Quick Start Guide
00825-0100-4045 , Rev CA
Feburary 2021

Rosemount™ Wireless Pressure Gauge

with Wireless HART® Protocol

ROSEMOUNT™

EMERSON

NOTICE

This guide provides basic guidelines for Rosemount Wireless Pressure Gauges. It does not provide instructions for configuration, diagnostics, maintenance, service, troubleshooting, or intrinsically safe (I.S.) installations. Refer to the Rosemount Wireless Pressure Gauge Reference Manual for more instruction. The manual and this guide are also available electronically.

Shipping considerations

The device is shipped with the battery installed.

Each device contains one "D" size primary lithium-thionyl chloride battery. Primary lithium batteries are regulated in transportation by the U.S. Department of Transportation, and are also covered by IATA (International Air Transport Association), ICAO (International Civil Aviation Organization), and ARD (European Ground Transportation of Dangerous Goods). It is the responsibility of the shipper to ensure compliance with these or any other local requirements. Consult current regulations and requirements before shipping.

⚠ WARNING

Explosions could result in death or serious injury.

Installation of device in an explosive environment must be in accordance with appropriate local, national, and international standards, codes, and practices.

Ensure device is installed in accordance with intrinsically safe or non-incendive field practices.

Electrical shock could cause death or serious injury.

Care must be taken during transportation of device to prevent electrostatic charge build-up.

Device must be installed to ensure a minimum antenna separation distance of 8 in. (20 cm) from all persons.

Process leaks could result in death or serious injury.

Handle the transmitter carefully.

Failure to follow these installation guidelines could result in death or serious injury.

Ensure only qualified personnel perform the installation.

⚠ WARNING

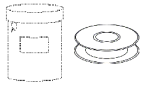
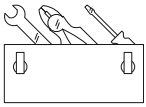
Physical access

Unauthorized personnel may potentially cause significant damage to and/or misconfiguration of end users' equipment. This could be intentional or unintentional and needs to be protected against.

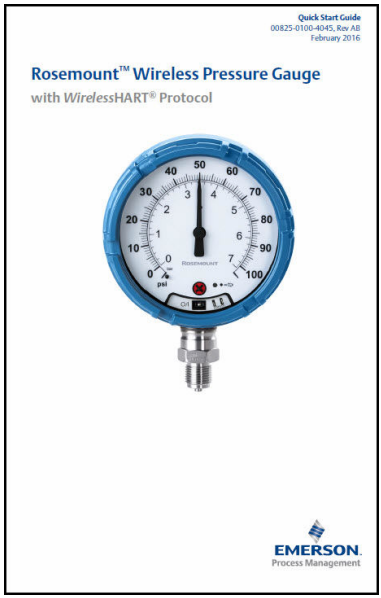
Physical security is an important part of any security program and fundamental to protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

Contents

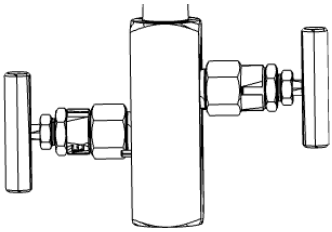
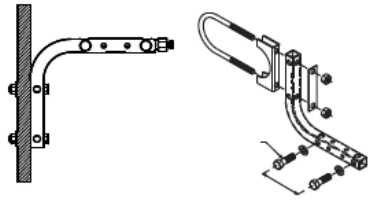
1 Required equipment

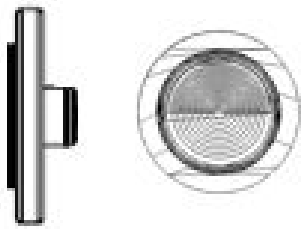
	Anti-seize paste or PTFE tape (for NPT threaded connection)
	Standard tools, e.g. screwdriver, wrench, pliers
	AMS Wireless Configurator version 12.0 or later, or Field Communicator

2 What's in the box?

	
Wireless Pressure Gauge	Quick Start Guide

The following options are also available and will ship with the Rosemount Wireless Pressure Gauge if ordered.

	
Rosemount 306 Integral Manifold (Model code S5)	B4 Bracket (Model code B4)



Rosemount 1199 Seal (Model code S1)

Normal Range Indication (Model code LK)

Product Certification (Model Codes below)

Q4: Calibration Cert

QG: Calibration Cert and GOST Verification Cert

QP: Calibration Cert and Tamper Evident Seal

Q8: Material Traceability cert per EN 102043.1

Q15: Cert of Compliance to NACE MR0175/ISO 15156 for wetted materials

Q25: Cert of Compliance to NACE MR00103 for wetted materials

3 Optional: Power/device check

The device is designed to be installation-ready. To check device battery prior to installation, perform the following:

Procedure

1. Perform Turn on device.
2. Slide the ON/OFF switch to the **OFF** position until ready for use.

4 Optional: Normal range indication option

Procedure

1. Modify each of the stickers to desired size prior to proceeding to step Step 2.

   The stickers are intended to be installed on the dial only and should not be applied on the inside or outside of the housing cover.

2. Remove housing cover.
3. Slide ON/OFF switch to the OFF position and wait for LED to stop flashing.
4. Gently move the needle in the clockwise direction until it is pointing at the Red X.

   Note
   Use caution as the electronics assembly is connected to the needle.

5. Remove any debris on the dial, so it does not become trapped under the sticker.
6. Peel back the white paper backing of the sticker.
7. Slowly lower the sticker onto the surface of the dial in the desired location and rub it in place firmly. Repeat steps 6 and 7 until desired indication locations are set.

   - Stickers should be applied in an environment where the ambient temperature is above 50 °F (10 °C).
   - Moving the sticker after initial contact is not recommended as this decreases the amount of adhesive on the back of the sticker.

8. Slide ON/OFF switch to the **ON** position.
9. Replace housing cover.

5 Installation procedure

Figure 5-1: Seal and protect threads

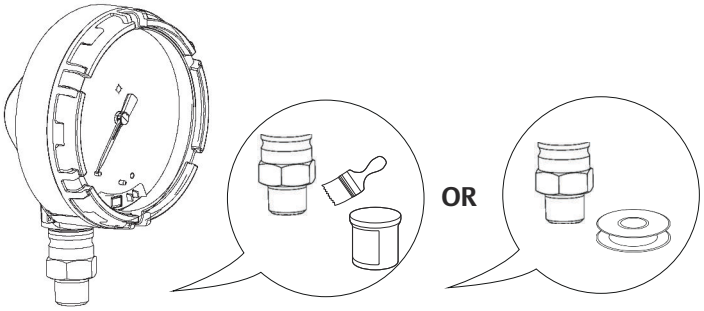
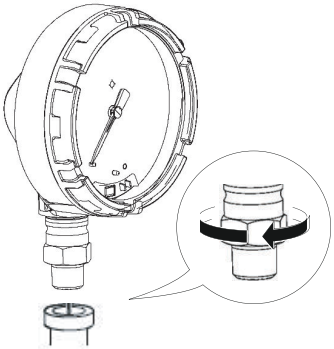


Figure 5-2: Mount device



Note
Use wrench on flats, not on housing.

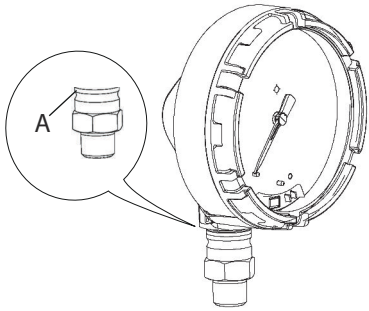
5.1 Mounting orientation

The low side pressure port (atmospheric reference) on the process pressure gauge is located in the neck of the device behind the housing. The vent path is between the housing and sensor.

⚠ CAUTION

Keep the vent path free of any obstruction, including but not limited to paint, dust, and lubrication by mounting the device so the process can drain away.

Figure 5-3: Low Side Pressure Port



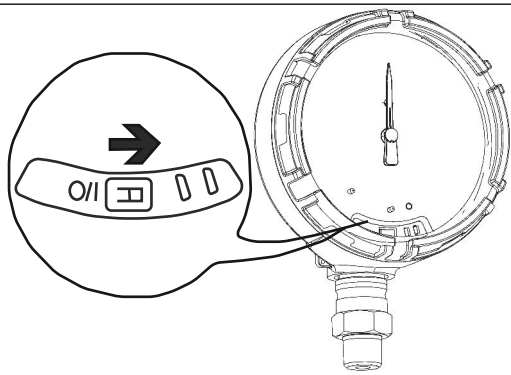
A. Low side pressure port (atmospheric reference)

5.2 Turn on device

Check to ensure the device and battery are working properly.

Procedure

1. Twist the cover counterclockwise to remove it.
2. Slide the OFF/ON switch to the **ON** position to initiate the power sequence.

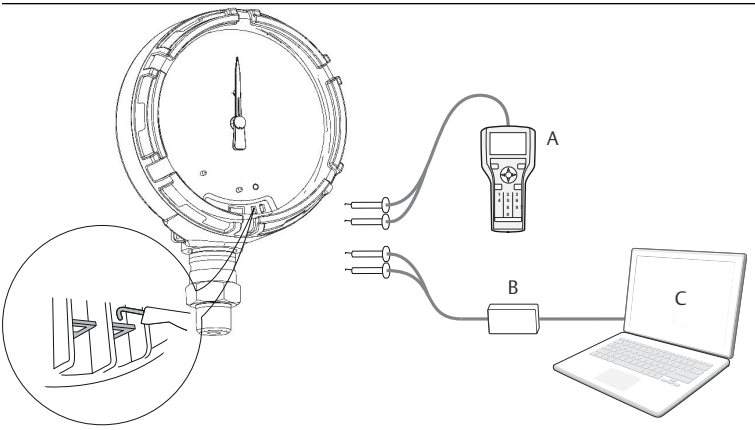


Note
During the power sequence, the dial tests full range of motion and LED flashes amber.

3. Once the power sequence ends, verify the LED flashes green.

Note
The LED may display several colors; see Table 6-1in Troubleshooting for device statuses.

5.3 Connect to device



A. Field Communicator
B. HART® Modem
C. AMS Wireless Configurator

5.4 Field Communicator

Procedure

1. Turn on the Field Communicator.
2. From the *Main* menu, select the HART® symbol.

5.5 AMS Wireless Configurator

Procedure

1. Start AMS Wireless Configurator.
2. From the *View* menu, select **Device Connection View**.
3. Double click the device under the HART® modem.

5.6 Eliminate mounting effects

Devices are factory-calibrated. Once installed, it is recommended to perform this step to eliminate potential error caused by mounting position or static pressure. Instructions for using a Field Communicator are listed below.

Note
See the Rosemount Wireless Pressure Gauge Reference Manual for the following:

- Using AMS Wireless Configurator
- Sensor trim function on absolute gauge

Procedure

1. Vent the device.
2. Connect the Field Communicator.
3. From the *HOME* screen, enter the HART® Fast Key sequence.

Device dashboard Fast Keys	2, 1, 1

4. Follow the commands to perform the procedure.

5.7 Activate wireless

Do not activate wireless until Smart Wireless Gateway is installed and functioning properly; toggling off and on reduces battery life.

Note
If Network ID and Join Key is specified at order entry, then the device will automatically search and connect to the wireless network when powered on.

5.8 Join device to network

Procedure

1. Obtain Network ID and Join Key for the wireless network (available in wireless gateway).
2. From the *HOME* screen, enter the HART® Fast Key sequence.

Device dashboard Fast Keys	2, 1, 2

3. Follow the commands to perform the procedure.
4. Select **Overview>Status**.
5. Verify the communication status displays *Connected*.

Note
Joining the device to the network could take several minutes.

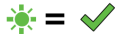
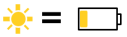
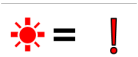
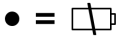
6 Troubleshooting

This section provides information for basic troubleshooting. See Wireless Pressure Gauge Reference Manual for advanced troubleshooting.

Device status

The flashing LED indicates device status using the colors descibed.

Table 6-1: Status Descriptions

LED color		Device status
	Green	Functioning properly
	Amber	Battery is low, battery replacement recommended
	Red	Battery replacement required OR Device is malfunctioning
	No color	No power, verify ON/OFF switch is in “on” position

6.1 Pressure measurement

If the mounting effects have not been eliminated after completing Eliminate mounting effects, perform this alternative procedure for verifying the pressure value.

Procedure

1. From the *HOME* screen, eter the HART® Fast Key sequence.

Device dashboard Fast Keys	2, 2, 1, 1, 1

2. Follow the commands to perform the procedure.

6.2 Wireless connectivity

If the device has not joined to the network after power up, verify the following:

- Active Advertising has been enabled on the Smart Wireless Gateway

- Network ID and Join Key in the device match the Network ID and Join Key of the Gateway

The Network ID and Join Key may be obtained from the Smart Wireless Gateway on the ***Setup > Network > Settings*** page on the web interface.

7 Product Certifications

Rev: 4.0

European Directive Information

A copy of the EC Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the EC Declaration of Conformity can be found at www.rosemount.com.

Telecommunication compliance

All wireless devices require certification to ensure that they adhere to regulations regarding the use of the RF spectrum. Nearly every country requires this type of product certification. Emerson™ is working with governmental agencies around the world to supply fully compliant products and remove the risk of violating country directives or laws governing wireless device usage.

FCC and IC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: This devices may not cause harmful interference, this devices must accept any interference received, including interference that may cause undesired operation. This device must be installed to ensure a minimum antenna separation distance of 20 cm from all persons.

This device complies with Industry Canada license-exempt RSS-247. 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.

Changes or modification to the equipment not expressly approved by Rosemount Inc. could void the user's authority to operate the equipment.

Cet appareil est conforme à la Partie 15 de la réglementation FCC. Son fonctionnement est soumis aux conditions suivantes: Cet appareil ne doit pas causer d'interférences nuisibles. Cet appareil doit accepter toute interférence reçue, incluant toute interférence pouvant causer un fonctionnement indésirable. Cet appareil doit être installé pour assurer une distance minimum de l'antenne de séparation de 20 cm de toute personne.

Cet appareil est conforme à la norme RSS-247 Industrie Canada exempt de licence. Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris les interférences pouvant causer un mauvais fonctionnement du dispositif.

Les changements ou les modifications apportés à l'équipement qui n'est pas expressément approuvé par Rosemount Inc pourraient annuler l'autorité de l'utilisateur à utiliser cet équipement.

Ordinary Location Certification from CSA

The product has been examined and tested to determine that the design meets the basic electrical, mechanical, and fire protection requirements by CSA, a nationally recognized test laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

Installing in North America

The US National Electrical Code (NEC) and the Canadian Electrical Code (CEC) permit the use of Division marked equipment in Zones and Zone marked equipment in Divisions. The markings must be suitable for the area classification, gas, and temperature class. This information is clearly defined in the respective codes.

7.1 USA

I5 U.S.A. Intrinsically Safe (IS)

Certificate: [CSA] 70047656

Standards: FM 3600 – 2011, FM 3610 – 2010, UL Standard 50 – Eleventh Edition, UL 61010-1 – 3rd Edition, ANSI/ISA-60079-0 (12.00.01) – 2013, ANSI/ISA-60079-11 (12.02.01) – 2013, ANSI/IEC 60529 – 2004

Markings: IS CL I, DIV 1, GP A, B, C, D T4; Class 1, Zone 0, AEx ia IIC T4 Ga; T4 (-40 °C ≤ T_a ≤ +70 °C) when installed per Rosemount drawing 00G45-1020; Type 4X; IP66/67

Special Conditions for Safe Use (X):

1. Do not replace battery when explosive atmosphere is present.
2. Use only 00G45-9000-0001 batteries.
3. The surface resistivity of the housing is greater than 1G Ω. To avoid electrostatic charge build-up, it must not be rubbed or cleaned with solvents or a dry cloth.
4. Substitution of components may impair intrinsic safety.

7.2 Canada

I6 Canada Intrinsically Safe (IS)

Certificate: [CSA] 70047656

Standards: CAN/CSA C22.2 No. 0-10, CAN/CSA C22.2 No. 94-M1991 (R2011), CAN/CSA-60079-0-11, CAN/CSA-60079-11-14, CSA Std C22.2 No. 60529-05, CAN/CSA-C22.2 No. 61010-1-12

Markings: Intrinsically Safe for Class I, Division 1, Groups A, B, C, D T4; Ex ia IIC T4 Ga T4 (-40 °C ≤ T_a ≤ +70 °C) when installed per Rosemount drawing 00G45-1020; Type 4X; IP66/67

Special Conditions for Safe Use (X):

1. Do not replace battery when explosive atmosphere is present.
   Ne pas remplacer les accumulateurs si une atmosphère explosive peut être présente.
2. Use only 00G45-9000-0001 batteries. Utiliser uniquement des accumulateurs 00G45-9000-0001.
3. The surface resistivity of the housing is greater than 1G Ω. To avoid electrostatic charge build-up, it must not be rubbed or cleaned with solvents or a dry cloth.
   La résistivité de surface du boîtier est supérieure à un gigaohm. Pour éviter l'accumulation de charge électrostatique, ne pas frotter ou nettoyer avec des produits solvants ou un chiffon sec.
4. Substitution of components may impair intrinsic safety.
   La substitution de composants peut compromettre la sécurité intrinsèque.

7.3 Europe

I1 ATEX Intrinsic Safety

Certificate: Baseefa16ATEX0005X

Standards: EN 60079-0: 2012 + A11: 2013, EN 60079-11: 2012

Markings: Ⓔx II 1 G Ex ia IIC T4 Ga, T4 (-40 °C ≤ T_a ≤ +70 °C) IP66/67

Special Conditions for Safe Use (X):

1. The plastic enclosure may constitute a potential electrostatic ignition risk and must not be rubbed or cleaned with a dry cloth.
2. The measured capacitance between the equipment enclosure and metallic inline sensor module is 4.7 pF. This must be considered only when the WPG is integrated into a system where the process connection is not grounded.
3. Do not change the battery when an explosive atmosphere is present.
4. Only replace battery with Rosemount Part No. 00G45-9000-0001.

7.4 International

I7 IECEx Intrinsic Safety

Certificate: IECEx BAS 16.0012X

Standards: IEC 60079-0: 2011, IEC 60079-11: 2011

Markings: Ex ia IIC T4 Ga, T4 (-40 °C ≤ T_a ≤ +70 °C) IP66/67

Special Conditions for Safe Use (X):

1. The plastic may constitute a potential electrostatic ignition risk and must not be rubbed or cleaned with a dry cloth.
2. The measured capacitance between the equipment enclosure and metallic inline sensor module is 4.7pF. This must be considered only when the WPG is integrated into a system where the process connection is not grounded.
3. Do not change the battery when an explosive atmosphere is present.
4. Only replace battery with Rosemount Part No. 00G45-9000-0001.

7.5 Brazil

I2 INMETRO Intrinsic Safety

Certificate: UL-BR 16.0826X

Standards: ABNT NBR IEC 60079-0:2008 + Errata 1:2011, ABNT NBR IEC 60079-11:2009

Markings: Ex ia IIC T4 Ga, T4 (-40 °C ≤ T_a ≤ +70 °C)

Special Condition for Safe Use (X):

See certificate for special condition.

7.6 Japan

I4 CML Intrinsic Safety

Certificate: CML18JPN2350X

Markings: Ex ia IIC T4 Ga, T4 (-40 °C ≤ T_a ≤ +70 °C)

Special Condition for Safe Use (X):

See certificate for special condition.

7.7 EAC - Belarus, Kazakhstan, Russia

IM Technical Regulation Customs Union (EAC) Intrinsic Safety

Certificate: TC RU C-US.AA87.B.00372

Markings: 0Ex ia IIC T4 Ga X, T4 (-40 °C ≤ T_a ≤ +70 °C) IP66/67;

Special Condition for Safe Use (X):

See certificate for special condition.

7.8 Korea

IF KTL Intrinsic Safety

Certificate: 16-KA4BO-0540X

Markings: Ex ia IIC T4 Ga, T4 (-40 °C ≤ T_a ≤ +70 °C)

Special Condition for Safe Use (X):

See certificate for special condition

8 Declaration of conformity

EMERSON

CE

EU Declaration of Conformity

No: RMD 1108 Rev. G

We,

Rosemount Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA

declare under our sole responsibility that the product,

Models WPG & SPG:
Wireless Pressure Gauge & Smart Pressure Gauge

manufactured by,

Rosemount Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA

to which this declaration relates, is in conformity with the provisions of the European Community Directives, including the latest amendments, as shown in the attached schedule.

Assumption of conformity is based on the application of the harmonized standards and, when applicable or required, a European Community notified body certification, as shown in the attached schedule.

(signature)

Vice President of Global Quality
(function name - printed)

Mark Lee
(name - printed)

January 22, 2021
(date of issue)

Page 1 of 3

EMERSON

EU Declaration of Conformity

No: RMD 1108 Rev. G

EMC Directive (2014/30/EU)

Models WPG & SPG

Harmonized Standards:
EN 61326-1: 2013

Radio Equipment Directive (RED) (2014/53/EU)

Model WPG (Wireless Pressure Gauge only)

Harmonized Standards:
EN 300 328 V2.1.1:2016
EN 301 489-1 V2.1.1:2017
EN 301 489-17: V3.1.1:2017
EN 61010-1: 2010
EN 62479: 2010

RoHS Directive (2011/65/EU)

Models WPG and SPG

Harmonized Standard: EN 50581:2012

ATEX Directive (2014/34/EU)

Models WPG & SPG

Baseefa16ATEX0005X - Intrinsic Safety Certificate
Equipment Group II Category 1 G
Ex ia IIC T4 Ga, T4(-40°C ≤ Ta ≤ +70°C)

Harmonized Standards:
EN IEC 60079-0: 2018
EN 60079-11: 2012

Page 2 of 3

EMERSON

EU Declaration of Conformity

No: RMD 1108 Rev. G

ATEX Notified Bodies

SGS FIMKO OY [Notified Body Number: 0598]
P.O. Box 30 (Särkiniementie 3)
00211 HELSINKI
Finland

ATEX Notified Body for Quality Assurance

SGS FIMKO OY [Notified Body Number: 0598]
P.O. Box 30 (Särkiniementie 3)
00211 HELSINKI
Finland

Page 3 of 3

9 China RoHS

含有China RoHS管控物质超过最大浓度限值的部件型号列表 Rosemount SPG
List of Rosemount SPG Parts with China RoHS Concentration above MCVs

部件名称 Part Name	有害物质 / Hazardous Substances					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr +6)	多溴联苯 Polybrominated biphenyls (PBB)	多溴联苯醚 Polybrominated diphenyl ethers (PBDE)
电子组件 Electronics Assembly	X	O	O	O	O	O
壳体组件 Housing Assembly	O	O	O	O	O	O
传感器组件 Sensor Assembly	X	O	O	O	O	O
电池组件 Battery Assembly	O	O	O	O	O	O

本表格系依据SJ/T11364的规定而制作.
This table is proposed in accordance with the provision of SJ/T11364.

O: 意为该部件的所有均质材料中该有害物质的含量均低于GB/T 26572所规定的限量要求.
O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

X: 意为在该部件所使用的所有均质材料里，至少有一类均质材料中该有害物质的含量高于GB/T 26572所规定的限量要求.
X: Indicate that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

部件名称 Part Name	组装备件说明 Spare Parts Descriptions for Assemblies
壳体组件 Housing Assembly	电子外壳 Electrical Housing

Quick Start Guide
00825-0100-4045 , Rev. CA
Feburary 2021

For more information: **www.emerson.com**

ROSEMOUNT™

EMERSON™