



### LSM7N



Series HDLS Non Plug-in: Side Rotary;  
2NC 2NO DPDT Center Neutral; 0.5 in -  
14NPT conduit

**Order Lever Separately**

*Actual product appearance may vary.*

#### Features

- Wide variety of operating heads
- Field adjustable operating modes, for reduced inventory
- Convenience of on-the-spot adjustment instructions
- Complete choice of circuitry and electrical rating options
- Plug-in and non plug-in versions have identical operating characteristics and are dimensionally interchangeable
- Manifold (rear-wire) version
- Explosion-proof versions
- Low temperature versions to -40°C (-40°F)
- Captive head and body screws
- Designed to withstand seismic shock
- Stainless steel (NEMA 4X) versions
- Pre-leaded cable or pre-wired connector types
- Epoxy filled wash down (NEMA 6P) types
- Completely fluorocarbon (FC) sealed versions

#### Description

#### Potential Applications

- Machine Tools
- Material Handling
- Packaging
- Presses
- Pulp and Paper
- Welding
- PLC Interface

Sensing and Control offers the world's most advanced line of MICRO SWITCH™ heavy-duty limit switches. These switches include boss-and-socket head design for secure head-to-body retention, unique all-metal drive train for consistent operating characteristics even at high temperature (lasts longer without the need for frequent adjustment than drive trains with plastic parts,) self-lifting pressure plate terminals save wiring time, easily identified grounding terminal (inside) for compliance with OSHA and other regulatory agency standards, one piece flat gasket (seals better than gaskets that go around curves and corners, does not contact terminal pins to reduce chances of fluid migration,) front mounting and interchangeability of single- and double-pole switches, plug-in and non plug-in with one another and with other switch brands, tracking interchangeability of actuator levers for single- and double-pole switches, plug-in and non plug-in, twin shaft seals for an extra measure of protection, inner FC O-ring seal, outer Buna-N seal (all FC available,) FC shaft and diaphragm seals on side rotary switches, rugged corrosion-resistant zinc head and body are phosphate treated and epoxy finished, exclusive teller tab assures proper torque (when it cannot be moved the lever is tight enough to prevent slippage) and domestic and international conduit taps.

Product Specifications	
Availability	Global
Operating Force (O.F.)	0,45 N m max. [4 in lb max.]
Pretravel (P.T.)	18° max.
Overtravel (O.T.)	57° min.
Differential Travel (D.T.)	10° max.
Product Type	MICRO SWITCH™ Heavy-Duty Limit Switches
Actuator	Side Rotary
Lever Style	Lever Not Included - Reference Lever Required Accessory
Circuitry	2NC 2NO Double-Pole Double-Throw, Center-Neutral, Snap-Action, Double-Break
Ampere Rating	10 A (Thermal)
Supply Voltage	600 Vac and 250 Vdc max.
Housing Material	Zinc Die-Cast
Termination Type	0.5 in - 14NPT conduit
Housing Type	HDLS Non Plug-in
Series Name	HDLS
Sealing	NEMA 1, 3, 4, 4X, 6, 6P, 12, 13
Approvals	UL listed, CSA Certified, CE Certified, CCC Certified
CSA File #	LR57326/Master Contract 152457
UL File #	E37138
Operating Temperature Range	-1 °C to 121 °C [30 °F to 250 °F]
Comment	SPDT-DB each direction (Pole 1 operates CCW / Pole 2 operates CW);
Agency Approvals and Standards	EN60947-1, EN60947-5-1
UNSPSC Code	302119
UNSPSC Commodity	302119 Switches and controls and relays

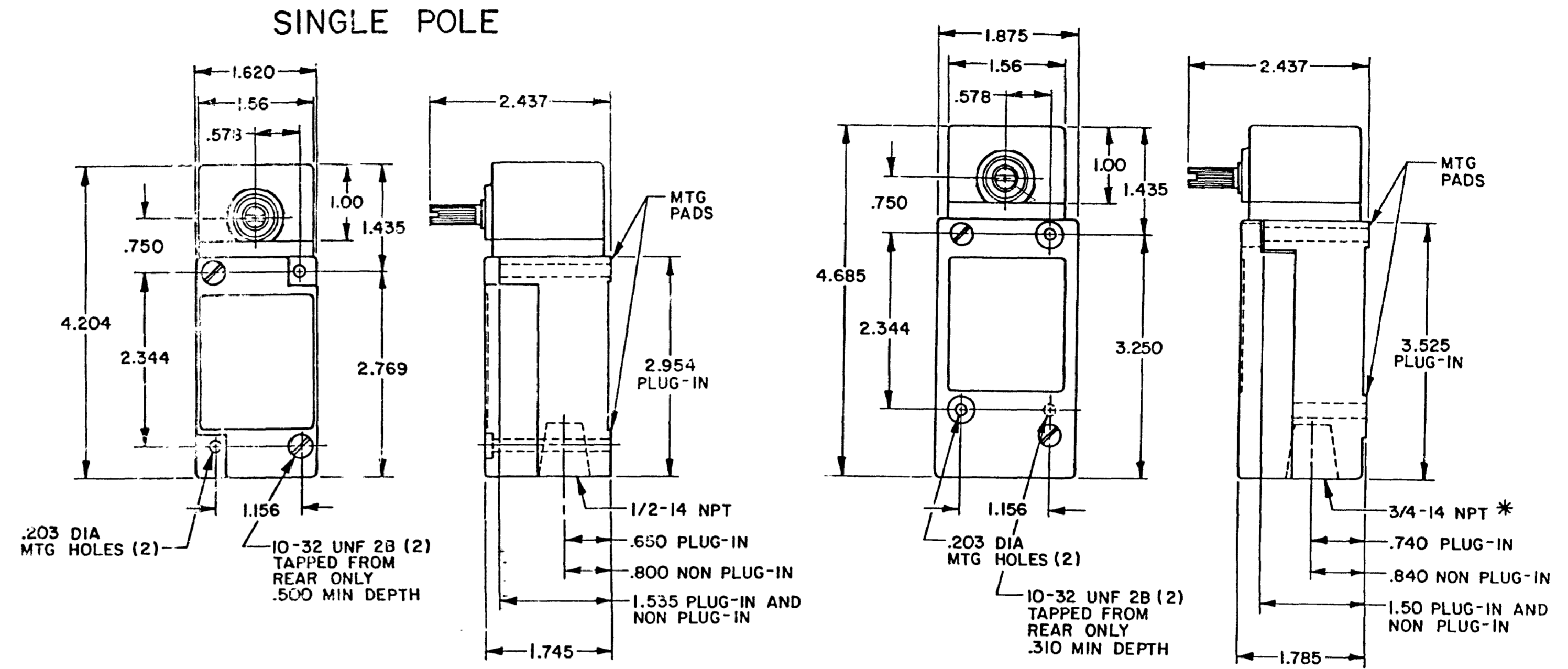
Sealed

Industrial

---

OPERATING CHARACTERISTICS	LSA		LSR		LSN	LSP		LSH	
	MOMENTARY		MOMENTARY LOW TORQUE		MAINTAINED	MOMENTARY LOW PRETRAVEL AND DIFF. TRAVEL		MOMENTARY LOW PRETRAVEL AND LOW TORQUE	
PRETRAVEL(MAX)	15°		15°		15°	9°		9°	
OVERTRAVEL(MIN)	60°		60°		20°	66°		66°	
DIFFERENTIAL TRAVEL(MAX)	SINGLE POLE	DOUBLE POLE	SINGLE POLE	DOUBLE POLE	40°	SINGLE POLE	DOUBLE POLE	SINGLE POLE	DOUBLE POLE
	5°	7°	5°	7°		3°	4°	3°	4°
TOTAL TRAVEL (REF)	75°		75°		90°	75°		75°	
OPERATING TORQUE(MAX)	4 IN. LBS		1.7 IN. LBS		4 IN. LBS	4 IN. LBS		1.7 IN. LBS	
FULL TRAVEL TORQUE(MAX)	4 IN. LBS		1.7 IN. LBS			4 IN. LBS		1.7 IN. LBS	
OPERATING CHARACTERISTICS	LSU		LSL		LSM	LSI	LSS		
	LOW PRETRAVEL		SEQUENCE DOUBLE POLE ONLY		CENTER NEUTRAL DOUBLE POLE ONLY	MOMENTARY	GRAVITY RETURN		
PRETRAVEL(MAX)	5°		1ST STEP 15° 2ND STEP 10° ADD'L		18°	15°	NOT APPLICABLE		
OVERTRAVEL(MIN)	70°		48°		57°	60°	NOT APPLICABLE		
DIFFERENTIAL TRAVEL(MAX)	SINGLE POLE	DOUBLE POLE			10°	5°	12°		
	5°	4°							
TOTAL TRAVEL (REF)	75°		75°		75°	75°	360°		
OPERATING TORQUE(MAX)	4 IN. LBS		4 IN. LBS		4 IN. LBS	12 IN-OZ	5 IN-OZ		
FULL TRAVEL TORQUE(MAX)	4 IN. LBS		4 IN. LBS		4 IN. LBS	12 IN-OZ	5 IN-OZ		

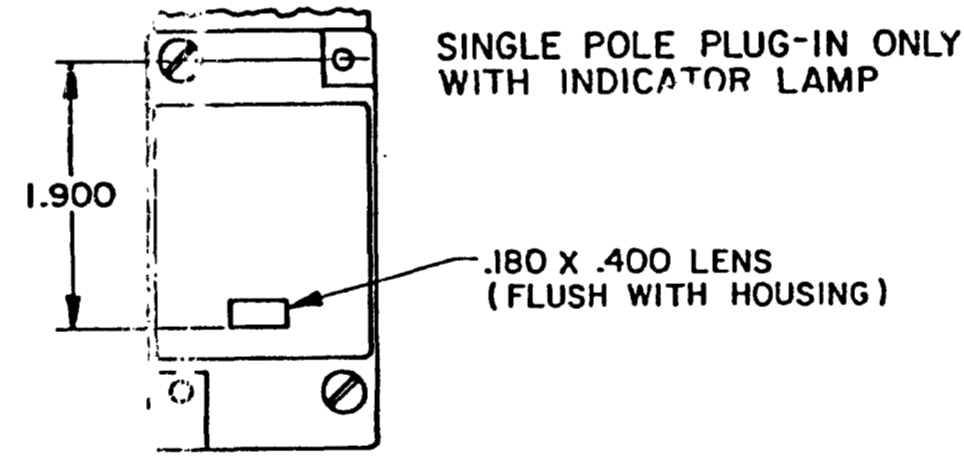
SIDE ROTARY



TYPE: LSA1, LSH1, LSN1, LSP1, LSR1  
LSA3, LSH3, LSN3, LSP3, LSR3  
LSS1, LST1

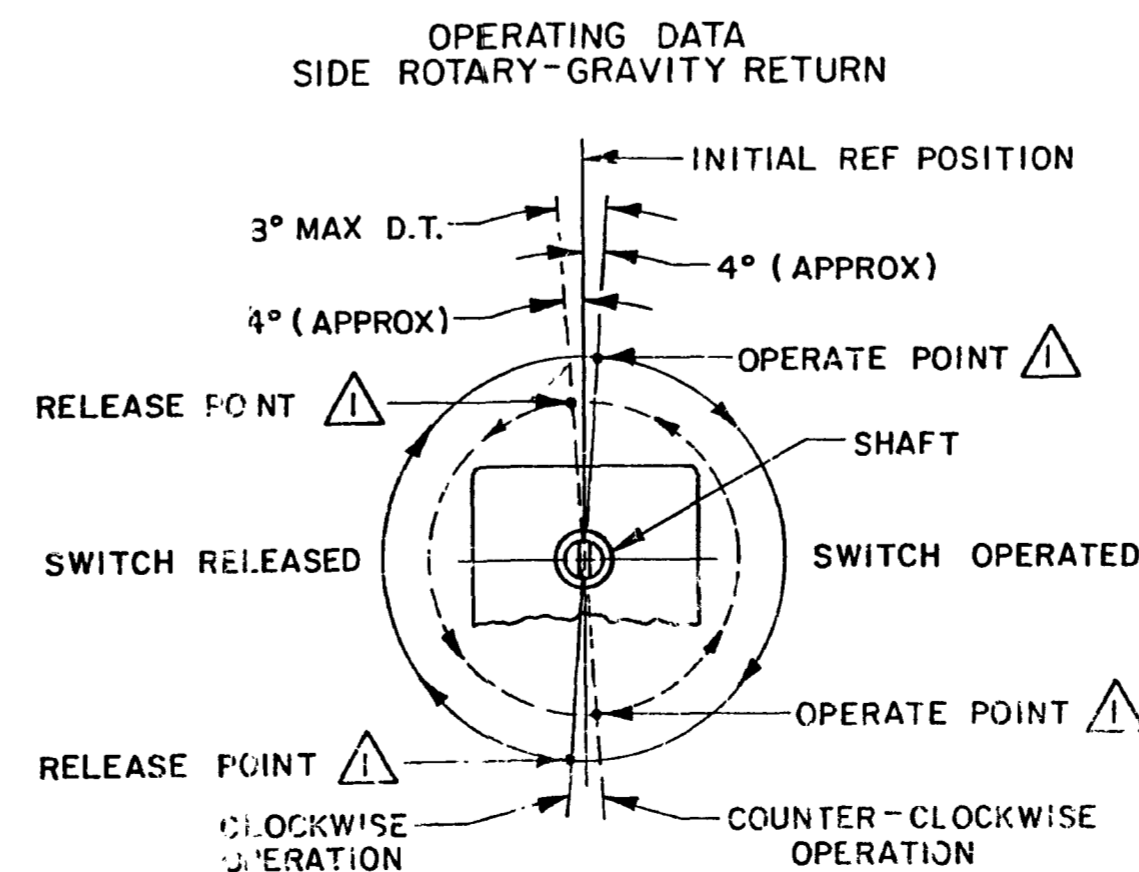
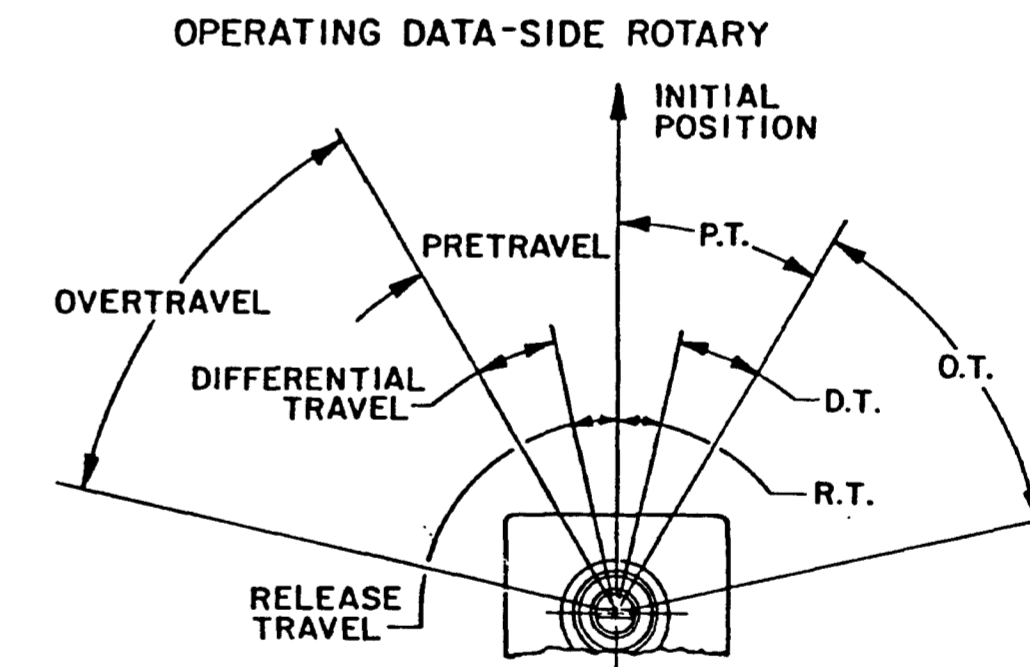
TYPE: LSA2, LSH2, LSM2, LSN2, LSP2, LSR2  
LSA4, LSH4, LSM4, LSN4, LSP4, LSR4

\*LSA6, LSH6, LSM6, LSN6, LSP6, LSR6  
LSA7, LSH7, LSM7, LSN7, LSP7, LSR7 HAVE  
1/2-14 NPT CONDUIT HOLE



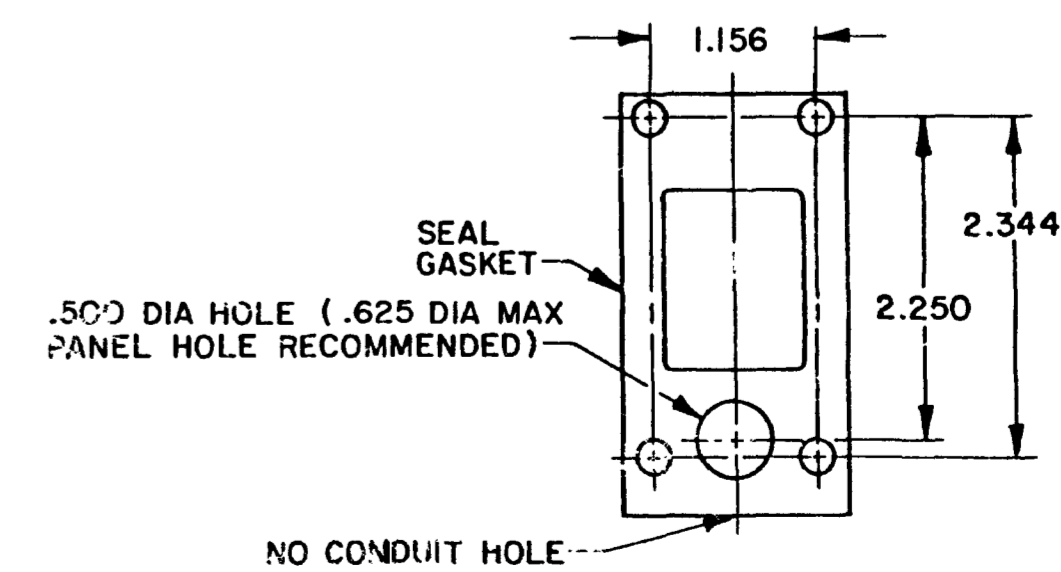
120 LAMP VOLTAGE -  
TYPE LSA5, LSH5, LSN5, LSP5, LSR5

240 LAMP VOLTAGE -  
TYPE LSA8, LSH8, LSN8, LSP8, LSR8



NOTE  
OPERATE AND RELEASE POINTS WILL EXCHANGE LOCATIONS IF SHAFT IS ROTATED 180°

MANIFOLD MOUNT (PLUG-IN ONLY)  
SINGLE POLE AND DOUBLE POLE  
TYPE LSA THROUGH LSW SERIES



THIRD ANGLE PROJECTION

SCALE NONE

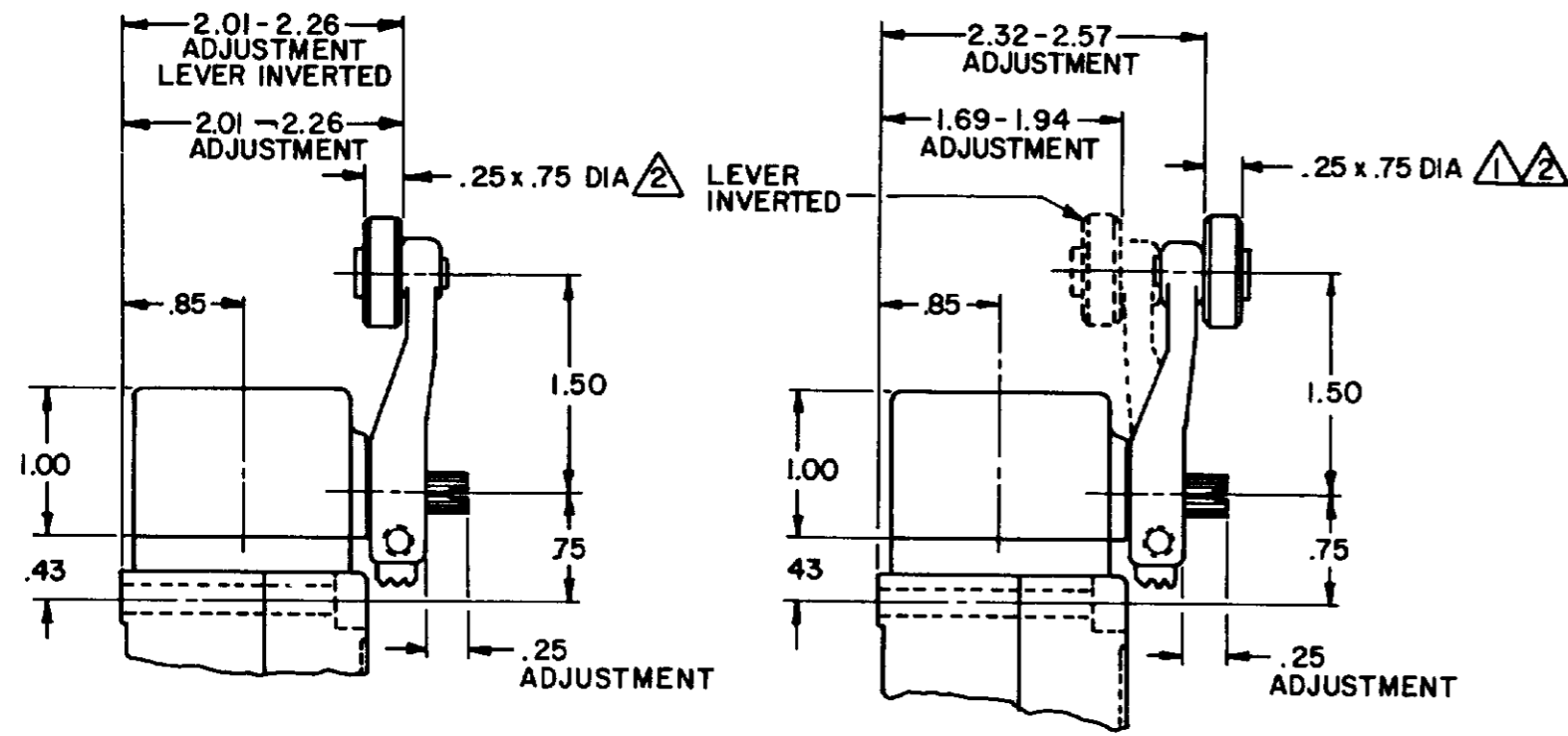
DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

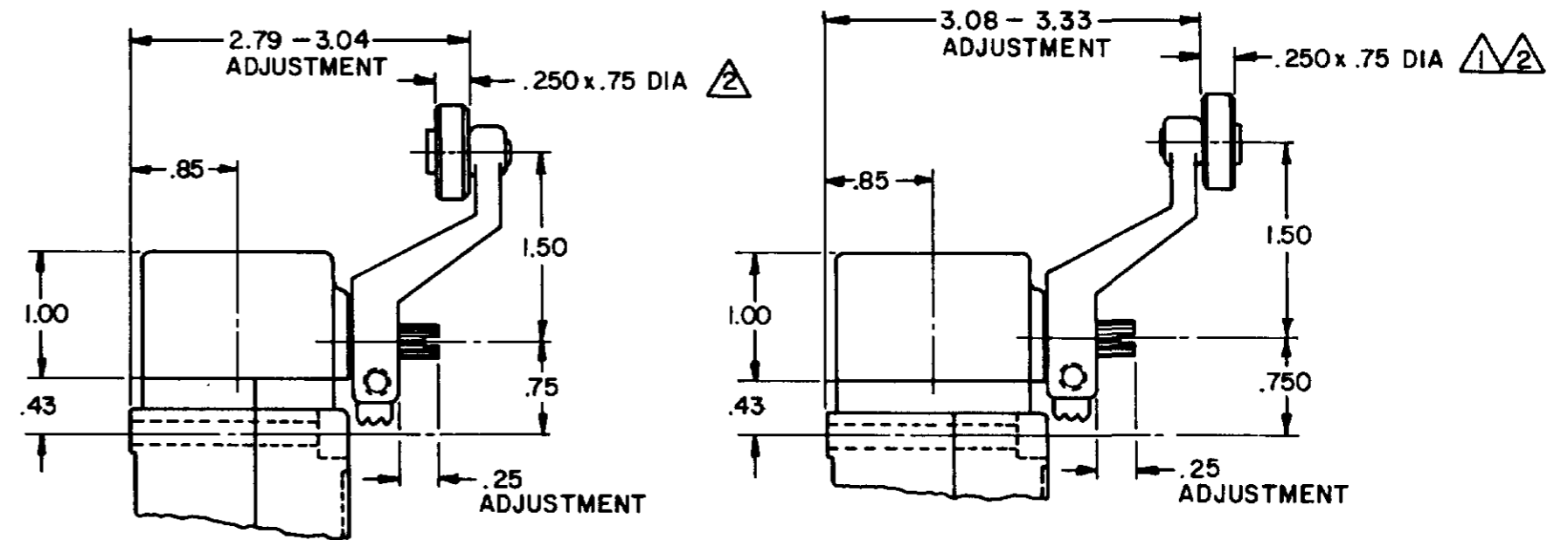
ONE PLACE (.0)	±.030
TWO PLACES (.00)	±.015
THREE PLACES (.000)	±.005
ANGLES	±
WEIGHT	

CATALOG LISTING LSA-LSW SERIES CHART 1  
PAGE 1 OF 10  
PSR 1001007 RELEASE NO CO-78498  
REV. 11AUG64  
REVISIONS  
L 0031958  
M 1001007  
B 201004  
C 201748  
D 202198  
E 204871  
F 206551  
G 206763  
H 207179  
J 207474  
K 207803  
L 0068974  
MAM 15 JUN 94  
RASTER DRAWN  
11AUG64

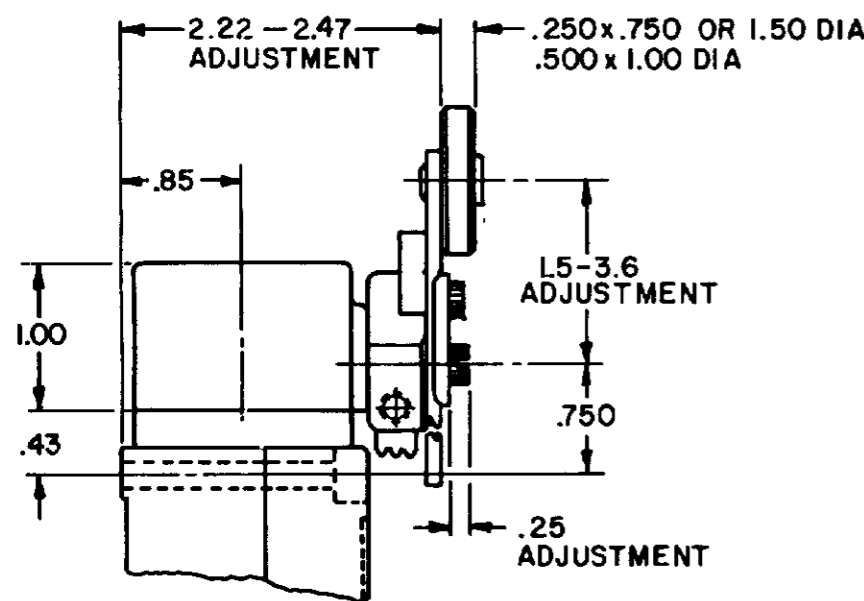
SIDE ROTARY CAM TRACKING



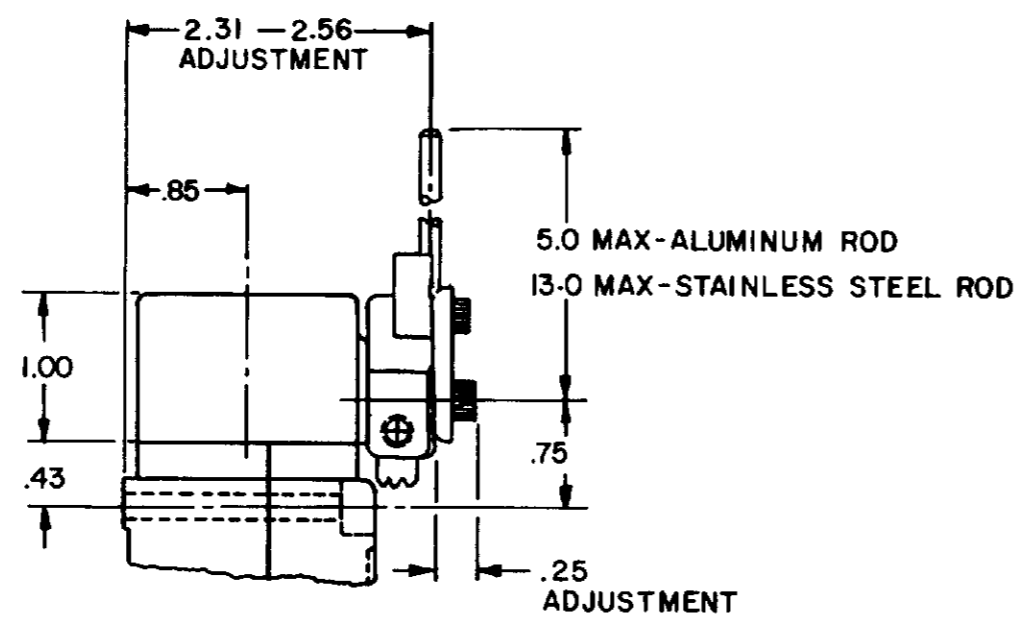
LSZ51 TYPE LEVERS



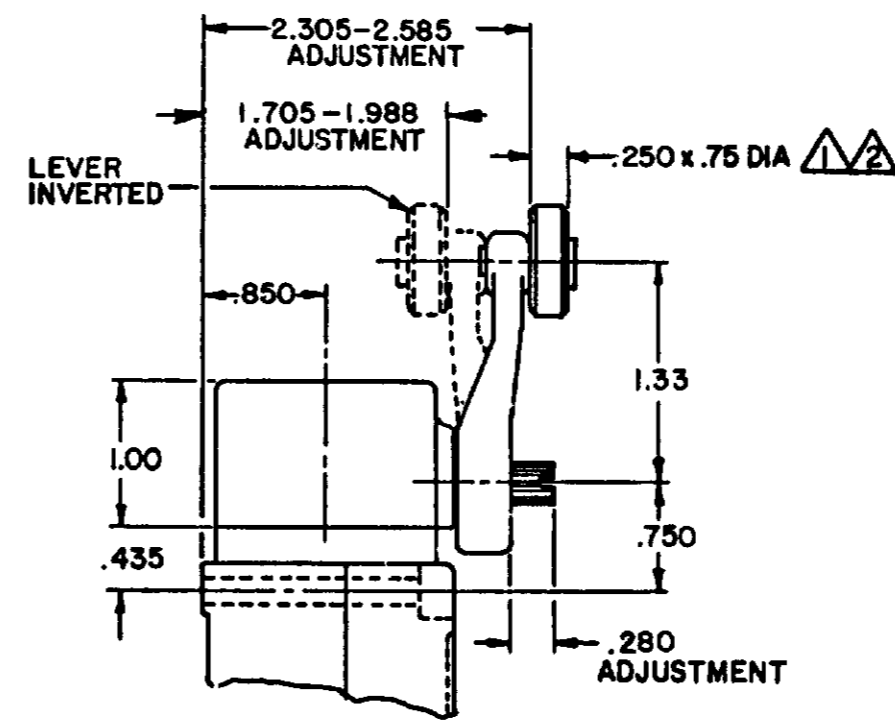
LSZ55 TYPE LEVERS



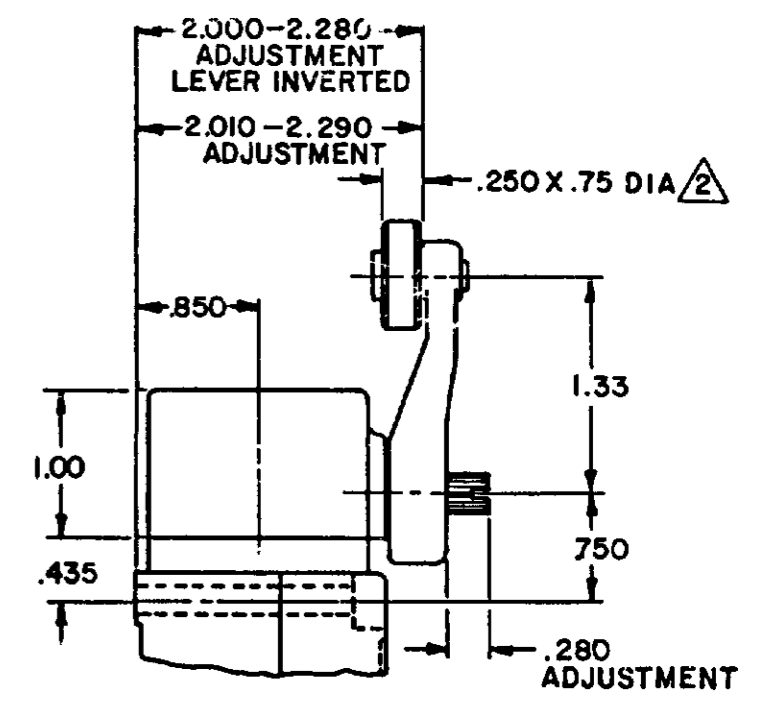
LSZ52 TYPE LEVER



LSZ54 TYPE LEVER



OPEN MOUNTED ROLLER



CLOSED MOUNTED ROLLER

LSZ59 TYPE LEVERS

NOTES

- 1 ALSO AVAILABLE IN Ø.250 X 1.500 NYLON, BUT LEVER CANNOT BE INVERTED
- 2 FOR ADDITIONAL ROLLER WIDTHS AND/OR DIAMETERS REFER TO "M" DRAWING
- 3 - FOR ADDITIONAL TYPES OF ROLLERS AND LEVERS REFER TO LSZ CHART 1 "M" DRAWING

CATALOG LISTING LSA-LSW SERIES CHART 1 PAGE 2 OF 10  
 ISSUE 12  
 REVISIONS  
 L 0031956  
 BS 10 JUL 07  
 B 201004  
 C SL 10 AUG 00  
 C 201748  
 C SL 17 NOV 00  
 D 202198  
 C SL 23 JAN 01  
 E 204871  
 C SL FEB 02  
 F 206581  
 GLH 14 OCT 02  
 G 206763  
 C SL 31 OCT 02  
 H 207179  
 GLH 14 JAN 03  
 J 207474  
 SLH 18 FEB 03  
 K 0006871  
 RR 118004  
 DRAWN MAM 15 JUN 94  
 CHECK JAF 11 JUL 94  
 PSR 10 JUL 07  
 RELEASE NO. CO-78498  
 REPLACES LSA-LSW SERIES

THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF MICRO SWITCH, A DIVISION OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF MICRO SWITCH.		THIRD ANGLE PROJECTION 
MICRO SWITCH a Honeywell Division		SCALE NONE DO NOT SCALE PRINT UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: ONE PLACE (0) ±.030 TWO PLACES (00) ±.015 THREE PLACES (0.000) ±.005 ANGLES ± WEIGHT
SWITCH - ENCLOSED	LSA-LSW SERIES CHART 1	PAGE 2 OF 10 CATALOG LISTING