Quick Start Guide 00825-0100-4848, Rev GA July 2019

Rosemount[™] 848T Wireless Temperature Transmitter







ROSEMOUNT

Safety Messages

NOTICE

This guide provides basic guidelines for the Rosemount 848T Temperature Transmitter. It does not provide instructions for detailed configuration, diagnostics, maintenance, service, troubleshooting. Refer to the Rosemount 848T Reference Manual for more instruction. The manual and this guide are also available electronically on Emerson.com/Rosemount

A WARNING

Explosions could result in death or serious injury.

Installation of this transmitter in an explosive environment must be in accordance with the appropriate local, national, and international standards, codes, and practices. Review the approvals section of this manual for any restrictions associated with a safe installation.

• Before connecting a communicator in an explosive atmosphere, make sure the instruments in the segment are installed in accordance with intrinsically safe or non-incendive field wiring practices.

Electrical shock could cause death or serious injury.

• Avoid contact with the leads and terminals. High voltage that may be present on leads can cause electrical shock.

A 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.

ACAUTION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device 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 (8 in.) from all persons.

NOTICE

Battery hazards remain when cells are discharged.

- Power modules should be stored in a clean and dry area. For maximum battery life, storage temperature should not exceed 86 °F (30 °C).
- The power module may be replaced in a hazardous area. The power module has surface resistivity
 greater than one gigaohm and must be properly installed in the wireless device enclosure. Care
 must be taken during transportation to and from the point of installation to prevent electrostatic
 charge build-up.

Shipping considerations for wireless products.

The unit was shipped to you without the power module installed. Remove the power module prior to shipping.

Each power module contains two "C" size primary lithium batteries. 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.

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1 Wireless considerations

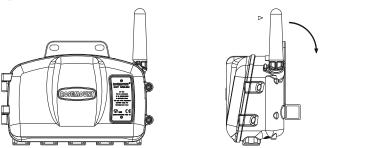
1.1 Power up sequence

The power module should not be installed on any wireless device until the Emerson Wireless Gateway (Gateway) is installed and functioning properly. Wireless devices should also be powered up in order of proximity from the Gateway, beginning with the closest. This will result in a simpler and faster network installation. Enable Active Advertising on the Gateway to ensure that new devices join the network faster. For more information see the Wireless Gateway Reference Manual.

1.2 Antenna position

The antenna should be positioned vertically and it should be approximately 3 ft. (1 m) from any large structure, building, or conductive surface to allow for clear communication to other devices.

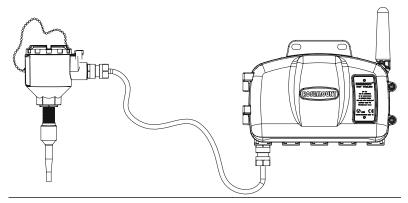
Figure 1-1: Antenna Position



1.3 Conduit plug

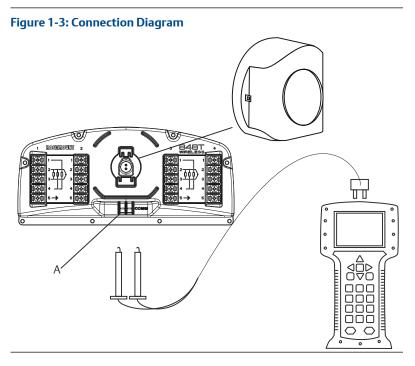
The temporary orange plugs should be replaced with the included conduit plugs using approved thread sealant.

Figure 1-2: Conduit Plug



1.4 Field Communicator connections

The power module needs to be connected for the Field Communicator to interface with the Rosemount 848T Wireless.



2 Physical installation

2.1 Initial configuration

If the device was ordered with a factory configured Network ID and Join Key, it should join the network with no user input. If unsure, the Network ID and the Join Key may be manually entered to match the Gateway's.

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

EMERSON. Process Management	Smart	Wireless Gateway	
	Network Settings		🍳 🕲 💼 admin
192.168.1.10	Network name Network ID	myNet 36863	
B Setup B Network	Security mode	⊙ Common join key ○ Access control list	
- An <mark>Settings</mark> - AnSpeed	Join key Show join key	Yes No Generate	
- 《귀Bandwidth 루필Ethernet protocol	Generate random join key Rotate network key?	O Yes ⊙ No	
B Security	Key rotation period (days)	90	
Tree System Backup Sector Backup Backup Restart Apps Firmware Upgrade Firmware Upgrade Firmware Upgrade Firmware Upgrade Machae Machae Machae Machae Machae Machae Machae Machae Machae Machae	Change network key now?	Vres ©No	
© Emerson, 2010	Feedba	ick Terms Of Use	

The Network ID and Join Key may be changed in the wireless device by using the following Fast Key sequence.

Function	Fast Key sequence	Menu items
Wireless	2,1,1	Join Device to Network

2.2 Sensor configuration

Sensor inputs can be configured for different sensor types. To verify or change the sensor configuration with a Field Communicator, use the following Fast Key sequence.

Table 2-1:

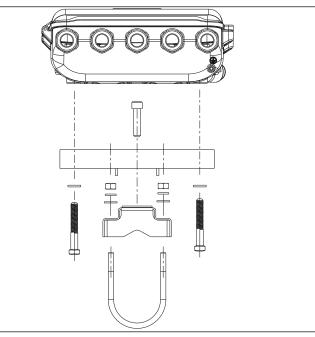
Function	Fast Key sequence	Menu items
Sensor configuration	2,1,3	Configure Sensors

2.3 Remote mount

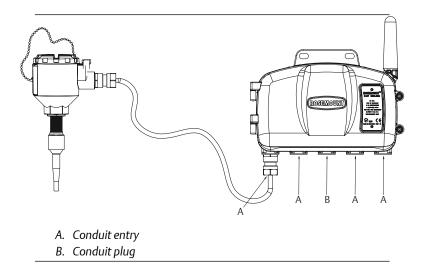
The Rosemount 848T Wireless is designed to be installed only in the Remote Mount configuration where the sensor is mounted separate from the Rosemount 848T housing, then connected to the Rosemount 848T via conduit.

Procedure

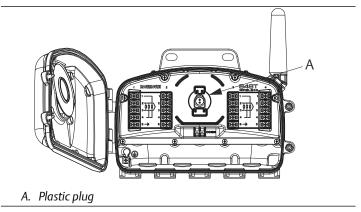
- 1. Install the sensor according to standard installation practices. Be sure to use thread sealant on all connections.
- 2. To reduce sensor wiring length, mount the Rosemount 848T Wireless Transmitter central to all of the measurements. When installing the Rosemount 848T Wireless, the conduit entries need to be facing downward. If using the mounting bracket (Option Code B6), mount to a 2-in. pipe.



3. Run wiring (and conduit, if necessary) from the sensor to the Rosemount 848T. For an easier installation, use the outside conduit entries as shown below. Any unused conduit entries should be sealed with approved sealant using the included threaded conduit plugs.



- 4. Pull the wiring through the threaded conduit entry of the Rosemount 848T.
- 5. Attach the sensor wiring to the terminals as indicated on the wiring diagram. Note that terminal screw 5 is for attaching the shield wire of the sensor to the device. See Rosemount 848T Wireless Reference Manual for more information.
- 6. To connect the power module, remove the plastic plug from the receptacle.

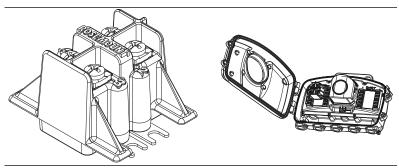


7. After initial installation, close the housing cover securely. Always ensure a proper seal by installing the electronics housing cover so that metal touches metal, but do not overtighten.

8. Position the antenna vertically. The antenna should be approximately 3 ft. (1 m) from any large structures or buildings to allow clear communication to other devices.

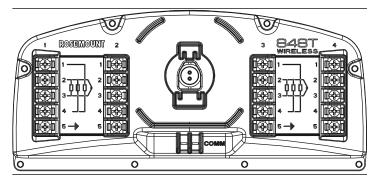
2.4 Installing the optional voltage adapter

The Rosemount 848T Wireless voltage adapter allows voltage measurement from 0–10 volts. Each adapter accommodates two voltage inputs, and can be installed interchangeably on inputs 1 and 2 or 3 and 4.

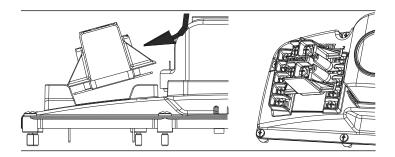


Procedure

1. Open terminal screws 2 and 3 on BOTH inputs. Note that the screws are captive and should NOT be completely removed by using excess force.



2. Angle adapter and slide spade lugs into terminals 2 and 3 on the left side, as shown in the figure below. Ensure that the positive and negative polarity indicators match on the adapter and the terminal block.



- 3. Lower right side of adapter into terminals 2 and 3 on the right side and center the adapter.
- 4. Tighten all terminal screws to lock divider in place.

3 Verify operation

Operation can be verified using one of three methods: Field Communicator, the Wireless Gateway's integrated web interface, or via AMS Device Manager.

3.1 Field Communicator

For HART[®] Communication, an Rosemount 848T Wireless Device Dashboard (DD) is required. For connecting with a Field Communicator, refer to Figure 1-3.

Function	Fast Key sequence	Menu items
Communications	3, 3	Join Status, Communications Status, JoinMode, Number of Advertisements Heard, Number of Available Neighbors, Number of Join Attempts

3.2 Wireless Gateway

In the Gateway's integrated web interface, navigate to the *Explorer* page. This page shows whether the device has joined the network and if it is communicating properly.

Note

It may take several minutes for the device to join the network.

Note

If the device joins the network and immediately has an alarm present, it is likely due to sensor configuration. Check the sensor wiring (see Figure 4-1) and the sensor configuration (see Table 4-1).

HART Tag HART Setatus D/119/10 0918.04 0.000 PSI 23.572 DegC 23.000 DegC 8.774 V 4 2013 Pressure 0/119/10 0918.745 23.572 DegC 23.500 DegC 8.774 V 4 241 Temperature 0/119/10 0917.745 23.572 DegC Nath DegC. M. 2.252 DegC 8.774 V 4 243 Temperature 0/119/10 0917.745 23.572 DegC Nath DegC. M. 2.252 DegC 8.774 V 0.001.00 222 Discrets 0/119/10 0917.759 0.000 0.000 24.000 DegC 9.198 V 001.00 281 Temperature 0/119/10 0917.45 23.577 DegC 23.250 DegC 23.250 DegC 23.250 DegC 00.01.00	HART Tag status Last update PV SV IV QV rate 20515 Pressure 07/19/10 09:18:04 0.000 PSI 23.572 DegC 23.000 DegC 8.774 V 4 545 Temperature 07/19/10 09:17:55 23.527 DegC Anat DegC 2.2.550 DegC 8.774 V 4 202 Discrets 07/19/10 09:17:55 0.000 2.4000 DegC 9.196 V 00:01:00	Explorer							🌻 🛛 🕴 👸
HARI Tog state DPV SV IV QV rate 20155 Pressure 0/71/910 09:18:04 0,000 PSI<023.572 DegC 23.050 DegC 8.774 V 4 645 Temperature 0/71/9110 09:17:52 23.572 DegC 12.2350 DegC 8.774 V 4 702 Discreta 0/71/9110 09:17:50 0.000 0.000 24.000 DegC 8.774 V 0/0:100	HART Top statu Last uppate PV SV IV QV rate 2015 Pressure 0/119/10 09:18:04 0,000 PIS 23.572 DegC 23.0502 DegC 8.774 V 4 645 Temperature 0/0719/10 09:17:45 23.527 DegC 12.2 250 DegC 8.774 V 4 2022 Discreta 0/119/10 09:17:50 0.000 0.000 24.000 DegC 8.774 V 0/0:100								
548 Temperature 07/19/10 09:17:45 23.527 DegC NaN DegC 23.250 DegC 8.773 V 00:01:00 202 Discrete 07/19/10 09:17:50 0.000 0.000 24.000 DegC 9.196 V 00:01:00	549_Temperature 07/19/10 09:17:45 23.527 DegC NaN DegC 23.250 DegC 8.773 ∨ 00:01:00 702_Discrete 07/19/10 09:17:50 0.000 0.000 24.000 DegC 9.198 ∨ 00:01:00	HART Tag		Last update	PV	sv	ту	QV	
702 Discreta ● 07/19/10 09:17:50 0.000 ● 0.000 ● 24.000 DegC ● 9.198 V ● 00:01:00	702 Discrete 07/19/10 09:17:50 0.000 0.000 24.000 DegC 9.198 V 00:01:00	3051S Pressure	•	07/19/10 09:18:04	0.000 PSI	23.572 DegC	23.000 DegC	8.774 V	4
		648 Temperature	•	07/19/10 09:17:45	23.527 DegC 🔵	NaN DegC 🗘	23.250 DegC	8.773 V	00:01:00
BBI_Temperatura 07/19/10 09:17/45 23.527 DegC 23.250 DegC 23.250 DegC 23.250 DegC 00:01:00	Bill Tamperatura 07/19/10 09:17:45 23.527 DegC 23.250 DegC 23.250 DegC 23.250 DegC 00:01:00	702 Discrete	•	07/19/10 09:17:50	0.000	0.000	24.000 DegC	9.198 V	00:01:00
		848 Temperature	•	07/19/10 09:17:45	23.527 DegC	23.250 DegC	23.250 DegC	23.250 DegC	00:01:00

Figure 3-1: Wireless Gateway Explorer Page

3.3 AMS Wireless Configurator

When the device has joined the network, it will appear in the AMS Device Manager as illustrated Figure 3-2:

Figure 3-2: AMS Wireless Configurator Explorer Page

AMS Wireless Configurator - [Device Explorer] AMS Wireless Configurator - [Device Explorer] The View Tools Window Help Over Tools Window Help Over Tools Window Help Over Tools Window Help Over Tools Window Help							
AMS Device Manager	Teg 22/19/2009 11:30:39.347	Manufacturer Rosemount	Device Type 848T	Device Rev 2	HART	Protocol Rev	
Ready	16				Usi	er:admin	,

4 Reference information

Figure 4-1: Rosemount 848T Terminal Diagram

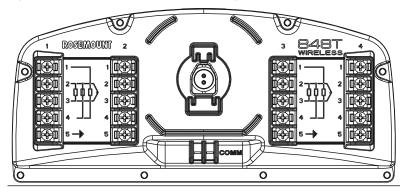
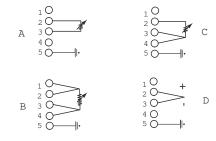


Table 4-1: Rosemount 848T Fast Key Sequence for Field Communicator

Function	Fast Key sequence	Menu items
Device Information	1, 1, 13	Manufacturer, Model, Final Assembly Number, Universal, Field Device, Software, Hardware, Descriptor, Message, Date, Model Number, SIUnit Control, Country, Device ID
Guided Setup	2, 1	Join Device to Network, Configure Update Rate, Configure Sensor, Calibrate Sensors, Configure Alerts
Manual Setup	2, 2	Wireless, Sensor 1, Sensor 2, Sensor 3, Sensor 4, Device Temperature, Device Information, Other
Wireless	2, 2, 1	Network ID, Join Device to Network, Configure Update Rate, Configure Broadcast Power Level, Power Mode, Power Source
Sensor Calibration	3, 4, 1-4	Sensor 1-4, Current Upper Trim, Current Lower Trim, Lower Sensor Trim, Upper Sensor Trim, Recall Factory Trim, RTD 2 Wire Offset

Figure 4-2: Sensor Wiring Diagrams



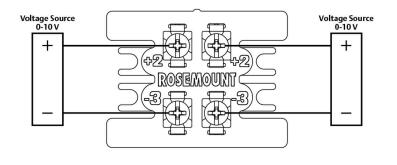
- A. 2-wire RTD, Ohm
- B. 4-wire RTD, Ohm
- C. 3-wire RTD, Ohm
- D. Thermocouple, millivolt

4.1 Wiring 0-10 volt inputs on the voltage adapter

Wiring voltage 0–10 volt inputs using the adapter follows the same procedure as mV inputs and thermocouples.

Figure 4-3 shows how to connect the voltage leads.

Figure 4-3: Voltage Source



4.2 Adapter requirements

1. The adapter is only designed to be used with the 1000 mV sensor type, found on device revisions 3 and above. If it is ordered preinstalled from the factory, this will be the default sensor type. If the adapter is ordered as a spare part, the user must configure the inputs to this sensor type. The user is responsible for converting the 0–1000 mV transmitter output into a 0–10 volt scale. The formula to do this is as follows: $\frac{\frac{\text{Transmitter output (in mV)}}{100} = \text{Actual reading (in V)}$

- 2. If input type S004 (1) dual channel voltage adapter is ordered, it will be factory installed on channels 1 and 2. However, if the adapter is required to be installed on channels 3 and 4, the procedure to do so is a simple process. Confirm that channels 3 and 4 are configured for 1000 mV sensor input. After confirmation, remove the adapter from channels 1 and 2 and follow the steps provided in the Installing the optional voltage adapter to install it on channels 3 and 4.
- In order to ensure the device remains within the accuracy specifications, the effect of source impedance must be checked. Loaded to unloaded, the impedance ratio cannot exceed 0.1 percent. For detailed instructions on how to verify this, refer to Section 5 of the Reference Manual.

5 Product certifications

Rev 1.6

5.1 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.

5.2 FCC and IC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: This device may not cause harmful interference. This device 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.

5.3 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 Emerson.com/Rosemount.

5.4 Ordinary Location Certification

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

5.5 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.

5.6 USA

5.6.1 I5 FM Intrinsically Safe

Certificate 3034378

- **Standards** FM Class 3600:1998, FM Class 3610:2010, FM Class 3810:2005, NEMA[®]-250:1997, ANSI/ISA-60079-0:2009, ANSI/ISA-60079-11:2009, IEC 60529:2004
- **Markings** IS CL I, DIV 1, GP A, B, C, D; NI CL I, DIV 2, GP A, B, C, D; IS CL I, Zone 0, AEx ia IIC T4($-50 \degree C \le T_a \le +70 \degree C$), when installed per Rosemount drawing 00849-1000; Type 4X; IP66

See Table 5-1 at the end of the Product Certifications section for entity parameters.

5.6.2 N5 FM Class 1, Division 2, and Dust Ignition-proof

Certificate 3034378

Standards FM Class 3600:1998, FM Class 3610:2010, FM Class 3810:2005, NEMA-250:1997, IEC 60529:2004

Markings NI CL I, DIV 2, GP A, B, C, D; T4($-50 \degree C \le T_a \le +70 \degree C$); DIP CL II/III DIV 1, GP E, F, G; T5 ($-50 \degree C \le T_a \le +85 \degree C$); when installed per Rosemount drawing 00849-1000; Type 4X; IP66

5.7 Canada

5.7.1 I6 CSA Intinsic Safety

Certificate 1261865

- Standards CSA Std. C22.2 No. 25-1966, CSA Std. C22.2 No. 30-M1986, CAN/CSA C22.2 No. 94-M91, CSA C22.2 No. 142-M1987, CAN/CSA C22.2 No. 157-92, CSA Std. C22.2 No. 213-M1987, CSA Std. C22.2 No 60529:05
- Markings Intrinsically Safe for CL I, DIV 1 GP A, B, C, D; Suitable for CL I DIV 2 GP A, B, C, D; when installed per Rosemount drawing 00849-1016; T3C; Type 4X, IP66

See Table 5-1 at the end of the Product Certifications section for entity parameters.

5.7.2 N6 CSA Class I, Division 2

Certificate 1261865

Standards CSA Std. C22.2 No. 25-1966, CSA Std. C22.2 No. 30-M1986, CAN/CSA C22.2 No. 94-M91, CSA C22.2 No. 142-M1987, CSA Std. C22.2 No. 213-M1987, CSA Std. C22.2 No 60529:05

Markings Suitable for CL I DIV 2 GP A, B, C, D; T3C; when installed per Rosemount drawing 00849-1016; Type 4X, IP66

5.8 Europe

5.8.1 I1 ATEX Intrinsic Safety

Certificate Baseefa09ATEX0022X

Standards EN 60079-0:2012, EN 60079-11:2012

Markings $(C \le T_a \le +40 \degree C)$ II 1 G Ex ia IIC T4/T5 Ga T4(-60 °C $\le T_a \le +70 \degree C$), T5(-60

See Table 5-1 at the end of the Product Certifications section for entity parameters.

Special Conditions for Safe Use (X):

- 1. The surface resistivity of the antenna is greater than $1 \text{ G}\Omega$. To avoid electrostatic charge build-up, it must not be rubbed or cleaned with solvents or a dry cloth.
- 2. The Model 701PBKKF Power Module or Intelligent Power Module 71008 may be replaced in a hazardous area. The Power Modules have surface resistivity greater than 1 G Ω and must be properly installed in the wireless device enclosure. Care must be taken during transportation to and from the point of installation to prevent electrostatic charge build-up.
- 3. The enclosure may be made from aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion when located in a zone 0 area.

5.9 International

5.9.1 I7 IECEx Intrinsic Safety

Certificate IECEx BAS 09.0004X

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

Markings Ex ia IIC T5/T4 Ga, T4(-60 °C \leq T_a \leq +70 °C), T5(-60 °C \leq T_a \leq +40 °C)

See Table 5-1 at the end of the Product Certifications section for entity parameters.

Special Conditions for Safe Use (X):

- 1. The surface resistivity of the antenna is greater than $1G\Omega$. To avoid electrostatic charge build-up, it must not be rubbed or cleaned with solvents or a dry cloth.
- 2. The Model 701PBKKF Power Module or Intelligent Power Module 71008 may be replaced in a hazardous area. The Power Modules have

surface resistivity greater than 1 G Ω and must be properly installed in the wireless device enclosure. Care must be taken during transportation to and from the point of installation to prevent electrostatic charge build-up.

3. The enclosure may be made from aluminum alloy with a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion when located in Zone 0.

5.10 Brazil

5.10.1 I2 INMETRO Intrinsic Safety

Certificate	UL-BR 15.0034X
Standards	ABNT NBR IEC 60079-0:2013, ABNT NBR IEC 60079-11:2013
Markings	Ex ia IIC T4/T5, T4(-60 °C \leq T _a \leq +70 °C), T5(-60 °C \leq T _a \leq +40 °C)

See Table 5-1 at the end of the Product Certifications section for entity parameters.

Special Condition for Safe Use (X):

- 1. The surface resistance of the antenna is greater than $1 G\Omega$. To avoid electrostatic charge build-up, it must not be rubbed or cleaned with solvents or a dry cloth.
- 2. The Model 701PBKKF Power Module, MHM-89004 Blue Power Module or Intelligent Power Module 71008 may be replaced in a hazardous area. The power module has surface resistance greater than 1 G Ω and must be properly installed in the wireless device enclosure. Care must be taken during transportation to and from the point of installation to prevent electrostatic charge build-up.
- 3. The 848T enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in areas that requires EPL Ga (Zone 0).

5.11 China

5.11.1 I3 NEPSI Intrinsic Safety

Certificate GYJ16.1205X

Markings Ex ia IIC T4/T5 Ga, T4($-60 \degree C \le T_a \le +70 \degree C$), T5($-60 \degree C \le T_a \le +40 \degree C$)

See Table 5-1 at the end of the Product Certifications section for entity parameters.

Special Condition for Safe Use (X):

- 1. The surface resistance of the antenna is greater than 1 G Ω . To avoid electrostatic charge build-up, it must not be rubbed or cleaned with solvents or a dry cloth.
- 2. The power module may be replaced in a hazardous area. The power module has surface resistance greater than 1 G Ω and must be properly installed in the wireless device enclosure. Care must be taken during transportation to and from the point of installation to prevent electrostatic charge build-up.
- 3. Manufacture-provided battery pack made up of two Tadiran TL-5920 Lithium Thionyl-Chloride primary cells should be used.
- 4. The product should be used with Ex-certified associated apparatus to establish explosion protection system that can be used in explosive gas atmospheres. Wiring and terminals should comply with the instruction manual of the product and associated apparatus.
- 5. The cables between this product and associated apparatus should be shielded cables (the cables must have insulated shield). The shield has to be grounded reliably in non-hazardous area.
- 6. End user is not permitted to change any components inside, but to settle the problem in conjunction with manufacturer to avoid damage to the product.
- 7. When installation, use and maintenance of this product, observe following standards: GB3836.13-2013 "Electrical apparatus for explosive gas atmospheres Part 13: Repair and overhaul for apparatus used in explosive gas atmospheres" GB3836.15-2000 "Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous area (other than mines)" GB3836.16-2006 "Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)" GB3836.18-2010 "Explosive Atmospheres Part 18: Intrinsically Safe System GB50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering"

5.12 EAC - Belarus, Kazakhstan, Russia

5.12.1 IM Technical Regulations Customs Union (EAC) Intrinsic Safety

Markings 0Ex ia IIC T4, T5 Ga X, T4($-60 \degree C \le T_a \le +70 \degree C$), T5($-60 \degree C \le T_a \le +40 \degree C$); IP66/IP67

See Table 5-1 at the end of the Product Certifications section for entity parameters.

5.13 Japan

5.13.1 I4 TIIS Intrinsic Safety

Certificate	TC19154
Markings	Ex ia IIC T4, T4(-20 °C \leq T _a \leq +60 °C)

See Table 5-1 at the end of the Product Certifications section for entity parameters.

5.14 Additional certifications

5.14.1 SBV Bureau Veritas (BV) Type Approval

Requirements Bureau Veritas Rules for the Classification of Steel Ships

5.15 Table

Table 5-1: Entity Parameters (Sensor Terminals)

Parameter	FM	CSA	ATEX, IECEx, NEPSI, EAC, TIIS, INMETRO
Voltage U _o (V)	6.51	6.6	6.6
Current I _o (mA)	3.12	3.2	3.2
Power P _o (mW)	5.1	20.4	5.3
Capacitance C _o (μF)	22	22	22
Inductance L _o (H)	1	1	1

6 Declaration of Conformity

EU Declaration								
We,								
Rosemount, Inc. 8200 Market Boulevard Chanhassen, MN 55317-9685 USA								
declare under our sole responsibility that the pro-	duct,							
Rosemount™ 848T Wireles	Rosemount™ 848T Wireless Temperature Transmitter							
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 Union 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 Union notified body certification, as shown in the attached schedule.								
(signature)	Vice President of Global Quality (function)							
Chris LaPoint	1-Feb-19; Shakopee, MN USA							
(name) Page	(date of issue & place) 1 of 2							

EMC Dire	ective (2014/30/EU)	
	Harmonized Standards: EN 61326-1: 2013 EN 61326-2-3: 2013	
Radio Equ	ipment Directive (RED) (2014/53/EU)	
	Harmonized Standards: EN 300 328 V2.1.1 EN 301 489-1 V2.2.0 EN 301 489-17 V3.2.0 EN 61010-1: 2010 EN 62311: 2008	
ATEX Dir	rective (2014/34/EU)	
	Baseefa09ATEX0022X - Intrinsic Safety Certificate Equipment Group II, Category 1 G: Ex ia IIC T4/T5 Ga Harmonized Standards: EN 60079-0: 2012+A11: 2013 EN 60079-11: 2012	
ATEX No	tified Body & ATEX Notified Body for Quality Assuran SGS FIMCO OY [Notified Body Number: 0598] P.O. Box 30 (Sarkiniementie 3) 00211 HELSINKI Finland	.ce

China RoHS 7

Table 1B: List of Rosemount 848T Wireless Parts with China RoHS Concentration above MCVs 表格 1B: 含有China RoHS 管控物质超过最大浓度限值的部件型号列表 Rosemount 848T Wireless

	Hazardous Substances / 有害物质						
Part Name 部件名称	Lead 铅 (Pb)	Mercury 汞 (Hg)	Cadmium 幅 (Cd)	Hexavalent Chromium 六价铬 (Cr +6)	Polybrominated biphenyls 多溴联苯 (PBB)	Polybrominated diphenyl ethers 多溴联苯醚 (PBDE)	
Electronics Assembly 电子组件	х	0	0	0	0	0	
Housing Assembly 壳体组件	0	0	0	х	0	0	
Sensor Assembly 传感器组件	х	0	0	0	0	0	

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

O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

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.

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.

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.

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