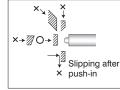
METROL Precision Limit Switches

Low Contact Force Limit Switches: CSFN / CS / CSJ

Features

- 0.1N and 0.5N contact force
- + 5 micron (µm) and 10 micron (µm) repeat accuracy
- Stainless steel housing
- Metal bearing
- Straight-touch and straight needle touch available



Low Contact Force

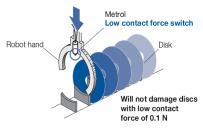
Straight Touch

O indicates correct target approach and orientation.

X indicates approach and orientation that should be avoided.

CSFN105A-H6X must be mounted downward

Detects presence of HDD discs



Low Contact Force Limit Switches Selection Chart										
Part Number	Price	Drawing Link	Actuator/ Head Type*	Barrel Type	Barrel Diameter/Thread*	Stroke	Switching Output	Contact Force	Connection Type	
Low Contact Force, Metal Bearing, Downward Mounting Only										
<u>CSFN105A-H6X</u>	\$46.00	<u>PDF</u>	Ø 2mm plunger [0.079 in] SR 1.5 mm [0.059 in]	Threaded	M10x0.5	2mm [0.079in]	NPN, N.O.	0.1N	3m [9.8 ft] cable	
Low Contact Force, Straight Touch, Metal Bearing										
<u>CS067A-LG</u>	\$61.00	PDF	Ø 2mm plunger [0.079 in] SR 1.5 mm [0.059 in]	Threaded	M6x0.75	2.8mm [0.110in]	(1) N.O.	0.5N	3m [9.8 ft] cable	
ow Contact Force, Straight Touch, Needle Contact										
<u>CSJ055A-CG</u>	\$53.00	<u>PDF</u>	needle plunger Ø 1.5mm flat [0.059 in]	Threaded	M5x0.5	2.8mm [0.110in]	(1) N.O.	0.5N	3m [9.8 ft] cable	

Ø = diameter, SR = surface radius

* Must be mounted in a downward direction



CSFN105A-H6X



CS067A-LG



CSJ055A-CG

1-800-633-0405

METROL Precision Limit Switches

Low Contact Force Limit Switches Specifications								
Series	CSFN Metal Bearing	CS Custom Metal Bearing	CSJ Custom Needle Contact					
Environmental								
Degree of Protection	IP40	IP65						
Temperature Range	Operating: 0 to 60°C [32 to 140°F] (Ice-free) Operating: 0 to 80°C [32 to 176°F] (Ice-free)							
Mechanical Ratings								
Enclosure Material	Stainless Steel (mounting nuts are Ni-plated brass)							
Pretravel	0.4 mm [0.016 in]	0.3 mm [0.012 in]						
Torque (for nuts on threaded barrels, set screws on smooth barrels)	4 N•m [2.95 lb•ft]	2 N•m [1.48 lb•ft]	N/A					
Vibration	10–55Hz total amplitude 1.5 for X, Y, Z each direction							
Shock	300 m/s ² for X, Y, Z each direction							
Repeat Accuracy	0.01 mm (10 micron [µm]) * 0.005 mm (5 micron [µm]) *							
Recommended Minimum Operating Speed	50mm (1.96in)/minute							
Electrical Ratings								
Contact Life	10 million operations							
Contact Voltage	12–24VDC 5–24VDC		VDC					
Steady Current Rating	10mA or less							
Max In-rush Current Rating	10mA (limit current to protect LED indicator)							
Connection Type	Cable: 3m PVC (polyvinyl chloride) Cable: 3m PVC (polyvinyl chloride) oil resistant Ø4/3 cores, 30AWG oil resistant Ø2.8/2 cores, 26AWG Tensile strength 30N, Tensile strength 30N minimum bending R7 minimum bending R7		/2 cores, 26AWG ength 30N					
Indicating	-L: LED indicator (mounted in cable 120mm from the switch)							

* At operating speed 50-200 mm/minute. Operating speed slower than 10 mm (0.393 in)/min is not recommended.

Circuit Diagrams

