User's Manual

Read Me First

IM 01W01F01-11EN

vigilantplant.®

This document specifies the important information to use this product correctly and safely and the Use Consent Contract of Attached Software for Field Wireless Integrated Gateway.

Before use the product, be sure to read this document first.

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Regarding This User's Manual

- This manual should be provided to the end user. Please recommend end users to keep this manual at hand and refer to it as needed.
- Before use, read this manual thoroughly to comprehend its contents.
- The purpose of the user's manual is to describe details of functions provided in this product, not to warrant the product's suitability to the specific purposes of customers.
- No part of this manual may be reproduced in any form without Yokogawa's written permission.
- The contents of this manual may be changed without prior notice.
- All reasonable effort has been made to ensure the accuracy of the contents of this manual. However, if any errors or omissions are found, please inform any of sales offices listed on the back cover or your local distributor.
- Special specifications are not described.
- Please note that this user's manual may not be revised for any specification changes, construction changes or operating part changes that are not considered to affect function or performance.

ATEX Documentation

This is only applicable to the countries in European Union.

All instruction manuals for ATEX Ex related products are available in English, German and French. Should you require Ex related instructions in your local language, you are to contact your nearest Yokogawa office or representative.

Alle brugervejledninger for produkter relateret til ATEX Ex er tilgængelige på engelsk, tysk og fransk. Skulle De ønske yderligere oplysninger om håndtering af Ex produkter på eget sprog, kan De rette henvendelse herom til den nærmeste Yokogawa afdeling eller forhandler.

Tutti i manuali operativi di prodotti ATEX contrassegnati con Ex sono disponibili in inglese, tedesco e francese. Se si desidera ricevere i manuali operativi di prodotti Ex in lingua locale, mettersi in contatto con l'ufficio Yokogawa più vicino o con un rappresentante.

Todos los manuales de instrucciones para los productos antiexplosivos de ATEX están disponibles en inglés, alemán y francés. Si desea solicitar las instrucciones de estos artículos antiexplosivos en su idioma local, deberá ponerse en contacto con la oficina o el representante de Yokogawa más cercano

Alle handleidingen voor producten die te maken hebben met ATEX explosiebeveiliging (Ex) zijn verkrijgbaar in het Engels, Duits en Frans. Neem, indien u aanwijzingen op het gebied van explosiebeveiliging nodig hebt in uw eigen taal, contact op met de dichtstbijzijnde vestiging van Yokogawa of met een vertegenwoordiger.

Kaikkien ATEX Ex -tyyppisten tuotteiden käyttöhjeet ovat saatavilla englannin-, saksan- ja ranskankielisinä. Mikäli tarvitsette Ex -tyyppisten tuotteiden ohjeita omalla paikallisella kielellännne, ottakaa yhteyttä lähimpään Yokogawa-toimistoon tai -edustajaan.

P
Todos os manuais de instruções referentes aos produtos Ex da ATEX estão disponíveis em Inglês, Alemão e Francês. Se necessitar de instruções na sua língua relacionadas com produtos Ex, deverá entrar em contacto com a delegação mais próxima ou com um representante da Yokogawa.

F Tous les manuels d'instruction des produits ATEX Ex sont disponibles en langue anglaise, allemande et française. Si vous nécessitez des instructions relatives aux produits Ex dans votre langue, veuillez bien contacter votre représentant Yokogawa le plus proche.

Alle Betriebsanleitungen für ATEX Ex bezogene Produkte stehen in den Sprachen Englisch, Deutsch und Französisch zur Verfügung. Sollten Sie die Betriebsanleitungen für Ex-Produkte in Ihrer Landessprache benötigen, setzen Sie sich bitte mit Ihrem örtlichen Yokogawa-Vertreter in Verbindung.

Alla instruktionsböcker för ATEX Ex (explosionssäkra) produkter är tillgängliga på engelska, tyska och franska. Om Ni behöver instruktioner för dessa explosionssäkra produkter på annat språk, skall Ni kontakta närmaste Yokogawakontor eller representant.

GR Ολα τα εγχειρίδια λειτουργίας των προϊόντων με ΑΤΕΧ Εχ διατίθενται στα Αγγλικά, Γερμανικά και Γαλλικά. Σε περίπτωση που χρειάζεστε οδηγίες σχετικά με Εχ στην τοπική γλώσσα παρακαλούμε επικοινωνήστε με το πλησιέστερο γραφείο της Yokogawa ή αντιπρόσωπο της. SK Všetky návody na obsluhu pre prístroje s ATEX Ex sú k dispozícii v jazyku anglickom, nemeckom a francúzskom. V prípade potreby návodu pre Ex-

francúzskom. V prípade potreby návodu pre Exprístroje vo Vašom národnom jazyku, skontaktujte prosím miestnu kanceláriu firmy Yokogawa.

Všechny uživatelské příručky pro výrobky, na něž se vztahuje nevýbušné schválení ATEX Ex, jsou dostupné v angličtině, němčině a francouzštině. Požadujete-li pokyny týkající se výrobků s nevýbušným schválením ve vašem lokálním jazyku, kontaktujte prosim vaši nejbližší reprezentační kancelář Yokogawa.

Visos gaminiø ATEX Ex kategorijos Eksploatavimo instrukcijos teikiami anglø, vokieèiø ir prancûzø kalbomis. Norëdami gauti prietaisø Ex dokumentacijà kitomis kalbomis susisiekite su artimiausiu bendrovës "Yokogawa" biuru arba atstovu.

Visas ATEX Ex kategorijas izstrâdâjumu
Lietoðanas instrukcijas tiek piegâdâtas angïu, vâcu
un franèu valodâs. Ja vçlaties saòemt Ex ierîèu
dokumentâciju citâ valodâ, Jums ir jâsazinâs ar
firmas Jokogava (Yokogawa) tuvâko ofisu vai
pârstâvi.

Kõik ATEX Ex toodete kasutamisjuhendid on esitatud inglise, saksa ja prantsuse keeles. Ex seadmete muukeelse dokumentatsiooni saamiseks pöörduge lähima lokagava (Yokogawa) kontori või esindaja poole.

PL

Wszystkie instrukcje obsługi dla urządzeń w wykonaniu przeciwwybuchowym Ex, zgodnych z wymaganiami ATEX, dostępne są w języku angielskim, niemieckim i francuskim. Jeżeli wymagana jest instrukcja obsługi w Państwa lokalnym ję zyku, prosimy o kontakt z najbliższym biurem Yokogawy.

SLO

Vsi predpisi in navodila za ATEX Ex sorodni pridelki so pri roki v anglišėini, nemšėini ter francošėini. Èe so Ex sorodna navodila potrebna v vašem tukejnjem jeziku, kontaktirajte vaš najbliši Yokogawa office ili predstaunika.

Az ATEX Ex mûszerek gépkönyveit angol, német és francia nyelven adjuk ki. Amennyiben helyi nyelven kérik az Ex eszközök leírásait, kérjük keressék fel a legközelebbi Yokogawa irodát, vagy képviseletet.

BG

Всички упътвания за продукти от серията АТЕХ Ех се предлагат на английски, немски и френски език. Ако се нуждаете от упътвания за продукти от серията Ех на родния ви език, се свържете с най-близкия офис или представителство на фирма Yokogawa.

Toate manualele de instructiuni pentru produsele
ATEX Ex sunt in limba engleza, germana si
franceza. In cazul in care doriti instructiunile in
limba locala, trebuie sa contactati cel mai apropiat
birou sau reprezentant Yokogawa.

Μ

II-manwali kollha ta' I-istruzzjonijiet għal prodotti marbuta ma' ATEX Ex huma disponibbli bI-Ingliż, bil-Germaniż u bil-Frančiż. Jekk tkun teħtieġ struzzjonijiet marbuta ma' Ex fil-lingwa lokali tiegħek, għandek tikkuntattja lill-eqreb rappreżentan jew uffiċċju ta' Yokogawa.

Safety Precautions

- Safety, Protection, and Modification of the Product
 - Safety, Protection, and Modification of the Product
 - In order to protect the operator, product, and system controlled by the product, observe the safety precautions described in this user's manual. If users handle contrary to these instructions, we can not guarantee the safety.
 - If this instrument is used in a manner not specified in this user's manual, the protection provided by this instrument may be impaired.
 - Modification of the product is strictly prohibited.
 - If customers attempt to repair or modify explosion-proof type products and fail to return them to their original state, the explosion-proof structure of this product will be lost, resulting in a hazardous state. All repairs and modifications of the product must be consulted with Yokogawa.
 - If any protection or safety circuit is required for the system controlled by the product or for the product itself, prepares it separately.
 - Be sure to use the spare parts approved by Yokogawa Electric Corporation (hereafter simply referred to as YOKOGAWA) when replacing parts or consumables.
 - The following symbols are used in the product and user's manual to indicate that there are precautions for safety:



CAUTION

Indicates that caution is required for operation. This symbol is placed on the parts necessary to refer to the user's manual for protecting the operator and equipment. In the user's manuals you will find precautions to avoid physical injury or death of the operator, including electrical shocks, injuries of human body, and so on.



WARNING

Indicates instructions that must be observed in order to prevent the software or hardware from being damaged or the system from becoming faulty.



IMPORTANT

Indicates important information required to understand operations or functions.



NOTE

Draws attention to information essential for understanding the operation and features.

Indicates additional information.

SEE ALSO Indicates a source to refer to

- Indicates a protective grounding terminal. Before using the product, ground the terminal.
- Indicates a functional grounding terminal. Before using the product, ground the terminal.
- Indicates a DC supply

Warranty

- The warranty terms of this instrument are described in the quotation. We will make any repairs that may become necessary during the guaranteed term free of charge.
- Please contact our sales office or your local distributor if this instrument requires repair.
- If the instrument is faulty, contact us with complete details about the problem and the length of time it has been faulty, and state the model and serial number. We would appreciate the inclusion of drawings or additional information.
- The results of our examination will determine whether the product will be repaired free of charge or on an at-cost basis.

■ The guarantee will not apply in the following cases:

- Damage due to negligence or insufficient maintenance on the part of the customer.
- Problems or damage resulting from handling, operation or storage that violates the intended use and specifications.
- Problems that result from using or performing maintenance on the instrument in a location that does not comply with the installation location specified by Yokogawa.
- Problems or damage resulting from repairs or modifications not performed by Yokogawa or someone authorized by Yokogawa.
- Problems or damage resulting from inappropriate installation after delivery.
- Problems or damage resulting from disasters such as fires, earthquakes, storms, floods, or lightning strikes and external causes.

Warranty and Disclaimer

- Yokogawa assumes no responsibilities for this product except as stated in the warranty.
- Yokogawa shall have neither liability nor responsibility to any person or entity with respect to any direct or indirect loss or damage arising from using the product or any defect of the product that Yokogawa can not predict in advance.

Notes on Hardware

Appearance and Accessories

Check the following when you receive the product:

- Appearance
- Standard accessories

Contact our sales representative or your local distributor if the product's coating has come off or nay accessories are missing.

Model and Suffix Codes

The name plate on the product contains the model and suffix codes. Compare them with those in the general specification to make sure the product is the correct one. If you have any questions, contact our sales office or your local distributor.

Notes on Attached Software

- Before opening the media package, read YFGW710 Software License Agreement. Once the package is opened, it is thought that the contract is agreed.
- Yokogawa assumes no responsibilities for this software except as stated in the warranty.
- This software is used with this product exclusively. This can be installed in the computer which connects with this product.

Insulation Resistance and Dielectric Strength Test

 Insulation Resistance and dielectric strength test could not be carried out for YFGW710, due to the circuit ground is connected directly to the frame of YFGW710 via RF cable shield.

Cautions for Safely Applying the Device

EMC Conformity Standards

EN61326-1 Class A, Table 2 (For use in industrial locations), EN61000-6-2



CAUTION

This instrument is a Class A product, and it is designed for use in the industrial environment. Please use this instrument in the industrial environment only.

Low Voltage Directive

Applicable standard: EN61010-1

(1) Pollution Degree 2

"Pollution degree" describes the degree to which a solid, liquid, or gas which deteriorates dielectric strength or surface resistivity is adhering. "2" applies to normal indoor atmosphere. Normally, only non-conductive pollution occurs. Occasionally, however, temporary conductivity caused by condensation must be expected.

(2) Installation Category I

"Overvoltage category (Installation category)" describes a number which defines a transient overvoltage condition. It implies the regulation for impulse withstand voltage.

"I" applies to electrical equipment which is supplied from the circuit when appropriate transient overvoltage control means (interface) are provided.

Regulatory Compliance for Radio and Telecommunication

Please confirm that a installation region fulfils a standards, require additional regulatory information and approvals, contact to Yokogawa Electric Corporation.

Radio and Telecommunications

Terminal Equipment Directive (R&TTE) C€

We, Yokogawa Electric Corporation hereby declare that this equipment, YFGW710 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The CE declaration of conformity for R&TTE for this product can be found at http://www.yokogawa.com/fld/



NOTE

France restricts outdoor use to 10 mV (10 dBm) EIRP in the frequency range of 2,454 -2,483.5 MHz. Installation in France must configure the network with configuration tool not to use channel 10 to 14. To configure the network, refer to Part C and Part D of instruction manual in DVD-ROM.

FCC compliance

This device complies with Part 15 pf FCC Riles. 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 this device.

Co-located:

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC WARNING:

Changes or modifications not expressly approved by the party responsible for compliance could void the use's authority to operate the equipment.



NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interferences to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Industry Canada (IC) compliance

This Class A digital apparatus complies with Canadian ICES-003.

French: Cet appareil numérique de la class A est conforme à la norme NMB-003 du Canada.

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.

Explosion Proof Specifications



CAUTION

This instrument has been tested and certified as being explosion proof. Please note that severe restrictions apply to this instrument's construction, installation, external wiring, maintenance and repair. A failure to abide by these restrictions could make the instrument a hazard to operate.

Optional Specifications(For Explosion Protected Types)

TIIS is under pending.

Item	Description	Code
Factory Mutual (FM)	FM nonincendive approval Applicable standard: FM3600, FM3611, FM3810, ANSI/NEMA250 Nonincendive for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III, Division 1 hazardous (Classified) locations. Enclosure: NEMA 4X Temp. Class: T4, Amb. Temp.: –40 to 60°C (–40 to 140°F)	FN17
CENELEC ATEX	CENELEC ATEX Type n declaration Applicable standard: EN60079-0:2009, EN60079-15:2005, IEC60529:2001 II 3G Ex nA nL IIC T4 Gc Enclosure: IP66 Amb. Temp.: –40 to 60°C (–40 to 140°F)	
Canadian Standards Association (CSA)	CSA nonincendive approval Certificate: 2342292 [For CSA C22.2] Applicable standard: C22.2 No.0, C22.2 No.0.4, C22.2 No.25, C22.2 No.94, C22.2 No.213, C22.2 No.61010-1-04 Nonincendive for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III, Division 1 Enclosure: Type 4X [For CSA E60079] Applicable standard: CAN/CSA E60079-0, CAN/CSA E60079-15, IEC60529 Ex nA nL IIC T4 Enclosure: IP66 Amb. Temp.: -40 to 60°C (-40 to 140°F)	CN17
IECEx Scheme	IECEx Type n approval Certificate: IECEx KEM 10.0092X Applicable standard: IEC60079-0:2007, IEC60079-15:2005, IEC60529:2001 Ex nA nL IIC T4 Gc Enclosure: IP66 Amb. Temp.: -40 to 60°C (-40 to 140°F)	
Japanese Industrial Standards (TIIS)	TIIS Type n	-

FM Approval

Caution for FM nonincendive. (Following contents refer to "DOC.NO. NFM023-A14 P.1 AND P.2.")

Note 1. Model YFGW710 Field Wireless Integrated Gateway with optional code /FN17 is applicable for use in hazardous (Classified) locations.

- Applicable standard: FM3600, FM3611, FM3810, ANSI/NEMA 250
- Nonincendive for

Class I, Division 2, Groups A, B, C and D.

Class II, Division 2, Groups F and G.

Class III, Division 1

hazardous (Classified) locations.

- Enclosure: NEMA 4X (Indoors and outdoors).
- Temperature Class: T4
- Ambient Temperature: –40 to 60°C

Note 2. Installation



WARNING

- The installation of the devices should be carried out by the engineers or other professional
 personals of the related expertise. The installation should not be carried out by operators or
 other unprofessional personals.
- The installation should be in accordance with NEC (the National Electric Code: ANSI/NFPA-70) or local electric code.
- Make sure that the breakers are installed in the power supply circuits located in non-hazardous areas so that the power can be shutoff when abnormality occurs.
- YFGW710 should be installed in upright position.
- YFGW710 does not have the nonincendive Field Wiring. The conduit wiring is required for the power cable and the metal network cable to be connected to YFGW710.
- To satisfy type of protection and NEMA4X, apply suitable devices to the electrical connection port.
- YFGW710 does not have a power switch inside. Prepare a dedicated breaker for the external power line to turn ON/OFF the device.
- · Note a warning label worded

"DO NOT REMOVE COVER WHILE CIRCUIT IS LIVE WHEN A FLAMMABLE OR COMBUSTIBLE ATMOSPHERE IS PRESENT."

"INSTALL IN ACCORDANCE WITH DOC.NO. NFM023-A14 P.1 AND P.2"

- Electrostatic charge may cause an explosion hazard. Avoid any actions that cause the generation of electrostatic charge, such as rubbing with a dry cloth on coating face of product.
- Take care not to generate mechanical sparking when access to the instrument and peripheral devices in hazardous locations.

Note 3. Maintenance and Repair



WARNING

- The instrument modification or parts replacement by other than authorized Representative of Yokogawa Electric Corporation is prohibited and will void FM Approvals approval.
- When opening the cover, the enclosure should be dry and clean to prevent from ingress water or dust.

CSA Certification

Caution for CSA nonincendive/Type n. (Following contents refer to "Doc No. NCS013")

Note 1. Model YFGW710 Field Wireless Integrated Gateway with optional code /CN17 is applicable for use in hazardous locations.

Certificate: 2342292

[For CSA C22.2]

- Applicable standard: C22.2 No.0, C22.2 No.0.4, C22.2 No.25, C22.2 No.94, C22.2 No.213, C22.2 No.61010-1
- Nonincendive for

Class I, Division 2, Groups A, B, C, D.

Class II, Division 2, Groups F, G.

Class III, Division 1

Enclosure: Type 4X

Temp. Code: T4

Ambient Temperature: –40 to 60°C

[For CSA E60079]

- Applicable standard: CAN/CSA E60079-0, CAN/CSA E60079-15, IEC60529:2001
- Ex nAnL IIC T4
- Enclosure: IP66
- Ambient Temperature: -40 to 60°C

Note 2. Electrical Connection

The type of electrical connection is depends on the model code suffix.

The model code suffix is shown on the main label in front of YFGW710.

The second character following the letter A shows the type of electrical connection as below.

Character <u>b</u> on Suffix: Aa <u>b</u> -cdefghjkm	The type of electrical connection
2	1/2 NPT female *1
4	M20 female *2

Note *1: 1/2 NPT is realized by the conversion adapter from M20 female to 1/2NPT female.

Note *2: When the cable glands or another device are necessary, user needs to prepare them which adapt to M20 female entry.

Note 3. Installation



WARNING

- The installation of the devices should be carried out by the engineers or other professional personals of the related expertise. The installation should not be carried out by operators or other unprofessional personals.
- The installation should be in accordance with Canadian Electrical Code Part I or Local Electrical Code.
- YFGW710 should be installed in upright position.
- To satisfy type of protection "n" and degree of protection provided by enclosure IP66, apply suitable devices to the electrical connection port.
- Make sure that the breakers are installed in the power supply circuits located in non-hazardous areas so that the power can be shutoff when abnormality occurs.
- YFGW710 does not have the Nonincendive Field Wiring. The conduit wiring is required for the power cable and the metal network cable to be connected to YFGW710.
- When the cable glands are necessary, user needs to prepare the cable glands. The cable glands shall be certified in type of protection "n" suitable for the conditions of use and correctly installed.
- To maintain the degree of ingress protection IP66 according to IEC 60529, and TYPE4X according to CSA C22.2 No.94 special care must be taken to avoid water.
- Note a warning label worded
 - "DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT."
 - "POTENTIAL ELECTROSTATIC CHARGING HAZARD SEE INSTRUCTIONS."
- Electrostatic charge may cause an explosion hazard. Avoid any actions that cause the generation of electrostatic charge, such as rubbing with a dry cloth on coating face of product.
- Take care not to generate mechanical sparking when access to the instrument and peripheral devices in hazardous locations.

Note 4. Maintenance and Repair



- The instrument modification or parts replacement by other than authorized Representative of Yokogawa Electric Corporation is prohibited and will void the certification.
- When Opening the cover, the enclosure should be dry and clean to prevent from ingress water or dust.

CENELEC ATEX Declaration

(1) Technical Data

Caution for ATEX Type n. (Following contents refer to "Doc No. NKE036")

Note 1. Model YFGW710 Field Wireless Integrated Gateway with optional code /KN27 is applicable for use in hazardous locations.

Applicable standard: EN60079-0:2009, EN60079-15:2005, IEC60529:2001

Type of Protection and Marking Code: Ex nAnL IIC T4 Gc

· Group: II

Category: 3G

· Enclosure: IP66

Ambient Temperature: –40 to 60°C

Note 2. Electrical Connection

The type of electrical connection is depends on the model code suffix.

The model code suffix is shown on the main label in front of YFGW710.

The second character following the letter A shows the type of electrical connection as below.

Character <u>b</u> on Suffix: Aa <u>b</u> -cdefghjkm	The type of electrical connection
2	1/2 NPT female *1
4	M20 female *2

Note *1: 1/2 NPT is realized by the conversion adapter from M20 female to 1/2NPT female.

Note *2: When the cable glands or another device are necessary, user needs to prepare them which adapt to M20 female entry.

Note 3. Installation



- The installation of the devices should be carried out by the engineers or other professional personals of the related expertise. The installation should not be carried out by operators or other unprofessional personals.
- The installation should be in accordance with Local Electrical Code.
- YFGW710 should be installed in upright position.
- To satisfy type of protection "n" and degree of protection provided by enclosure IP66, apply suitable devices to the electrical connection port.
- The conduit wiring is required for the power cable and the metal LAN cable to be connected to YFGW710.
- When the cable glands are necessary, user needs to prepare the cable glands. The cable glands shall be certified in type of protection "n" suitable for the conditions of use and correctly installed.
- To maintain the degree of ingress protection IP66 according to IEC 60529 special care must be taken to avoid water.

- YFGW710 does not have a power switch inside. Prepare a dedicated breaker for the external power line to turn ON/OFF the device.
- Make sure that the breakers are installed in the power supply circuits located in non-hazardous areas so that the power can be shutoff when abnormality occurs.
- · Note a warning label worded
 - "DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT."
 - "POTENTIAL ELECTROSTATIC CHARGING HAZARD SEE INSTRUCTIONS."
- Electrostatic charge may cause an explosion hazard. Avoid any actions that cause the generation of electrostatic charge, such as rubbing with a dry cloth on coating face of product.
- Take care not to generate mechanical sparking when access to the instrument and peripheral devices in hazardous locations.

(2) Operation



WARNING

Take care not to generate mechanical sparking when access to the instrument and peripheral devices in hazardous locations.

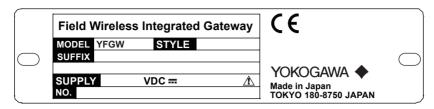
(3) Maintenance and Repair



- The instrument modification or parts replacement by other than authorized Representative of Yokogawa Electric Corporation is prohibited and will void the EHSRs.
- When Opening the cover, the enclosure should be dry and clean to prevent from ingress water or dust.

(4) Name Plate

· Main name plate



MODEL: Specified model code.

STYLE: Style code.

SUFFIX: Specified suffix code.

SUPPLY: Specified supply voltage and wattage.

NO.: Serial number and year of production *1.

YOKOGAWA ◆ TOKYO 180-8750 JAPAN:

The manufacturer name and the address *2.

*1: The third figure from the last of the serial number shows the year of production. For example, the production year of the product engraved in "NO." column on the name plate as follows is 2010.

91K506412 <u>0</u>19

The year 2010

*2: "180-8750" is a postal code which represents the following address. 2-9-32 Nakacho, Musashino-shi, Tokyo Japan

· Hazardous class name plate



Ex nAnL IIC T4 Gc Tamb. -40 to 60°C, ENCLOSURE: IP66

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.

WARNING **A**

POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS.

■ IECEx Certification

(1) Technical Data

Model YFGW710 Field Wireless Integrated Gateway with optional code /SN27 is applicable for use in hazardous locations.

Applicable standard: IEC60079-0:2007, IEC60079-15:2005, IEC60529:2001

Certificate: IECEx KEM 10.0092X

• Type of Protection and Marking Code: Ex nA nL IIC T4 Gc

Ambient Temperature: –40 to 60°C

Enclosure: IP66

(2) Electrical Connection

The type of electrical connection is depends on the model code suffix.

The model code suffix is shown on the main label in front of YFGW710.

The second character following the letter A shows the type of electrical connection as below.

Character <u>b</u> on Suffix: Aa <u>b</u> -cdefghjkm	The type of electrical connection
2	1/2 NPT female *1
4	M20 female *2

Note *1: 1/2 NPT is realized by the conversion adapter from M20 female to 1/2NPT female.

Note *2: When the cable glands or another device are necessary, user needs to prepare them which adapt to M20 female entry.

(3) Installation



- The installation of the devices should be carried out by the engineers or other professional personals of the related expertise. The installation should not be carried out by operators or other unprofessional personals.
- The installation should be in accordance with Local Electrical Code.
- To satisfy type of protection "n" and degree of protection provided by enclosure IP66, apply suitable devices to the electrical connection port.
- The conduit wiring is required for the power cable and the metal LAN cable to be connected to YFGW710.
- The instrument modification or parts replacement by other than authorized representative of Yokogawa Electric Corporation is prohibited and will void IECEx certificate.
- Provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 40%
- When the cable glands are necessary, user needs to prepare the cable glands. The cable glands shall be certified in type of protection "n" suitable for the conditions of use and correctly installed.
- To maintain the degree of ingress protection IP66 according to IEC 60529 special care must be taken to avoid water.
- YFGW710 does not have a power switch inside. Prepare an dedicated breaker for the external power line to turn ON/OFF the device.

• Make sure that the breakers are installed in the power supply circuits located in non-hazardous areas so that the power can be shutoff when abnormality occurs.

· Note a warning label worded

"DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT."

"POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS."

- Electrostatic charge may cause an explosion hazard. Avoid any actions that cause the generation of electrostatic charge, such as rubbing with a dry cloth on coating face of product.
- Take care not to generate mechanical sparking when access to the instrument and peripheral devices in hazardous locations.

(4) Maintenance and Repair



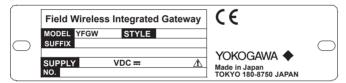
WARNING

The instrument modification or parts replacement by other than authorized Representative of Yokogawa Electric Corporation is prohibited and will void the certification.

 When Opening the cover, the enclosure should be dry and clean to prevent from ingress water or dust.

(5) Name Plate

· Main name plate



MODEL: Specified model code.

STYLE: Style code.

SUFFIX: Specified suffix code.

SUPPLY: Specified supply voltage and wattage.

NO.: Serial number and year of production*1.

YOKOGAWA ◆ TOKYO 180-8750 JAPAN:

The manufacturer name and the address*2.

*1: The third figure from the last of the serial number shows the year of production. For example, the production year of the product engraved in "NO." column on the name plate as follows is 2010.

91K506412 <u>0</u>19 † The year 2010

- *2: "180-8750" is a postal code which represents the following address.

 2-9-32 Nakacho, Musashino-shi, Tokyo Japan
- Hazardous class name plate

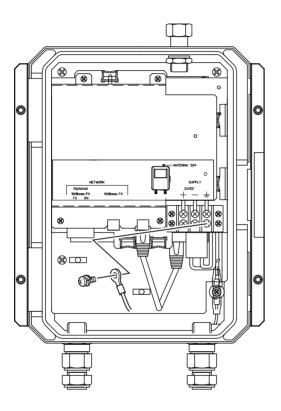


Ground Cable Connection

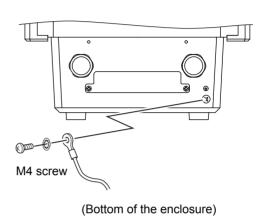
The grounding terminals are located on the inside and outside of the terminal area. Connect the cable to grounding terminal in accordance with wiring procedure 1) or 2).

1) Internal grounding terminal

If the power cable is a shielded cable, the shield should be grounded at the terminal marked \pm as below.



2) External grounding terminal



Wiring Procedure for Grounding Terminals

How to Use Online Manual

It is necessary to install Adobe Acrobat Reader to read the instruction manual (YFGW710 Field Wireless Integrated Gateway: IM 01W01F01-01EN).

Install the following Adobe Reader by the administrator authority.

· Adobe Reader 9.3 or later

TIP

Adobe Reader can be downloaded from the Web site of Adobe Systems Incorporated.

Reading of Online Manual

The online manual is stored in the attached DVD-ROM. The file is not installed in the PC even if the attached software is installed to PC. Open the file by Adobe Reader to read the manual.

DVD-ROM Drive:\Document\en\IM 01W01F01-01EN.pdf

Preparation to Install YFGW710 Attached Software

It is necessary to install "Microsoft .NET Framework3.5 SP1" on PC beforehand to install the Attached Software with this product.

For details, refer to Readme_en.txt in the attached DVD-ROM.

DVD-ROM Drive:\Readme_en.txt

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 user's manual.

About User's Manual

Composition of User's Manual

This chapter explains the composition of User's Manual.

The following printed user's manual is attached to YFGW710 hardware.

• IM 01W01F01-11EN: Read me first

The following online user's manual is stored in the attached DVD-ROM for YFGW710.

• IM 01W01F01-01EN: YFGW710 Field Wireless Integrated Gateway

Information of User's Manual Revision

Material Name: Read Me First

Material Number: IM 01W01F01-11EN

Edition	Date	Page	Revised Item
1st Edition	August 2010		New Issue
2nd Edition	October 2010	7 9	Add "Cautions for Safely Applying the Device." Add "Explosion Proof Specifications."
3rd Edition	April 2011	- 9+ 20	Change CD-ROM to DVD-ROM. Add "IECEx Scheme Type n approval." Add "Windows Server."

YFGW710 Software License Agreement

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 - c) modification, improvement or alteration is made by a person other than Yokogawa or its designated service provider;
 - d) your or third party's (excluding the service provider designated by Yokogawa) misuse, alteration, addition of new function, or use for any purpose not provided in the functional specifications of Yokogawa;
 - e) the appropriate environmental or other conditions provided by Yokogawa or hardware supplier is not complied with;
 - f) the corrective action (including repair, replacement or workaround) for the defect or noncompliance is not implemented as suggested by Yokogawa; or
 - g) any other causes which are not deemed attributable to Yokogawa.
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- 13.1 This Agreement supersedes all prior oral and written understandings, representations and discussions between the parties concerning the subject matter hereof to the extent such understandings, representations and discussions should be discrepant or inconsistent with this Agreement.
- 13.2 If any part of this Agreement is found void or unenforceable, it shall not affect the validity of the balance of the Agreement, which shall remain valid and enforceable according to its terms and conditions. The parties hereby agree to attempt to substitute for such invalid or unenforceable provision a valid or enforceable provision that achieves to the greatest extent possible the economic, legal and commercial objectives of the invalid or unenforceable provision.
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