

SUBMINIATURE BASIC SWITCHES

B2
BASIC
SWITCHES

SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS

Available in two widths, the B2 series can be specified to fit your application exactly.

In addition to being available with integral actuating levers as in the B2-5 series, the B2 series is also available with the A1 series auxiliary lever actuators as shown in the B3 section.

While the B2 series conforms to and is qualified to various military specifications, the same switch can be specified for commercial use at a cost savings.

A choice of turret, quick connect and three lengths of printed circuit board style terminals are available for both the 0.156" and 0.200" wide models.

Whether it be military or commercial applications, OTTO can provide features you select for your application. You can specify the features you require without paying for ones you don't need.

The OTTO B2 subminiature switches conform to and are qualified under MIL-PRF-8805/4, MIL-PRF-8805/106 (high temp -55°C to +205°C) and MIL-PRF-8805/109. Basic switches are designed for miniature spaces where cam or other limit actuators are used on the button. In addition, a full range of toggle, pushbutton and lever actuators are available.

Features:

- Choice of 0.156" & 0.200" wide models
- Up to 7 amps switching
- Sensitive movement differentials
- Low operating forces
- Choice of 8 terminal styles or wire leads
- Long operating life
- Qualified under MIL-PRF-8805/4, MIL-PRF-8805/106 & MIL-PRF-8805/109
- Momentary action
- UL recognized
- RoHS compliant

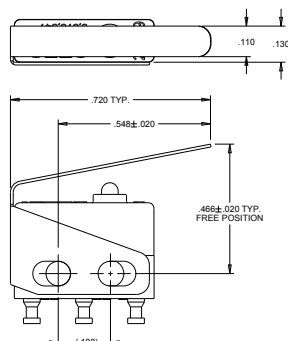
Auxiliary Lever Actuators for B2



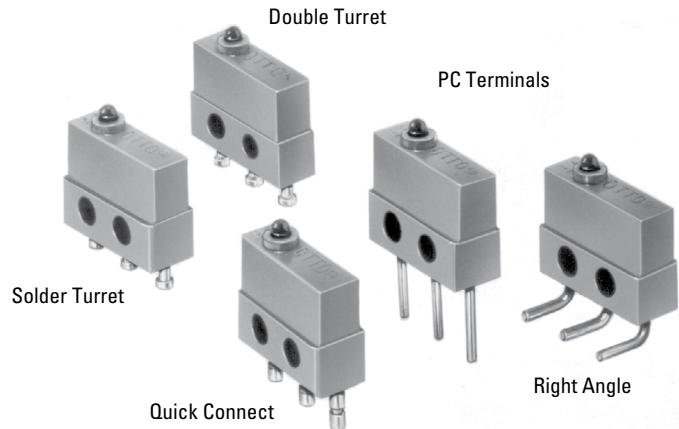
Catalog Number	Number of Poles
A1-115-01	1
A2-109	2

Supplied with two 2-56 panhead screws, hex nuts and lockwashers.

For additional options, contact factory.



A1-115-01 Shown

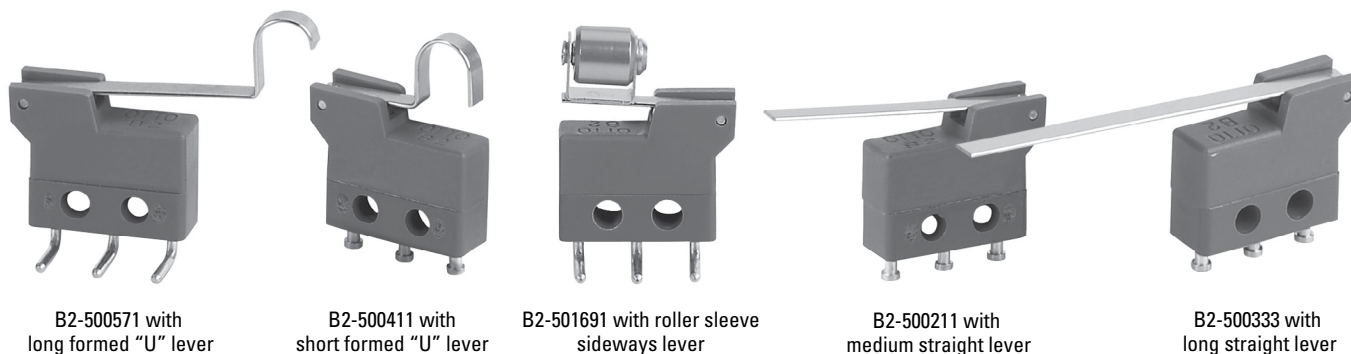


Standard Characteristics/Ratings:

ELECTRICAL RATINGS:

High Level Switch Ratings		
Load	Rating – Sea Level	Rating – 50,000 feet
115VAC, 60Hz silver contacts with gold plate		
Resistive	7A	N/A
Inductive	7A	N/A
Lamp	2A	N/A
28VDC, silver contacts with gold plate		
Resistive	7A	4A
Inductive	4A	2.5A
Lamp	2.5A	2.5A
Low Level Switch Ratings		
28VDC, gold plate contacts		
Resistive	1A	1A
Inductive	0.5A	0.5A
Lamp	N/A	N/A
DVV:	1000Vrms	400Vrms
Electrical Life:	25,000 to 100,000 cycles (dependent on part number)	
Mechanical Life:	50,000 to 250,000 cycles (dependent on part number)	
Seal:	Unsealed	
Operating Temp Range:	-55°C to +85°C, high temp rating -55°C to +205°C	
Operating Force:	5 oz or 6 oz	
Release Force:	1 oz min	
Operate Point:	0.320 +/- 0.015 inches from mounting holes	
Overtravel:	0.004 inches min	
Movement Differential:	0.006 inches max	
Pretravel:	0.020 inches max	
MATERIALS:		
Case:	Thermoset, blue	
Cover:	Thermoplastic, blue	
Button:	Thermoplastic, black	
Terminals:	Brass, gold over nickel	
Contacts:	Stationary: Silver with gold Moveable: Silver or gold	
Terminal Hardware:	None provided	
Optional Wires:	24 AWG blue, red, yellow	
Mounting Hardware:	None provided	

SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS, INTEGRAL LEVERS



B2-500571 with
long formed "U" lever

B2-500411 with
short formed "U" lever

B2-501691 with roller sleeve
sideways lever

B2-500211 with
medium straight lever

B2-500333 with
long straight lever

B2-5 Integral Lever Basic Switches

B2-5 series basic switches feature integral actuating levers. The lever is built-in so that the switch and actuator are one assembly.

Making the lever actuator an integral part of the basic switch case makes sense and saves money, too. Better precision, no auxiliary parts for you to assemble, and more variety add up to a cost saving proposition.

Lever Style	Catalog Number	STANDARD OPERATIONAL CHARACTERISTICS					
		Operating Force (max ounces)	Release Force (min ounces)	Pretravel (max inches)	Overtravel (min inches)	Move't Differ'l (max inches)	Operating Point (inches)
Short Lever	B2-500111	1.76	0.32	0.065	0.014	0.020	0.330 +/- 0.045
Medium Lever	B2-500211	1.10	0.18	0.115	0.025	0.035	0.330 +/- 0.045
Long Lever	B2-500311	0.71	0.11	0.185	0.046	0.060	0.330 +/- 0.045
Short Formed "U" Lever	B2-500411	2.10	0.39	0.050	0.010	0.015	0.553 +/- 0.035
Long Formed "U" Lever	B2-500511	1.10	0.18	0.105	0.022	0.035	0.572 +/- 0.070
Short "V" Lever	B2-501211	3.00	0.57	0.042	0.010	0.010	0.419 +/- 0.030
Roller Sleeve Sideways	B2-501611	2.29	0.43	0.065	0.008	0.020	0.560 +/- 0.045
Short "L" Lever	B2-501711	3.00	0.57	0.036	0.008	0.009	0.411 +/- 0.028
Short Flat "V" Lever	B2-501811	2.20	0.40	0.049	0.010	0.015	0.421 +/- 0.037
Roller Lever in Line	B2-501911	2.29	0.43	0.070	0.008	0.020	0.559 +/- 0.050
Long Roller Lever in Line	B2-502011	1.00	0.17	0.125	0.020	0.040	0.552 +/- 0.100

B2-5 PART NUMBER CODE

B2-5	X X X	X	X
Lever Style	Terminal Style or Wire Length	Contact Material	
001. Short Straight	1. Single Solder Turret	A. With Wires 06.0" lg.	1. Silver/Gold - High Current
002. Medium Straight	2. Double Solder Turret	B. With Wires 12.0" lg.	3. Silver/Gold - Low Current
003. Long Straight	3. Quick Connect*	C. With Wires 18.0" lg.	
004. Short Formed "U"	4. PC Pin 0.150" lg.	D. With Wires 24.0" lg.	
005. Long Formed "U"	5. PC Pin 0.270" lg.	E. With Wires 30.0" lg.	
012. Short "V"	6. PC Pin 0.090" lg.		
016. Roller Sleeve Sideways	7. Right Angle PC Pin		
017. Short "L"	9. Right Angle**		
018. Short Flat "V"			
019. Roller Lever in Line			
020. Long Roller Lever in Line			

* Mates with AMP .058" receptacles

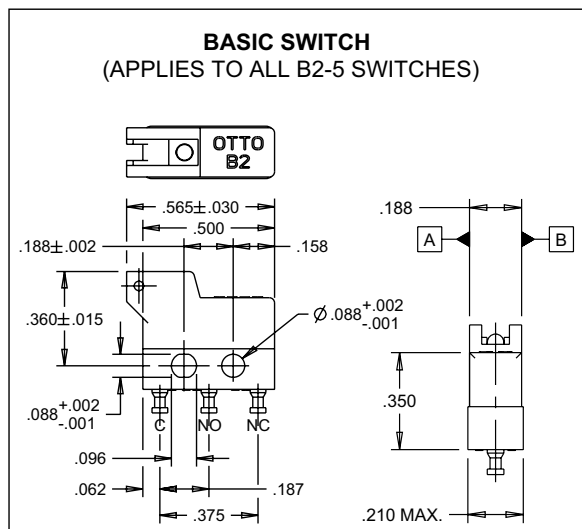
** Opposite of 7

B2 BASICS WITH INTEGRAL LEVERS

B2-5
BASIC
SWITCHES

BASIC SWITCHES

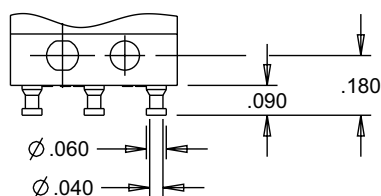
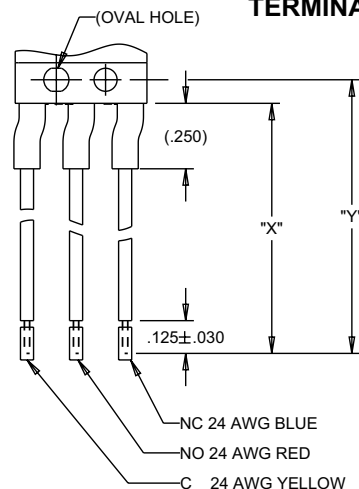
SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS, INTEGRAL LEVERS



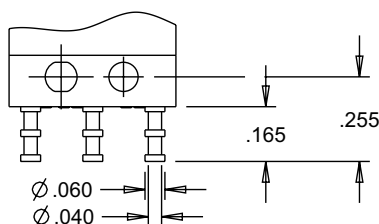
TERMINAL STYLES AND WIRE LENGTHS

WIRE LENGTH FOR A, B, C, D & E

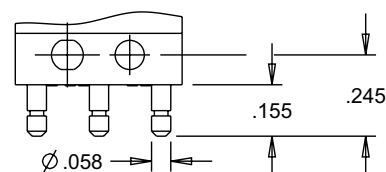
WIRE LENGTH CODE	DIM. "X"	DIM. "Y"
A	06.00±.38	06.09±.38
B	12.00±.50	12.09±.50
C	18.00±.50	18.09±.50
D	24.00±.50	24.09±.50
E	30.00±.75	30.09±.75



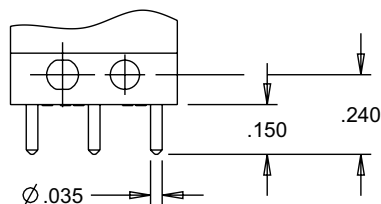
TERMINAL STYLE 1
SINGLE SOLDER TURRET



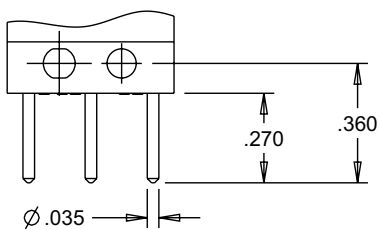
TERMINAL STYLE 2
DOUBLE SOLDER TURRET



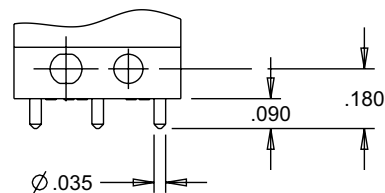
TERMINAL STYLE 3
QUICK CONNECT
MATES WITH AMP .058 INCH RECEPTACLES



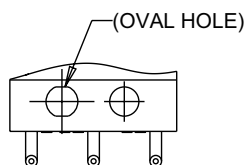
TERMINAL STYLE 4
PRINTED CIRCUIT PIN 0.150" LONG



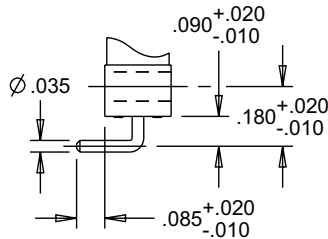
TERMINAL STYLE 5
PRINTED CIRCUIT PIN 0.270" LONG



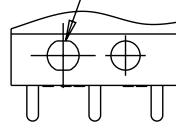
TERMINAL STYLE 6
PRINTED CIRCUIT PIN 0.090" LONG



TERMINAL STYLE 7
RIGHT ANGLE PRINTED CIRCUIT PIN



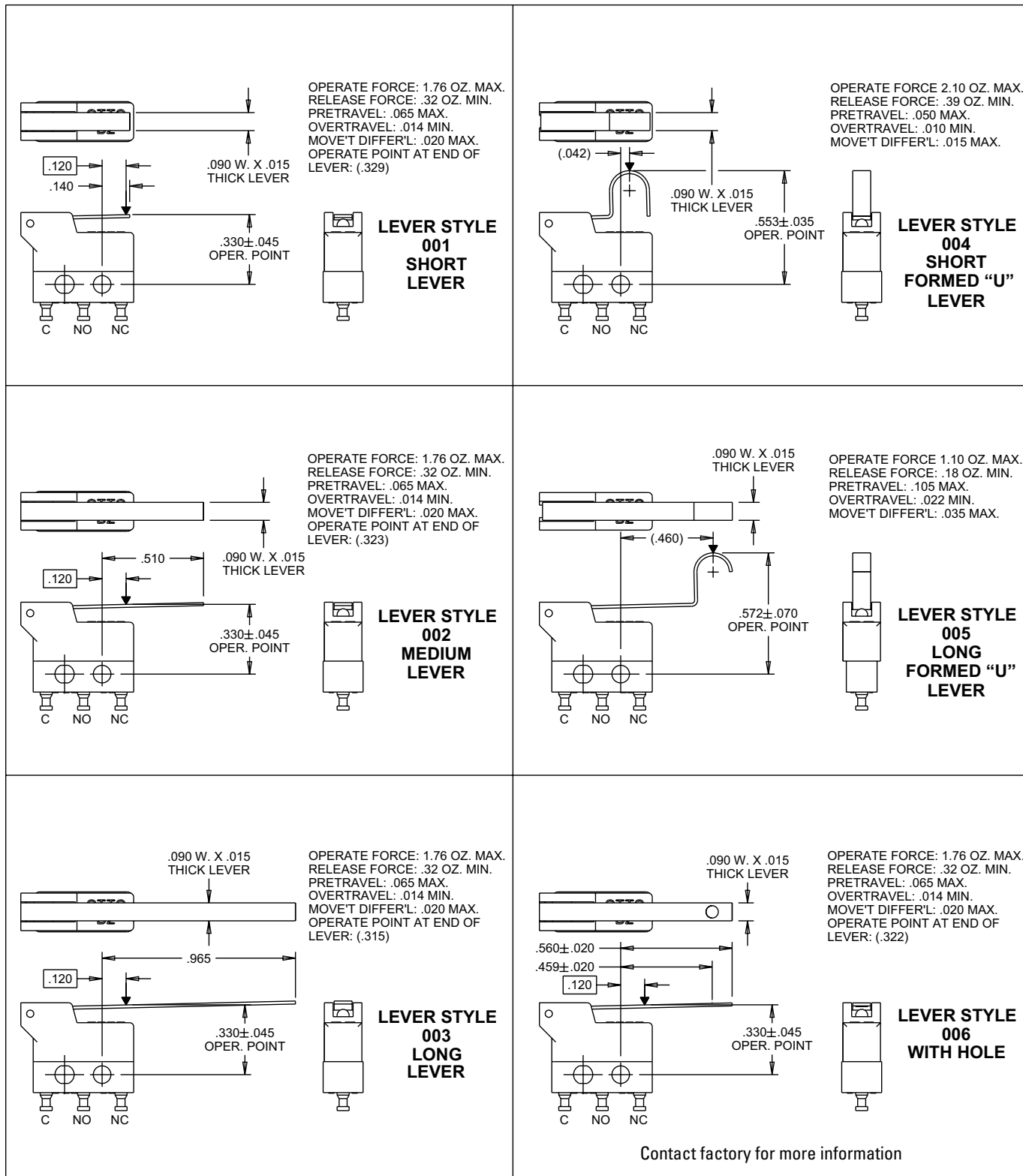
(OVAL HOLE)



TERMINAL STYLE 9
RIGHT ANGLE, OPPOSITE OF 7

SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS, INTEGRAL LEVERS

B2-5 LEVER STYLES

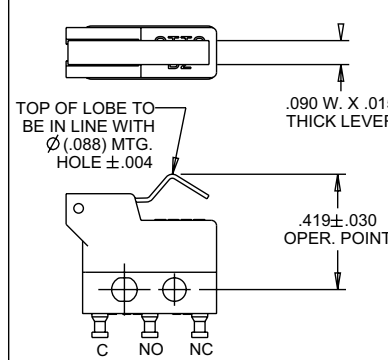
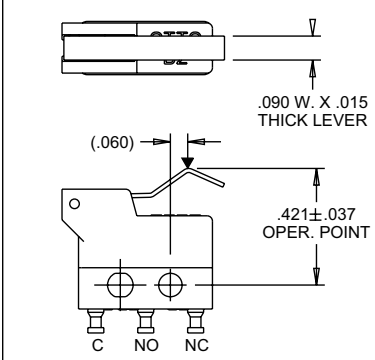
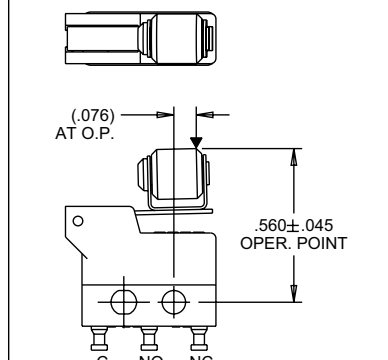
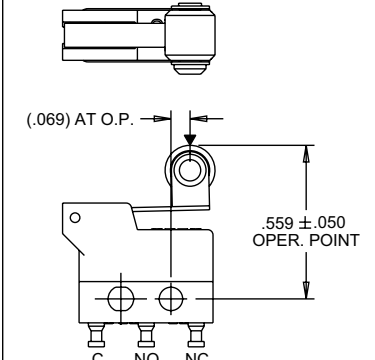
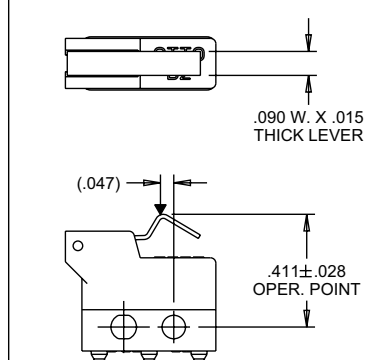
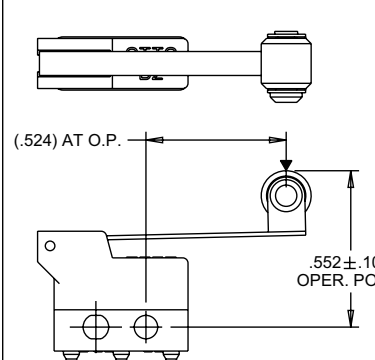


B2 BASICS WITH INTEGRAL LEVERS

B2-5
BASIC
SWITCHES

SINGLE BREAK, SNAP-ACTION, COMMERCIAL & MILITARY GRADES, SUBMINIATURE, TWO WIDTHS, INTEGRAL LEVERS

B2-5 LEVER STYLES

 TOP OF LOBE TO BE IN LINE WITH $\varnothing$ (.088) MTG. HOLE $\pm$.004 .090 W. X .015 THICK LEVER .419 $\pm$.030 OPER. POINT C NO NC LEVER STYLE 012 SHORT "V" OPERATE FORCE: 3.00 OZ. MAX. RELEASE FORCE: .57 OZ. MIN. PRETRAVEL: .042 MAX. OVERTRAVEL: .010 MIN. MOVE'T DIFFER'L: .010 MAX.	 .090 W. X .015 THICK LEVER .421 $\pm$.037 OPER. POINT C NO NC LEVER STYLE 018 SHORT FLAT "V" OPERATE FORCE 2.20 OZ. MAX. RELEASE FORCE: .40 OZ. MIN. PRETRAVEL: .049 MAX. OVERTRAVEL: .010 MIN. MOVE'T DIFFER'L: .015 MAX.
 .076 AT O.P. .560 $\pm$.045 OPER. POINT C NO NC LEVER STYLE 016 ROLLER SLEEVE SIDWAYS OPERATE FORCE: 2.29 OZ. MAX. RELEASE FORCE: .43 OZ. MIN. PRETRAVEL: .065 MAX. OVERTRAVEL: .008 MIN. MOVE'T DIFFER'L: .020 MAX. $\varnothing$.188 $\pm$.015 ALUM. ALLOY ROLLER	 .069 AT O.P. .559 $\pm$.050 OPER. POINT C NO NC LEVER STYLE 019 ROLLER LEVER IN LINE OPERATE FORCE 2.29 OZ. MAX. RELEASE FORCE: .43 OZ. MIN. PRETRAVEL: .070 MAX. OVERTRAVEL: .008 MIN. MOVE'T DIFFER'L: .020 MAX. $\varnothing$.188 $\pm$.015 ALUM. ALLOY ROLLER
 .090 W. X .015 THICK LEVER .411 $\pm$.028 OPER. POINT C NO NC LEVER STYLE 017 SHORT "L" OPERATE FORCE: 3.00 OZ. MAX. RELEASE FORCE: .57 OZ. MIN. PRETRAVEL: .036 MAX. OVERTRAVEL: .008 MIN. MOVE'T DIFFER'L: .009 MAX.	 .524 AT O.P. .552 $\pm$.100 OPER. POINT C NO NC LEVER STYLE 020 LONG ROLLER LEVER IN LINE OPERATE FORCE: 1.00 OZ. MAX. RELEASE FORCE: .17 OZ. MIN. PRETRAVEL: .125 MAX. OVERTRAVEL: .020 MIN. MOVE'T DIFFER'L: .040 MAX. $\varnothing$.188 $\pm$.015 ALUM. ALLOY ROLLER

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