



# HL (AZH) Micro Limit Switch

Related Information ■ General terms and conditions..... F-3

\*1 AZH10 only



[panasonic.net/id/pidsx/global](http://panasonic.net/id/pidsx/global)

## Features

- Superior environmental resistance (Die casting case type)
- Standardized connector type
- Lineup includes bifurcated (twin contact) type as well as standard load type
- Economical plastic case type

## Compact, high-performance limit switch with superior environmental resistance

### PRODUCT TYPE

#### Body

Type	Die casting case			Plastic case	
	Screw terminal type		Connector type	Screw terminal type	
	Standard	Bifurcated	Bifurcated	Standard	Bifurcated
Actuator	Model No.	Model No.	Model No.	Model No.	Model No.
Push plunger	Common to panel mount push plunger			<b>AZH1001</b>	<b>AZH1201</b>
Roller plunger	Common to panel mount roller plunger			<b>AZH1002</b>	<b>AZH1202</b>
Cross roller plunger	Common to panel mount cross roller plunger			<b>AZH1003</b>	<b>AZH1203</b>
Panel mount push plunger	<b>AZH2031</b>	<b>AZH2231</b>	<b>AZH2331</b>	<b>AZH1031</b>	<b>AZH1231</b>
Panel mount roller plunger	<b>AZH2032</b>	<b>AZH2232</b>	<b>AZH2332</b>	<b>AZH1032</b>	<b>AZH1232</b>
Panel mount cross roller plunger	<b>AZH2033</b>	<b>AZH2233</b>	<b>AZH2333</b>	<b>AZH1033</b>	<b>AZH1233</b>
Sealed push plunger	<b>AZH2011</b>	<b>AZH2211</b>	<b>AZH2311</b>	<b>AZH1011</b>	<b>AZH1211</b>
Sealed roller plunger	<b>AZH2012</b>	<b>AZH2212</b>	<b>AZH2312</b>	<b>AZH1012</b>	<b>AZH1212</b>
Sealed cross roller plunger	<b>AZH2013</b>	<b>AZH2213</b>	<b>AZH2313</b>	<b>AZH1013</b>	<b>AZH1213</b>
Short roller lever	<b>AZH2041</b>	<b>AZH2241</b>	<b>AZH2341</b>	<b>AZH1041</b>	<b>AZH1241</b>
Roller lever	<b>AZH2021</b>	<b>AZH2221</b>	<b>AZH2321</b>	<b>AZH1021</b>	<b>AZH1221</b>
One-way short roller lever	<b>AZH2044</b>	<b>AZH2244</b>	<b>AZH2344</b>	<b>AZH1044</b>	<b>AZH1244</b>
One-way roller lever	<b>AZH2024</b>	<b>AZH2224</b>	<b>AZH2324</b>	<b>AZH1024</b>	<b>AZH1224</b>
Flexible	—	—	—	<b>AZH1066</b>	<b>AZH1266</b>

- FIBER SENSORS
- LASER SENSORS
- PHOTOELECTRIC SENSORS
- MICRO PHOTOELECTRIC SENSORS
- AREA SENSORS
- SAFETY LIGHT CURTAINS / SAFETY COMPONENTS
- PRESSURE / FLOW SENSORS
- INDUCTIVE PROXIMITY SENSORS
- PARTICULAR USE SENSORS
- SENSOR OPTIONS
- SIMPLE WIRE- SAVING UNITS
- WIRE- SAVING SYSTEMS
- MEASUREMENT SENSORS
- STATIC CONTROL DEVICES
- LASER MARKERS
- PLC
- HUMAN MACHINE INTERFACES
- ENERGY MANAGEMENT SOLUTIONS
- FA COMPONENTS
- MACHINE VISION SYSTEMS
- UV CURING SYSTEMS
- Timers
- Time Switches
- Counters
- Hour Meters
- Options
- Limit Switches
- Temperature Controllers
- Solenoids
- Fan Motors
- Selection Guide
- SL
- HL
- QL
- Magnelimit

Options

Product	Specifications						Application	Model No.
	Pin arrangement	Type	Core No.	Color of wire	Conductor	Length of cable		
Cable connector cord	AC	Straight	4	Brown, White, Blue, Black	0.5 mm <sup>2</sup> 0.75 × 10 <sup>-3</sup> in <sup>2</sup> (Circumference: ø6.5 ø0.256 approx.)	3 m 9.843 ft	All connector type	AZH28113
		Angle						AZH28133

CAUTIONS

Common for all types

- This limit switch is designed under the premise that it will be used in a standard industrial device. Accordingly, there are limits as to what can be tolerated if used outdoors or where water and oil, etc., may get on the device. The following table indicates how much water and oil can be withstood (classification of protective structure).

	Plastic case (AZH1*)	Die casting case (AZH2*)
Protective classification	IP64	IP67
Testing method	No harmful effect when sprayed with water for 10 minutes from all angles.	Water does not enter product after immersion in water 1 m 3.281 ft deep for 30 minutes.
Limits on use	Cannot be used outdoors or in a place where water and oil, etc., will continually contact the device.	Cannot be used outdoors where it can be rained on directly and cannot be used submersed in water or in oil, etc.

Note: Although, initially, the protective classification complies under the testing above, due consideration must be taken because great differences may result depending on factors such as duration of operation, installation method, and environment.

- The internal mechanism will break if the actuator is moved beyond its Total-travel (T.T.). Always use within the T.T.

Die casting case

- Do not expose HL limit switch to hot water (over 60 °C +140 °F) and in a water vapor environment.
- Avoid the place where organic solvents, strong acid, strong alkali liquid and vapor may attach to the products directly. Prevent using the HL limit switch in place where inflammable or corrosive gas will be generated.
- Do not change the operating position by bending the actuator.
- Use within an ambient temperature of -10 to 80 °C. +14 to +176 °F (However, do not allow it to freeze.)
- If O.T. is too big, the life of limit switch will be shortened by switching friction. Use it with enough margin of O.T. 70 % of O.T. standard value will be good.
- Attach the terminal cover securely to the body with the metal stop latch to the projection of the body.
- Confirmation test in the actual application is highly recommended.
- Do not use the switch in a silicon atmosphere. Care should be taken where organic silicon rubber, adhesive, sealing material, oil, grease or lead wire generates silicon.
- This is designed to use inside. When used outdoors (in places where there is exposure to direct sunlight or rain such as in multistory car parks) or in environments where ozone is generated, the influence of these environments cause deterioration of the rubber material and damage for the products.
- Avoid use in excessively dusty environments where actuator operation would be hindered.

Plastic case

- Do not use in water or oil. Do not place the switch where it is always exposed to water or dust splash.
- Do not expose HL limit switch to hot water (over 60 °C +140 °F) and in a water vapor environment.
- Avoid the place where organic solvents, strong acid, strong alkali liquid and vapor may attach to the products directly. Prevent using the HL limit switch is place where inflammable or corrosive gas will be generated.
- Do not change the operating position by bending the actuator.
- Use within an ambient temperature of -10 to 80 °C. +14 to +176 °F (However, do not allow it to freeze.)
- If O.T. is too big, the life of limit switch will be shortened switching friction. Use it with enough margin of O.T. 70 % of O.T. standard value will be good for use.
- Attach the terminal cover securely to the body to the extent you can identify the clicking or locking sound.
- A confirmation test in the actual application is highly recommended.
- Do not use the switch in a silicon atmosphere. Case should be taken where organic silicon rubber, adhesive, sealing material, oil, grease or lead wire generates silicon.
- This is designed to use inside. When used outdoors (in places where there is exposure to direct sunlight or rain such as in multistory car parks) or in environments where ozone is generated, the influence of these environments cause deterioration of the rubber material and damage for the products.
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