









Table of Contents

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1. Measurement Principle



Principle

High frequency microwave pulses travels along the detecting component (steel rope or rod) and reflects when veaching the product surface. The time from emission to reception is proportional to the distance between the surface and the reference plane on the instrument.

Features

FDGW5X equipped with the advanced microprocessor and unique EchoDiscovery echo processing technology can be used in severe ambience.

FDGW5X with extremely low emission power, can be mounted on various metal or nonmetal vessels, harmless towards the environment and human beings.

There are multiple options availabe in choosing various process connection and detectting component, which enables FDGW5X to be applied in a broad extent of applications, such as high temperature, high pressure, medium with small dielectric constant and etc.

2 Product Overview

FDGW51







Application: Level measurement for liquids/solids,in severe

·

ambience

Max. Measurement

Range:

Measurement Accuracy: Process Connection:

Detection Component

Material:

Process Pressure: Process Temperature: Signal Output:

Power:

Rope:30m/Rod:6m

± 10mm

G1½A、G2A、1½NPT

Stainless Steel 316L/PTFE

(-0. 1~4) MPa (-40~150) °C (4~20)mA/HART 2-Wire (DC24V)

4-Wire (DC24V/AC220V)

Application: Level measurement for

liquids/solids,in severe

ambience

6m

Max. Measurement

Range:

Measurement Accuracy: ±10mm
Process Connection: PTFE flange

Detection Component

Material: PTFE

Process Pressure: $(-0.1 \sim 1.6)$ MPa Process Temperature: $(-40 \sim 150)$ °C Signal Output: $(4 \sim 20)$ mA/HART Power: 2-Wire (DC24V)

2-Wire (DC24V/AC220V)

2



FDGW54



Application: Level measurement for liquids,

especially for ones with small dielectric constant, in severe

ambience

Max. Measurement

Range: 6m Measurement Accuracy: ± 10 mm Process Connection: $G1\frac{1}{2}A$, G2A

Detection Component

Material: Stainless Steel 316L/PTFE

Process Pressure: $(-0.1 \sim 4) \text{ MPa}$ Process Temperature: $(-40 \sim 150) ^{\circ}\text{C}$ Signal Output: $(4 \sim 20) \text{mA/HART}$ Power: 2-wire (DC24V)

4-wire (DC24V/AC220V)

Application:

Level measurement for liquids in severe ambience with high temperature/pressure

Max. Measurement

Range: Rope:30m/Rod:6m

Measurement Accuracy: ±10mm

Process Connection: G1½A/G2A/1½NPT

Detection Component

Material:

Power:

Process Pressure:
Process Temperature:
Signal Output:

(-0. 1~4) MPa (-40~200) °C (4~20)mA/HART 2-wire (DC24V)

4-wire (DC24V/AC220V)

Stainless Steel 316L/Chinaware





Application: Level measurement for

liquids, especially in severe ambience with very high temperature and pressure

Max. Measurement

Range: Rope:30m/Rod:6m

Measurement Accuracy: ±10mm

Process Connection: G11/2A/G2A/11/2NPT

Detection Component

Material: Stainless Steel 316L/Chinaware

Process Pressure: (Vacuum~40) MPa
Process Temperature: (-200~400) °C
Signal Output: (4~20)mA/HART
Power: 2-Wire (DC24V)

4-Wire (DC24V/AC220V)

Application: Level measurement for

liquids with small dielectric constant or

powder

Max. Measurement

Range: Rope:30m/Rod:6m

Measurement Accuracy: ±10mm

Process Connection: G1½A/G2A/1½NPT

Detection Component

Material: Stainless Steel 316L/PTFE

Process Pressure: $(-0.1 \sim 4) \,\text{MPa}$ Process Temperature: $(-40 \sim 150) \,^{\circ}\text{C}$ Signal Output: $(4 \sim 20) \,\text{mA/HART}$ Power: $2 - \text{Wire} \, (\text{DC24V})$

4-Wire (DC24V/AC220V)

4

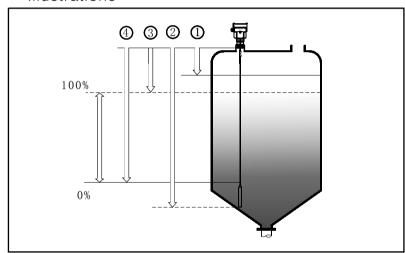
3. Mounting Requirement

Basic Requirement

Keep in mind that the rope/rod is kept away from obstructions within vessel. The obstructions are like: ladders, limit switches, heating spirals, struts and etc. Furthermore, rope or rods must not intersect the filling streams.

Be cautious during the installation: the level of the measured medium must not be in the blanking zone, the mounting location must keep a min distance to the vessel wall, the rope or rod is perpendicular to the surface of the measured medium. Local or federal safety instruction must be abided when installation is in explosion hazardous area. Aluminium housing is used for intrinsically safe version, which can be used in explosion hazardous areas. The instrument must be connected to ground potential in this situation.

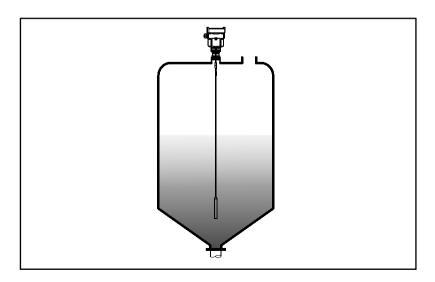
Illustrations



The reference plane is the thread or flange surface

- 1 Blanking Zone (Menu 1. 10)
- 2 Length (Menu1.9)
- 3 Max. Measurement Range (Menu1.2)
- 4 Blanking Zone (Menu 1.1)
- 5 reference plane

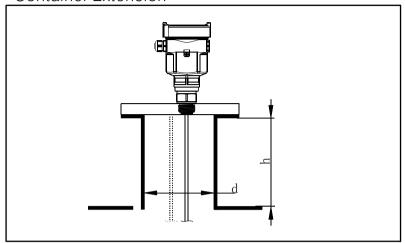
Note: The level of the measured medium must not be in either blanking zone.



The best mounting location for a conical vessel with flat top is the center of the vessel's top, as the effective measurement can reach the bottom of vessel.

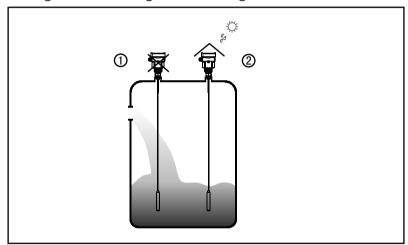
Socket

Container Extension



Avoid installation with socket if possible, otherwise try to minimize the length of socket. In case of long socket, small vessel or medium with low dielectric constant, you are advised to use FDGW56

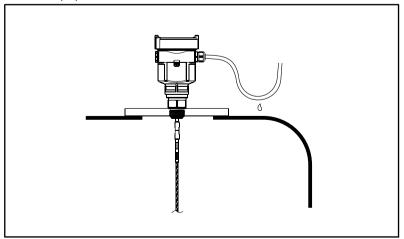
Rights and Wrongs in Mounting



- 1 Wrong: The rod/rope is in/above filling stream, which results in the measurement of filling stream not the target medium.
- 2 Correct

Note: Sun shield or rain-proof is required for outdoor mounting.

Damp-proof



When mounting outdoors, humid indoors or on cooling/heating vessels, in order to avoid damp seal rings used on cables should be screwed tight, and the cable must be bended downward outside cable entry, as indicated on the diagram below:

6

4 Electrical Connection

Power Supply

20mA/HART(2-Wire)

Power supply and current signal are carried by the same two-wire connection cable. See the Technical Specifications of this guide for detailed requirement on power supply. A safety barrier should be placed between power supply and instrument for intrinsically safe version.

20mA/HART(4-wire)

Power supply and current signal are carried by two 2-wire connection cables respectively. See the Technical Specifications of this guide for detailed requirement on power supply. Earth-connected current output can be used for standard version of level instruments, while the explosion proof version must be operated with a floating current output. Both instruments and earth terminals should be connected with ground firmly and securely. Normally you can either choose to connect with the earth terminal on vessel or adjacent ground in case of plastic vessels.

Cable Connection General Introduction

4~20mA/HART

Standard 2-wire cable with outside diameter of 5...9mm, which assures the seal effect of cable entry, can be used as feeder cable. You are recommended to use screened cables in the event of electromagnetic Connection cable with special earth wire can be used as feeder cable.

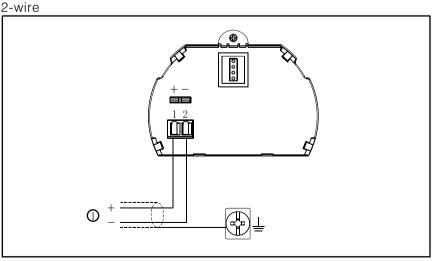
Connection cable with special earth wire can be used as feeder cable.

20mA/HART(4-wire)

Shielding & Grounding

The two ends of shielded cable must be connected with earth terminal. The shielded cable must be connected with inner earth terminal directly inside the transducer, while the outside earth terminal on housing must be connected with ground. In the event of earth-connected current, the shielding side of shielded cable must be connected to ground potential via a ceramic capacitor (e.g. : 1 μ F 1500V) in order to dampen the low frequency grounding current and avoid the disturbance caused by high frequency signals

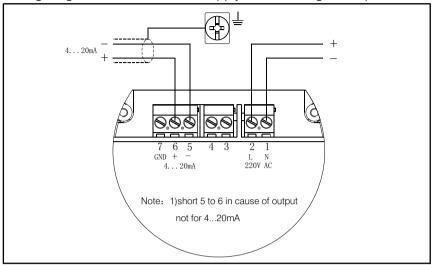
Wiring Diagram



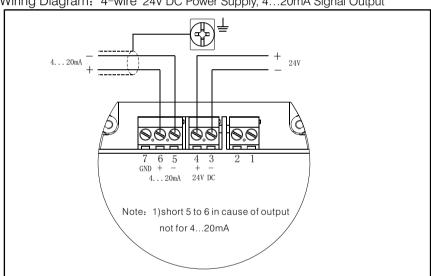
2-wire wiring used for HART1) Power Supply and Signal Output

4-wire/2-chamber

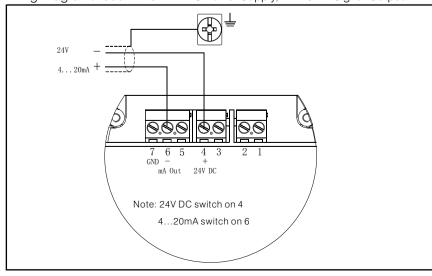
Wiring Diagram: 200V AC Power Supply, 4...20mA Signal Output



Wiring Diagram: 4-wire 24V DC Power Supply, 4...20mA Signal Output



Wiring Diagram: dual-wire 24V DC Power Supply, 4...20mA Signal Output

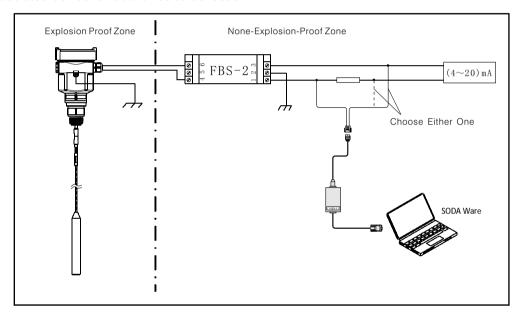


Explosion Proof Connection

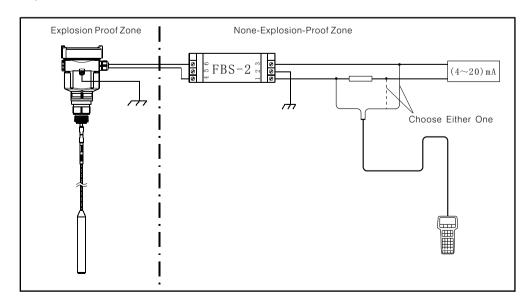
he intrinsic safety version sensors (Exia II c T6) use Alu-die casting housing and filling sillicone rubber encapsulants internal structure aimed to prevent sparks resulted from circuit failure from leaking out. It is applicable for the continuous level measurement of flammable medium under Exia II c T6.

A safety barrier FBS-2 must be used together with the intrinsic safety intrument. It is an associated device to this product for the power supply of this product, the main sepcification is intrinsic safety: Exia II C, voltage of power supply: 24V DC±5%, short-circuit current: 135mA, operating current: 4...20mA.

All cables must be shielded. The max length is 500m for the cable from the barrier to the sensor. Stray capacitor $\leq 0.1 \,\mu$ F/Km,stray inductance ≤ 1 mH/Km. Instrument must be connected to the ground potential. Any unapproved accociated device is not allowed to be used.



Adjustment with SODAware



Adjustment with HART Handheld Programmer

5 Adjustment Instructions

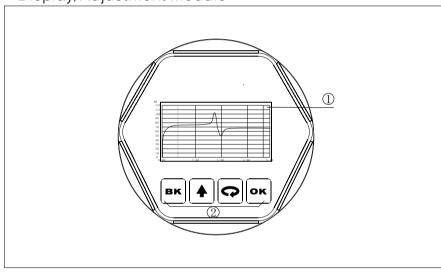
Adjustment Methods

Three methods are available for FDGW5X adjustment:

- 1 Display/adjustment module ViewPoint
- 2 An adjustment software-SODAware
- 3 HART handheld programmer

ViewPoint is a pluggable display/adjustment module. The adjustment can be done through operating with four buttons on ViewPoint. Optional menu operation languages are available for selection. ViewPoint is only used for display after adjustment in that the measurement results can be seen clearly through the glass window.

Display/Adjustment Module



1 LCD 2 Adjustment Keypad

[OK]Keypad

- -Enter programming mode;
- -Confirm programming options;
- -Confirm modifications to parameters.

[A]Keypad

-Modify parameter values.

Shortcut

[B K] Display Echo wave

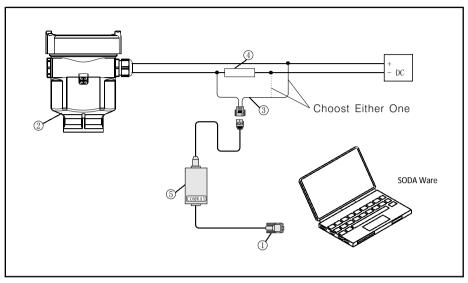
- -Choose programming options;
- -Choose the digit of parameters to edit;
- -Display the contents of parameters.

[вк] Keypad

- -Programming mode exit;
- -Return to higher menu level.

SODAWare

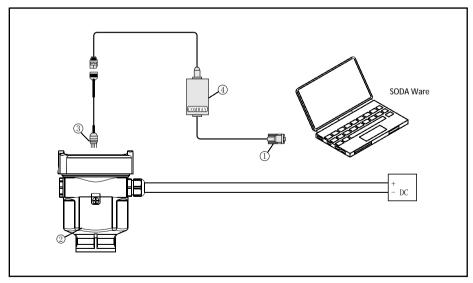
Connect with another unit throuth HART.



S

- 1 RS232 Connect Cable/USB port
- 2 FDRD5X
- 3 HATR pont adapter used on COMWAY convertor
- 4 250 ohm Resistance
- 5 COMWAY Convertor

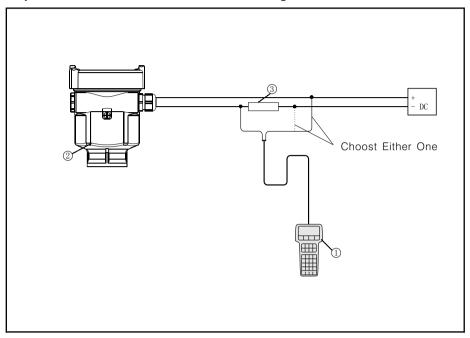
Connect with another unit throuth I2C.



- 1 RS232 Connect Cable/USB port
- 2 FDRD5X
- 3 I2C adapter pontused on MOMWAY convertor
- 4 COMWAY Convertor

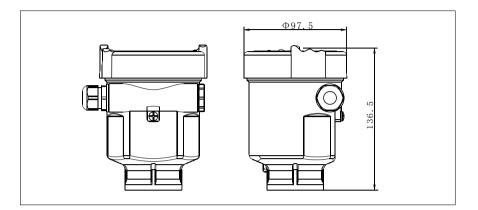
HART Handheld Programmer

Adjust FDRD5X with HART Handheld Programmer



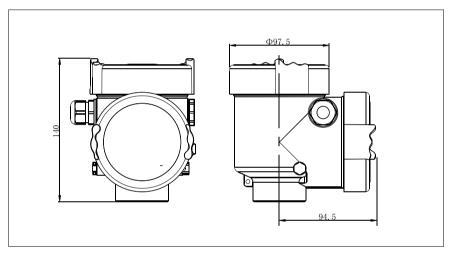
- 1 HART Handheld Programmer
- 2 FDRD5X
- 3 250 ohm Resistance

6 Dimension (Unit: mm)

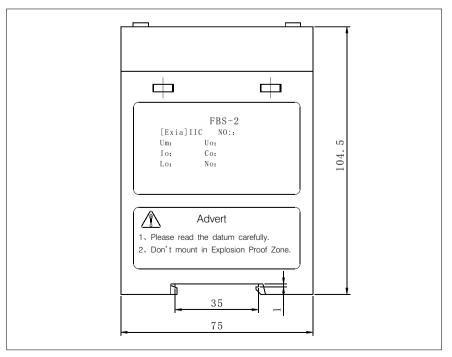


Housing

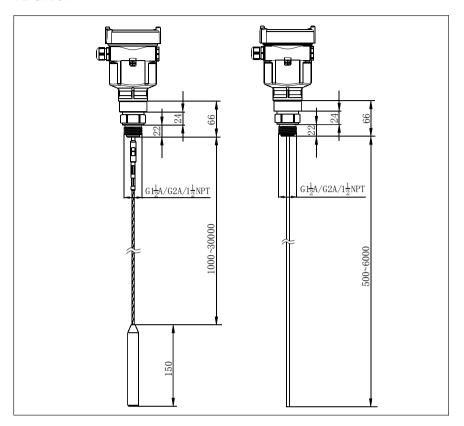
Material: PBT/AL/316L



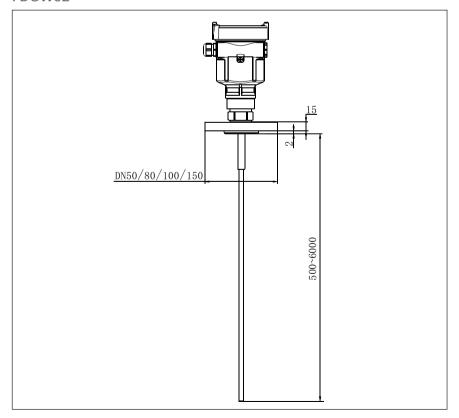
Material: two-chamber

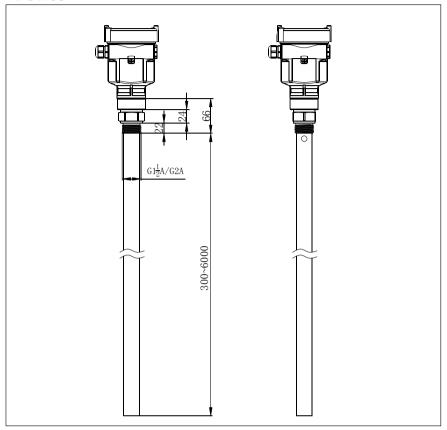


FBS Series

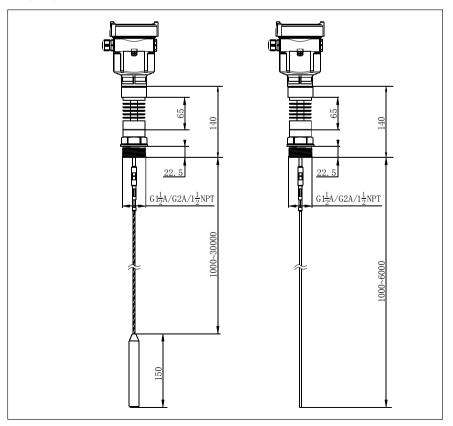


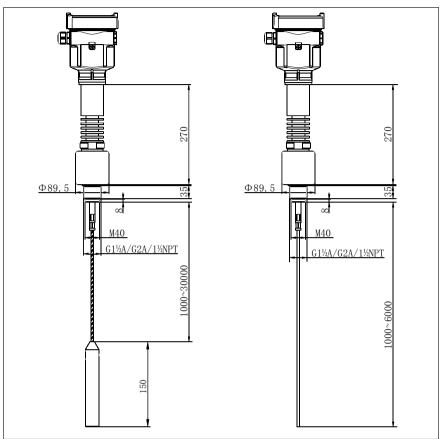
FDGW52



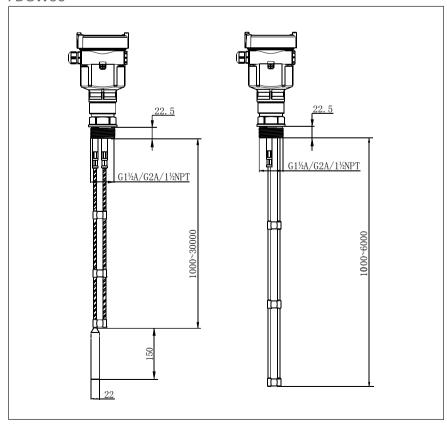


FDGW54





FDGW56



7 Technical Specifications

General Parameters Probe Material:

-Rod Stainless Steel316L/PTFE

-Cable Stainless Steel316L/PTFE/ceramic

-Coax Stainless Steel316L/PTFE

-Seal Viton fluoroelastomer, Kalrez perfluoroelastomer

-Process Connection Stainless Steel316L

-Housing Stainless Steel316L Alu-die casting, Powder Coated,

-Seal ring between Silicone rubber

housing and housing cover

-ViewPoint window-Ground terminal-Ground term

Weight

-FDGW51 (Depends on process connections and housing) 9kg -FDGW52 5.5kg (Depends on process connections and housing) -FDGW53 6kg (Depends on process connections and housing) -FDGW54 12kg (Depends on process connections and housing) -FDGW55 9kg (Depends on process connections and housing) -FDGW56 9kg (Depends on process connections and housing)

Power

2-Wire -Standard Version 15...36V DC

-Exia 15...30V DC Power consumption max.22.5mA

Ripple Allowed

-<100Hz Uss<1V

-<100Hz...10KHz

4-wire/2-chamber –Ex d ia version 24VDC±10%, 220VAC±10%

Power Consumption <1W

Cable Entry/Plug One cable entry of M20X1.5 (cable

diameter of 5...9m), one blind stopper M20X1.5

Parameters on Cable Spring Connection Terminal Applicable for cables with cross section of 2.5mm

Output Signal 4...20mA/HART

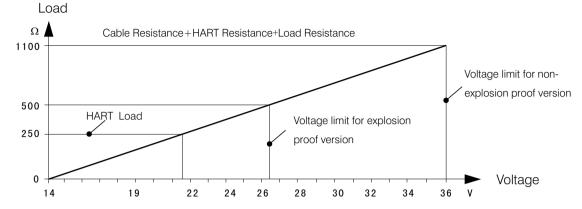
Resolution 1.6 µ A

Failure mode 20. 5mA, 22mA, hold -2-wire load resistance See the diagram below

-4-wire load resistance Max.500ohm

Integration Time 0... 40sec, adjustable

2-Wire Load Resistance Diagram



Technical data Max Measurement Distance - FDGW51

30m/6m (Rope/Rod) -FDGW52

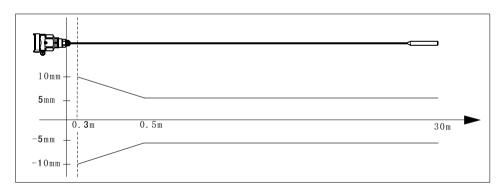
6m -FDGW53 6m -FDGW54 30m/6m -FDGW55 30m/6m -FDGW56

Measurement Interval About 1sec (Depend on parameter settings) Adjustment Time 1) About 1sec (Depend on parameter settings)

30m/6m

Resolution of Display 1mm

Accuracy See the accuracy illustration diagram below



Temperature for Storage/Transport -40...+80°C

Process Temperature (Probe)

-FDGW51、FDGW52、FDGW53、FDGW56 -40...+150°C

-FDGW54 -40...+200°C -FDGW55 −200...+400°C

-Relative Humidity <95% -Pressure Max.400bar

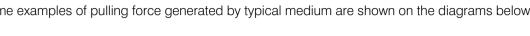
Vibration Proof Mechanical vibration 10 m/s², 10... 150 Hz Max Pulling Force See the illustrative diagram on pulling force

Max Pulling Force or Lateral Load

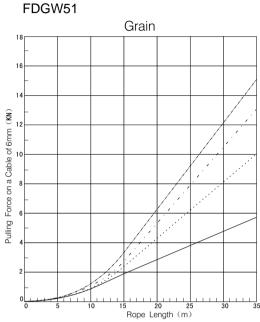
18_

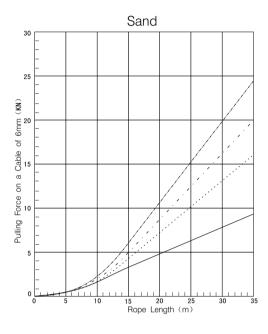
¹⁾ The generation of accurate measurement results needs longer time than usual in the event of drastic level changes(mx. Error 10%).

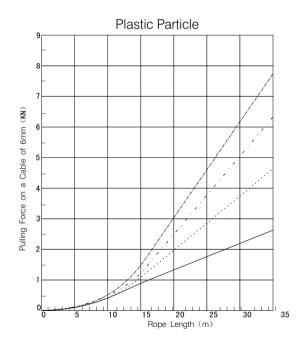
When measuring solid medium, the pulling force is determined by the diameter of vessel and medium level, some examples of pulling force generated by typical medium are shown on the diagrams below.

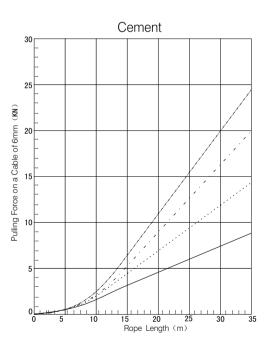












8 Selection & Ordering Information

FDGW51

| Explosion Proof Approval | | |
|---|--|--|
| P Standard (Without Approval) | | |
| I Intrinsically Safe (Exia IIC T6) | | |
| C Intrinsically Safe+Ship Approval (Exia IIC T6) | | |
| G Intrinsically Safe+Explosion proof (Exd ia IIC T6) | | |
| Type of detecting compencent/Material | | |
| A Rope/Φ6mm/Stainless Steel316L/PTFE | | |
| B Rope/Φ10mm/Stainless Steel316L/PTFE | | |
| C Lengthen PP/Rope/Stainless Steel 316L | | |
| D Lengthen PP/Rod/Stainless Steel 316L | | |
| E Lengthen PTFE/Rope/Stainless Steel 316L | | |
| F Lengthen PTFE/Rod/Stainless Steel 316L | | |
| X Special Design | | |
| Seal/Process Temperature | | |
| GP Thread G11/2A | | |
| KP Thread G2A | | |
| NP Thread 1½NPT | | |
| YP Special Design | | |
| Seal/Process Temperature | | |
| A Viton / (−30~150) °C | | |
| B Kalrez/ (-40~150)°C | | |
| B (4~20)mA/HART 2-wire | | |
| C $(4\sim20)$ mA/ $(22.8\sim26.4)$ V DC /HART 2-wire/4-wire | | |
| D (198~242)V AC/HART 4-wire | | |
| Housing/Protection | | |
| A Aluminium/IP67 | | |
| B Plastic/IP66 | | |
| D Aluminium (2-chamber)/IP67 | | |
| G Stainless Steel316L/IP66 | | |
| Cable Entry | | |
| M M20x1.5 | | |
| N ½NPT | | |
| Display/Programming | | |
| A Yes | | |
| X No | | |
| Rope/rod length | | |
| 5-digit number (unit:mm) Note: The instrument with approval Loan only use Electronic A or B and housing A The instrument | | |

Note: The instrument with approval I can only use Electronic A or B and housing A, The instrument with approval C can only use Electronic A or B and housing G, The instrument with approval G can only use Electronic C or D and housing D.

• FDGW52

| #1 DOVV32 | | |
|--|--|--|
| Explosion Proof Approval | | |
| P Standard (Without Approval) | | |
| I Intrinsically Safe (Exia IIC T6) | | |
| C Intrinsically Safe+Ship Approval (Exia IIC T6) | | |
| G Intrinsically Safe+Explosion proof (Exd ia IIC T6) | | |
| Type of detecting compencent/Material | | |
| A Rod/Φ6mm/Stainless Steel 316L | | |
| Process Connection/Material | | |
| GP flange DN50 PN1.6 Stainless Steel 316L (GB/T9119-2000) | | |
| NP flange DN80 PN1.6 Stainless Steel 316L (GB/T9119-2000) | | |
| EP flange DN100 PN1. 6 Stainless Steel 316L (GB/T9119-2000) | | |
| FP flange DN150 PN1.6 Stainless Steel 316L (GB/T9119-2000) | | |
| YP Special Design | | |
| Seal/Process Temperature | | |
| A (−40~150) °C | | |
| Electronic | | |
| B $(4\sim20)$ mA/HART 2-wire | | |
| C (4~20) mA/(22. 8~26. 4) V DC /HART 2-wire/4-wire | | |
| D (198~242) V AC/HART 4-wire | | |
| Housing/Protection | | |
| A Aluminium/IP67 | | |
| B Plastic/IP67 | | |
| D Aluminium (2-chamber)/IP67 | | |
| G Stainless Steel316L/IP67 | | |
| Cable Entry M. M20v1 5 | | |
| M M20x1. 5 N 1/2NPT | | |
| N ½NP1 Display/Programming | | |
| A Yes | | |
| X No | | |
| Rope/rod length | | |
| 5-digit number (unit:mm) | | |
| Little The State words. The state of the sta | | |

Note: The instrument with approval I can only use Electronic A or B and housing A, The instrument with approval C can only use Electronic A or B and housing G, The instrument with approval G can only use Electronic C or D and housing D.

| • FDGW53 | | |
|--|--|--|
| Explosion Proof Approval | | |
| P Standard (Without Approval) | | |
| I Intrinsically Safe (Exia IIC T6) | | |
| C Intrinsically Safe+Ship Approval (Exia IIC T6) | | |
| G Intrinsically Safe+Explosion proof (Exd ia IIC T6) | | |
| Type of detecting compencent/Material | | |
| A Coax/Stainless Steel316L | | |
| Process Connection/Material | | |
| GP Thread G11/2A | | |
| KP Thread G2A | | |
| NP Thread 1½NPT | | |
| YP Special Design | | |
| Seal/Process Temperature | | |
| A Viton/ (−30~150)°C | | |
| B Kalrez/ (-40~150) °C | | |
| Electronic | | |
| B $(4\sim20)$ mA/HART 2-wire | | |
| C $(4\sim20)$ mA/ $(22.8\sim26.4)$ V DC /HART2-wire/4-wire | | |
| D (198~242) V AC/HART 4-wire | | |
| Housing/Protection | | |
| A Aluminium/IP67 | | |
| B Plastic/IP67 | | |
| D Aluminium (2-chamber)/IP67 | | |
| G Stainless Steel316L/IP67 | | |
| Cable Entry | | |
| M M20x1. 5 | | |
| N ½NPT | | |
| Display/Programming | | |
| A Yes | | |
| X No | | |
| Rope/rod length 5-digit number (unit:mm) | | |
| 5-digit number (unit:min) | | |

Note: The instrument with approval I can only use Electronic A or B and housing A, The instrument with approval C can only use Electronic A or B and housing G, The instrument with approval G can only use Electronic C or D and housing D.

| Explosion Proof Approval | | |
|---|--|--|
| P Standard (Without Approval) | | |
| I Intrinsically Safe (Exia IIC T6) | | |
| C Intrinsically Safe+Ship Approval (Exia IIC T6) | | |
| G Intrinsically Safe+Explosion proof (Exd ia IIC T6) | | |
| Type of detecting compencent/Material/Process Temperature | | |
| A Rope/Stainless Steel 316L/PTFE | | |
| B Rod/Stainless Steel 316L/PTFE | | |
| C Lengthen PP/Rope/Stainless Steel 316L | | |
| D Lengthen PP/Rod/Stainless Steel 316L | | |
| E Lengthen PTFE/Rope/Stainless Steel 316L | | |
| F Lengthen PTFE/Rod/Stainless Steel 316L | | |
| X Special Design | | |
| Process Connection/Material | | |
| GP Thread G11/2A | | |
| KP Thread G2A | | |
| NP Thread 1½NPT | | |
| YP Special Design | | |
| Seal/Process Temperature | | |
| A Viton/ (-30~150)°C | | |
| B Kalrez/ (-40~150) °C | | |
| Electronic | | |
| B $(4\sim20)$ mA/HART 2-wire | | |
| C (4~20) mA/(22. 8~26. 4) V DC /HART2-wire/4-wire | | |
| D (198~242) V AC/HART 4-wire | | |
| Housing/Protection A Aluminium/IP67 | | |
| | | |
| B Plastic/IP67 | | |
| D Aluminium (2-chamber)/IP67 G Stainless Steel316L/IP67 | | |
| Cable Entry | | |
| M M20x1.5 | | |
| M M20x1.5 N ½NPT | | |
| Display/Programming | | |
| A Yes | | |
| X No | | |
| Rope/rod length | | |
| 5-digit number (unit:mm) | | |
| Note: The instrument with approval Loan only use Electronic A or B and housing A The instrument | | |

Note: The instrument with approval I can only use Electronic A or B and housing A, The instrument with approval C can only use Electronic A or B and housing G, The instrument with approval G can only use Electronic C or D and housing D.

• FDGW55

| FDGW55 | | |
|--|--|--|
| Explosion Proof Approval | | |
| P Standard (Without Approval) | | |
| I Intrinsically Safe (Exia IIC T6) | | |
| C Intrinsically Safe+Ship Approval (Exia IIC T6) | | |
| G Intrinsically Safe+Explosion proof (Exd ia IIC T6) | | |
| Type of detecting compencent/Material | | |
| A Rope/Stainless Steel316L/Ceramic | | |
| B Rod/Stainless Steel316L/Ceramic | | |
| Process Connection/Material | | |
| GP Thread G11/2A | | |
| KP Thread G2A | | |
| NP Thread 11/2NPT | | |
| YP Special Design | | |
| Electronic | | |
| B (4~20) mA/HART 2-wire | | |
| C (4~20) mA/(22. 8~26. 4) V DC /HART2-wire/4-wire | | |
| D (198~242)V AC/HART 4-wire | | |
| Housing/Protection | | |
| A Aluminium/IP67 | | |
| B Plastic/IP67 | | |
| D Aluminium (2-chamber)/IP67 | | |
| G Stainless Steel316L/IP67 | | |
| Process Temperature | | |
| A (-200~400) °C/ (Vacuum~4) MPa | | |
| B (-200~400) °C/ (Vacuum~40) MPa | | |
| Cable Entry | | |
| M M20x1. 5 | | |
| N ½NPT | | |
| Display/Programming | | |
| A Yes | | |
| X No | | |
| Rope/rod length | | |
| 5-digit number (unit:mm) | | |

Note: The instrument with approval I can only use Electronic A or B and housing A, The instrument with approval C can only use Electronic A or B and housing G, The instrument with approval G can only use Electronic C or D and housing D.

• FDGW56

| Explosion Proof Approval | | |
|--|--|--|
| P Standard (Without Approval) | | |
| I Intrinsically Safe (Exia IIC T6) | | |
| C Intrinsically Safe+Ship Approval (Exia IIC T6) | | |
| G Intrinsically Safe+Explosion proof (Exd ia IIC T6) | | |
| Type of detecting compencent/Material | | |
| A Rope/Stainless Steel 316L/PTFE | | |
| B Rod/Stainless Steel 316L/PTFE | | |
| Process Connection/Material | | |
| GP Thread G1½A | | |
| KP Thread G2A | | |
| NP Thread 11/2NPT | | |
| YP Special Design | | |
| Electronic | | |
| B $(4\sim20)$ mA/HART 2-wire | | |
| C $(4\sim20)$ mA/ $(22.8\sim26.4)$ V DC /HART2-wire/4-wire | | |
| D (198~242) V AC/HART 4-wire | | |
| Housing/Protection | | |
| A Aluminium/IP67 | | |
| B Plastic/IP67 | | |
| D Aluminium (2-chamber)/IP67 | | |
| G Stainless Steel316L/IP67 | | |
| Process Temperature | | |
| A (-200~400) °C/ (Vacuum~4) MPa | | |
| B (-200~400) °C/ (Vacuum~40) MPa | | |
| Cable Entry | | |
| M M20x1. 5 | | |
| N ½NPT | | |
| Display/Programming | | |
| A Yes | | |
| X No | | |
| Rope/rod length | | |
| 5-digit number (unit:mm) | | |

Note: The instrument with approval I can only use Electronic A or B and housing A, The instrument with approval C can only use Electronic A or B and housing G, The instrument with approval G can only use Electronic C or D and housing D. 标配法兰大小参照GB/T9119-2000 PN1.6MPa尺寸,厚度为15.

9 Application Questionnaire

| Approvals | |
|--|---|
| ☐ Standard Version ☐ Intrinsically Safe Version (Exia IIC ☐ Intrinsically Safe Version+Ship Approval (Exia IIC T6) | C T6) Intrinsically Safe Version (Exia IIC T6) Intrinsically Safe Version+Explosion Proof (Exd [ia] IIC T6) |
| Measured Medium | Intimisically Sale version+Explosion+1001 (Ext. [ia] lie 107 |
| Name | |
| Condition Liquid Solid (Form Mass | Particle Dust) |
| Temperature: Min°C Norm°C Surface ☐ Flat ☐ Turbulent ☐ Ag | C Max°C gitated Vorte |
| Dielectric Constant $\square \epsilon r < 3$ $\square \epsilon r > 3$ | yorto |
| Atmosphere | |
| Atmosphere Form Foam Dust | ☐ Deposit ☐ Vapour |
| Atmosphere Pressure Min Norm | Max |
| Vessel | |
| Shape of Top | ☐ Horizontal |
| Height Diameter Critical Information | |
| Nozzle Length: Nozzle Diameter: | Measurement Range: |
| Process Connection | <u> </u> |
| Thread (GMA MIPT G1A G1A, M109 | 5x2 |
| ☐ Flange (DN=) ☐ Swivelling Holder | |
| Installation | |
| Mode: Top Side | |
| Filling Stream inlet position and installation position (P | lease specify in the diagram below) |
| | |
| | |
| | |
| | |
| Circular Vessel | Square Vessel |
| Power Supply 220V AC 2-wire 24V DC 3-v | wire 24V DC |
| Communication ☐(4~20) mA/HART | |
| Display ☐ Yes ☐ No | |
| Customer Information | |
| Contact: | Please give brief explanation on the application of instrument: |
| Company: | |
| Address: | |
| P. C.: Tel: | |
| Email: Fax: | Date: |
| 26 | |