

S.P. No.

Yamatake Corporation

製品仕様書  
SPECIFICATIONS

CATALOG CODING

1 4 C E 2 - [1] J [2] [3] [4] G

△ APPROVED BY EN, GB STANDARDS

[1] CABLE LENGTH

CODE	CABLE LENGTH (L) REFER TO PAGE 6/6
1	1 m
3	3 m
5	5 m

[2] CONTACT MATERIAL

CODE	CONTACT MATERIAL
~	SILVER
K	GOLD ALLOY

△ [3] MATERIAL OF HEAD SEALING

CODE	MATERIAL
~	NITRILE BUTADIENE RUBBER
V	FLUOROCARBON RUBBER

[4] INDICATOR

CODE	TYPE OF INDICATOR	AC/DC	CURRENT	RESISTANCE
E 1	LED CONNECTED TO NO	100V	1.2 mA	100kΩ
E 2	LED CONNECTED TO NC	100V	1.2 mA	100kΩ
E 5	LED CONNECTED TO NO	24V	1.5 mA	18kΩ
E 8	LED CONNECTED TO NC	24V	1.5 mA	18kΩ
~	NO INDICATOR			

CATALOG LISTINGS AND ELECTRICAL RATINGS COVERED BY THIS DRAWING ARE AS IN THE BELOW TABLE.

CONTACT MATERIAL [2]		14CE2-*J [~] ***G		14CE2-*J [K] ***G	
[4] INDICATOR					
14CE2-*J** [E1] G	CATALOG LISTING	14CE2-1JE1G	14CE2-1JVE1G	14CE2-1JKE1G	14CE2-1JKVE1G
		14CE2-3JE1G	14CE2-3JVE1G	14CE2-3JKE1G	14CE2-3JKVE1G
14CE2-*J** [E2] G	CATALOG LISTING	14CE2-1JE2G	14CE2-1JVE2G	14CE2-1JKE2G	14CE2-1JKVE2G
		14CE2-3JE2G	14CE2-3JVE2G	14CE2-3JKE2G	14CE2-3JKVE2G
14CE2-*J** [E5] G	CATALOG LISTING	14CE2-1JE5G	14CE2-1JVE5G	14CE2-1JKE5G	14CE2-1JKVE5G
		14CE2-3JE5G	14CE2-3JVE5G	14CE2-3JKE5G	14CE2-3JKVE5G
14CE2-*J** [E8] G	CATALOG LISTING	14CE2-1JE8G	14CE2-1JVE8G	14CE2-1JKE8G	14CE2-1JKVE8G
		14CE2-3JE8G	14CE2-3JVE8G	14CE2-3JKE8G	14CE2-3JKVE8G
14CE2-*J** [~] G	CATALOG LISTING	14CE2-1JG	14CE2-1JVG	14CE2-1JKG	14CE2-1JKVG
		14CE2-3JG	14CE2-3JVG	14CE2-3JKG	14CE2-3JKVG
14CE2-*J** [~] G	ELECTRICAL RATING	EN60947-5-1 IP67 1.5A-125VAC AC-15 Y222		EN60947-5-1 IP67 0.1A-125VAC AC-12 Y96	
14CE2-*J** [~] G	ELECTRICAL RATING	EN60947-5-1 IP67 0.5A-30VDC DC-12 Y223		EN60947-5-1 IP67 0.1A-30VDC DC-12 Y70	
14CE2-*J** [~] G	ELECTRICAL RATING	EN60947-5-1 IP67 1.5A-240VAC AC-15 0.5A-30VDC DC-12 Y210		EN60947-5-1 IP67 0.1A-125VAC AC-12 0.1A-30VDC DC-12 Y93	

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02	ECO06-0319	4,14,'06	SAKIYAMA	TOMITA
01	JEO05-1289	5,23,'05	KANAI	TOMITA
00	JEO04-1201	1, 7,'04	TATSUHARA	TOMITA
改番 REV.	来歴 RECORD	: 日付 DATE	担当 BY	検閲 APPD.

作成DR. TATSUHARA 1, 7, '04		尺度 SCALE	記入のない公差 TOL. UNLESS NOTED
検図CHK. TOMITA 3, 23, '04	形番 MODEL	14CE2-*J****G	
認可APPD ABE 4, 27, '04	名称 NAME	MINIATURE LIMIT SWITCH	
日付 DATE 5, 7, '04	図番 NO.	AD53959E	改番REV. 02 / 1/6

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# Yamatake Corporation

## 製品仕様書 SPECIFICATIONS

### 1. STANDARDS

- ・Conform to: JIS C 8201-5-1 IEC 60947-5-1  $\Delta_2$
- ・Approved by: EN60947-5-1 TÜV No. : R 9451283  
GB14048.5:2001 CQC No. : 2005010305166971  $\Delta_2$

### 2. STRUCTURE

- ・Type of Contact: C (SPDT)  $\Delta_1$
- ・Shape of Contact: Silver Contacts; Rivet  
Gold Alloy Contacts; Cross point
- ・Protective Structure: IP67 (IEC 60529), (JIS C 0920)
- ・Environment pollution degree: Degree 3 (EN60947-5-1)  $\Delta_2$
- ・Protection class: Class I (IEC 60536)  $\Delta_1 \Delta_2$

### 3. ELECTRICAL CHARACTERISTICS

$\Delta_1$  ・Rated operational voltage (Ue), Utilization category and Rated operational current (Ie)

Item	Silver contacts				Gold plated contacts			
	INDICATOR ~		INDICATOR E1·E2	INDICATOR E5·E8	INDICATOR ~		INDICATOR E1·E2	INDICATOR E5·E8
Rated operational voltage (Ue)	240VAC	30VDC	125VAC	30VDC	125VAC	30VDC	125VAC	30VDC
Utilization category	AC-15	DC-12	AC-15	DC-12	AC-12	DC-12	AC-12	DC-12
Rated operational current(Ie)	1.5	0.5	1.5	0.5	0.1	0.1	0.1	0.1


- ・The value of therated frequency: 45 to 65Hz and d.c.
- ・Rated insulation voltage (Ui): 250 VAC

$\Delta_1 \Delta_2$  Note 1. Dielectric test voltage between each terminal and the enclosure: **2000VAC**  
(50 to 60Hz, for 5 seconds, leak current 1mA)

$\Delta_1$  ・Dielectric test voltage between the open contacts: **600VAC** (50 to 60Hz, for 1 minute, leak current 1mA)

$\Delta_1$  ・Note2.Values Under Indication Lamp Removed.

- ・Rated impulse withstand voltage (Uimp)  
TÜV: 2500V  
CQC: Between each terminal and earth: 2500V  
Between terminals of different polarities: 1800V
- ・Conventional free air thermal current (Ith)  
Silver Contacts: 5A  
Gold Alloy Contacts: TÜV: 1A  
CQC: 0.1A

作成DR. TATSUHARA 1.7.'04		尺度 SCALE ~	記入のない公差 TOL. UNLESS NOTED ~
検図CHK. TOMITA 3, 23.'04	形番 MODEL	14CE2-*J****G	
認可APPD ABE 4, 27.'04	名称 NAME	MINIATURE LIMIT SWITCH	
日付DATE 5, 7.'04	図番 NO.	AD53959E	改番REV. <b>2/6</b>


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		02	CHANGED	4,14,'06	SAKIYAMA	TOMITA
		01	ADDITION etc.	5,23,'05	KANAI	TOMITA
		00	~	1, 7,'04	TATSUHARA	TOMITA

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- ・Contact Resistance  
Switch only  
Silver Contacts:  
    **50** mΩ max. (initial) Measured by the voltage drop method at 6 to 8 VDC **1** A.  
Gold Alloy Contacts:  
    **100** mΩ max. (initial) Measured by the voltage drop method at 6 to 8 VDC **0.1** A.  
Resistance of conductor in cable; **25.1** mΩ/m
- ・Minimum Contact Operating Current  
Silver Contacts:     **24V-10mA、12V-20mA**  
Gold Alloy Contacts: **5V-10mA**
- ・Short circuit protective device  
△ TÜV: M10A (IEC 60127)  
CQC: Silver Contacts;     10A (quick cutting fuse)  
    Gold Alloy Contacts;   3A (quick cutting fuse)
- △△ Conditional short-circuit current     :1000A

作成DR. TATSUHARA 1, 7, '04		尺度 SCALE ~	記入のない公差 TOL. UNLESS NOTED ~
検図CHK. TOMITA 3, 23, '04	形番 MODEL	14CE2-*J****G	
認可APPD ABE 4, 27, '04	名称 NAME	MINIATURE LIMIT SWITCH	
日付DATE 5, 7, '04	図番 NO.	AD53959E	改番REV. 3/6
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		: 日付 DATE	担当 BY
			検閲 APPD.

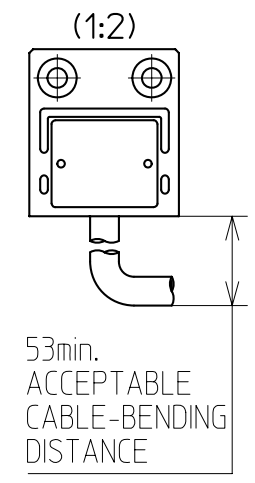
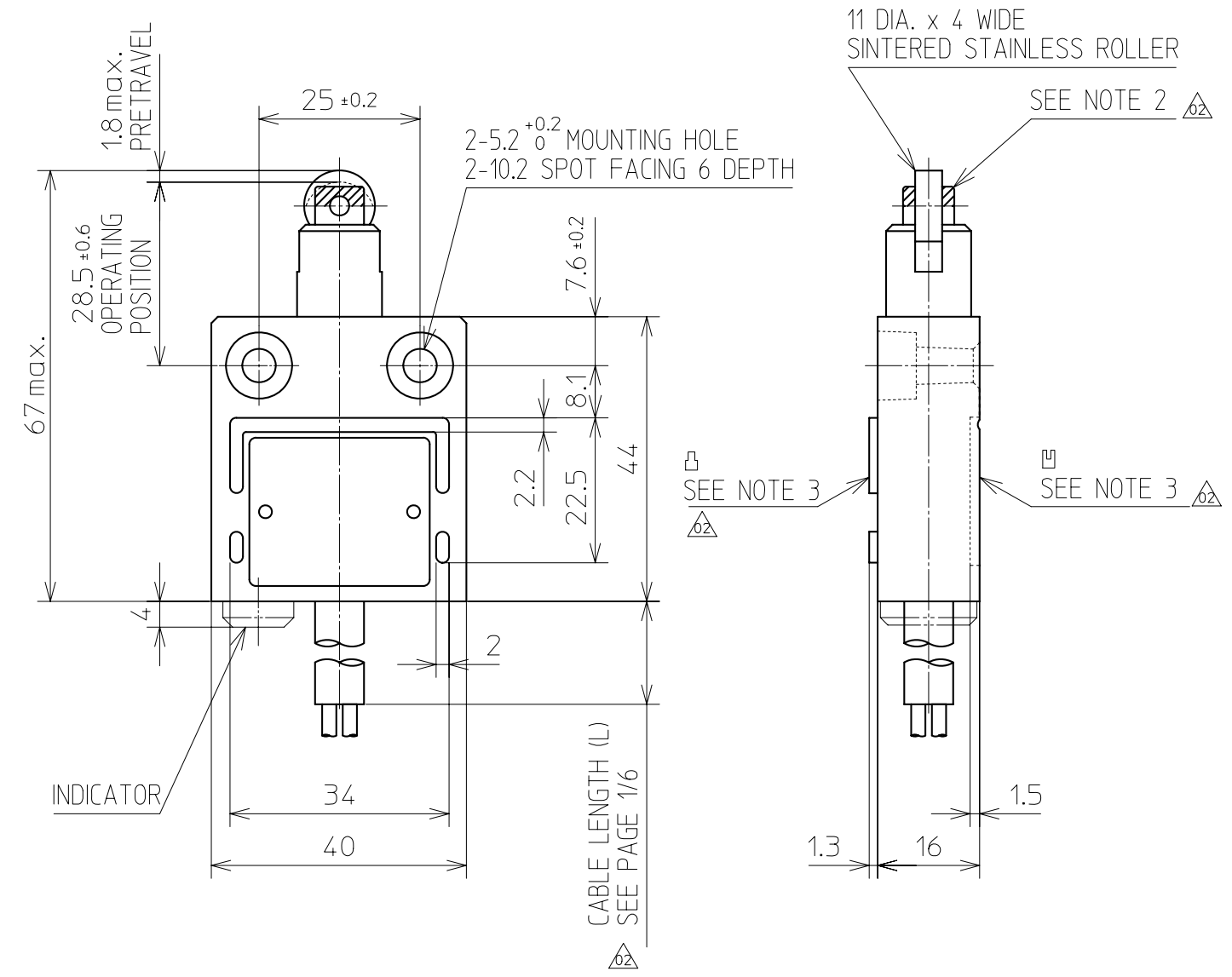




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CAT. LIST.	CIRCUIT DIAGRAM	INDICATOR
14CE2-*J** E1 G E5 G	OPERATION INDICATING LAMP LIGHTS WHILE ACTUATOR IS IN FREE POSITION 	LED (RED) INDICATOR CAP IS MADE OF TRANSPARENT NYLON 
14CE2-*J** E2 G E8 G	OPERATION INDICATING LAMP LIGHTS WHILE ACTUATOR IS IN PUSH POSITION 	
14CE2-*J** ~ G		

LAMP SPECIFICATIONS

SPECIFICATIONS	LAMP	14CE2-*J** E1 G	14CE2-*J** E5 G
			14CE2-*J** E2 G
COLOR OF THE LAMP		RED	RED
TYPE OF THE LAMP SOCKET		SOLDER THE LEAD OF LED	SOLDER THE LEAD OF LED
RATED POWER OF THE LAMP OR ITS TYPE DESIGNATION (W)	14CE2-*J~***G	0.16	0.04
	14CE2-*J K***G	0.16	0.04

- NOTES
- HOUSING IS MADE OF ALUMINUM ALLOY FINISHED WITH BLUE PAINT.
  - SET SO THAT TOP SURFACE OF BUSHING CAN STOP IN GROOVES SHOWN WITH CROSS HATCHING AT ROLLER PLUNGER FULL-OVERTRAVEL.
  - SINCE THERE ARE POSITIONING GROOVES AND CORRESPONDING EXTRUSIONS ON THE HOUSING, CORRECT GANG MOUNTING CAN BE EASILY MADE.
  - CABLE MATERIAL: OIL RESISTANT VINYL INSULATED FLEXIBLE CORD, 0.75mm<sup>2</sup>, 4-LEAD, APPROX. 7.6mm O.D., BLACK.

CHARACTERISTICS	
OPERATING FORCE	11.8N max.
RELEASE FORCE	4.4N min.
MOVEMENT DIFFERENTIAL	0.1 max.
OVERTRAVEL	3 min.

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作成DR. TATSUHARA 1, 7, '04		尺度 SCALE 1:1	記入のない公差 TOL. UNLESS NOTED ± 0.4
検図CHK. TOMITA 3, 23, '04	形番 MODEL	14CE2-*J****G	
認可APPD ABE 4, 27, '04	名称 NAME	MINIATURE LIMIT SWITCH	
日付 DATE 5, 7, '04	図番 NO.	AD53959E	改番REV. 02 / 6

02	UNIFIED	4,14,'06	SAKIYAMA	TOMITA
00	~	1, 7,'04	TATSUHARA	TOMITA
改番 REV.	来歴 RECORD	: 日付 DATE	担当 BY	検閲 APPD.

SP. NO.	Yamatake Corporation		製品仕様書 SPECIFICATIONS			
	<b>Terms and Conditions</b>					
	<p>We would like to express our appreciation for your purchase and use of Yamatake products.          You are required to acknowledge and agree upon the following terms and conditions for your purchase of Yamatake products (field instruments, control valves, and control products), unless otherwise stated in any separate document, including, without limitation, estimation sheets, written agreements, catalogs, specifications and instruction manuals.</p>					
	<p><b>1 Warranty period and warranty scope</b></p>					
	<p><b>1.1 Warranty period</b>          Yamatake products shall be warranted for one (1) year from the date of your purchase of the said products or the delivery of the said products to a place designated by you.</p>					
	<p><b>1.2 Warranty scope</b>          In the event that Yamatake product has any failure attributable to Yamatake during the aforementioned warranty period, Yamatake shall, without charge, deliver a replacement for the said product to the place where you purchased, or repair the said product and deliver it to the aforementioned place.          Notwithstanding the foregoing, any failure falling under one of the following shall not be covered under this warranty:</p>					
	<p>(1) Failure caused by your improper use of Yamatake product          (noncompliance with conditions, environment of use, precautions, etc. set forth in catalogs, specifications, instruction manuals, etc.);</p>					
	<p>(2) Failure caused for other reasons than Yamatake product;</p>					
	<p>(3) Failure caused by any modification or repair made by any person other than Yamatake or Yamatake's subcontractors;</p>					
	<p>(4) Failure caused by your use of Yamatake product in a manner not conforming to the intended usage of that product;</p>					
	<p>(5) Failure that the state-of-the-art at the time of Yamatake's shipment did not allow Yamatake to predict; or</p>					
	<p>(6) Failure that arose from any reason not attributable to Yamatake, including, without limitation, acts of God, disasters, and actions taken by a third party.</p>					
	<p>Please note that the term "warranty" as used herein refers to equipment-only-warranty, and Yamatake shall not be liable for any damages, including direct, indirect, special, incidental or consequential damages in connection with or arising out of Yamatake products.</p>					
	<p><b>2 Ascertainment of suitability</b></p>					
	<p>You are required to ascertain the suitability of Yamatake product in case of your use of the same with your machinery, equipment, etc. (hereinafter referred to as "Equipment") on your own responsibility, taking the following matters into consideration:</p>					
	<p>(1) Regulations and standards or laws that your Equipment is to comply with.</p>					
	<p>(2) Examples of application described in any documents provided by Yamatake are for your reference purpose only, and you are required to check the functions and safety of your Equipment prior to your use.</p>					
	<p>(3) Measures to be taken to secure the required level of the reliability and safety of your Equipment in your use</p>					
	<p>Although Yamatake is constantly making efforts to improve the quality and reliability of Yamatake products, there exists a possibility that parts and machinery may break down.          You are required to provide your Equipment with fool-proof design, fail-safe design, anti-flame propagation design, safety design, or the like so that the said Equipment may satisfy the level of the reliability and safety required in your use, whereby preventing any occurrence of physical injuries, fires, significant damage, and so forth.</p>					
	<p><b>3 Precautions and restrictions on application</b></p>					
	<p>Yamatake products other than those explicitly specified as applicable (e.g. Yamatake Limit Switch For Nuclear Energy) shall not be used in a nuclear energy controlled area (radiation controlled area).          Any Yamatake products shall not be used for/with medical equipment.          In addition,          you are required to conduct a consultation with our sales representative and understand detail specifications, cautions for operation, and so forth by reference to catalogs, specifications, instruction manual, etc. in case that you intend to use Yamatake product for any purposes specified in (1) through (6) below.          Moreover, you are required to provide your Equipment with fool-proof design, fail-safe design, anti-flame propagation design and other designs of protection/safety circuit on your own responsibility to ensure the reliability and safety, whereby preventing problems caused by failure or nonconformity.</p>					
	<p>(1) For use under such conditions or in such environments as not stated in technical documents, including catalogs, specification, and instruction manuals</p>					
	<p>(2) For use of specific purposes, such as:</p>					
	<p>* Nuclear energy/radiation related facilities          [For use outside nuclear energy controlled areas]          [For use of Yamatake Limit Switch For Nuclear Energy]</p>					
	<p>* Machinery or equipment for space/sea bottom</p>					
	<p>* Transportation equipment          [Railway, aircraft, vessels, vehicle equipment, etc.]</p>					
	<p>* Antidisaster/crime-prevention equipment</p>					
	<p>* Burning appliances</p>					
	<p>* Electrothermal equipment</p>					
	<p>* Amusement facilities</p>					
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				<p>(3) Supply systems such as electricity/gas/water supply systems, large-scale communication systems, and traffic/air traffic control systems requiring high reliability</p> <p>(4) Facilities that are to comply with regulations of governmental/public agencies or specific industries</p> <p>(5) Machinery or equipment that may affect human lives, human bodies or properties</p> <p>(6) Other machinery or equipment equivalent to those set forth in items (1) to (5) above which require high reliability and safety</p>		
		<p><b>4 Precautions against long-term use</b></p> <p>Use of Yamatake products, including switches, which contain electronic components, over a prolonged period may degrade insulation or increase contact-resistance and may result in heat generation or any other similar problem causing such product or switch to develop safety hazards such as smoking, ignition, and electrification.</p> <p>Although acceleration of the above situation varies depending on the conditions or environment of use of the products, you are required not to use any Yamatake products for a period exceeding ten (10) years unless otherwise stated in specifications or instruction manuals.</p>				
		<p><b>5 Recommendation for renewal</b></p> <p>Mechanical components, such as relays and switches, used for Yamatake products will reach the end of their life due to wear by repetitious open/close operations.</p> <p>In addition, electronic components such as electrolytic capacitors will reach the end of their life due to aged deterioration based on the conditions or environment in which such electronic components are used.</p> <p>Although acceleration of the above situation varies depending on the conditions or environment of use, the number of open/close operations of relays, etc. as prescribed in specifications or instruction manuals, or depending on the design margin of your machine or equipment, you are required to renew any Yamatake products every 5 to 10 years unless otherwise specified in specifications or instruction manuals.</p> <p>Field instruments (sensors such as pressure/flow/level sensors, regulating valves, etc.) will reach the end of their life due to aged deterioration of parts.</p> <p>For those parts that will reach the end of their life due to aged deterioration, recommended replacement cycles are prescribed. You are required to replace parts based on such recommended replacement cycles.</p>				
		<p><b>6 Other precautions</b></p> <p>Prior to your use of Yamatake products, you are required to understand and comply with specifications (e.g., conditions and environment of use), precautions, warnings/cautions/notices as set forth in the technical documents prepared for individual Yamatake products, such as catalogs, specifications, and instruction manuals to ensure the quality, reliability, and safety of those products.</p>				
		<p><b>7 Changes to specifications</b></p> <p>Please note that the descriptions contained in any documents provided by Yamatake are subject to change without notice for improvement or for any other reason.</p> <p>For inquires or information on specifications as you may need to check, please contact our branch offices or sales offices, or your local sales agents.</p>				
		<p><b>8 Discontinuance of the supply of products/parts</b></p> <p>Please note that the production of any Yamatake product may be discontinued without notice.</p> <p>For repairable products, we will, in principle, undertake repairs for five (5) years after the discontinuance of those products. In some cases, however, we cannot undertake such repairs for reasons, such as the absence of repair parts.</p> <p>For field instruments, we may not be able to undertake parts replacement for similar reasons.</p>				
		<p><b>9 Scope of services</b></p> <p>Prices of Yamatake products do not include any charges for services such as engineer dispatch service. Accordingly, a separate fee will be charged in any of the following cases:</p> <p>(1) Installation, adjustment, guidance, and attendance at a test run</p> <p>(2) Maintenance, inspection, adjustment, and repair</p> <p>(3) Technical guidance and technical education</p> <p>(4) Special test or special inspection of a product under the conditions specified by you</p> <p>Please note that we cannot provide any services as set forth above in a nuclear energy controlled area (radiation controlled area) or at a place where the level of exposure to radiation is equivalent to that in a nuclear energy controlled area.</p>				
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