

INDUSTRIAL AUTOMATION PRODUCT

SZ-VH1

Safety Laser Scanner Head

KEYENCE SZ-VH1 is a standard safety laser-scanner head. It monitors programmed protection zones and supplies detection information to a compatible SZ-V safety controller.

IDENTITY	VERIFIED VALUE
Manufacturer	KEYENCE
System family	KEYENCE SZ-V safety laser scanner
Part number	SZ-VH1
Country	Japan
HS code	8537101190

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



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Technical Specifications

Technical values below are limited to the named KEYENCE product record.

PARAMETER	TECHNICAL VALUE
Head type	Standard
Laser wavelength	905 nm infrared
Laser classification	Class 1
Detectable angle	190 degrees
Degree of protection	IP65

ENGINEERING DATA SUMMARY

DATA GROUP	VERIFIED ASSIGNMENT
Installed host / carrier	SZ-V controller unit
Companion hardware	approved head cable
Field connection	machine safety circuit
Primary system function	Scans the configured protective field around machinery
Controlled acceptance duty	Robot-cell perimeter guarding

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System Role and Architecture

KEYENCE SZ-VH1 is a standard safety laser-scanner head. It monitors programmed protection zones and supplies detection information to a compatible SZ-V safety controller.

FUNCTION 1

Scans the configured protective field around machinery

FUNCTION 2

Detects objects within the programmed safety zones

FUNCTION 3

Transfers safety and status information to the paired SZ-V controller

FUNCTION 4

Supports zone-based machine stopping and restart interlock logic

Matched system components

- SZ-V controller unit
- approved head cable
- machine safety circuit
- rigid protective mount

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	SZ-V controller unit
Companion hardware	approved head cable
Field connection	machine safety circuit
Primary system function	Scans the configured protective field around machinery
Controlled acceptance duty	Robot-cell perimeter guarding

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Applications and Engineering Context

Robot-cell perimeter guarding

Scans the configured protective field around machinery

Automated guided vehicle protection

Detects objects within the programmed safety zones

Machine access-zone monitoring

Transfers safety and status information to the paired SZ-V controller

Material-handling safety zones

Supports zone-based machine stopping and restart interlock logic

TECHNICAL NOTE

Mount SZ-VH1 where the complete protective field is visible, apply the safety-distance calculation, lock the configuration, and validate every zone, restart condition, and stop response before operation.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	SZ-VH1 / SZ-VH1 recorded
Physical interface	SZ-V controller unit
Companion check	approved head cable
Functional proof	Scans the configured protective field around machinery
Application test	Robot-cell perimeter guarding

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Engineering Precautions

1

Verify SZ-VH1 and the paired SZ-V controller before installation.

2

Place the safeguarded machine in a controlled lockout state.

3

Prevent optical-window contamination, impact, and mounting-bracket movement.

4

Confirm the 190-degree scan plane is free of unvalidated blind areas.

5

Configure protection and warning zones from the approved risk assessment.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
GT2-H32	High-accuracy digital contact sensor head	Open product page

MANUFACTURER SOURCE RECORD

KEYENCE SZ-VH1 Model and Series Specifications

SZ-VH1

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