

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

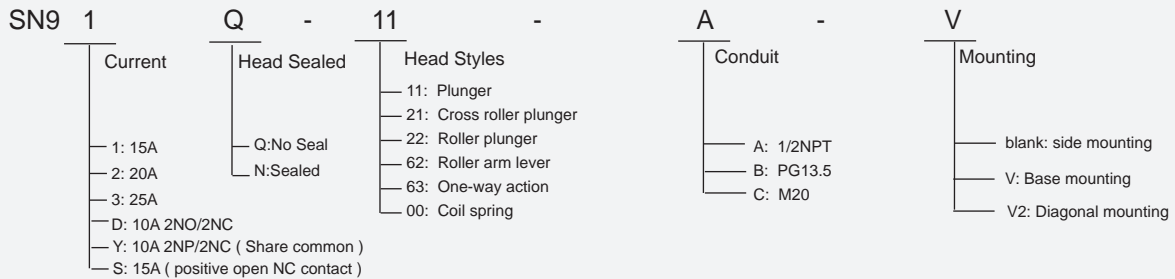
Definitions of Operating Characteristics

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 x 10 ⁷ (operations) Electrically 5 x 10 ⁵ (operations)
Operating Temperature	-25~+80°C (-13~176°F)
Humidity	< 95%RH
Degree of Protection	IP66/IP60

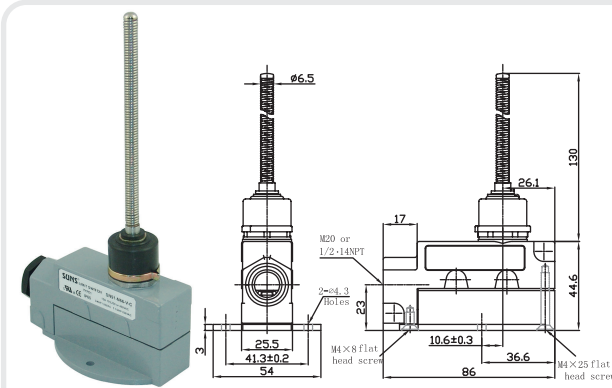
Selection Guide:



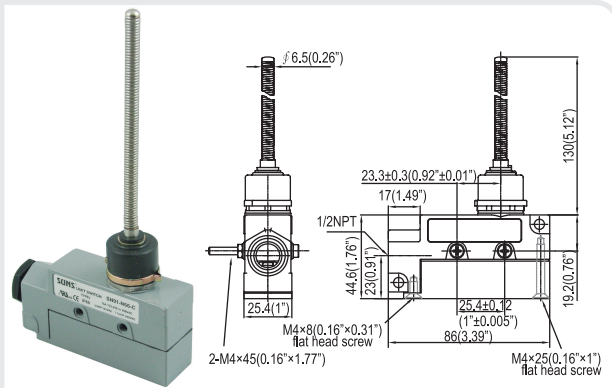
Dimensions Unit: mm

<p>Operating Characteristics</p> <p>SN91-N11-V:</p> <p>OF Max 7.85N RF Min 2.35N PT Max 2mm OT Min 5mm MD Max 0.1mm OP 71.4±0.8mm</p>	<p>Operating Characteristics</p> <p>SN92(3)-N11-V:</p> <p>OF Max 10.53N RF Min 4.01N PT Max 2.8mm OT Min 5mm MD Max 0.4mm OP 71.4±0.8mm</p>	<p>Operating Characteristics</p> <p>SN91-N11:</p> <p>OF Max 7.85N RF Min 2.35N PT Max 2mm OT Min 5mm MD Max 0.1mm OP 45.8±0.8mm</p>	<p>Operating Characteristics</p> <p>SN92(3)-N11:</p> <p>OF Max 10.53N RF Min 4.01N PT Max 2.8mm OT Min 5mm MD Max 0.4mm OP 45.8±0.8mm</p>
<p>Operating Characteristics</p> <p>SN91-N21-V:</p> <p>OF Max 5.4N RF Min 0.98N PT Max 1mm OT Min 3.5mm MD Max 0.12mm OP 75.2±0.8mm</p>	<p>Operating Characteristics</p> <p>SN92(3)-N21-V:</p> <p>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</p>	<p>Operating Characteristics</p> <p>SN91-N21:</p> <p>OF Max 5.4N RF Min 0.98N PT Max 1mm OT Min 3.5mm MD Max 0.12mm OP 49.7±0.8mm</p>	<p>Operating Characteristics</p> <p>SN92(3)-N21:</p> <p>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</p>

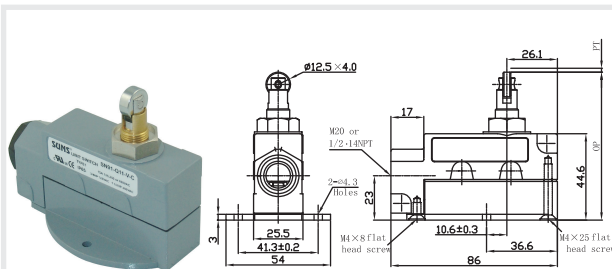
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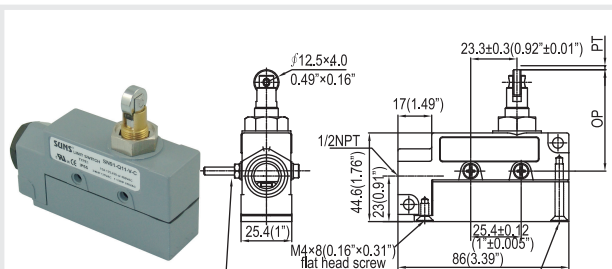
Operating Characteristics	Operating Characteristics
SN91-N00-V: OF Max 2 N PT Max 16°	SN92(3)-N00-V: OF Max 2.62N PT Max 16°



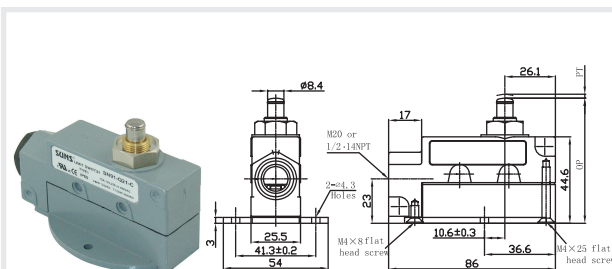
Operating Characteristics	Operating Characteristics
SN91-N00: OF Max 2 N PT Max 16°	SN92(3)-N00: OF Max 2.62N PT Max 16°



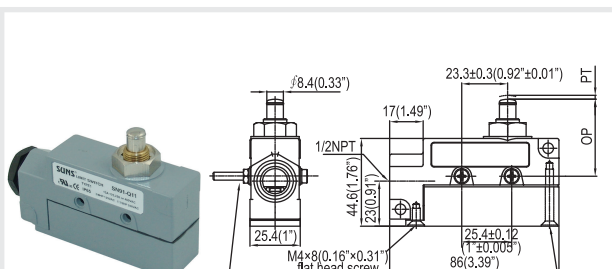
Operating Characteristics	Operating Characteristics
SN91-Q21-V: OF Max 3.8 N RF Min 1.12N PT Max 0.5mm OT Min 3.5mm MD Max 0.05mm OP 75.2±0.8mm	SN92(3)-Q21-V: OF Max 3.89~6.11N RF Min 2.78N PT Max 1.2mm OT Min 3.5mm MD Max 0.05~0.2mm OP 75.2±0.8mm



Operating Characteristics	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	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

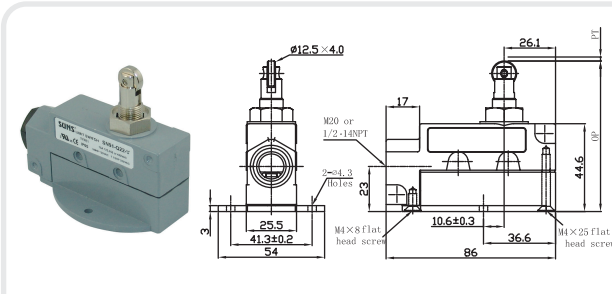


Operating Characteristics	Operating Characteristics
SN91-Q11-V: OF Max 3.8 N RF Min 1.12N PT Max 0.5mm OT Min 5.5mm MD Max 0.05mm OP 63.7±0.8mm	SN92(3)-Q11-V: OF Max 3.89~6.11N RF Min 2.78N PT Max 1.2mm OT Min 5.5mm MD Max 0.05~0.2mm OP 63.7±0.8mm

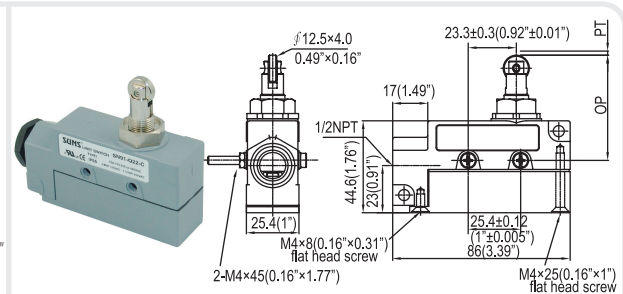


Operating Characteristics	Operating Characteristics
SN91-Q11: OF Max 3.8 N RF Min 1.12N PT Max 0.5mm OT Min 5.5mm MD Max 0.05mm OP 38.2±0.8mm	SN92(3)-Q11: OF Max 3.89~6.11N RF Min 2.78N PT Max 1.2mm OT Min 5.5mm MD Max 0.05~0.2mm OP 38.2±0.8mm

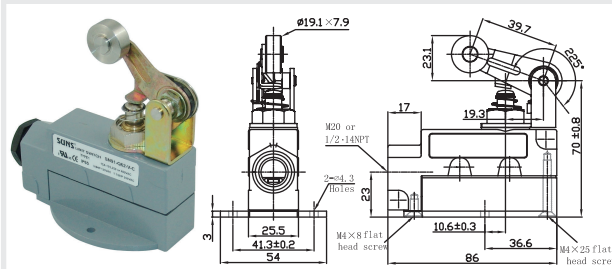
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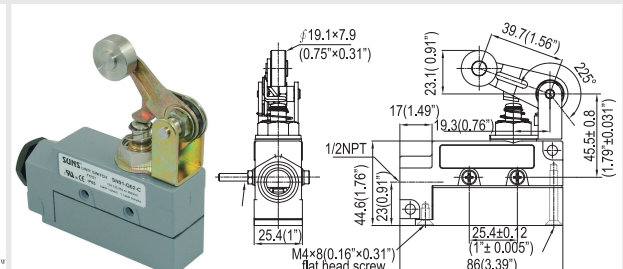
Operating Characteristics		Operating Characteristics	
SN91-Q22-V:	OF Max 3.8 N RF Min 1.12N PT Max 0.5mm OT Min 3.5mm MD Max 0.05mm OP 75.2±0.8mm	SN92(3)-Q22-V:	OF Max 3.89~6.11N RF Min 2.78N PT Max 1.2mm OT Min 3.5mm MD Max 0.05~0.2mm OP 75.2±0.8mm



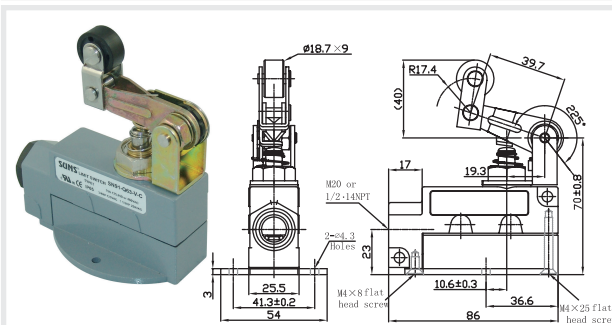
Operating Characteristics		Operating Characteristics	
SN91-Q22:	OF Max 3.8 N RF Min 1.12N PT Max 0.5mm OT Min 3.5mm MD Max 0.05mm OP 49.7±0.8 mm	SN92(3)-Q22:	OF Max 3.89~6.11N RF Min 2.78N PT Max 1.2mm OT Min 3.5mm MD Max 0.05~0.2mm OP 49.7±0.8 mm



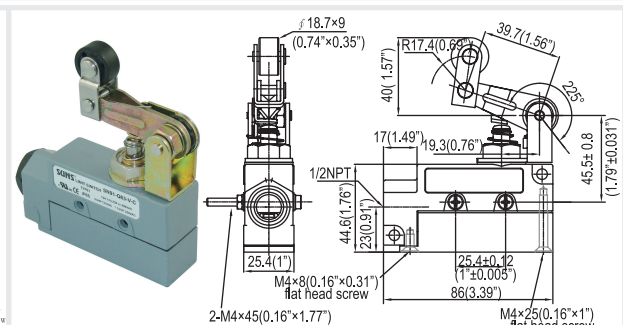
Operating Characteristics		Operating Characteristics	
SN91-Q62-V:	OF Max 5.59N RF Min 1.67N PT Max 4mm OT Min 6mm MD Max 0.4mm	SN92(3)-Q62-V:	OF Max 8.27N RF Min 3.33N PT Max 4.9mm OT Min 6mm MD Max 1.6mm



Operating Characteristics		Operating Characteristics	
SN91-Q62:	OF Max 5.59N RF Min 1.67N PT Max 4mm OT Min 6mm MD Max 0.4mm	SN92(3)-Q62:	OF Max 8.27N RF Min 3.33N PT Max 4.9mm OT Min 6mm MD Max 1.6mm

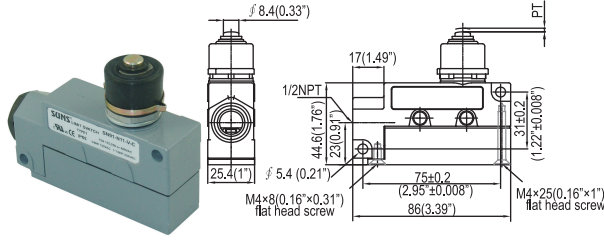


Operating Characteristics		Operating Characteristics	
SN91-Q63-V:	OF Max 5.59N RF Min 1.67N PT Max 4mm OT Min 6mm MD Max 0.4mm	SN92(3)-Q63-V:	OF Max 8.27N RF Min 3.33N PT Max 4.9mm OT Min 6mm MD Max 1.6mm



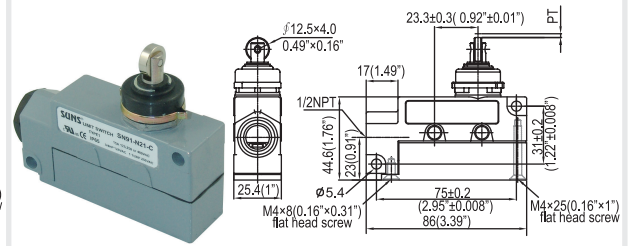
Operating Characteristics		Operating Characteristics	
SN91-Q63:	OF Max 5.59N RF Min 1.67N PT Max 4mm OT Min 6mm MD Max 0.4mm	SN92(3)-Q63:	OF Max 8.27N RF Min 3.33N PT Max 4.9mm OT Min 6mm D Max 1.6mm

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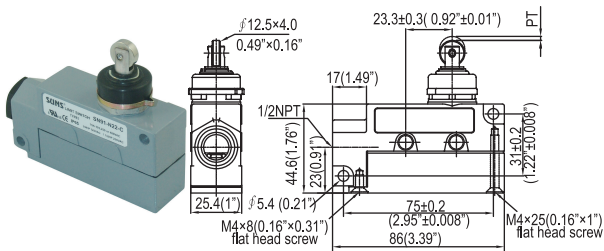
Operating Characteristics
SN91-N11-V2:
 OF Max 7.85N
 RF Min 2.35N
 PT Max 2mm
 OT Min 5mm
 MD Max 0.1mm

Operating Characteristics
SN92(3)-N11-V2:
 OF Max 10.53N
 RF Min 4.01N
 PT Max 2.8mm
 OT Min 5mm
 MD Max 0.4mm



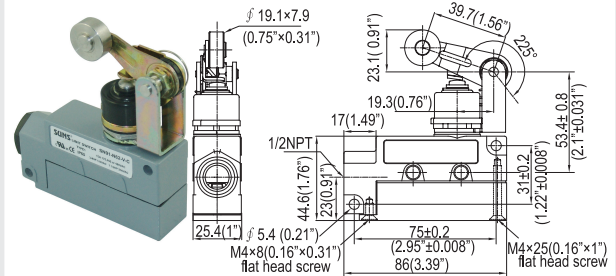
Operating Characteristics
SN91-N21-V2:
 OF Max 5.4N
 RF Min 0.98N
 PT Max 1mm
 OT Min 3.5mm
 MD Max 0.12mm

Operating Characteristics
SN92(3)-N21-V2:
 OF Max 7.58N
 RF Min 2.64N
 PT Max 1.7mm
 OT Min 3.5mm
 MD Max 0.48mm



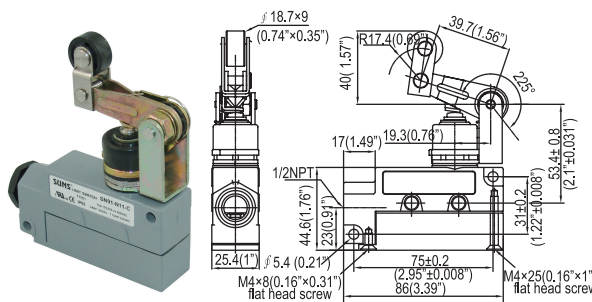
Operating Characteristics
SN91-N22-V2:
 OF Max 5.4N
 RF Min 0.98N
 PT Max 1mm
 OT Min 3.5mm
 MD Max 0.12mm

Operating Characteristics
SN92(3)-N22-V2:
 OF Max 7.58N
 RF Min 2.64N
 PT Max 1.7mm
 OT Min 3.5mm
 MD Max 0.48mm



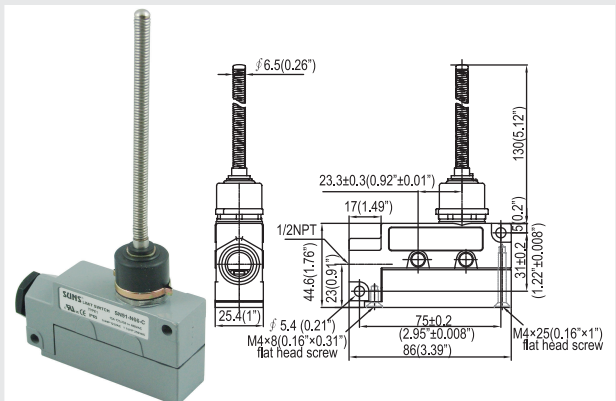
Operating Characteristics
SN91-N62-V2:
 OF Max 6.28N
 RF Min 2.26N
 PT Max 5mm
 OT Min 6mm
 MD Max 0.4mm

Operating Characteristics
SN92(3)-N62-V2:
 OF Max 8.96N
 RF Min 4.12N
 PT Max 5.9mm
 OT Min 6mm
 MD Max 1.6mm



Operating Characteristics
SN91-N63-V2:
 OF Max 6.28N
 RF Min 2.26N
 PT Max 5mm
 OT Min 6mm
 MD Max 0.4mm

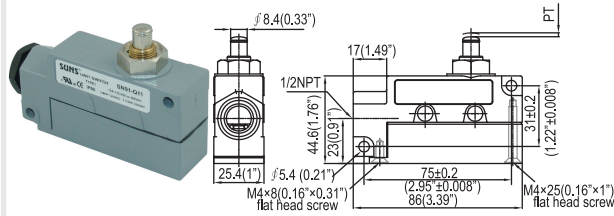
Operating Characteristics
SN92(3)-N63-V2:
 OF Max 8.96N
 RF Min 4.12N
 PT Max 5.9mm
 OT Min 6mm
 MD Max 1.6mm



Operating Characteristics
SN91-N00-V2:
 OF Max 2 N
 PT Max 16°

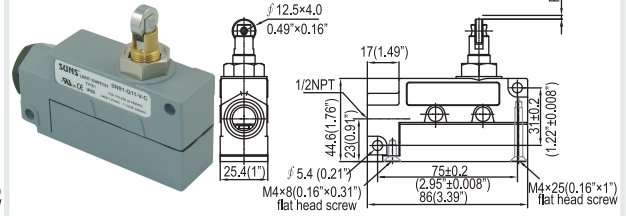
Operating Characteristics
SN92(3)-N00-V2:
 OF Max 2.62N
 PT Max 16°

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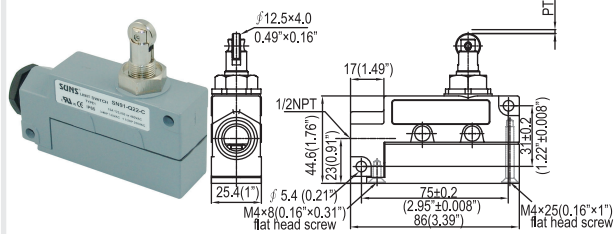
Operating Characteristics
SN91-Q11-V2:
 OF Max 3.8 N
 RF Min 1.12N
 PT Max 0.5mm
 OT Min 5.5mm
 MD Max 0.05mm

Operating Characteristics
SN92(3)-Q11-V2:
 OF Max 3.89~6.11N
 RF Min 2.78N
 PT Max 1.2mm
 OT Min 5.5mm
 MD Max 0.05~0.2mm



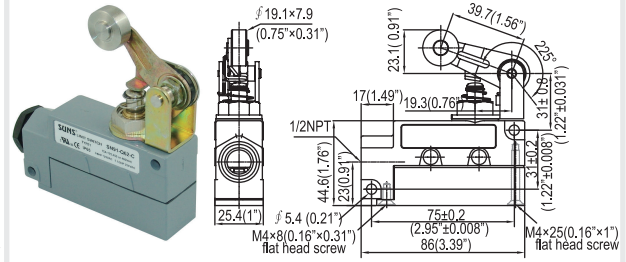
Operating Characteristics
SN91-Q21-V2:
 OF Max 3.8 N
 RF Min 1.12N
 PT Max 0.5mm
 OT Min 3.5mm
 MD Max 0.05mm

Operating Characteristics
SN92(3)-Q21-V2:
 OF Max 3.89~6.11N
 RF Min 2.78N
 PT Max 1.2mm
 OT Min 3.5mm
 MD Max 0.05~0.2mm



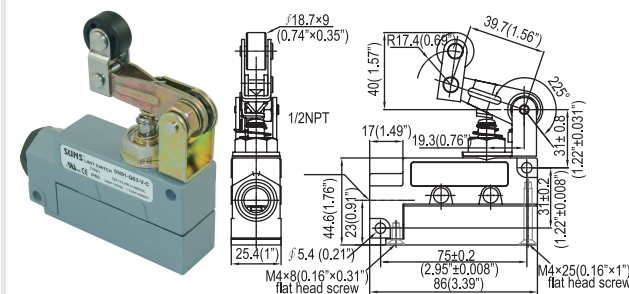
Operating Characteristics
SN91-Q22-V2:
 OF Max 3.8 N
 RF Min 1.12N
 PT Max 0.5mm
 OT Min 3.5mm
 MD Max 0.05mm

Operating Characteristics
SN92(3)-Q22-V2:
 OF Max 3.89~6.11N
 RF Min 2.78N
 PT Max 1.2mm
 OT Min 3.5mm
 MD Max 0.05~0.2mm



Operating Characteristics
SN91-Q62-V2:
 OF Max 5.59N
 RF Min 1.67N
 PT Max 4mm
 OT Min 6mm
 MD Max 0.4mm

Operating Characteristics
SN92(3)-Q62-V2:
 OF Max 8.27N
 RF Min 3.33N
 PT Max 4.9mm
 OT Min 6mm
 MD Max 1.6mm



Operating Characteristics
SN91-Q63-V2:
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 PT Max 4mm
 OT Min 6mm
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SN92(3)-Q63-V2:
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 PT Max 4.9mm
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