## Precision Limit Switches

High Temperature HT Series

## High Temperature: HT Series

- Plunger and ball plunger models
- Constructed using heat resistant parts and adhesives
- Heat resistant cable
- Operating temperature upper limit of $200^{\circ} \mathrm{C}\left[392^{\circ} \mathrm{F}\right]$


O indicates correct target approach and orientation. $\times$ indicates approach and orientation that should be avoided.

| High Temperature Precision Limit Switches Sclection Chart |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Part Number | Price | Actuator/Head Type* | Barrel Type | Barrel Diameter/Thread | Stroke | Switching Output | Contact Force | Connection Type | Dimensional Drawing |
| Straight/Precision Touch |  |  |  |  |  |  |  |  |  |
| CS067A-HT2 | <-------> | $\varnothing 2 \mathrm{~mm}$ plunger, SR 1.5 mm [0.059 in] | Threaded | M6×0.75 | 2.8 mm (0.110 in) | N.O. | 1N | $2 \mathrm{~m}[6.56 \mathrm{ft}]$ cable | PDF |
| HT-CS067A |  | $\varnothing 2 \mathrm{~mm}$ plunger, SR 1.5 mm [0.059 in] | Threaded | M6×0.75 | 2.8 mm (0.110 in) | N.O. | 1 N | 2 m [6.56 ft] cable | PDF |
| Indexing/Angled/Sliding Touch/Ball Plunger |  |  |  |  |  |  |  |  |  |
| HT-BP060A |  | Ø 3mm [0.118 in] ball | Threaded | M6×1.0 | 0.8 mm (0.031 in) | N.O. | Min 6N <br> Max 13N | $2 \mathrm{~m}[6.56 \mathrm{ft}]$ cable | PDF |
| Heat Resistant Stopper Bolt |  |  |  |  |  |  |  |  |  |
| STS060A-HT2 |  | 1.5 mm [0.059 in] plunger, 3.4 mm [0.139 in] flat | Threaded | M6×1.0 | 0.7 mm (0.028 in) | N.O. | 1N | $2 \mathrm{~m}[6.56 \mathrm{ft}]$ cable | PDF |
| STM82A-HT2 |  | $\varnothing 3 \mathrm{~mm}$ [0.118 in] plunger with boot | Threaded | M10×0.75 | 0.3 mm (0.012 in) | N.O. | 1 N | 2 m [6.56 ft] cable | PDF |

* $\varnothing$ = diameter, SR = surface radius



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| High Temperature Precision Limit Switches Specifications |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | CS067A-HT2 | HT-CS067A | HT-BP060A | STS060A-HT2 | STM82A-HT2 |
| Environmental |  |  |  |  |  |
| Degree of Protection | \|P65** | IP65** | \|P40** | 1P40** | \|P65** |
| Temperature Range | Operating: 0-200 ${ }^{\circ} \mathrm{C}\left[32-392^{\circ} \mathrm{F}\right]$ (ce-free) |  |  |  |  |
| Mechanical Ratings |  |  |  |  |  |
| Enclosure Material | Stainless steel |  |  |  |  |
| Pretravel | 0.3 mm (0.012 in) |  | $\begin{aligned} & 0.5 \mathrm{~mm}[0.020 \mathrm{in}] \\ & \text { from end face } \end{aligned}$ | 0.3 mm [0.012 in] from stopping face | Middle of stroke |
|  |  |  |  | - | - |
| Torque (for nuts on threaded barrels, set screws on smooth barrels) | $4 \mathrm{~N} \cdot \mathrm{~m}$ | $4 \mathrm{~N} \cdot \mathrm{~m}$ | L1: $2.5 \mathrm{~N} \cdot \mathrm{~m}$ (1.844 lb•ft) <br> L2: $5 \mathrm{~N} \cdot \mathrm{~m}$ ( $3.688 \mathrm{lb} \cdot \mathrm{ft}$ ) L3: $5 \mathrm{~N} \cdot \mathrm{~m}$ (3.688 lb•f) | L1: $5 \mathrm{~N} \cdot \mathrm{~m}$ ( 3.688 lb •ft) L2: $5 \mathrm{~N} \cdot \mathrm{~m}$ (3.688 lb•ft) | $\begin{gathered} 10 \mathrm{~N} \cdot \mathrm{~m} \\ (7.376 \mathrm{lb} \cdot \mathrm{ft}) \end{gathered}$ |
| Oscillation | 10-55 Hz total amplitude 1.5 for $X, Y, Z$ each direction |  |  |  |  |
| Impact | $300 \mathrm{~m} / \mathrm{s}^{2}$ for $\mathrm{X}, \mathrm{Y}, \mathrm{Z}$ each direction |  |  |  |  |
| Electrical Ratings |  |  |  |  |  |
| Contact Life | 3 million operations |  |  |  |  |
| Repeat Accuracy | Both On-Off, Off-On: $0.01 \mathrm{~mm}[0.00039 \mathrm{in}]^{* * *}$ |  |  |  |  |
| Recommended Minimum Operating Speed | 10 mm [0.394 in]/minute |  |  |  |  |
| Contact Voltage | 5-24 VDC |  |  |  |  |
| Steady Current Rating | 10 mA or less |  |  |  |  |
| Max In-rush Current Rating | 20 mA |  |  |  |  |
| Connection Type | Cable: $2 \mathrm{~m}[6.56 \mathrm{ft}]$ heat-resistant $\varnothing 2.8$ 2 cores, 24AWG | Cable: $2 \mathrm{~m}[6.56 \mathrm{ft}]$ heat-resistant $\varnothing 2.8$ 2 cores, 24AWG | Cable: $2 \mathrm{~m}[6.56 \mathrm{ft}]$ heat-resistant $\varnothing 2.8$ 2 cores, 24AWG | Cable: $2 \mathrm{~m}[6.56 \mathrm{ft}]$ heat-resistant $\varnothing 2.8$ 2 cores, 26AWG | Cable: $2 \mathrm{~m}[6.56 \mathrm{ft}]$ heat-resistant $\varnothing 2.8$ 2 cores, 26AWG |
| Indicating | N/A |  |  |  |  |

* At operating speed $50-200 \mathrm{~mm}$ [1.97-7.87 in]/minute. Operating speed slower than $10 \mathrm{~mm}[0.39 \mathrm{in}] / \mathrm{min}$ is not recommended.
${ }^{* *}$ At normal temperature $\left(0-80^{\circ} \mathrm{C}\left[32-176^{\circ} \mathrm{F}\right]\right)$.


## Circuit Diagrams

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Normally open (NO)
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