ENCLOSED LIMIT SWITCHES SN9 SERIES

Features

- Compact and rugged Aluminum housing
- Large wiring enclosure
- High precision switch
- High repeatability of switching point
- Long service life
- Large breaking power
- Conduit opening available in:
  M20: suffix -C
  1/2NPT: suffix -A

Definitions of Operating Characteristics

OF	Operating Force	PT	Pretravel
RF	Releasing Force	MD	Movement Differential
OT	Overtravel	OP	Operating Position
TT	Total Travel	PO	Travel to Positive Opening

Specifications

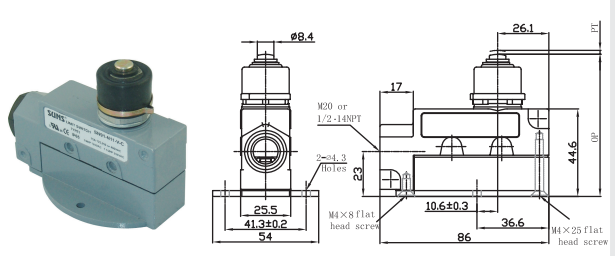
Operating Speed	0.02mm-0.5m/sec
Operating Frequency	Mechanical: 120ops/min Electrical: 20 ops/min
Insulation Resistance	>100MΩ@500V DC
Contact Resistance	<25mΩ (initial value)
Rated Current/Voltage (UL file E321073)	SN9D/SN9Y 10A 125/250VAC,2A 480VAC,1/2HP 125/250VAC SN9S 15A, 1/2HP 125/250VAC
Dielectric Strength	1000VAC for 1 min between current carrying parts 2500VAC for 1 min between non-current carrying parts
Service Life	Mechanically 1.0 x10^7 (operations) Electrically 5 x10^5 (operations)
Operating Temperature	-25~+80°C (-13~176°F)
Humidity	< 95%RH
Degree of Protection	IP66/IP60

Selection Guide:

SN9 1 - Q 11 - A - V

- **1 — Current**
  - 1: 15A
  - 2: 20A
  - 3: 25A
  - D: 10A 2NO/2NC
  - Y: 10A 2NO/2NC (Share common)
  - S: 15A (positive open NC contact)
- **Q — Head Sealed**
  - Q:No Seal
  - N:Sealed
- **11 — Head Styles**
  - 11: Plunger
  - 21: Cross roller plunger
  - 22: Roller plunger
  - 62: Roller arm lever
  - 63: One-way action
  - 00: Coil spring
- **A — Conduit**
  - A: 1/2NPT
  - B: PG13.5
  - C: M20
- **V — Mounting**
  - blank: side mounting
  - V: Base mounting
  - V2: Diagonal mounting

Dimensions Unit: mm

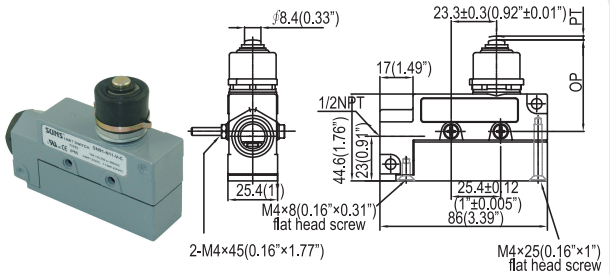


SN91-N11-V:

Operating Characteristics	
OF Max	7.85N
RF Min	2.35N
PT Max	2mm
OT Min	5mm
MD Max	0.1mm
OP	71.4±0.8mm

SN92(3)-N11-V:

Operating Characteristics	
OF Max	10.53N
RF Min	4.01N
PT Max	2.8mm
OT Min	5mm
MD Max	0.4mm
OP	71.4±0.8mm

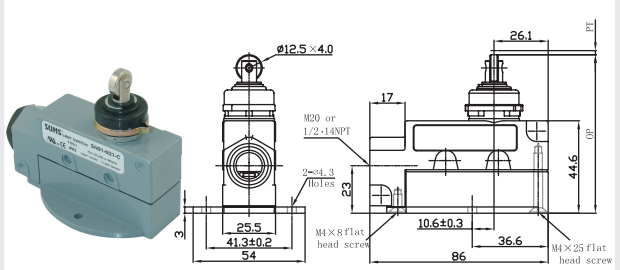


SN91-N11:

Operating Characteristics	
OF Max	7.85N
RF Min	2.35N
PT Max	2mm
OT Min	5mm
MD Max	0.1mm
OP	45.8±0.8mm

SN92(3)-N11:

Operating Characteristics	
OF Max	10.53N
RF Min	4.01N
PT Max	2.8mm
OT Min	5mm
MD Max	0.4mm
OP	45.8±0.8mm

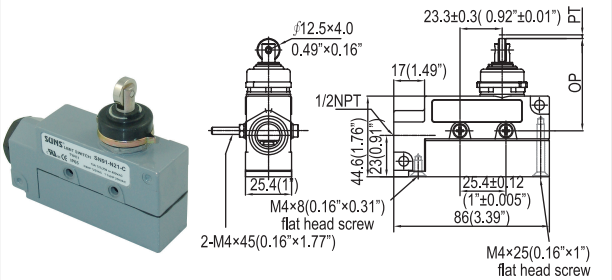


SN91-N21-V:

Operating Characteristics	
OF Max	5.4N
RF Min	0.98N
PT Max	1mm
OT Min	3.5mm
MD Max	0.12mm
OP	75.2±0.8mm

SN92(3)-N21-V:

Operating Characteristics	
OF Max	7.58N
RF Min	2.64N
PT Max	1.7mm
OT Min	3.5mm
MD Max	0.48mm
OP	75.2±0.8mm

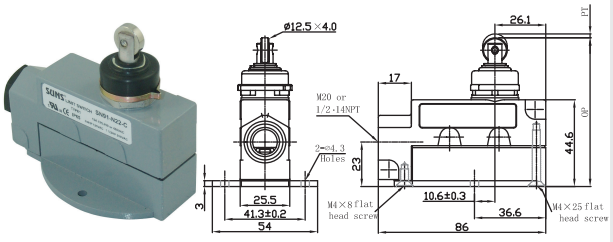


SN91-N21:

Operating Characteristics	
OF Max	5.4N
RF Min	0.98N
PT Max	1mm
OT Min	3.5mm
MD Max	0.12mm
OP	49.7±0.8mm

SN92(3)-N21:

Operating Characteristics	
OF Max	7.58N
RF Min	2.64N
PT Max	1.7mm
OT Min	3.5mm
MD Max	0.48mm
OP	49.7±0.8mm

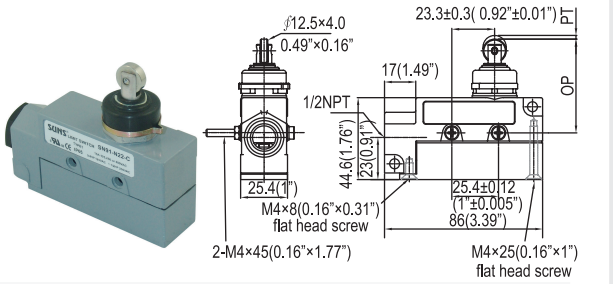


SN91-N22-V: Operating Characteristics

OF	Max	5.4N
RF	Min	0.98N
PT	Max	1mm
OT	Min	3.5mm
MD	Max	0.12mm
OP		75.2±0.8mm

SN92(3)-N22-V: Operating Characteristics

OF	Max	7.58N
RF	Min	2.64N
PT	Max	1.7mm
OT	Min	3.5mm
MD	Max	0.48mm
OP		75.2±0.8mm

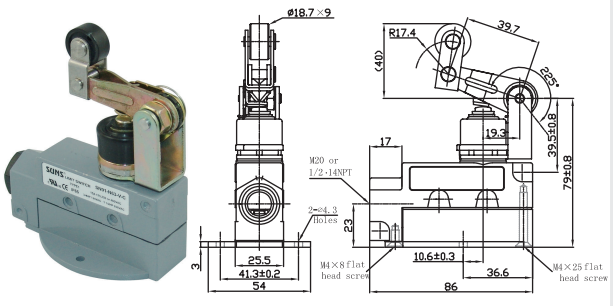


SN91-N22: Operating Characteristics

OF	Max	5.4N
RF	Min	0.98N
PT	Max	1mm
OT	Min	3.5mm
MD	Max	0.12mm
OP		49.7±0.8mm

SN92(3)-N22: Operating Characteristics

OF	Max	7.58N
RF	Min	2.64N
PT	Max	1.7mm
OT	Min	3.5mm
MD	Max	0.48mm
OP		49.7±0.8mm

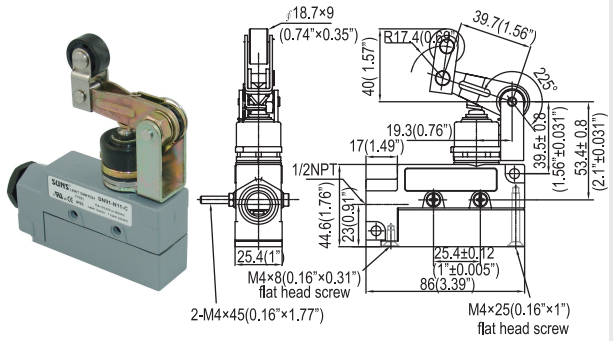


SN91-N63-V: Operating Characteristics

OF	Max	6.28N
RF	Min	2.26N
PT	Max	5mm
OT	Min	6mm
MD	Max	0.4mm

SN92(3)-N63-V: Operating Characteristics

OF	Max	8.96N
RF	Min	4.12N
PT	Max	5.9mm
OT	Min	6mm
MD	Max	1.6mm

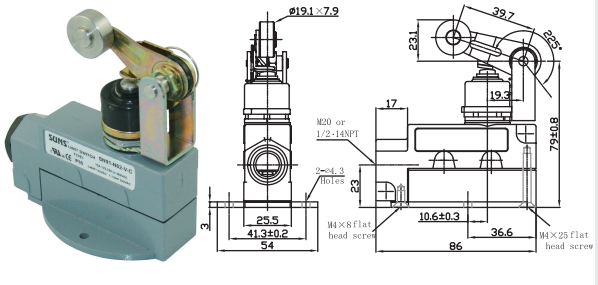


SN91-N63: Operating Characteristics

OF	Max	6.28N
RF	Min	2.26N
PT	Max	5mm
OT	Min	6mm
MD	Max	0.4mm

SN92(3)-N63: Operating Characteristics

OF	Max	8.96N
RF	Min	4.12N
PT	Max	5.9mm
OT	Min	6mm
MD	Max	1.6mm

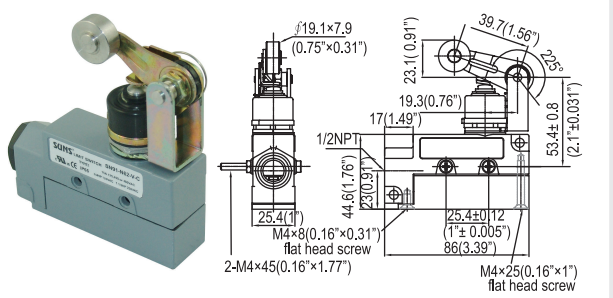


SN91-N62-V: Operating Characteristics

OF	Max	6.28N
RF	Min	2.26N
PT	Max	5mm
OT	Min	6mm
MD	Max	0.4mm

SN92(3)-N62-V: Operating Characteristics

OF	Max	8.96N
RF	Min	4.12N
PT	Max	5.9mm
OT	Min	6mm
MD	Max	1.6mm

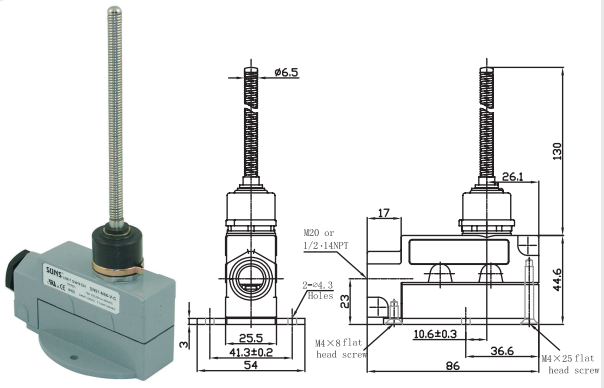


SN91-N62: Operating Characteristics

OF	Max	6.28N
RF	Min	2.26N
PT	Max	5mm
OT	Min	6mm
MD	Max	0.4mm

SN92(3)-N62: Operating Characteristics

OF	Max	8.96N
RF	Min	4.12N
PT	Max	5.9mm
OT	Min	6mm
MD	Max	1.6mm

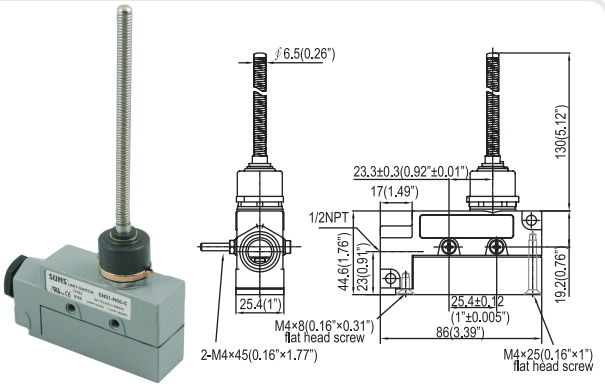


Operating Characteristics

SN91-N00-V: OF Max 2 N, PT Max 16°

Operating Characteristics

SN92(3)-N00-V: OF Max 2.62N, PT Max 16°

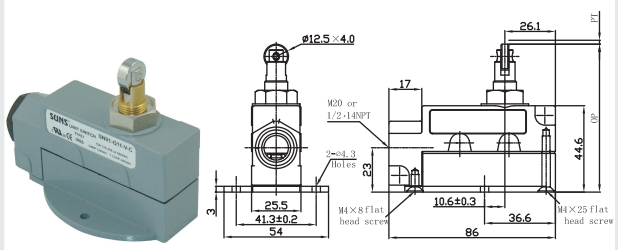


Operating Characteristics

SN91-N00: OF Max 2 N, PT Max 16°

Operating Characteristics

SN92(3)-N00: OF Max 2.62N, PT Max 16°

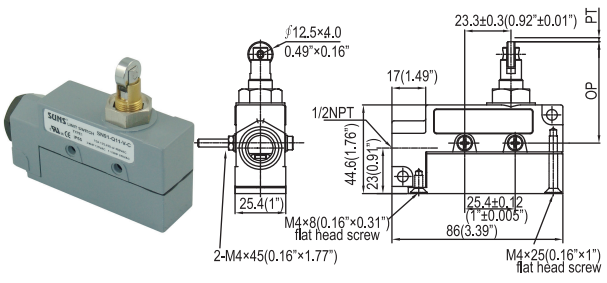


Operating Characteristics

SN91-Q21-V:
OF Max 3.8 N
RF Min 1.12N
PT Max 0.5mm
OT Min 3.5mm
MD Max 0.05mm
OP 75.2±0.8mm

Operating Characteristics

SN92(3)-Q21-V:
OF Max 3.89～6.11N
RF Min 2.78N
PT Max 1.2mm
OT Min 3.5mm
MD Max 0.05～0.2mm
OP 75.2±0.8mm

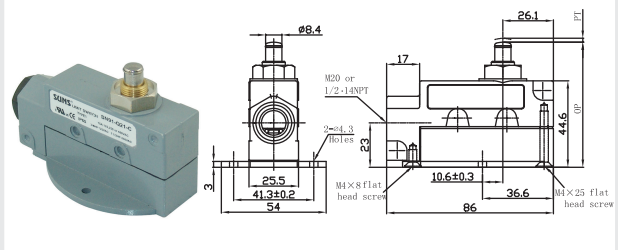


Operating Characteristics

SN91-Q21:
OF Max 3.8 N
RF Min 1.12N
PT Max 0.5mm
OT Min 3.5mm
MD Max 0.05mm
OP 49.7±0.8mm

Operating Characteristics

SN92(3)-Q21:
OF Max 3.89～6.11N
RF Min 2.78N
PT Max 1.2mm
OT Min 3.5mm
MD Max 0.05～0.2mm
OP 49.7±0.8mm

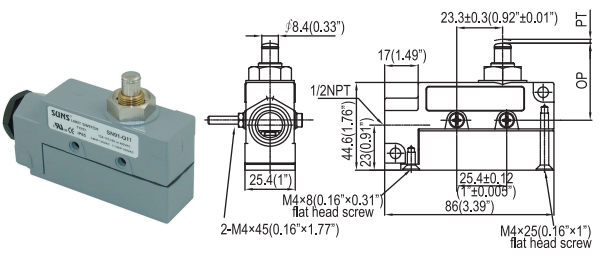


Operating Characteristics

SN91-Q11-V:
OF Max 3.8 N
RF Min 1.12N
PT Max 0.5mm
OT Min 5.5mm
MD Max 0.05mm
OP 63.7±0.8mm

Operating Characteristics

SN92(3)-Q11-V:
OF Max 3.89～6.11N
RF Min 2.78N
PT Max 1.2mm
OT Min 5.5mm
MD Max 0.05～0.2mm
OP 63.7±0.8mm

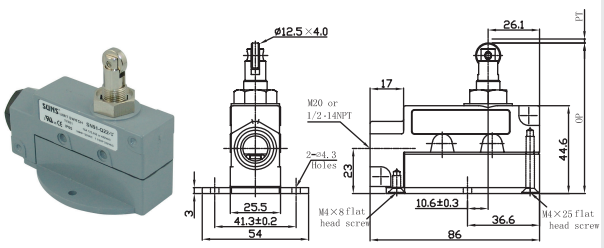


Operating Characteristics

SN91-Q11:
OF Max 3.8 N
RF Min 1.12N
PT Max 0.5mm
OT Min 5.5mm
MD Max 0.05mm
OP 38.2±0.8mm

Operating Characteristics

SN92(3)-Q11:
OF Max 3.89～6.11N
RF Min 2.78N
PT Max 1.2mm
OT Min 5.5mm
MD Max 0.05～0.2mm
OP 38.2±0.8mm

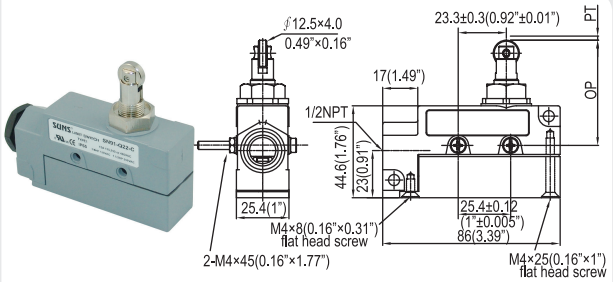


SN91-Q22-V:

Operating Characteristics	
OF Max	3.8 N
RF Min	1.12N
PT Max	0.5mm
OT Min	3.5mm
MD Max	0.05mm
OP	75.2±0.8mm

SN92(3)-Q22-V:

Operating Characteristics	
OF Max	3.89～6.11N
RF Min	2.78N
PT Max	1.2mm
OT Min	3.5mm
MD Max	0.05～0.2mm
OP	75.2±0.8mm

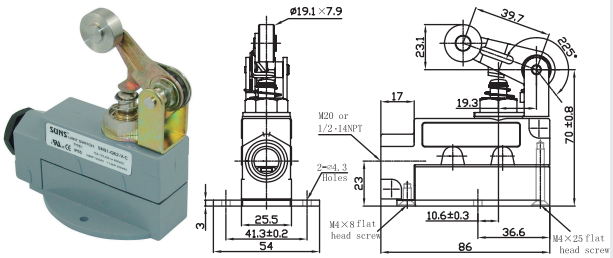


SN91-Q22:

Operating Characteristics	
OF Max	3.8 N
RF Min	1.12N
PT Max	0.5mm
OT Min	3.5mm
MD Max	0.05mm
OP	49.7±0.8mm

SN92(3)-Q22:

Operating Characteristics	
OF Max	3.89～6.11N
RF Min	2.78N
PT Max	1.2mm
OT Min	3.5mm
MD Max	0.05～0.2mm
OP	49.7±0.8mm

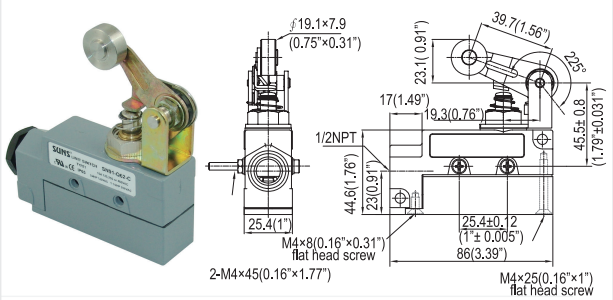


SN91-Q62-V:

Operating Characteristics	
OF Max	5.59N
RF Min	1.67N
PT Max	4mm
OT Min	6mm
MD Max	0.4mm

SN92(3)-Q62-V:

Operating Characteristics	
OF Max	8.27N
RF Min	3.33N
PT Max	4.9mm
OT Min	6mm
MD Max	1.6mm

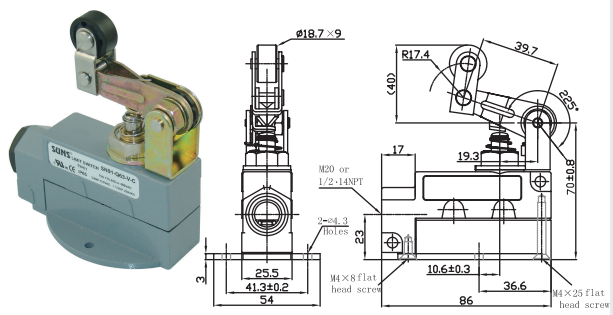


SN91-Q62:

Operating Characteristics	
OF Max	5.59N
RF Min	1.67N
PT Max	4mm
OT Min	6mm
MD Max	0.4mm

SN92(3)-Q62:

Operating Characteristics	
OF Max	8.27N
RF Min	3.33N
PT Max	4.9mm
OT Min	6mm
MD Max	1.6mm

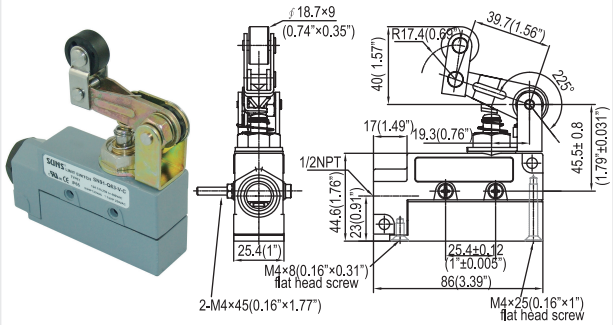


SN91-Q63-V:

Operating Characteristics	
OF Max	5.59N
RF Min	1.67N
PT Max	4mm
OT Min	6mm
MD Max	0.4mm

SN92(3)-Q63-V:

Operating Characteristics	
OF Max	8.27N
RF Min	3.33N
PT Max	4.9mm
OT Min	6mm
MD Max	1.6mm

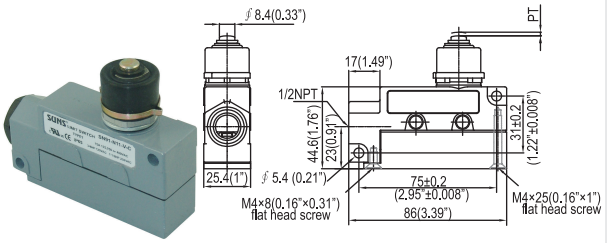


SN91-Q63:

Operating Characteristics	
OF Max	5.59N
RF Min	1.67N
PT Max	4mm
OT Min	6mm
MD Max	0.4mm

SN92(3)-Q63:

Operating Characteristics	
OF Max	8.27N
RF Min	3.33N
PT Max	4.9mm
OT Min	6mm
D Max	1.6mm



SN91-N11-V2:

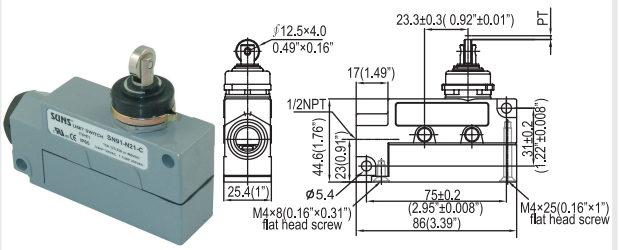
Operating Characteristics

OF Max	7.85N
RF Min	2.35N
PT Max	2mm
OT Min	5mm
MD Max	0.1mm

SN92(3)-N11-V2:

Operating Characteristics

OF Max	10.53N
RF Min	4.01N
PT Max	2.8mm
OT Min	5mm
MD Max	0.4mm



SN91-N21-V2:

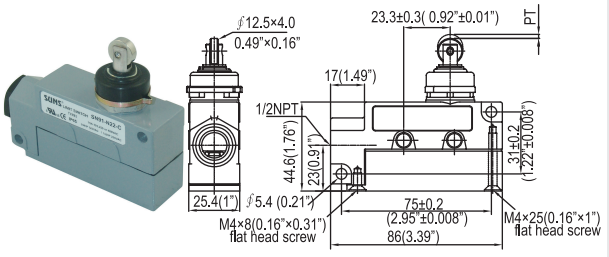
Operating Characteristics

OF Max	5.4N
RF Min	0.98N
PT Max	1mm
OT Min	3.5mm
MD Max	0.12mm

SN92(3)-N21-V2:

Operating Characteristics

OF Max	7.58N
RF Min	2.64N
PT Max	1.7mm
OT Min	3.5mm
MD Max	0.48mm



SN91-N22-V2:

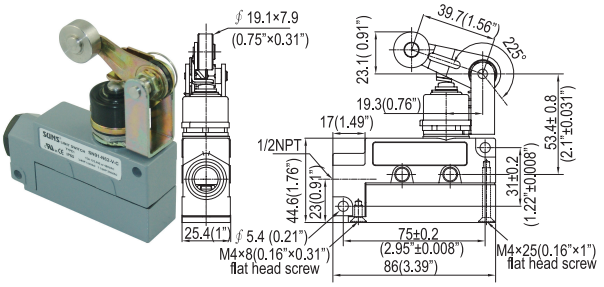
Operating Characteristics

OF Max	5.4N
RF Min	0.98N
PT Max	1mm
OT Min	3.5mm
MD Max	0.12mm

SN92(3)-N22-V2:

Operating Characteristics

OF Max	7.58N
RF Min	2.64N
PT Max	1.7mm
OT Min	3.5mm
MD Max	0.48mm



SN91-N62-V2:

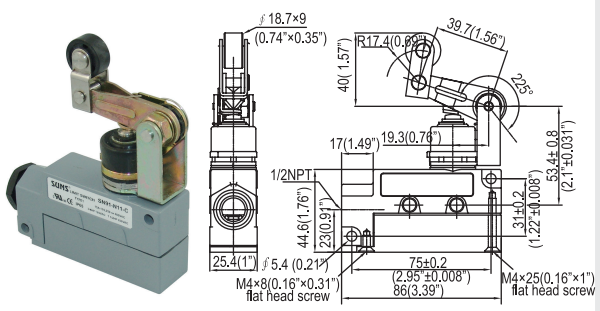
Operating Characteristics

OF Max	6.28N
RF Min	2.26N
PT Max	5mm
OT Min	6mm
MD Max	0.4mm

SN92(3)-N62-V2:

Operating Characteristics

OF Max	8.96N
RF Min	4.12N
PT Max	5.9mm
OT Min	6mm
MD Max	1.6mm



SN91-N63-V2:

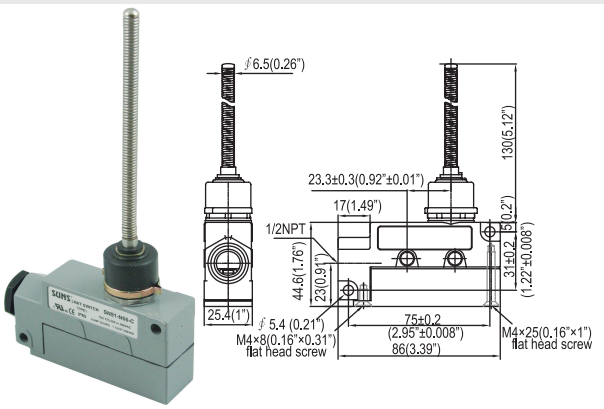
Operating Characteristics

OF Max	6.28N
RF Min	2.26N
PT Max	5mm
OT Min	6mm
MD Max	0.4mm

SN92(3)-N63-V2:

Operating Characteristics

OF Max	8.96N
RF Min	4.12N
PT Max	5.9mm
OT Min	6mm
MD Max	1.6mm



SN91-N00-V2:

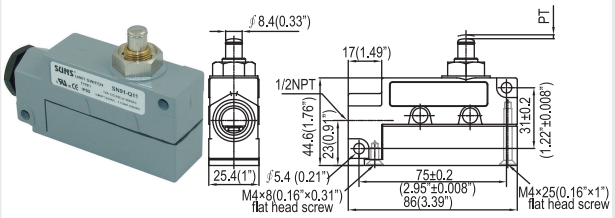
Operating Characteristics

OF Max	2 N
PT Max	16°

SN92(3)-N00-V2:

Operating Characteristics

OF Max	2.62N
PT Max	16°



SN91-Q11-V2:

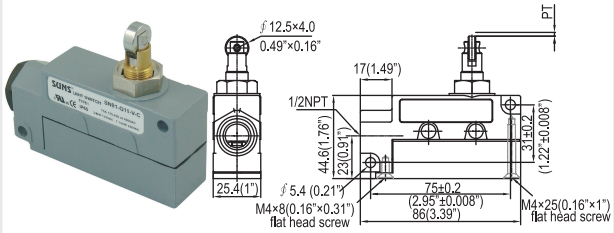
Operating Characteristics

OF Max	3.8 N
RF Min	1.12N
PT Max	0.5mm
OT Min	5.5mm
MD Max	0.05mm

SN92(3)-Q11-V2:

Operating Characteristics

OF Max	3.89～6.11N
RF Min	2.78N
PT Max	1.2mm
OT Min	5.5mm
MD Max	0.05～0.2mm



SN91-Q21-V2:

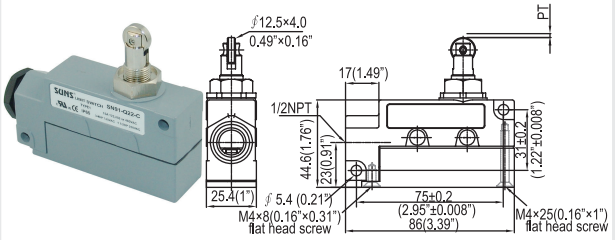
Operating Characteristics

OF Max	3.8 N
RF Min	1.12N
PT Max	0.5mm
OT Min	3.5mm
MD Max	0.05mm

SN92(3)-Q21-V2:

Operating Characteristics

OF Max	3.89～6.11N
RF Min	2.78N
PT Max	1.2mm
OT Min	3.5mm
MD Max	0.05～0.2mm



SN91-Q22-V2:

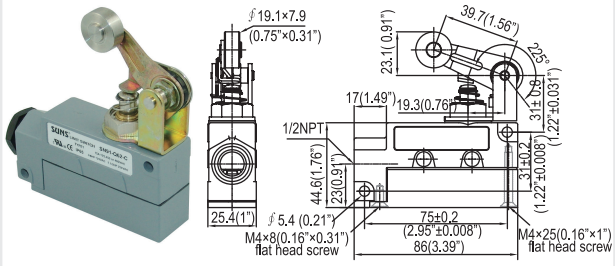
Operating Characteristics

OF Max	3.8 N
RF Min	1.12N
PT Max	0.5mm
OT Min	3.5mm
MD Max	0.05mm

SN92(3)-Q22-V2:

Operating Characteristics

OF Max	3.89～6.11N
RF Min	2.78N
PT Max	1.2mm
OT Min	3.5mm
MD Max	0.05～0.2mm



SN91-Q62-V2:

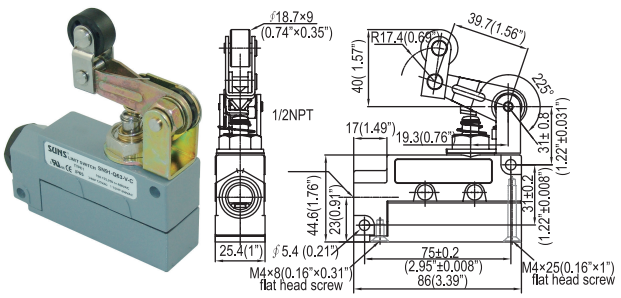
Operating Characteristics

OF Max	5.59N
RF Min	1.67N
PT Max	4mm
OT Min	6mm
MD Max	0.4mm

SN92(3)-Q62-V2:

Operating Characteristics

OF Max	8.27N
RF Min	3.33N
PT Max	4.9mm
OT Min	6mm
MD Max	1.6mm



SN91-Q63-V2:

Operating Characteristics

OF Max	5.59N
RF Min	1.67N
PT Max	4mm
OT Min	6mm
MD Max	0.4mm

SN92(3)-Q63-V2:

Operating Characteristics

OF Max	8.27N
RF Min	3.33N
PT Max	4.9mm
OT Min	6mm
MD Max	1.6mm