



## Handheld Terminal

# **DX** Series

#### Instruction Manual

Be sure to read this instruction manual carefully prior to operating this product. After reading, keep this manual in a safe place so that you can refer to it at any time

In this instruction manual, DX Series means the DX-A600/A600GE/A400/A400GE/W600

#### Symbols

The following symbols alert you to important messages. Be sure to read these messages carefullv

A DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a situation which, if not avoided, could result in product damage as well as property damage.
► Important	Indicates cautions and limitations that must be followed during operation.
N Point	Indicates additional information on proper operation.
Reference	Indicates tips for better understanding or useful information.

- IEEE 802.11a/b/g/n/ac: These wireless LAN standards are set by the IEEE (Institute of Electrical and Electronics Engineers) 802 LAN/MAN Standards Committee responsible for formulating LAN technology standards.
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DX-A600/A400: From the app list screen, Settings → Device information → Legal information DX-W600: From the Start menu (All apps), DX setup tool → Device information →

Legal information

Such open source software files are provided on an "AS IS" basis to the maximum extent permitted by applicable law.

You may obtain a copy of the source code corresponding to the binaries for GPL/ LGPL-licensed files by sending a request to Keyence customer service at "soft-license@keyence.co.jp." There will be a charge to cover the costs of providing the source code

#### Safety Precautions on Laser Product

The DX Series uses a visible semiconductor laser as a light source Follow the instructions mentioned in this manual. Otherwise, injury to the human body (eyes and skin) may result

<b>A</b> WARNING	Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. • Do not disassemble this product. Laser emission from this product is not automatically stopped when it is disassembled. Class 1 Laser Product • Do not stare into the direct or specularly reflected beam. • Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.				
The DX Series is classified as below in accordance with IEC 60825-1: 2014.					
Item		DX-A600/A600GE/A400/A400GE/W600			
Wavelength		655 nm			

wavelength	655 nm
 Output	390 µW
Laser class	Class 1 laser product (IEC60825-1, FDA(CDRH) Part 1040.10*)

The laser classification for FDA (CDRH) is implemented based on IEC 60825-1: 2014 in accordance with the requirements of Laser Notice No. 56.

#### Safety Precautions on LED Product

The degree of risk of this product is shown below. Risk group 1

- \* LED product is classified as shown below according to IEC 62471
  - Exempt group
  - Risk Group 1 (Low-Risk)

• Risk Group 3 (High-Risk)

Risk Group 2 (Moderate-Risk)

Does not pose any photobiological hazard. Does not pose a hazard due to normal behavioral limitations on exposure

- Does not pose a hazard due to the aversion response to very bright light sources or due to thermal discomfort
  - May pose a hazard even for momentary or brief exposure.

Follow the instructions mentioned in this manual. Otherwise, injury to the human body (eyes and skin) may result

Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.

#### Safety Precautions

#### General cautions

A DANGER	<ul> <li>Do not use this product for the purpose of protecting a human body or a part of a human body.</li> <li>This product is not intended for use as an explosion-proof product. Do not use this product in a hazardous location and/or potentially explosive atmosphere.</li> <li>Do not use this product in an application that may cause death, serious injury, or serious property damage due to a failure with this product occurring, such as nuclear power plants, on aircraft, trains, ships, or vehicles, used within medical equipment, playground equipment, roller coasters and other rides, etc.</li> </ul>
<b>WARNING</b>	<ul> <li>If the product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired.</li> </ul>
<b>A</b> CAUTION	<ul> <li>Be sure to check that this product performs properly before starting the work or operation.</li> <li>We recommend that you take substantial safety measures to avoid any damage in the event of a problem occurring.</li> <li>Do not use this product in a manner not specified herein. Doing so may result in fire, electric shock, or malfunction.</li> </ul>
NOTICE	<ul> <li>Do not modify this product or use it in any way other than described in the specifications. Otherwise, the functions and performance cannot be guaranteed.</li> <li>Microscopic spots (black/bright spots), uneven brightness, or crosstalk (a phenomenon where non-existent lines or patterns are displayed) may occur on the LCD panel depending on the conditions.</li> <li>If the same display remains on the screen for a long time, afterimage may occur due to the characteristics of LCD.</li> </ul>

#### Handling of DX Series

<b>WARNING</b>	Using batteries other than those specified by KEYENCE may cause fire or explosion. Be sure to use the specified battery.
NOTICE	<ul> <li>Use or store this product within the temperature range described in "Specifications" (page 3). Do not leave the product inside a closed car or at a place exposed to direct sunlight. Doing so may damage the unit or change its reading performance.</li> <li>Use within the humidity range described in "Specifications" (page 3). Do not use the product at locations where condensation occurs due to the rapid temperature change. Doing so may damage the unit.</li> <li>This is a precision instrument. Dropping this product or subjecting it to shock may cause damage. Be careful when carrying or using this unit.</li> <li>Do not place the DX Series in a location with high humidity or a dusty area. Doing so may damage the unit.</li> <li>Do not insert a sharp object such as a needle into the buzzer hole on the back side of the DX Series. The tarpaulin may be damaged.</li> </ul>

#### Handling of main battery (DX-BP6/BP3) and communication unit with built-in main battery (DX-BS6/BS3/BQ6/BQ3)

<b>A</b> WARNING	<ul> <li>Observe the following precautions during use. Failure to do so may result in heat generation, smoke generation, fire, explosion, battery leakage, gas leakage, etc. of the main battery pack.</li> <li>Only use the specified battery.</li> <li>Do not charge, use, or store the main battery at locations of high temperature above the specified range—such as near fire, in a heated car, and under the scorching sun—or at locations of low temperature below the specified range.</li> <li>Do not put it into fire or subject to heat. If there is battery leakage or abnormal smell, immediately take it away from fire.</li> <li>Do not drop the main battery or subject it to strong pressure (such as by crushing, bending, deforming, making holes in, cutting, or throwing it).</li> </ul>
NOTIOE	Do not charge when conductive material is affixed to the charging/

communication contact. Clean this contact prior to charging

NOTICE

#### Precautions on Regulations and Standards

#### Precautions on wireless LAN

<b>A v</b>	Remove the main battery of the DX Series near locations where using wireless devices is banned at medical institutions or near electric device for medical purposes. Carry and use the product away from an implante cardiac pacemaker.	s
	<ul> <li>Communication may be impossible at locations near metallic objects, locations surrounded with metallic walls, where there is a lot of metallic powder, and in similar usage environments. Be sure to check whether communication is possible prior to installation.</li> <li>If this product is used near devices with the same frequency band radio wave interference may occur and the communication speed may become slow or communication may become impossible.</li> <li>[Japan]</li> <li>Never disassemble or modify this device. Doing so is prohibited b the Radio Act. This device is specified radio equipment according to the Radio Act. Follow the criteria defined within this act to obtai construction design certification.</li> <li>This device may be used outdoors when communicating with registered stations in the 5.2 GHz band.</li> </ul>	e I, Y
Elec	stromagnetic display of technical standards compliance mark	
Telec can b	terminal complies with technical standards based on the Radio Act and communications Business Act of Japan. The mark indicating this compliance ( eviewed as indicated below. 600/A400: From the app list screen, Settings → About phone → Regulatory	)
DX-W	(600: From the Start menu (All apps), DX setup tool → Device information → Ilatory	
■ CE a	and UKCA Markings	
KEYE this p and L produ • R • Ti ar	NCE Corporation has confirmed, on the basis of the following specifications, that broduct complies with the essential requirements of the applicable EU Directive(s) JK regulations. Be sure to consider the following specifications when using this uct in the Member States of the European Union and in the United Kingdom. IE Directive (CE) and Radio Equipment Regulations (UKCA) the full text of the EU declaration of conformity is available at the following internet (ddress: http://www.keyence.com/cedoc requency band of operation: Maximum radio-frequency power DX-W600 WLAN	
	2400 to 2483.5 MHz: 20 dBm (100 mW)	
	5200 to 5690 MHz: 23 dBm (199.5 mW) Bluetooth	
	2400 to 2483.5 MHz: 9 dBm (7.9 mW)	
	NFC: 13.56 MHz: 17 dBuA/m	
	DX-A600GE	
	WLAN	
	2400 to 2483.5 MHz: 20 dBm (100 mW) 5120 to 5350 MHz: 23 dBm (199.5 mW)	
	Bluetooth 2400 to 2483.5 MHz: 13 dBm (20 mW)	
	NFC:	
	13.56 MHz: -10 dBuA/m WWAN	
	WCDMA Band 1: 20.5 dBm (112.2 mW)	
	Band 8: 24.5 dBm (281.8 mW) LTE	
	Band 1: 20 dBm (100 mW)	
	Band 3: 21 dBm (125.9 mW) Band 7: 20 dBm (100 mW)	
	Band 8: 24 dBm (251.2 mW)	
	Band 38: 24 dBm (251.2 mW)	
	DX-A400GE WLAN	
	2400 to 2483.5 MHz: 17 dBm (50.1 mW) 5120 to 5350 MHz: 22 dBm (158.5 mW)	
	Bluetooth 2400 to 2483.5 MHz: 10 dBm (10 mW)	
	NFC: 13.56 MHz: -12 dBuA/m	
	WWAN	
	WCDMA Band 1: 22.5 dBm (177.8 mW)	
	Band 8: 24 dBm (251.2 mW) ´ LTE	
	Band 1: 22.5dBm (177.8 mW)	
	Band 3: 24 dBm (251.2 mW) Band 7: 18.5 dBm (70.8 mW)	
	Band 8: 24 dBm (251.2 mW)	
5	Band 38: 20.5 dBm (112.2 mW)	
Rema	arks: These specifications do not give any guarantee that the end-product with this uct incorporated complies with the essential requirements of RE Directive and Radio	

this Radio Equipment Regulations. The manufacturer of the end-product is solely responsible for the compliance on the end-product itself according to this directive and these UK regulations. The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

AT	BE	BG	HR	CY	CZ	DK
EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	MT	NL	PL
PT	RO	SK	SI	ES	SE	UK(NI)
IS	LI	NO	CH	TR		

#### **UL** certification

The DX Series complies with the following UL/CSA standards and has obtaied the UL/ C-UL certifications. E167973

- UL File No.
- UL category AZOT/AZOT7
- UL 62368-1 · Applicable standards
- CAN/CSA-C22.2 No. 62368-1 This product is intended to be supplied by an UL Listed power supply and power cord suitable for use at 55°C min., the power supply output is rated: 5 Vdc, 2 A with marked Class II, L.P.S. or PS2, if need further assistance, please contact KEYENCE CORPORATION for further information
- DX\_IM\_GB

Ce produit est destiné à être alimenté par une alimentation et un cordon d'alimentation homologués UL adaptés à une utilisation à 55°C min., la sortie d'alimentation est nominale : 5 Vdc, 2 A avec marqué Class II, L.P.S. ou PS2, si vous avez besoin d'aide supplémentaire, veuillez contacter KEYENCE CORPORATION pour plus d'informations

Be sure to consider the following specifications when using this product as a UL certified product. Use this product in combination with the DX-BS\*/BQ\*/BP\*/KE1, which has obtained UL certification.

	RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT
<b>CAUTION</b>	TYPE.
	DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

#### FCC Regulations

• This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions; (1) This device may not cause harmful interface, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- Application regulation
  - FCC Part 15 Subpart B Class A FCC Part 15 Subpart C
  - FCC Part 15 Subpart E
- 5150-5350MHz band is restricted to indoor operations only.

• Regulatory information page is located at: DX-A600/A400: From the app list screen, Settings  $\rightarrow$  About phone  $\rightarrow$  Regulatory DX-W600: From the Start menu (All apps), DX setup tool  $\rightarrow$  Device information Regulatory

• Hearing Aid Compatibility (HAC)

The device is hearing aid compatible as determined by ANSI C63.19-2011. This standard has two ratings: M (for reduced radio-frequency interference to enable acoustic coupling) and T (for inductive coupling with hearing aids operating in telecoil mode) on a scale from 1-4, where 4 is most compatible. The device is rated M4/T4.

The device has been tested and certified for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in the device that have not been tested yet for use with hearing aids. It is important to try the different features of the device thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. If need further assistance, please contact KEYENCE CORPORATION for further information.

#### ISED Regulations

This device complies with the following regulations specified by the ISED.

 Applicable regulation CAN ICES-003 (A) / NMB-003 (A) RSS-247 RSS-102

- The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.
- Operations in the 5250-5350 MHz band are restricted to indoor usage only.
- 5600-5650 MHz band is not allowed at Canada
- Les dispositifs fonctionnant dans la bande de 5150- 5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux
- Les opérations dans la bande de 5250-5350 MHz sont limités à un usage intérieur seulement.
- La bande de 5600-5650 MHz n'est pas autorisée au Canada

	de 5000-5050 Minz n'est pas autonsée au Canada.
<b>A</b> CAUTION	<ul> <li>This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.</li> <li>The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.</li> <li>This equipment should be installed and operated at least 10 mm away from your body.</li> <li>Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.</li> <li>Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé. Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.</li> <li>Cet équipement doit être installé et utilisé à une distance d'au moins 10 mm de votre corps.</li> </ul>

#### **Precautions for Proper Use**

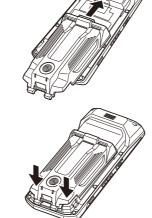
#### Handling of packing

NOTICE	<ul> <li>If units such as the DX-BS6 are not properly attached, the enclosure rating of the DX Series cannot be guaranteed. When using this product in environments where water or dust is present, check if these units are properly attached.</li> <li>Dropping the DX Series or subjecting it to extreme shock may lead to the loss of water-proofing. Take adequate care when handling this product.</li> </ul>

#### **Unit Installation**

- As an example, the installation of the DX-BS6 is explained below.
- 1 Insert the tip of the unit into the back of

the main unit.

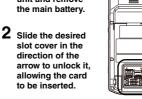


- 2 Attach the unit to the main unit by using two fingers to push the two parts of the unit indicated with arrows until they click.
- To remove the unit, press the tabs on the back of the main unit from the left and right, and then pull the unit up from the main unit

### microSD / nano SIM card installation

The DX-A600/A400 has a microSD slot and a nano SIM slot. The DX-W600 has a microSD slot

1 Turn off the main unit and remove the main battery.

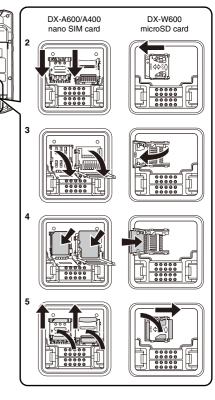




4 For the DX-A600/ A400, orient the card with its terminals at the bottom, and then place it in the slot.

For the DX-W600, insert the card into the slot cover so the terminals are at the bottom when the slot cover is closed, as shown in the figure. 5 Close the slot

cover and lock it by sliding it in the direction of the arrow.



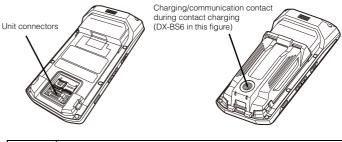
Even when not using a microSD or nano SIM card, be sure to close and lock the slot cover(s). NOTICE The slot cover(s) may be damaged if unlocked.

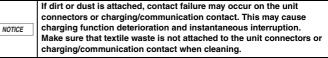
#### Cleaning

Clean the following parts with compressed air periodically. If removing dirt is difficult, use a dry cotton swab to clean the unit connectors and charging/ communication contact

(Use absolute ethanol if dirt is stuck on them.)

When using an expansion unit, also clean its charging/communication contact.





#### **Checking the Package**

When opening the package, check that the following items are all included. In the event of missing, defective, or damaged items, contact your nearest KEYENCE sales office.

#### DX-A600/A600GE/A400/A400GE/W600

Main unit...1

Instruction Manual...1

# 0

#### **Specifications**

M	lodel	DX-A600/A600GE	DX-A400/A400GE	DX-W600		
Controller	CPU	ARM <sup>®</sup> Penta Core		Intel <sup>®</sup> Quad Core + Scar processor		
Controller	OS	Android		Windows <sup>®</sup> 10 IoT Enterprise		
Main memory	Internal memory	3/4 GB RAM, 1	16/64 GB ROM	4 GB RAM, 64 GB ROM		
	LCD	6.0-inch, 720 × 1440 4.0-inch, 480 × 800		6.0-inch, 720 × 1440		
Display	Operation confirmation LED					
Operations	Hard keys	Trigger keys x 2,         Trigger keys x 2,           volume up and down         volume up and down           keys, power key,         keys, power key,           side Fn keys x 2         front Fn keys x 3		Trigger keys × 2, volume up and dowr keys, power key, side Fn keys × 2		
	Touch panel	Electrostatic capacita	ance method (reinforced	d glass specifications)		
	Reading light source	High-intensity white LED				
Scanner	Pointer light source		(655 nm) 825-1)			
	Minimum resolution	2D code	).076 mm			
	Field range	186 × 114 mm (reading distance: 200 mm)				
	Supported codes	UPC/EAN/JAN (add-on code supported), CODE128, GS1-128, CODE39, Codabar (NW-7), CODE93, ITF, COOP2of5, industrial 20f5, QR code, micro QR, DataMatrix (ECC200), PDF417, GS1 DataBar, composite symbol, Postal				
	Wireless LAN	IEEE802.11 2.4 GHz (b,g 5.2 GHz, 5.3 *	IEEE802.11 a/b/g/n/a 2.4 GHz (b,g,n: 1 to 13 ch) 5.2 GHz, 5.3 GHz, 5.6 GHz, 5.8 GHz (a/n/ac)*1*2			
Communication	Bluetooth	Bluetooth® V5	Bluetooth® V4.2 BR/EDR/LE			
	WWAN	4G LTE / 3G, SIM-fr	-			
	GNSS	GPS, A-GPS, GLONASS	-			
	NFC	ISO14443 Type A, B, FeliCa, ISO15693				
	External media	mi	IS-I			
Power	Main battery		cated lithium ion battery			
supply	Clock	Built-in lithium ion	approx. 1 month <sup>*3</sup>			
	Microphone	2, noise	canceling	1		
	Speaker					
Others	Vibrator					
	Color camera	Rear ca	mera: 5MP			
	Sensor	Accelerometer, gyros ambient lig temperature and h	Accelerometer, gyroscope, ambient light, proximity, temperature and humidity, air pressure			

	Operating ambient temperature	−20°C to +50°C, When charging 0°C to +40°C <sup>*4</sup>		−5°C to +50°C, When charging 0°C to +40°C <sup>*4</sup>		
Environmental resistance	Operating ambient humidity	20% to 85% RH (no condensation)				
	Storage ambient temperature	-20°C to +60°C (no freezing)				
	Storage relative humidity	20% to 85% RH (no condensation)				
Dim	ensions	ons		175.5 × 85.9 × 31.5 mm		
Weight		Approx. 220 g	Approx. 165 g	Approx. 230 g		

\*1 Outdoor use of 5.2/5.3 GHz band wireless LAN is prohibited. This does not include communication with access points / relay stations of 5.2 GHz band high-output data communication systems.

\*2

\*3

The usable frequency band varies depending on the region. When the main battery is not attached or has no remaining charge. Due to the added load in sub-zero environments, the continuous usage time may be \*4 reduced significantly. Be sure to test the device before use in these environments.

Model		DX-BS6	DX-BS3 <sup>*2</sup>	DX-BS3H <sup>*2</sup>	DX-BC6 <sup>*1</sup>	DX-BQ6	DX-BQ3 <sup>*2</sup>	
Display	Charging confirmation LED		2-color LED -		2-color LED			
	Туре	Dedicated lithium ion battery pack						
	Capacity	6060 mAh	3030 mAh		6270 mAh	6060 mAh	3030 mAh	
Power supply	Charging time		Approx. 4 hours		-	Approx. 7.5 hours	Approx. 5 hours (non-conta	
		Approx. 7 hours				(non-conta ct charging), approx. 6 hours (USB)	ct charging), approx. 4 hours (USB)	
Interface	Magnetic connector	Supported (charging/ communication) * Connected to DX-UC4, DX-UC4E, DX-UC1UL, DX-UC1M, or OP-88604 (magnetic charging cable)				-		
	USB	-				Supported (charging/ communication) * Connected to USB micro B, USB 2.0 OTG, or OP-88603 (USB micro B cable) <sup>*3</sup>		
	Non- contact charging	-			Built in (charging) * Charger compliant with Qi 1.1 standard			
Dimensions		122.3 x 66.1 x 27.2 mm	117.6 x 66.1 x 17.3 mm	117.6 x 66.1 x 22.5 mm	78.7 x 40.6 x 22.4 mm	117.6 x 66.1 x 22 mm	117.6 x 66.1 x 15.5 mm	
Weight		Approx. 155 g			Approx. 115 g	Approx. 155 g	Approx. 105 g	
Accessories		Hand strap back cover	-	Hand strap back cover	-	-	-	

\*1 The DX-BC6 can only be used when an expansion unit is installed. The DX-BC6 interface and charging confirmation LED are on this unit.

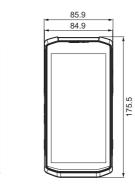
It is not recommended to use the DX-W600 with the DX-BS3/BQ3.

\*2 \*3 OTG conversion cable required with USB Host mode specifications.

#### **Outline Dimensional Drawings**

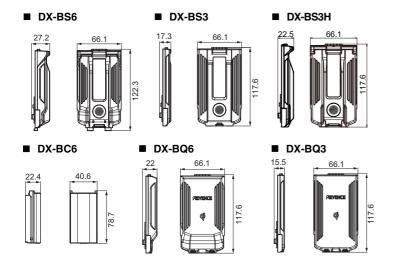
#### DX-A600/A600GE/W600

31.5



#### DX-A400/A400GE





#### WARRANTIES AND DISCLAIMERS

- (1) KEYENCE warrants the Products to be free of defects in materials and workmanship for a period of one (1) year from the date of shipment. If any models or samples were shown to Buyer, such models or samples were used merely to illustrate the general type and quality of the Products and not to represent that the Products would necessarily conform to said models or samples. Any Products found to be defective must be shipped to KEYENCE with all shipping costs paid by Buyer or offered to KEYENCE for inspection and examination. Upon examination by KEYENCE, KEYENCE, at its sole option, will refund the purchase price of, or repair or replace at no charge any Products found to be defective. This warranty does not apply to any defects resulting from any action of Buyer, including but not limited to improper installation, improper interfacing, improper repair, unauthorized modification, misapplication and mishandling, such as exposure to excessive current, heat, coldness
- moisture, vibration or outdoors air. Components which wear are not warranted. (2) KEYENCE is pleased to offer suggestions on the use of its various Products. They are only suggestions, and it is Buyer's responsibility to ascertain the fitness of the Products for Buyer's intended use. KEYENCE will not be responsible for any damages that may result from the use of the Products.
- (3) The Products and any samples ("Products/Samples") supplied to Buyer are not to be used internally in humans, for human transportation, as safety devices or fail-safe systems, unless their written specifications state otherwise. Should any Products/Samples be used a manner or misused in any way, KEYENCE assumes no responsibility, and additionally Buyer will indemnify KEYENCE and hold KEYENCE harmless from any liability or damage whatsoever arising out of any misuse of the Products/Samples.
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