



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX CSAE 24.0032X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2024-10-22
Applicant: **Beijing GODA Instruments Co., LTD.**
Hongfu Enterprise Incubation Yard10, No.2 Workshop 2-4. ChangpingDistrict,
Beijing
China
Equipment: **80G Radar Level Instrument, type GDRD8X Series**
Optional accessory:
Type of Protection: **Intrinsic Safety "ia"**
Marking: Ex ia IIC T6...T2 Ga
Ex ia IIIC T85°C...T300°C Da
Refer to Specific Conditions of Use for Ambient Temperatures.

Approved for issue on behalf of the IECEx
Certification Body:

Michelle Halliwell

Position:

Director Operations, UK & Industrial Europe

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





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Manufacturer: **Beijing GODA Instruments Co., LTD.**
Hongfu Enterprise Incubation Yard10, No.2 Workshop 2-4. ChangpingDistrict,
Beijing
China

Manufacturing locations: **Beijing GODA Instruments Co., LTD.**
Hongfu Enterprise Incubation Yard10,
No.2 Workshop 2-4. ChangpingDistrict,
Beijing
China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[GB/CSAE/ExTR24.0047/00](#)

Quality Assessment Report:

[GB/CSAE/QAR24.0017/00](#)



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Date of issue: 2024-10-22

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

GDRD8X Series radar level instrument.

X could be 2, 3, 7 and 9 to represent different application.

2 and 3 is for liquid application; 7 is for solid application; 9 is for marine application.

Take user manual for detailed equipment model naming.

The final equipment is the combination of Mainframe and Antenna.

Only the mainframe construction and Antenna setup are little bit different among the models.

Take Sheets of Mainframe and Antenna for detail, construction and material difference are listed in user manual.

The lens on the Antenna of 83 and 89 are made of PTFE. The lens on the Antenna of 82 are made of PTFE and FEP. The lens on the Antenna of 87 are made of PTFE and PEEK.

The main circuit in all models are same, only little difference because of different interface (RS485 and 4-20mA).

GDRD8X Series radar level instrument are designed and constructed with type of protection "ia" for gas group IIC and dust group IIIC.

Refer to certificate Annexe for further information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Electrical connections and IS input parameters should be observed in accordance with Ex instruction.
2. WARNING – Potential Electrostatic Charging Hazard- See instructions.
3. When the enclosure is made of aluminium alloy, impact or friction should be avoid to control the mechanical spark.
4. Non metallic parts of the equipment shall be protected from the sunlight to avoid the UV impact.
5. The temperature class depends on Ta and process temperature as the table below listed.

Ta of mainframe	Process temperature at the antenna	T class of whole equipment
-40-50°C	-40-50°C	T6/85°C
-40-60°C	-40-95°C	T5/100°C
-40-70°C	-40-130°C	T4/135°C
	-40-195°C	T3/200°C
	-40-200°C	T2/300°C

6. The radar level instrument shall use the suitable certified cable gland and blank element with $T_s \geq 100^\circ\text{C}$.
7. The equipment should be protected to avoid high risk from mechanical impact.
8. Installation of the equipment shall follow IEC 60079-14 last edition or any national equivalent standards.

Annex:

[IECEX CSAE 24.0032X Issue 0 Annexe.pdf](#)

Annexe to: IECEx CSAE 24.0032X Issue 0

Applicant: Beijing GODA Instruments Co., Ltd.

Apparatus: 80G Radar Level Instrument, type GDRD8X Series



EQUIPMENT (continued)

Model naming rules:

GDRD8X-(1)(2)(3(4)(5)(6)(7)(8)(9) (X standards for 2, 3, 7, and 9)

- (1) Approval
- (2) Antenna form
- (3) Lens material
- (4) Install form
- (5) Process Seal
- (6) Electronic building brick
- (7) House /protection grade
- (8) Cable access interface
- (9) Display/programming

GDRD82- 1 2 3 4 5 6 7 8 9

- (1) Approval
P Standard
I Ex ia IIC T6...T2 Ga
F Ex ia IIIC T85°C...T300°C Da

- (2) Antenna form
DS (-40~150°C) (-0.1~2.5) MPa Lens diameter is 50mm
DQ (-40~200°C) (-0.1~2.5) MPa Lens diameter is 50mm
ES (-40~150°C) (-0.1~2.5)MPa Lens diameter is 80mm
EQ (-40~200°C) (-0.1~2.5) MPa Lens diameter is 80mm

- (3) Lens material
A PTFE (-40~200°C)
B FEP (-40~200°C)

- (4) Install form
FA Flange DN50 PN16 Stainless steel 316L
FB Flange DN80 PN16 Stainless steel 316L
FC Flange DN100 PN16 Stainless steel 316L
FD Flange DN125 PN16 Stainless steel 316L
FE Flange DN150 PN16 Stainless steel 316L
FX Nonstandard flange

- (5) Process Seal
X None

- (6) Electronic building brick
B (4-20)mA/HART 2-Wire
R RS485/MODBUS Protocol

- (7) House /protection grade
A Die-casting aluminium ADC12/IP67
E Die-casting aluminium ADC12/IP67
G Stainless steel 316L/IP67

Date: 22 October 2024

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Annexe to: IECEx CSAE 24.0032X Issue 0

Applicant: Beijing GODA Instruments Co., Ltd.

Apparatus: 80G Radar Level Instrument, type GDRD8X Series



(8) Cable access interface

M M20X1.5

N 1/2 NPT

(9) Display/programming

A Programmer with Bluetooth

B Programmer without Bluetooth

C Remote display with Bluetooth

D Remote display without Bluetooth

X None

GDRD83- 1 2 3 4 5 6 7 8 9

(1)Approval

P Standard

I Ex ia IIC T6...T2 Ga

F Ex ia IIIC T85°C ...T300°C Da

(2)Antenna form

AM (-40~130°C) (-0.1~2.5)MPa Lens diameter is 3/4"

FM (-40~130°C) (-0.1~2.5)MPa Lens diameter is 1 1/2"

FT (-40~200°C) (-0.1~2.5)MPa Lens diameter is 1 1/2"

GM (-40~130°C) (-0.1~2.5)MPa Lens diameter is 3"

GT (-40~200°C) (-0.1~2.5)MPa Lens diameter is 3"

(3) Lens material

A PTFE (-40~200°C)

(4) Install form

GP G-thread/ Stainless steel 316L

NP NPT-thread/ Stainless steel 316L

(5) Process Seal

A FKM (-40~200°C)

(6) Electronic building brick

B (4-20) mA/HART 2-Wire

R RS485/MODBUS Protocol

(7) House /protection grade

A Die-casting aluminium ADC12/IP67

E Die-casting aluminium ADC12/IP67

G Stainless steel 316L/IP67

(8) Cable access interface

M M20X1.5

N 1/2 NPT

(9) Display/programming

A Programmer with Bluetooth

B Programmer without Bluetooth

C Remote display with Bluetooth

D Remote display without Bluetooth

X None

Date: 22 October 2024

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Annexe to: IECEx CSAE 24.0032X Issue 0
Applicant: Beijing GODA Instruments Co., Ltd.
Apparatus: 80G Radar Level Instrument, type GDRD8X Series



GDRD87- 1 2 3 4 5 6 7 8 9

(1) Approval

P Standard

I Ex ia IIC T6...T2 Ga

F Ex ia IIIC T85°C ...T300°C Da

(2) Antenna form

NW (-40~130°C) Atmospheric Stainless steel 316L Gimbal

RW (-40~200°C) Atmospheric Stainless steel 316L Gimbal with Radiator

JG (-40~130°C) (-0.1~0.3) MPa Stainless steel 316L Thread M94X2

LG (-40~200°C) (-0.1~0.3) MPa Stainless steel 316L Thread M94X2 with Radiator

(3) Lens material

A PTFE (-40~200°C)

C PEEK (-40~200°C)

(4) Install form

FC Flange DN100 PN16 Stainless steel 316L

FD Flange DN125 PN16 Stainless steel 316L

FE Flange DN150 PN16 Stainless steel 316L

FX Nonstandard flange

(5) Process Seal

A FKM (-40~200°C)

(6) Electronic building brick

B (4-20) mA/HART 2-Wire

R RS485/MODBUS Protocol

(7) House /protection grade

A Die-casting aluminium ADC12/IP67

E Die-casting aluminium ADC12/IP67

G Stainless steel 316L/IP67

(8) Cable access interface

M M20X1.5

N 1/2 NPT

(9) Display/programming

A Programmer with Bluetooth

B Programmer without Bluetooth

C Remote display with Bluetooth

D Remote display without Bluetooth

X None

GDRD89- 1 2 3 4 5 6 7 8 9

(1) Approval

I intrinsically safe

Date: 22 October 2024

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Annexe to: IECEx CSAE 24.0032X Issue 0

Applicant: Beijing GODA Instruments Co., Ltd.

Apparatus: 80G Radar Level Instrument, type GDRD8X Series



(2) Antenna form

UA (-40~130°C) (-0.1~0.1) MPa 30m

UB (-40~130°C) (-0.1~0.1) MPa 70m

(3) Lens material

A PTFE (-40~200°C)

(4) Install form

FB Flange DN80 PN40 Stainless steel 316L

(5) Process Seal

X None

(6) Electronic building brick

B (4-20) mA/HART 2-Wire

R RS485/MODBUS Protocol

(7) House /protection grade

E Die-casting aluminium ADC12/IP67

M Stainless steel 316L/IP67

G Stainless steel 316L/IP67

(8) Cable access interface

M M20X1.5

N 1/2 NPT

(9) Display/programming

B Programmer without Bluetooth

X None