWN	LK	18NOV09	<b>Honeywell</b> TITLE <b>SWITCH - ENCLOSED</b>
TOLERANCES UNLESS NOTED:	CHECK	KRB	18NOV09	
NO PLACES .x ±	THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PERMISSION OF HONEYWELL.			SIZE
ONE PLACE .xx ±				TYPE
TWO PLACE .xxx ±				CAGE CODE
THREE PLACE .xxx ±				DRAWING NAME
ANGLES .x ±				REVISION
THIRD ANGLE PROJECTION				D I - BX SERIES CHART 1 Pro/ENGINEER 3D SCALE 1:1 SHEET 1 OF 6

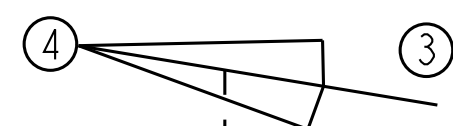
SINGLE POLE  
MOMENTARY



DIRECT ACTING

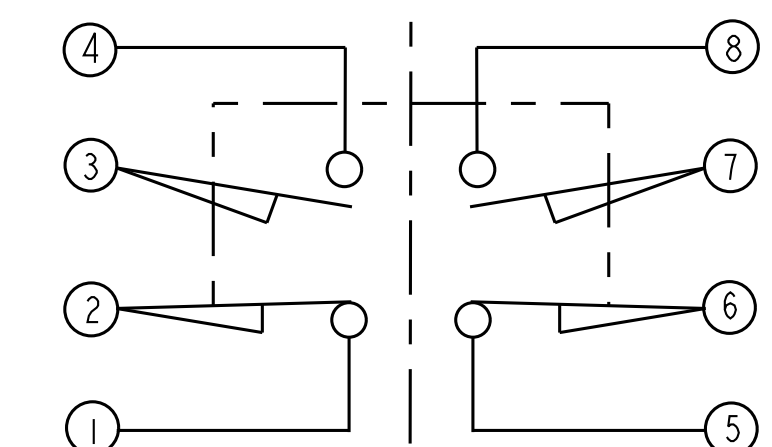


MAINTAINED

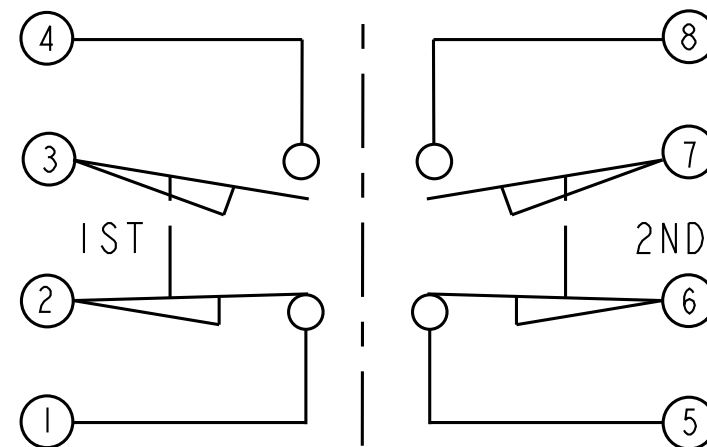


WIRING BASIC SWITCH SAME POLARITY MUST BE OBSERVED (NOT APPLICABLE TO 3Y/1X CIRCUIT)

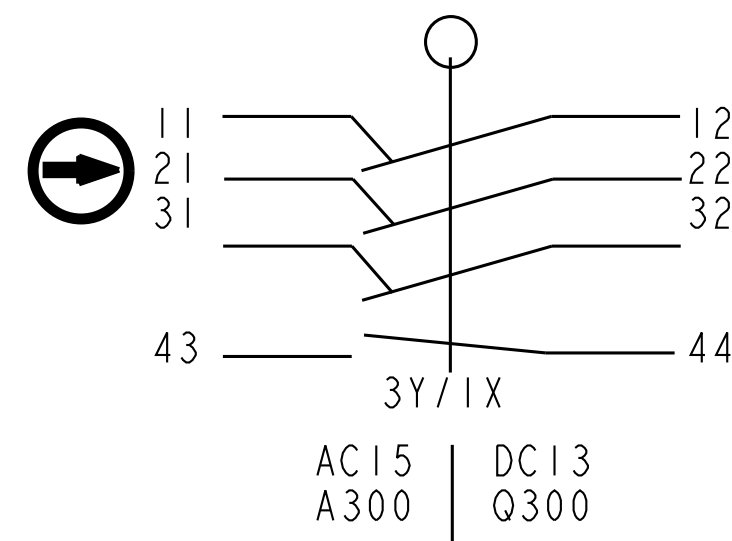
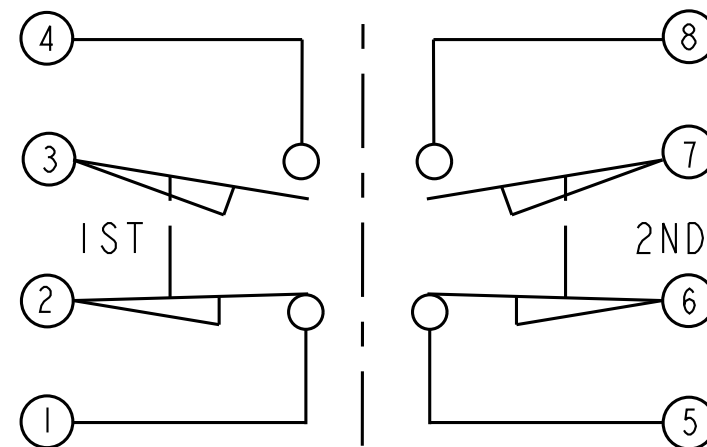
MOMENTARY



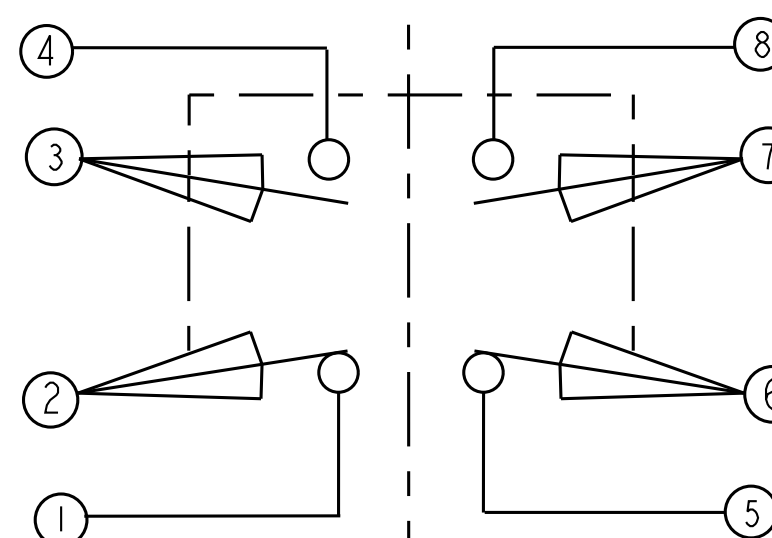
DOUBLE POLE



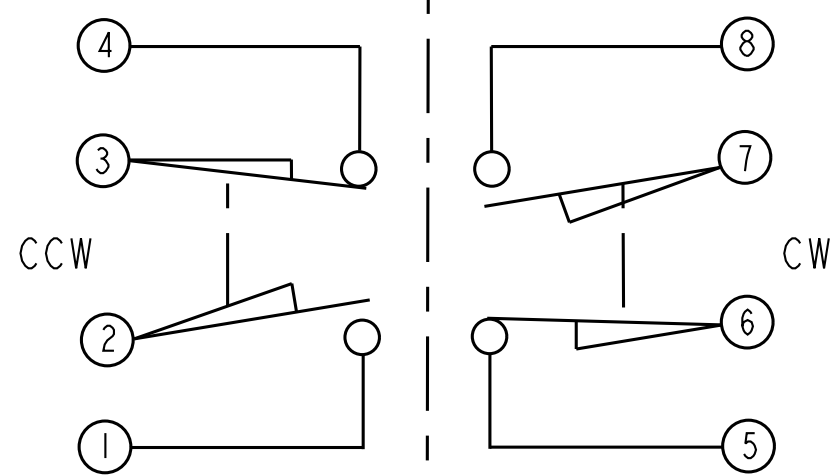
SEQUENCE



MAINTAINED



CENTER NEUTRAL



ELECTRICAL RATINGS  
10 AMP CONT.

A.C. VOLTAGE	SINGLE POLE		DOUBLE POLE		POWER FACTOR
	MAKE	BREAK	MAKE	BREAK	
120	60	6	30	3	.35
240	30	3	15	1.5	.35
480	15	1.5	7.5	.75	.35
600	12	1.2	6	.6	.35
A300/120V	N/A	N/A	60	6	.30
A300/240V	N/A	N/A	30	3	.30

D.C. VOLTAGE	MAKE & BREAK INDUCTIVE	RESISTIVE
120	0.25	0.80
240	0.15	0.40
Q300/125V	0.55	N/A
Q300/250V	0.27	N/A

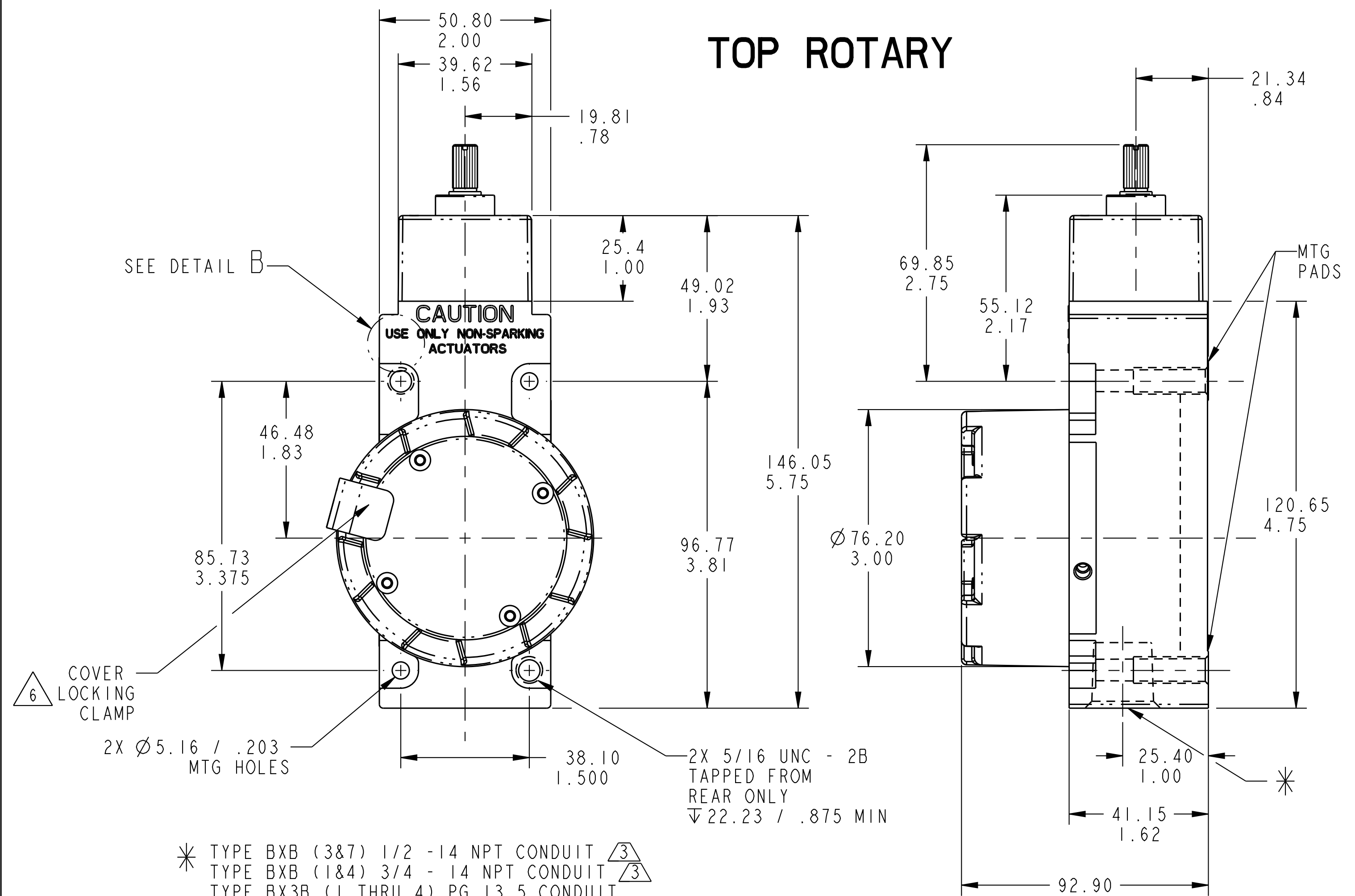
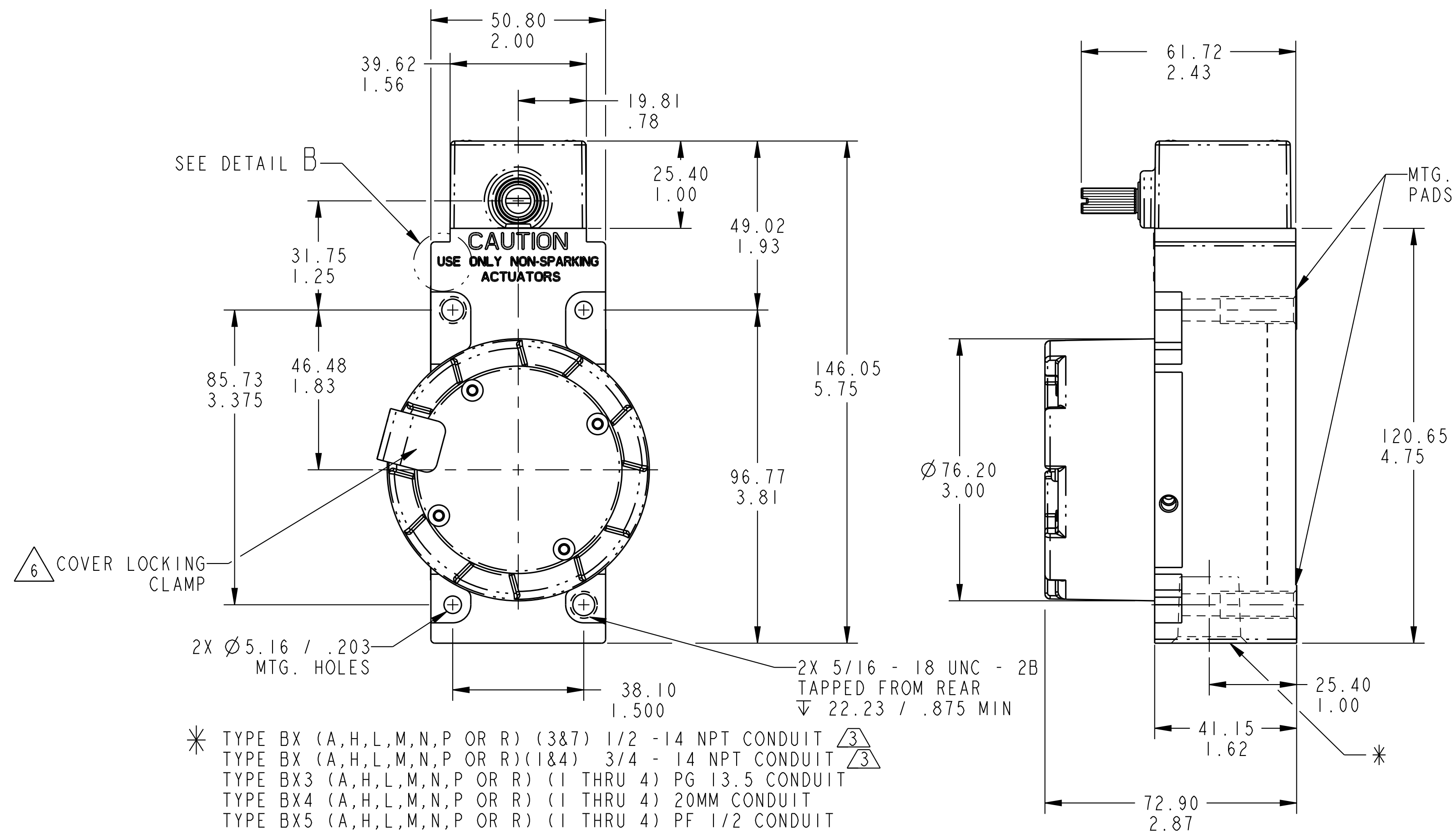
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**Honeywell**

SIZE	TYPE	CAGE CODE	DRAWING NAME	REV
D	I	-	BX SERIES CHART 1	14
SCALE 1:1				SHEET 2 OF 6

### SIDE ROTARY

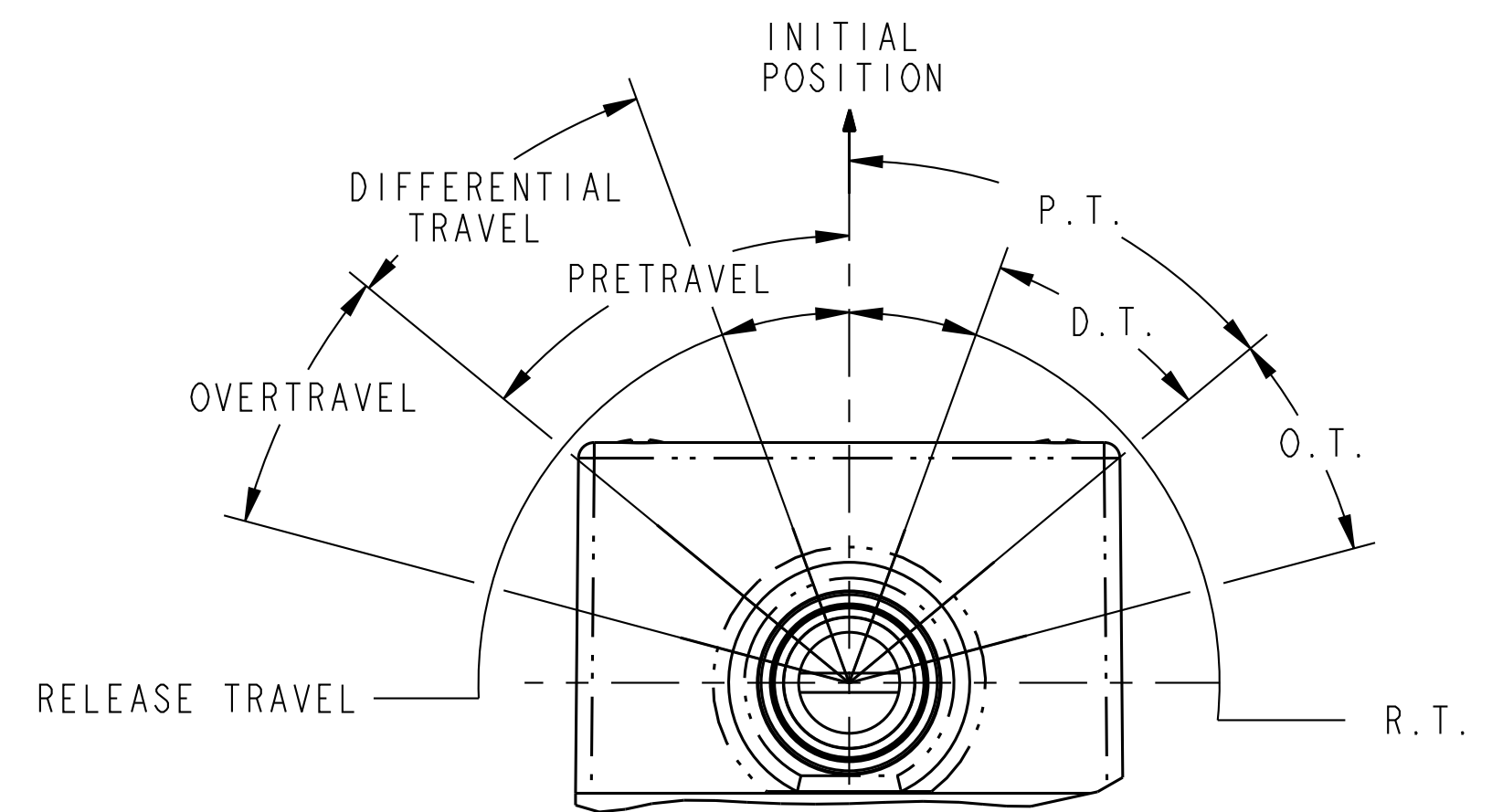
### TOP ROTARY



- \* TYPE BX (A,H,L,M,N,P OR R) (3&7) 1/2 -14 NPT CONDUIT
- TYPE BX (A,H,L,M,N,P OR R)(1&4) 3/4 - 14 NPT CONDUIT
- TYPE BX3 (A,H,L,M,N,P OR R) (1 THRU 4) PG 13.5 CONDUIT
- TYPE BX4 (A,H,L,M,N,P OR R) (1 THRU 4) 20MM CONDUIT
- TYPE BX5 (A,H,L,M,N,P OR R) (1 THRU 4) PF 1/2 CONDUIT

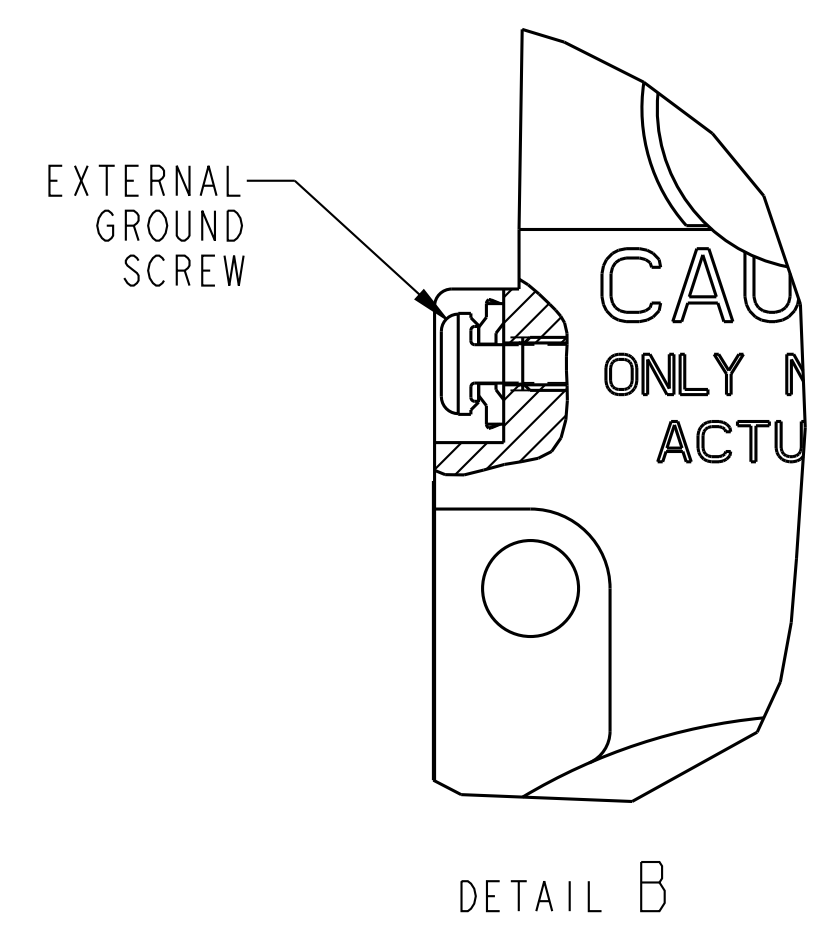
- \* TYPE BXB (3&7) 1/2 -14 NPT CONDUIT
- TYPE BXB (1&4) 3/4 - 14 NPT CONDUIT
- TYPE BX3B (1 THRU 4) PG 13.5 CONDUIT
- TYPE BX4B (1 THRU 4) 20 MM CONDUIT
- TYPE BX5B (1 THRU 4) PF 1/2 CONDUIT

#### OPERATING DATA - SIDE ROTARY

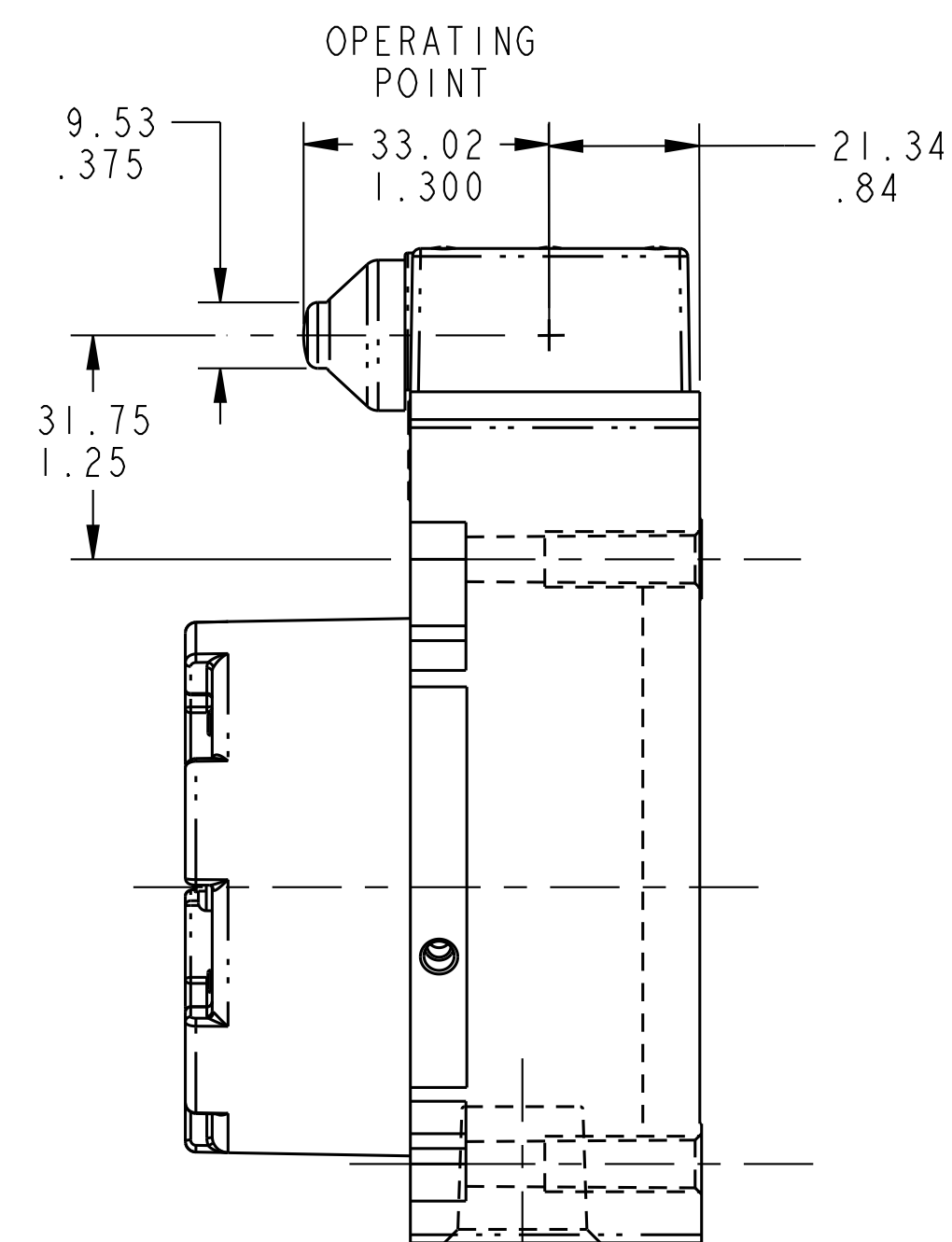
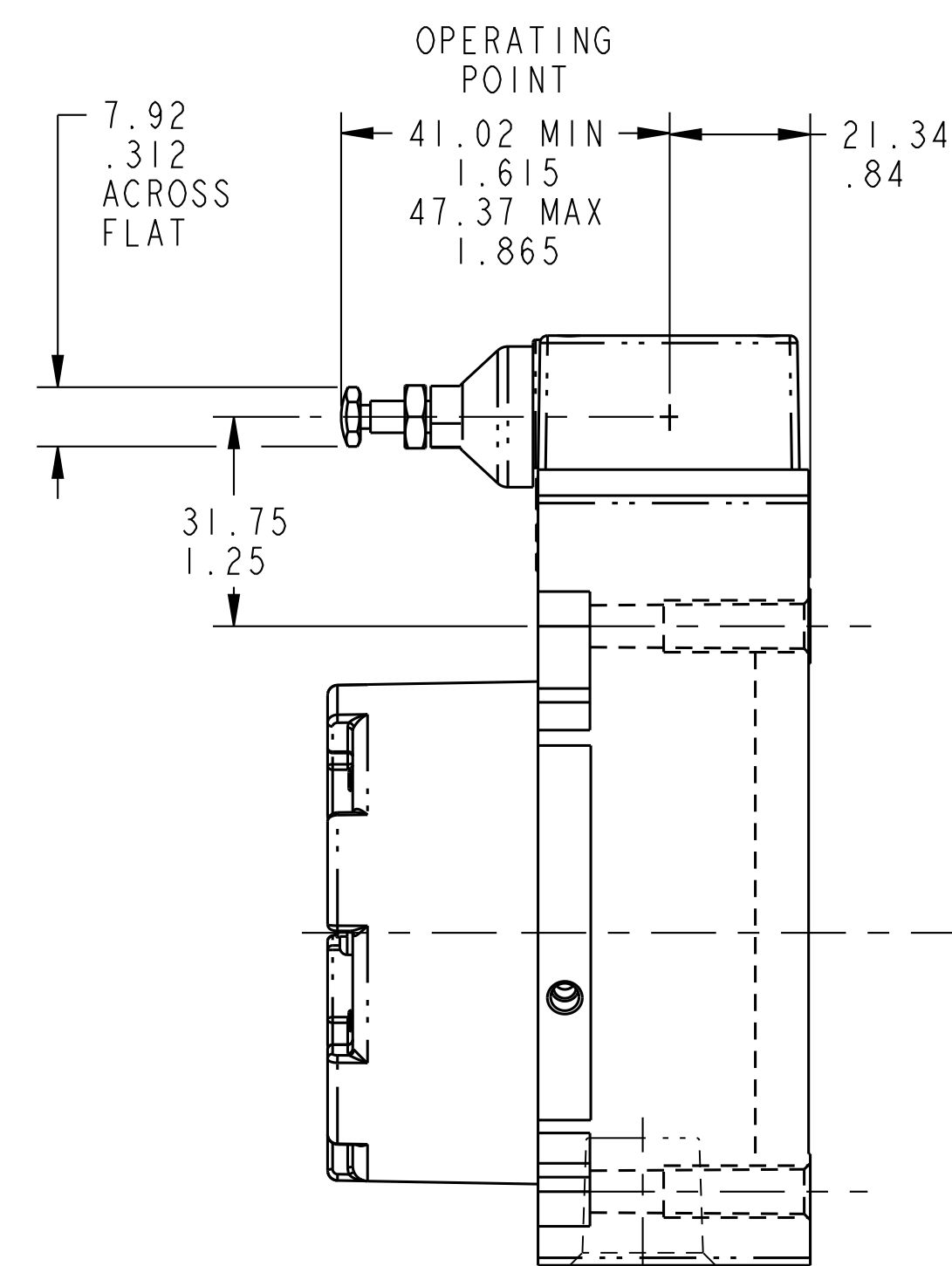
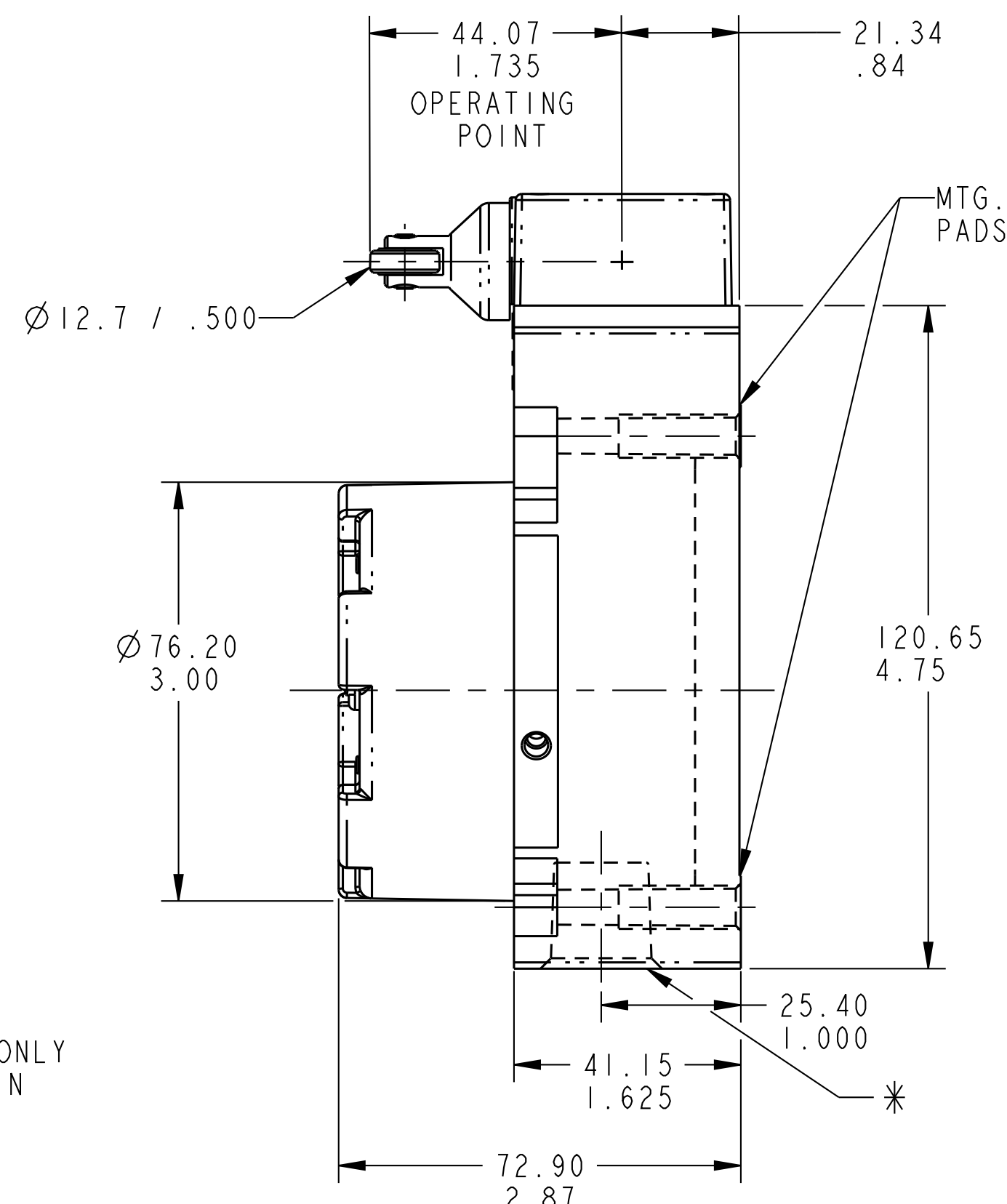
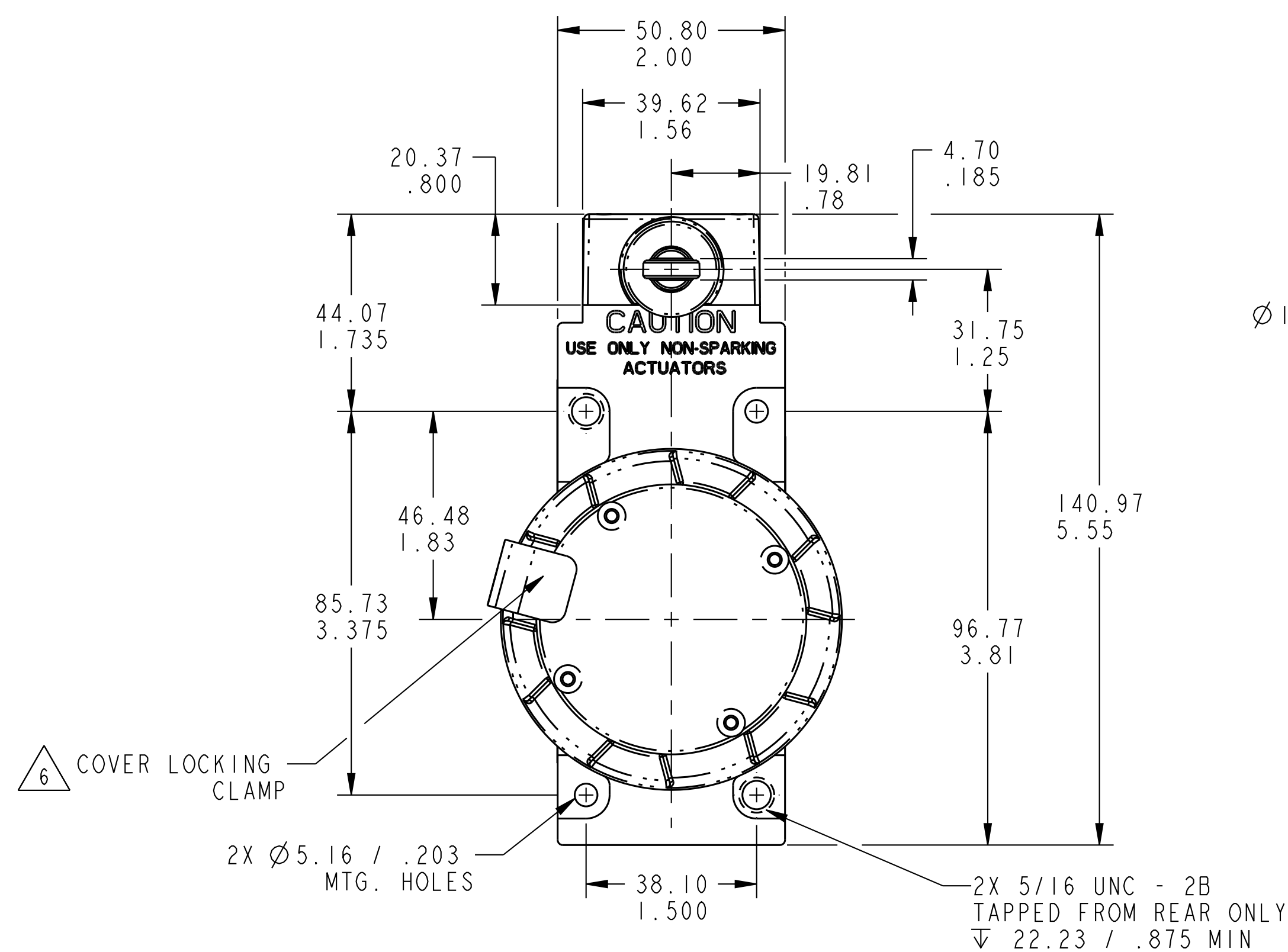


	SINGLE POLE	DOUBLE POLE
PRETRAVEL MAX	35°	35°
OVERTRAVEL MAX	100°	100°
DIFFERENTIAL TRAVEL MAX	8°	12°
OPERATING TORQUE MAX	.283 N/M 2.5 IN. LBS	.283 N/M 2.5 IN. LBS
TOTAL TRAVEL (REF)	135°	135°

OPERATING CHARACTERISTICS	BXA MOMENTARY		BXR MOMENTARY LOW TORQUE		BXN MAINTAINED	BXP MOMENTARY LOW PRETRAVEL & DIFFERENTIAL TRAVEL		BXH MOMENTARY LOW PRETRAVEL & LOW TORQUE		BXL SEQUENCE DOUBLE POLE ONLY	BXM CENTRAL NEUTRAL DOUBLE POLE ONLY
	SINGLE POLE 5°	DOUBLE POLE 7°	SINGLE POLE 5°	DOUBLE POLE 7°		SINGLE POLE 3°	DOUBLE POLE 4°	SINGLE POLE 3°	DOUBLE POLE 4°		
PRE-TRAVEL (MAX)	15°	15°	15°	15°	65°	9°	9°	9°	9°	1ST STEP 15° 2ND STEP 10° ADDITIONAL	18°
OVERTRAVEL (MIN)	60°	60°	60°	60°	20°	68°	68°	68°	68°	48°	57°
DIFFERENTIAL TRAVEL (MAX)					40°					5°	10°
TOTAL TRAVEL (REF)	75°	75°	75°	75°	90°	75°	75°	75°	75°	75°	75°
OPERATING TORQUE (MAX)	.454 N/M 4 IN. LBS	.454 N/M 4 IN. LBS	.193 N/M 4 IN. LBS	.193 N/M 4 IN. LBS	.454 N/M 4 IN. LBS	.454 N/M 4 IN. LBS	.454 N/M 4 IN. LBS	.193 N/M 1.7 IN. LBS	.193 N/M 1.7 IN. LBS	.454 N/M 4 IN. LBS	.454 N/M 4 IN. LBS
FULL TRAVEL TORQUE (MAX)	.454 N/M 4 IN. LBS	.454 N/M 4 IN. LBS	.193 N/M 4 IN. LBS	.193 N/M 4 IN. LBS	-	.454 N/M 4 IN. LBS	.454 N/M 4 IN. LBS	.193 N/M 1.7 IN. LBS	.193 N/M 1.7 IN. LBS	.454 N/M 4 IN. LBS	.454 N/M 4 IN. LBS



# SIDE PLUNGER



- \* TYPE BXF (3&7) 1/2 -14 NPT CONDUIT
- \* TYPE BXF (1&4) 3/4 - 14 NPT CONDUIT
- \* TYPE BX3F (1 THRU 4) PG 13.5 CONDUIT
- \* TYPE BX4F (1 THRU 4) 20 MM CONDUIT
- \* TYPE BX5F (1 THRU 4) PF 1/2 CONDUIT

- \* TYPE BXW (3&7) 1/2 -14 NPT CONDUIT
- \* TYPE BXW (1&4) 3/4 - 14 NPT CONDUIT
- \* TYPE BX3W (1 THRU 4) PG 13.5 CONDUIT
- \* TYPE BX4W (1 THRU 4) 20 MM CONDUIT
- \* TYPE BX5W (1 THRU 4) PF 1/2 CONDUIT

- \* TYPE BXE (3&7) 1/2 -14 NPT CONDUIT
- \* TYPE BXE (1&4) 3/4 - 14 NPT CONDUIT
- \* TYPE BX3E (1 THRU 4) PG 13.5 CONDUIT
- \* TYPE BX4E (1 THRU 4) 20 MM CONDUIT
- \* TYPE BX5E (1 THRU 4) PF 1/2 CONDUIT

OPERATING POINT GIVEN IN RELATION TO CENTER OF HEAD

## SIDE PLUNGER TYPES

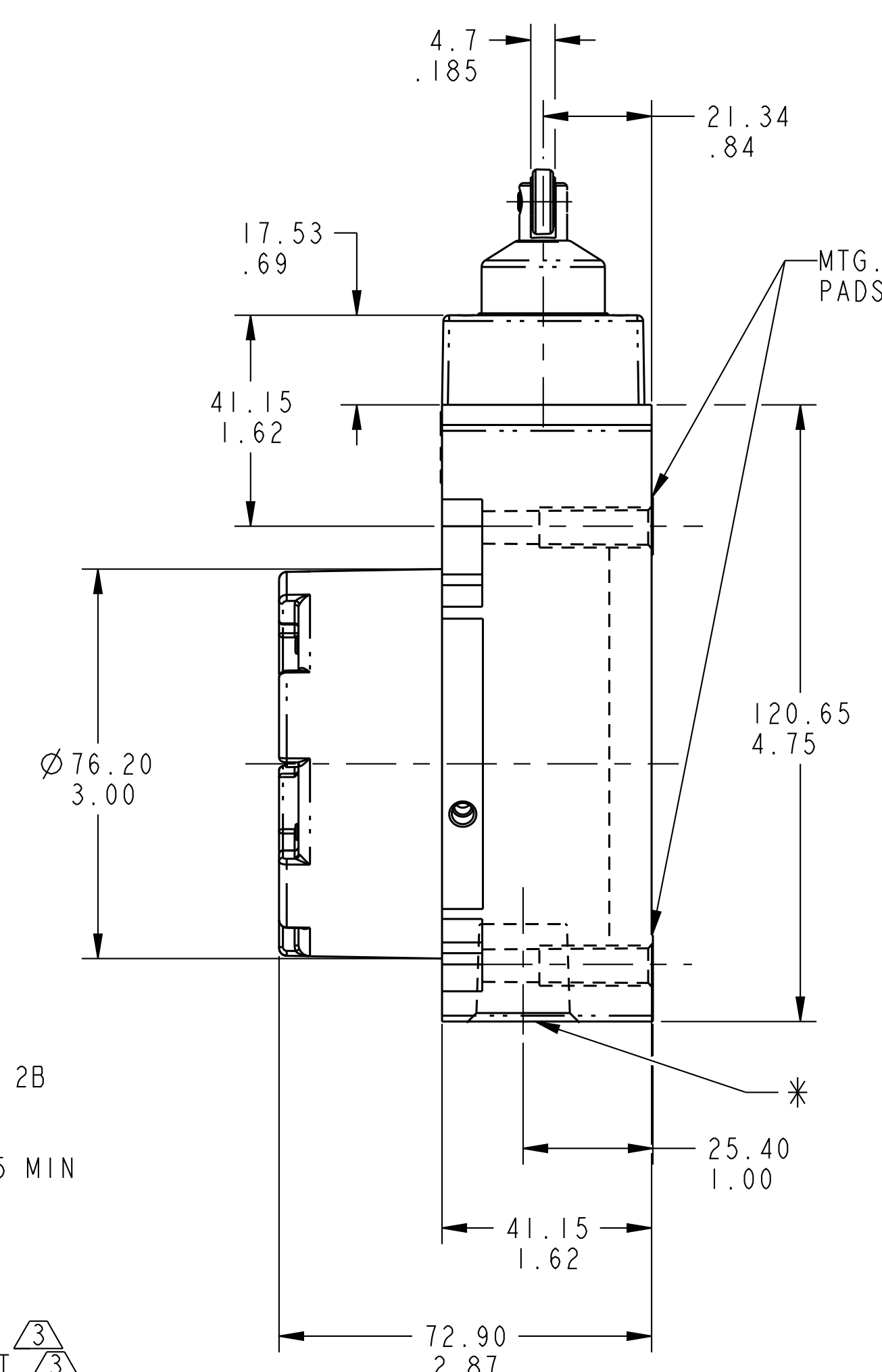
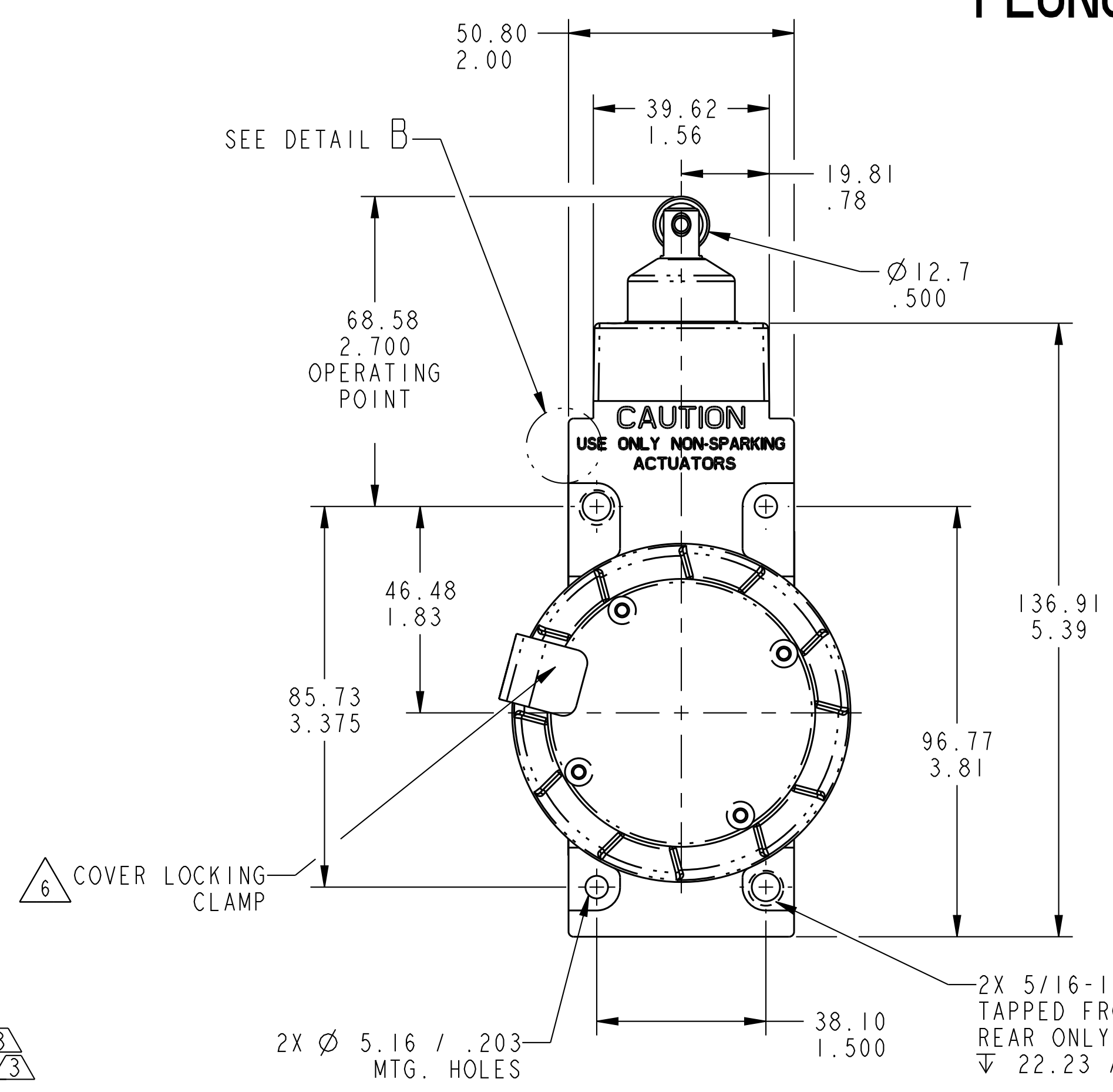
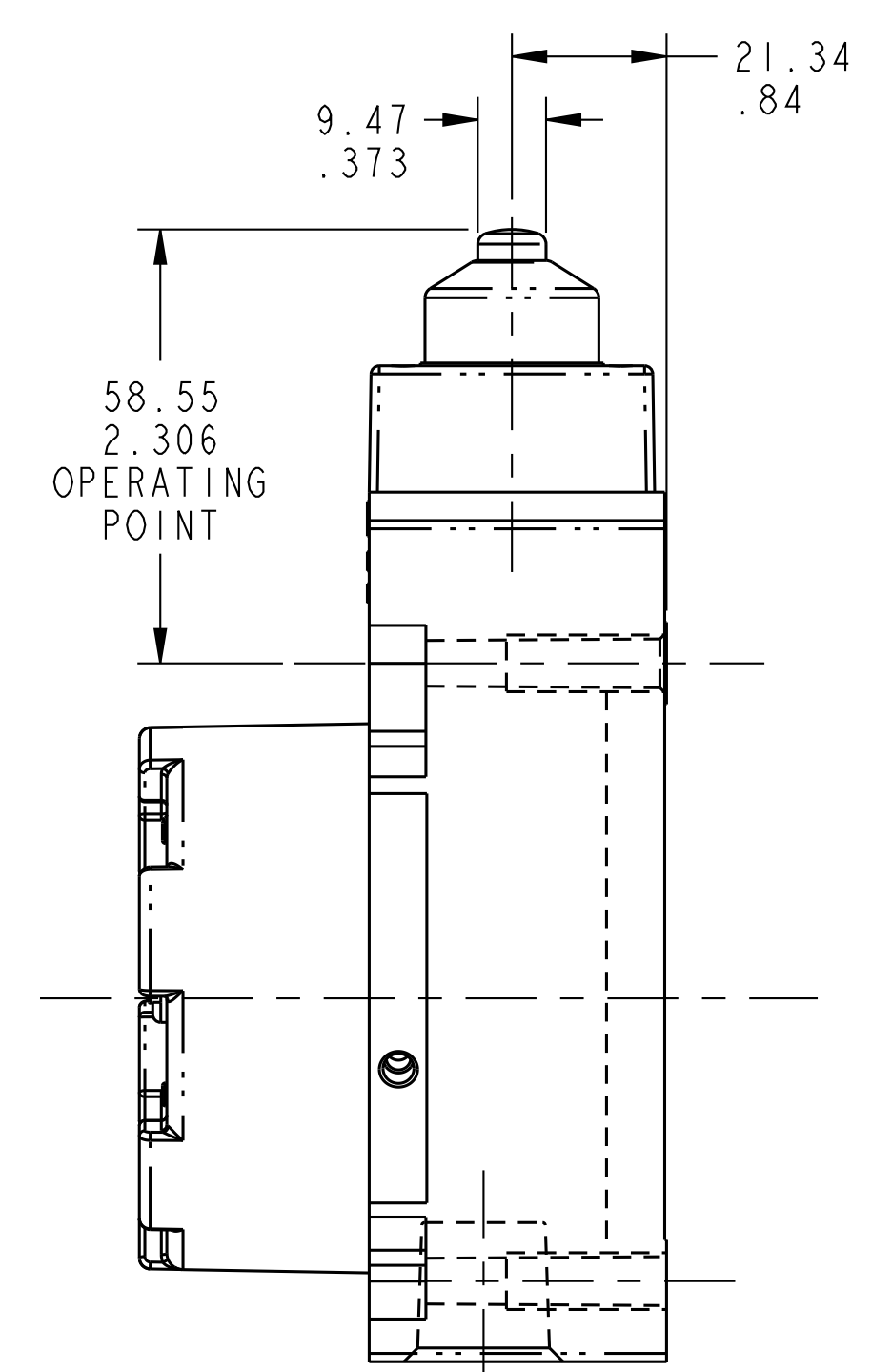
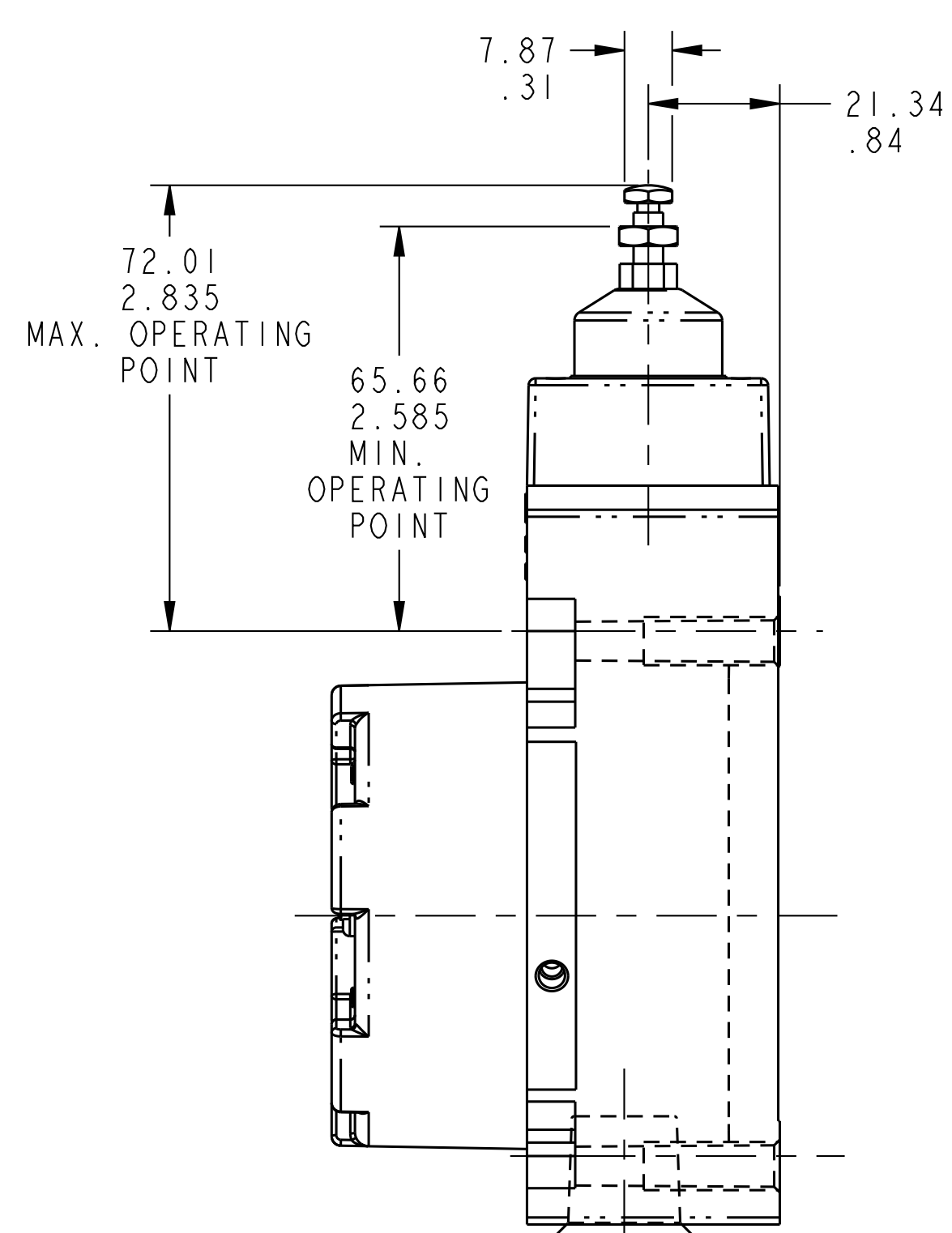
CHARACTERISTICS	BXE PLUNGER	BXF ROLLER PLUNGER	BXW ADJUSTABLE PLUNGER	SEQUENCE BASIC		
				BXE	BXF	BXW
PRE-TRAVEL (MAX)	2.54 / .100	2.54 / .100	2.54 / .100	1ST STEP 2.54 / .100 2ND STEP .51 / .020 MIN ADDITIONAL.		
DIFFERENTIAL TRAVEL (MAX)	1.14 / .045	1.14 / .045	1.14 / .045	.64 / .025 EACH STEP		
OVERTRAVEL (MIN)	4.83 / .190	4.83 / .190	4.83 / .190	4.32 / .170		
OPERATING FORCE (MAX)	26.79 N / 6 LBS	26.79 N / 6 LBS	26.79 N / 6 LBS	26.79 N 6 LBS		
OPERATING POINT	33.02 ± .76 / 1.300 ± .030	44.07 ± 1.02 / 1.735 ± .040	41.02 / 1.615 MIN 47.37 / 1.665 MAX	33.27 ± .76 / 1.310 ± .030	44.32 ± 1.02 / 1.745 ± .040	41.28 / 1.625 MIN. 47.63 / 1.875 MAX.
FULL OVERTRAVEL FORCE (MAX)	26.79 N / 6 LBS	26.79 N / 6 LBS	26.79 N / 6 LBS	26.79 N 6 LBS		

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**Honeywell**

SIZE	TYPE	CAGE CODE	DRAWING NAME	REV
D	I	-	BX SERIES CHART 1	14
SCALE 1:1				SHEET 4 OF 6

# PLUNGER TYPE TOP



\* TYPE BXV (3&7) 1/2 -14 NPT CONDUIT  
 TYPE BXV (1&4) 3/4 - 14 NPT CONDUIT  
 TYPE BX3V (1 THRU 4) PG 13.5 CONDUIT  
 TYPE BX4V (1 THRU 4) 20 MM CONDUIT  
 TYPE BX5V (1 THRU 4) PF 1/2 CONDUIT

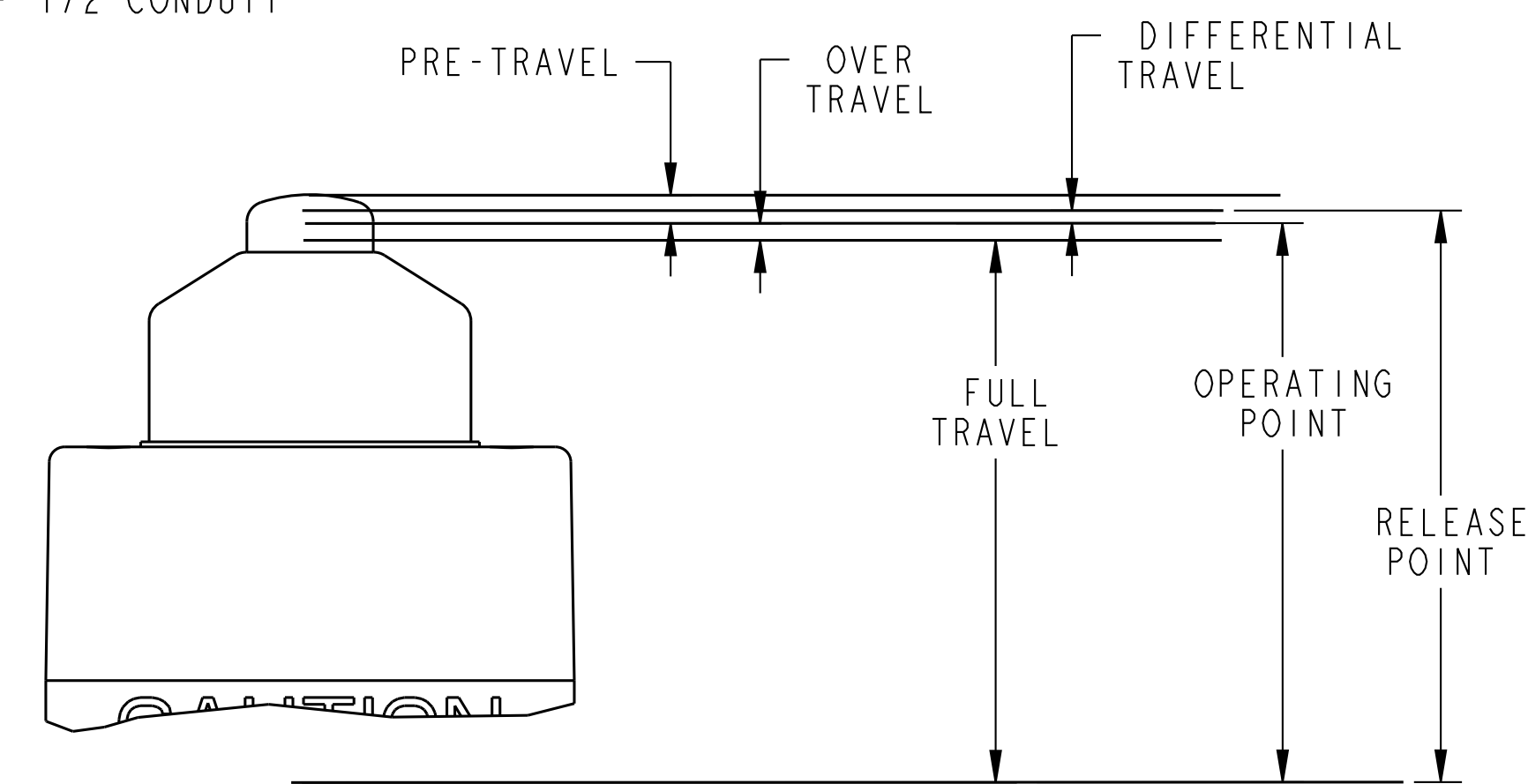
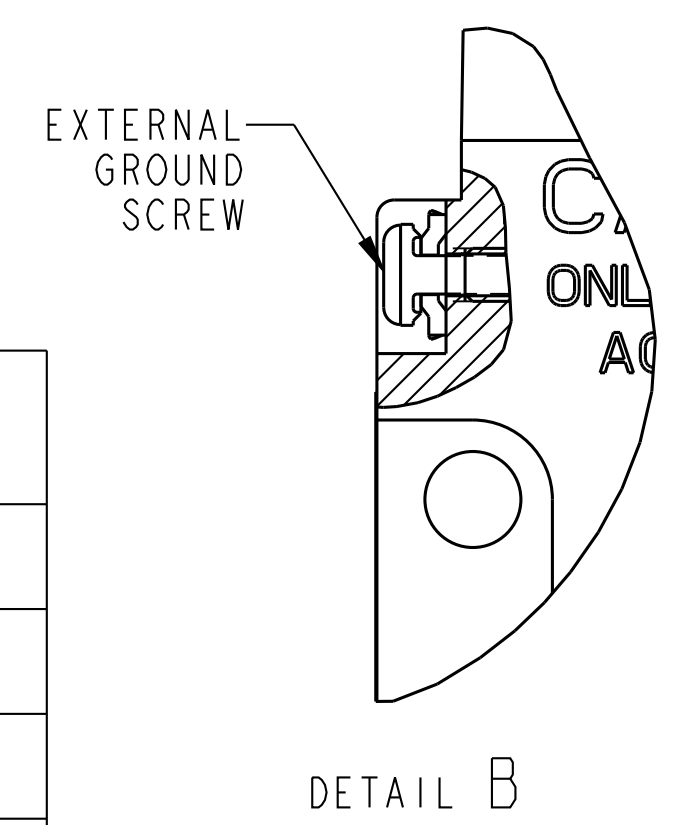
\* TYPE BX (C OR G) (3&7) 1/2 -14 NPT CONDUIT  
 TYPE BX (C OR G) (1&4) 3/4 - 14 NPT CONDUIT  
 TYPE BX3 (C OR G) (1 THRU 4) PG 13.5 CONDUIT  
 TYPE BX4 (C OR G) (1 THRU 4) 20 MM CONDUIT  
 TYPE BX5 (C OR G) (1 THRU 4) PF 1/2 CONDUIT

\* TYPE BXD (3&7) 1/2 -14 NPT CONDUIT  
 TYPE BXD (1&4) 3/4 - 14 NPT CONDUIT  
 TYPE BX3D (1 THRU 4) PG 13.5 CONDUIT  
 TYPE BX4D (1 THRU 4) 20 MM CONDUIT  
 TYPE BX5D (1 THRU 4) PF 1/2 CONDUIT

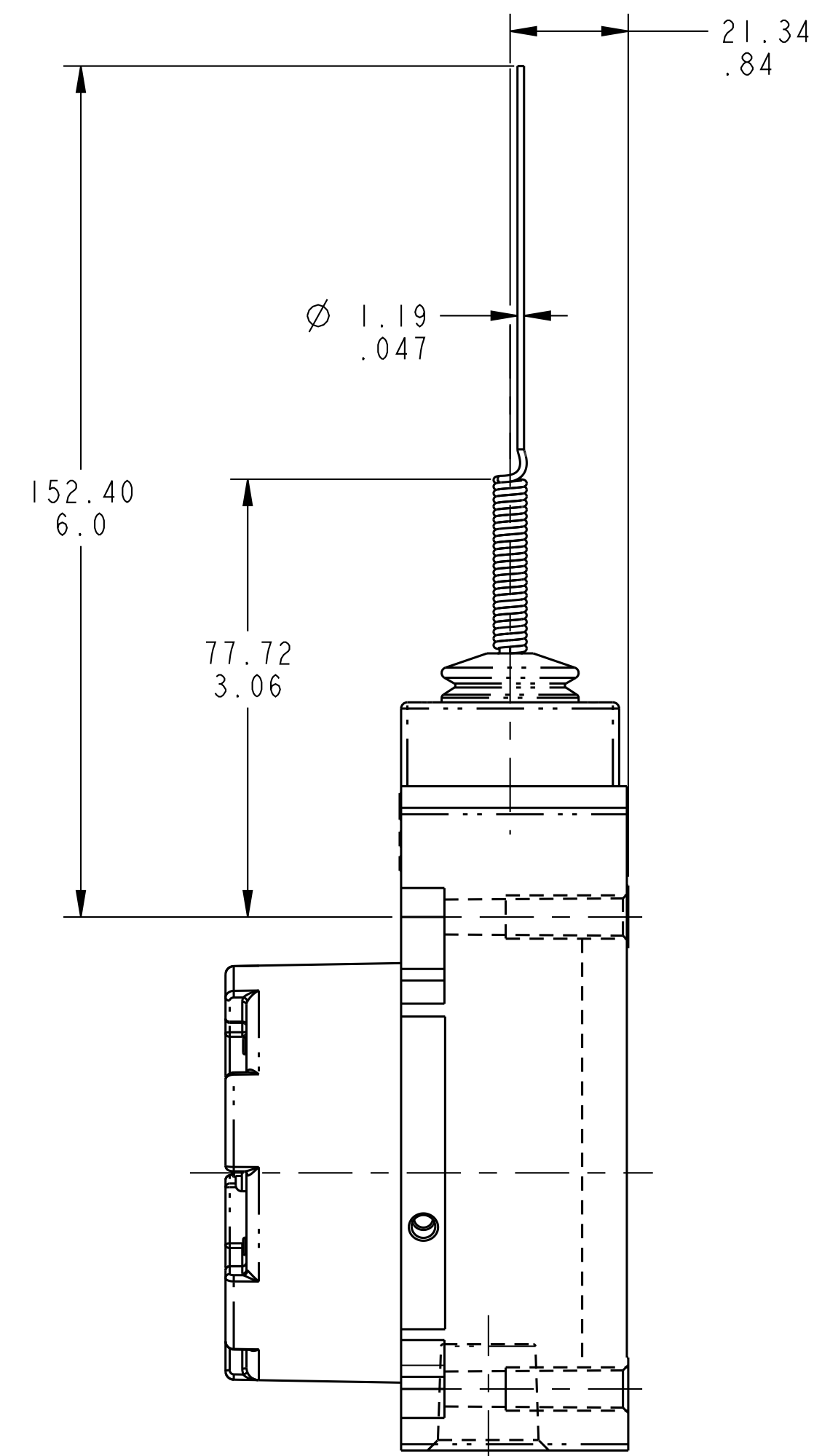
OPERATING POINT GIVEN  
 IN RELATION TO TOP MOUNTING HOLES

## TOP PLUNGER TYPES

CHARACTERISTICS	BXC PLUNGER		BXD ROLLER PLUNGER		BXV ADJUSTABLE PLUNGER		SEQUENCE BASIC		
	SINGLE POLE	DOUBLE POLE	SINGLE POLE	DOUBLE POLE	SINGLE POLE	DOUBLE POLE	BXC	BXD	BXV
PRETRAVEL (MAX)	1.79 / .070		1.79 / .070		1.79 / .070		1ST STEP 1.79 / .070 2ND STEP .41 / .015 MIN ADDITIONAL.		
DIFFERENTIAL TRAVEL (MAX)	.38 / .015	0.51 / .020	.38 / .015	.51 / .020			.38 / .01 EACH STEP		
OVERTRAVEL (MIN)	4.83 / .190		4.83 / .190		4.83 / .190		4.32 / .170		
OPERATING FORCE (MAX)	17.86 N / 4 LBS		17.86 N / 4 LBS		17.86 N / 4 LBS		17.86 N / 4 LBS		
OPERATING POINT	58.55 ± .76 / 2.305 ± .030		68.58 ± 1.02 / 2.700 ± .040		65.66 / 2.585 MIN 72.01 / 2.835 MAX		1ST STEP		
							46.10 ± .76 / 1.815 ± .030	56.13 ± 1.02 / 2.210 ± .040	59.56 / 2.345 MAX.
FULL OVERTRAVEL FORCE (MAX)	31.25 N / 7 LBS		31.25 N / 7 LBS		31.25 N / 7 LBS		31.25 N / 7 LBS		



### CAT WHISKER



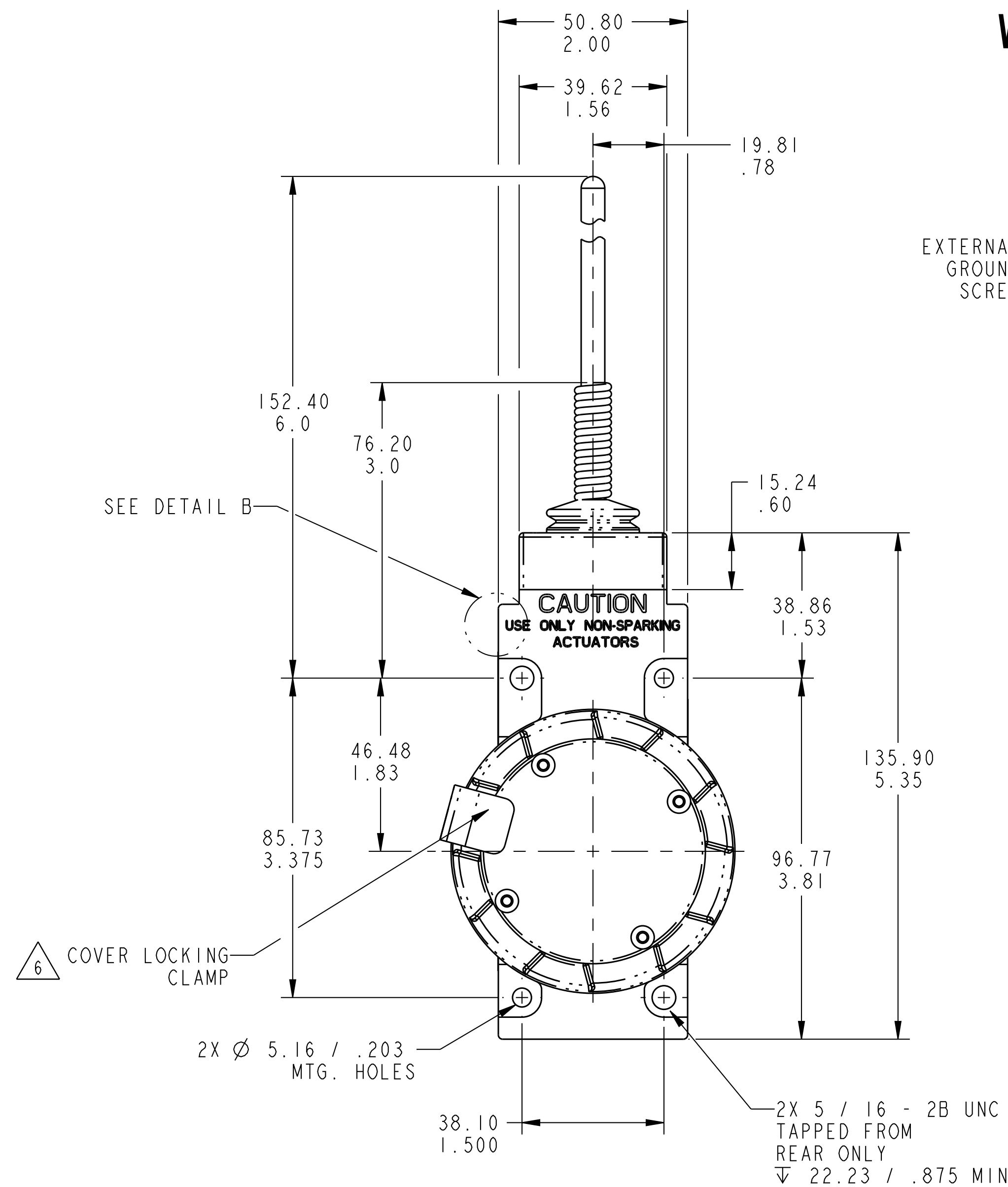
WIRE EXTENSION  
TYPE 8A ACTUATOR

TYPE BXK (3&7) 1/2 -14 NPT CONDUIT  $\frac{3}{3}$   
 TYPE BXK (1&4) 3/4 - 14 NPT CONDUIT  $\frac{3}{3}$   
 TYPE BX3K (1 THRU 4) PG 13.5 CONDUIT  
 TYPE BX4K (1 THRU 4) 20 MM CONDUIT  
 TYPE BX5K (1 THRU 4) PF 1/2 CONDUIT

REPLACEMENT ACTUATOR  
LSXZ4012

	CAT WHISKER	WOBBLE STICK
PRETRAVEL (APPROX) IN RADIUS	6 IN WIRE 50.80 2.0	ROD 25.40 1.0
OPERATING FORCE - OZ (MAX)	1.4 N 5.0	2.8 N 10.0

### WOBBLE STICK



PLASTIC EXTENSION  
TYPE 7A ACTUATOR

TYPE BXJ (3&7) 1/2 -14 NPT CONDUIT  $\frac{3}{3}$   
 TYPE BXJ (1&4) 3/4 - 14 NPT CONDUIT  $\frac{3}{3}$   
 TYPE BX3J (1 THRU 4) PG 13.5 CONDUIT  
 TYPE BX4J (1 THRU 4) 20 MM CONDUIT  
 TYPE BX5J (1 THRU 4) PF 1/2 CONDUIT

REPLACEMENT ACTUATOR  
LSZ4009

