

SmartLine RMA801 HART/DE Remote Indicator Assembly Quick Start Installation Guide

34-ST-25-63, Revision 7, February 2022

This document provides descriptions and procedures for the Quick Installation of Honeywell's family of SmartLine Remote Indicator.

The SmartLine Remote Indicator is a configurable intelligent field device which functions as an output and status indicator for any HART and DE devices.

For full details refer to the manuals listed below for protocols, user Interface (HMI) operation, Installation, configuration, calibration, maintenance, parts, and safety and approvals etc. including options

Copyrights, Notices and Trademarks.
Copyright 2021 by Honeywell
Revision 7, November 2021

Trademarks
SmartLine, RMA are U.S. registered trademarks of Honeywell Inc.

HART® is Trademarks of Field COMM Group™

Documentation

To access complete documentation, including language variants, scan the QR code below using your smart phone/device or QR code scanner.

Go to the APP store for your free Smartphone QR scanner

Or you can follow the URL to access the online SmartLine HUB page.

The HUB page will contain direct links to open SmartLine product documentation.

URL

<https://hwll.co/SmartLineHUB>

QR Code



Table of Contents

Installation and setup.....	1
Site evaluation.....	1
Installation precautions	1
Explosion-Proof Conduit Seal	1
Mounting Remote indicator	2
Mounting Dimensions	2
Bracket Mounting.....	2
Wiring a Remote Indicator.....	2
Terminal Block	2
Wiring Connections and Power Up	3
Wiring Options.....	3
DEVICE CONFIGURATION	3
Appendix A. PRODUCT CERTIFICATIONS.....	3
Figure 1: Electronics Housing Components.....	1
Figure 2: Typical Pipe Mounted Installations	2
Figure 3: Pipe Mount - Horizontal Mounting Bracket	2
Figure 4: Pipe Mount - Vertical Mounting Bracket	2
Figure 5: Remote Indicator Secured to a Wall Mounting Bracket.....	2
Figure 6: DE/ANALOG Terminal Block	23
Figure 7: RMA801 Terminal Block	2
Figure 8: Remote Indicator connected to the negative loop wire	3
Figure 9: Remote Indicator connected to the negative loop wire	3
Figure 10: Remote Indicator connected to the positive loop wire.....	3

Features and Options

The RMA801 Remote Indicator provides a means of remote-mounting a indicator (display) that is associated with a Honeywell Smartline Transmitter or any transmitter operating in a 4-20 mA current loop.

The RMA801 is a DE/Analog Remote Indicator which can be connected anywhere along the current loop.

For analog PV, the RMA801 measures the loop current and displays the equivalent PV value on the display.

The RMA801 will auto configure when connected to Honeywell DE transmitters except SMV800/3000 when a database upload is performed.

This document provides the information for a quick setup. For detailed information, please refer RMA801 user manual, 34-ST-25-62.

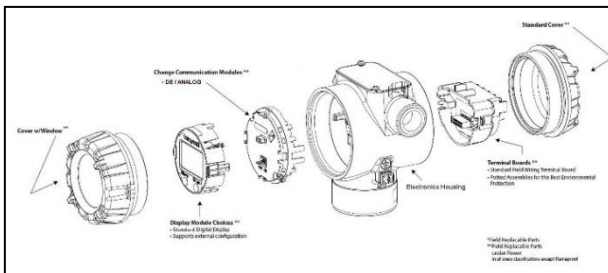


Figure 1: Electronics Housing Components



CAUTION

Temperature extremes can affect display quality. The display can go blank if the temperature is below -20°C or above 70°C; however, this is only a temporary condition. The display will again be readable when temperatures return to within operable limits.

The device shall be operated by a trained professional. It is the user/installer's responsibility to install the indicator in accordance with national and local code requirements. Conduit entry plugs and adapters shall be suitable for the environment, shall be certified for the hazardous location when required and acceptable to the authority having jurisdiction for the plant

The RMA device is always connected in series with the transmitter. The current loop will be broken if the RMA801 device is removed from the loop.

Installation and setup

Site evaluation

Evaluate the site selected for the Remote Indicator installation with respect to the process system design specifications and Honeywell's published performance characteristics for your particular model. Some parameters that you may want to include in your site evaluation can be found in the RMA801 user manual.

#34-ST-25-62

Installation precautions

Temperature extremes can affect display quality. The display can go blank if the temperature is below -20°C or above +70°C; however, this is only a temporary condition. The display will again be readable when temperatures return to within operable limits.

Explosion-Proof Conduit Seal



WARNING

When installed as explosion proof in a Division 1 Hazardous Location, keep covers tight while the Remote Indicator is energized. Disconnect power to the Remote Indicator in the non-hazardous area prior to removing end caps for service.

When installed as non-incendive equipment in a Division 2 hazardous location, disconnect power to the Remote Indicator in the non-hazardous area, or determine that the location is non-hazardous before disconnecting or connecting the Remote Indicator wires.

Mounting Remote indicator

Summary Remote Indicator models can be attached to a two-inch (50.8 millimeter) vertical or horizontal pipe using Honeywell's optional pipe mounting bracket. Honeywell's optional wall mounting bracket is also shown in figures below.

Mounting Dimensions

Refer to Honeywell drawing number 51455045* for detailed electronic housing dimensions. Refer to Honeywell drawing numbers 32306827* for detailed pipe mounting dimensions, 50124813* for Detailed Pipe Angle mounting dimensions and 32306828* for detailed wall mounting dimensions.

THE TRANSMITTER ENCLOSURE CAN BE ROTATED A TOTAL OF 90° FROM THE STANDARD MOUNTING POSITION.

* Honeywell drawings can be supplied on request.

Bracket Mounting

If you are using an optional bracket, start with Step 1.

1. Pipe Mount Option -Refer to Figure 2, Figure 3 and Figure 4. Align the two mounting holes at the bottom of the Remote Indicator with the two slots in the mounting bracket and assemble the (2) M8 hex cap screws, (2) lock washers and (2) flat washers provided.
2. Rotate the Remote Indicator assembly to the desired position and torque the M8 hex cap screws to 27,0 Nm/20,0 Lb-ft maximum.

Position the bracket on a 2-inch (50.8 mm) horizontal or vertical pipe and install a "U" bolt around the pipe and through the holes in the bracket. Secure the bracket with (2) M10 hex nuts, (2) flat washers and (2) lock washers provided. Refer to Figure 4.

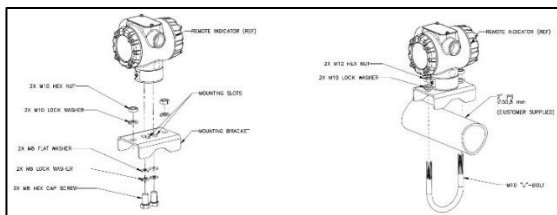


Figure 2: Typical Pipe Mounted Installations

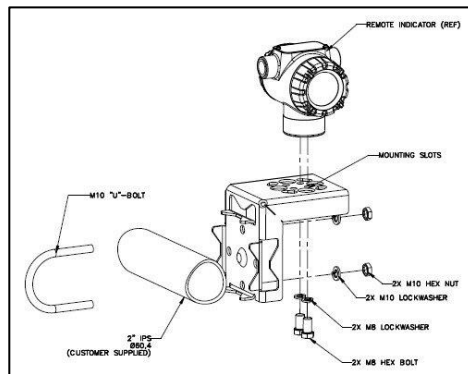


Figure 3: Pipe Mount - Horizontal Mounting Bracket

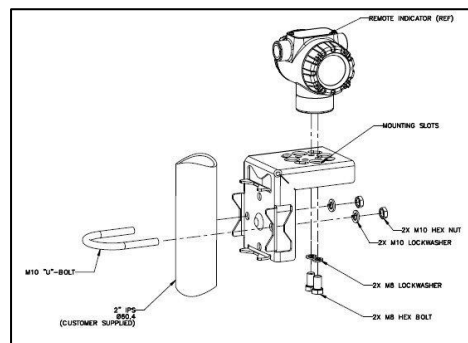


Figure 4: Pipe Mount - Vertical Mounting Bracket

3. Wall Mount Option – Refer Figure 5 Position the bracket on the mounting surface at the desired location and secure the bracket to the mounting surface using the appropriate hardware (Wall mounting hardware requirements to be determined and supplied by the end user).

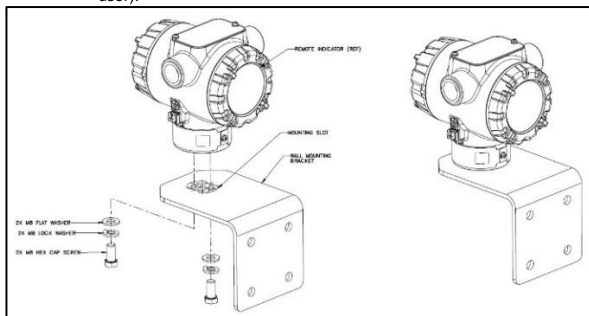


Figure 5: Remote Indicator Secured to a Wall Mounting Bracket

Wiring a Remote Indicator

Overview

The Remote Indicator is designed to operate in normal 4-20mA analog mode with HART enabled transmitters across Smartline Devices and DE transmitters except SMV800/3000.

For improved noise performance, it is recommended to provide earth ground for both transmitter and RMA housing.

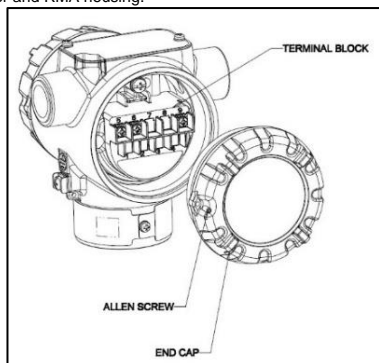


Figure 6: DE/ANALOG Terminal Block

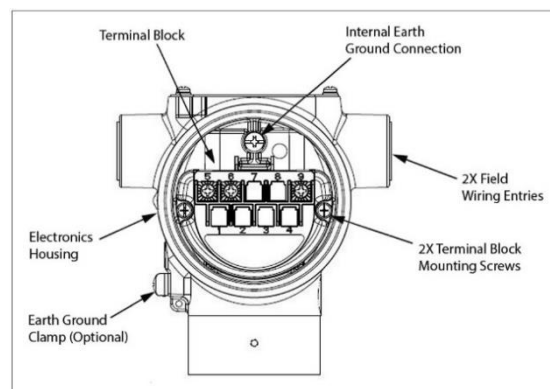


Figure 7: RMA801 Terminal Block

Terminal Block

The RMA801 has 3 terminals. Following table provides the connection details-

Terminal No.	Description
5	Loop +ve
6	Loop -ve
9	DE COMM

Three screw terminals suitable for wirings up to (16AWG)

- Shielded, twisted-pair cable such as Belden 9318 or equivalent must be used for all signal/power wiring.
- The cable shield must be connected at only one end of the cable. Connect it to the power supply side and **leave the shield insulated at the transmitter side and RMA side.**

Note: If solid core wire is used strip insulation 1/4 in (6 mm). Once inserted under the square washer the stripped portion should be contained under the square washer. If multi-stranded wire is used, a ferrule is to be used and the stripped wire should be in the insulated portion of the ferrule. The ferrule can be also be used on the solid core wire.

Loop Terminals 5 & 6 shall be connected in series with the 4-20 ma loop for both analog and DE modes. Additionally, third wire (Terminal 9) is required for DE communication in DE mode only.

Loop wiring for analog and DE mode is shown in figure below.

NOTE: After wiring the Transmitter as outline in the next sections, torque the screws to 1.1 Nm (10 lb-in)

Wiring Connections and Power Up

Make sure that the following power supply constraint is met.

$$V_{S,Min} = 2.3V + V_{Txer,Min} + (R_{loop} * I_{max}/1000)$$

Where

$V_{S,Min}$ is minimum supply voltage

$V_{Txer,Min}$ is Transmitter Minimum supply voltage at terminals

R_{loop} is loop resistance in ohms

I_{max} High failSafe/B urnout current in mA

Wiring Options

There are 3 wiring options for connecting Remote Indicator to the loop.

See Figure 8, Figure 9 and Figure 10 for the wiring connections.

DE Devices

In this mode, the Remote Indicator shall be connected as shown in Figure 8.

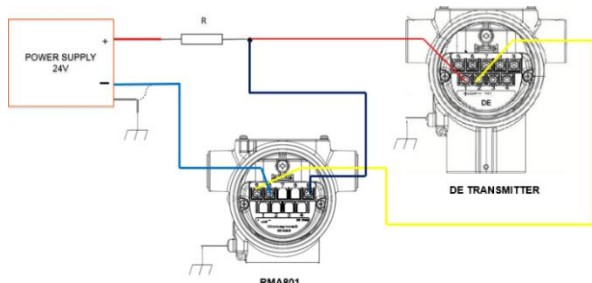


Figure 8: Remote Indicator connected to the negative loop wire

Once the wiring is complete, power on the loop. The RMA device will take 6s (approx.) to turn on the display.

Note – The resistor “R” indicates (shown for representation only) the loop resistor which is needed for HART and DE communication and is typically provided by the user or control system.

Analog (4-20mA) Devices:

Refer Figure 8 and 9 for the Remote Indicator Connection on the Negative and positive side of the loop.

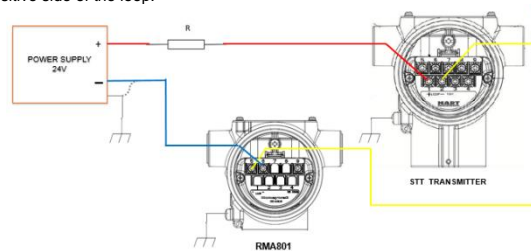


Figure 9: Remote Indicator connected to the negative loop wire

1. Remote Indicator installed as explosion proof in Class I, Division 1, Group A Hazardous (classified) locations in accordance with ANSI/NFPA 70, the US National Electrical Code, with 1/2 inch conduit do not require an explosion-proof seal for installation. If 3/4 inch conduit is used, a LISTED explosion proof seal must be installed in the conduit, within 18 inches (457.2 mm) of the Remote Indicator.

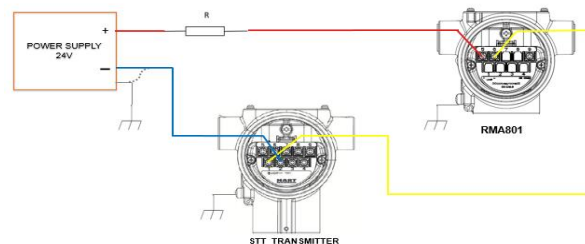


Figure 10: Remote Indicator connected to the positive loop wire



ATTENTION

For all wiring options, ensure that RMA chassis ground terminal is connected to earth ground.
Connect the Loop Power shield to earth ground at the power supply end and not at RMA end. The shield shall be continuous from transmitter through RMA till the power supply

DEVICE CONFIGURATION

Once the loop is powered, the RMA will be turned ON with a scrolling message “SmartLine” appearing on the display.

For DE devices, the RMA is autoconfigured. For any DE configuration change in the transmitter, database upload shall be performed to reflect the changes in RMA.

To configure the device, open the front cover of the device.

Use the ‘Menu’ and ‘Enter’ key buttons on display to configure the device. See table below for configuration parameters.

Use the ‘Menu’ button to navigate the configuration parameters. Use the ‘Enter’ button to select and set a parameter value.

SNO	MENU Parameters	Description
1	SEL PV	Select Process Variable (temperature, pressure, flow and Level, loop out, % out)
2	UNIT	Select Engineering Unit Units are visible as per PV selection
3	C UNIT	Enter required customized unit (String)
4	ENTLRV	Enter Lower Range Value (Numeric Value)
5	ENTURV	Enter Upper Range Value (Numeric Value)
6	CAL Lo	Input Calibration Low Point. See manual for details of calibration. (Applicable in Analog Mode only)
7	CAL Hi	Input Calibration High Point. See manual for details of calibration. (Applicable in Analog Mode only)
8	B UNIT	Select Engineering Base Unit of Transmitter Base Units visible as per PV selection (Applicable in Analog Mode only)
9	CNTRST	Set LCD Contrast
10	RMA DG	RMA Diagnostic Messages. See manual for details of diagnostic messages
11	SQRT	Select Square Root (Disable, Enable)
12	SCLLO	Enter Scaling Low Value (Numeric Value)
13	SCLHI	Enter Scaling High Value (Numeric Value)
14	RBoot	Reboot the Remote Indicator Assembly
15	TAG	Displays Tag (Read only)
16	FW VER	Firmware Version
	EXIT	EXIT Menu

Engineering Units

Temperature: °C, °F, °R, K, mV, Ohm

Pressure: inH₂O@39°F, mH₂O@4°C, cmH₂O@4°C, Torr, mmH₂O@68°F, ftH₂O@68°F, inH₂O@68°F, inH₂O@60°F, atm, Pa, kPa, MPa, gf/cm², kgf/cm², psi, mbar, bar, inHg@0°C, mmHg@0°C, mmH₂O@4°C.

Flow: CFS, GPM, GPH, LPM, LPH, M3/s, M3/hr, Lb/s, Lb/min, Lb/hr, Kg/s, Kg/hr, SCFM, SCFH, SCFD, MSCFH, NM3/hr, MMSCFD, MMSCFH

Level: m, cm, mm, in, ft




Appendix A. PRODUCT CERTIFICATIONS

A1 European Directive Information (CE Mark)

RMA800 SmartLine Remote Indicator Series EU Declaration of conformity

(Document #32302406), can be downloaded here: [EU Declaration](#)

A2. Hazardous Locations Certifications

C	ATEX	Flame-proof and Dust:  II 2 G Ex db IIC T6..T5 Gb II 2 D Ex tb IIIC T 95°C Db	Note 1	T6: -20°C to 65°C T95°C, T5: -20°C to 85°C
		Intrinsically Safe:  II 1 G Ex ia IIC T4 Ga II 3 G Ex ic IIC T4 Gc	Note 2	-20°C to 70°C
		Non-Incendive  II 3 G Ex ec IIC T4 Gc	Note 1	-20°C to 85°C
		Enclosure: IP66/ IP67	ALL	ALL
		STANDARDS: EN 60079-0: 2012+A11: 2013; EN 60079-1: 2014; EN 60079-11: 2012; EN 60079-31: 2014; EN 60079-7: 2015;		
D	IECEx	Flame-proof: Ex db IIC T6..T5 Gb Ex tb IIIC T 95°C Db	Note 1	T6: -20°C to 65°C T95°C, T5: -20°C to 85°C
		Intrinsically Safe: Ex ia IIC T4 Ga Ex ic IIC T4 Gc	Note 2	-20°C to 70°C
		Non-Incendive Ex ec IIC T4 Gc	Note 1	--20°C to 85°C
		Enclosure: IP66/ IP67	ALL	ALL
		STANDARDS: IEC 60079-0: 2011; IEC 60079-1: 2014; IEC 60079-11: 2011; IEC 60079-7: 2015; IEC 60079-31: 2014		
E	SAEx	Flame-proof: Ex db IIC T6..T5 Gb Ex tb IIIC T 95°C Db	Note 1	T6: -20°C to 65°C T95°C, T5: -20°C to 85°C
		Intrinsically Safe: Ex ia IIC T4 Ga Ex ic IIC T4 Gc	Note 2	-20°C to 70°C
		Non-Incendive Ex ec IIC T4 Gc	Note 1	--20°C to 85°C
		Enclosure: IP66/ IP67	ALL	ALL
		STANDARDS: IEC 60079-0: 2011; IEC 60079-1: 2014; IEC 60079-11: 2011; IEC 60079-7: 2006; IEC 60079-31: 2013		

F	INMETRO	Flame-proof: Ex db IIC T6..T5 Gb Ex tb IIIC T 95°C Db	Note 1	T6: -20°C to 65°C T95°C, T5: -20°C to 85°C
		Intrinsically Safe: Ex ia IIC T4 Ga Ex ic IIC T4 Gc	Note 2	-20°C to 70°C
		Non-Incendive Ex ec IIC T4 Gc	Note 1	--20°C to 85°C
		Enclosure: IP66/ IP67	ALL	ALL
		STANDARDS: ABNT NBR IEC 60079-0: 2013; ABNT NBR IEC 60079-1: 2016; ABNT NBR IEC 60079-11: 2013; ABNT NBR IEC 60079-7: 2018; ABNT NBR IEC 60079-31: 2014		
G	NEPSI	Flame-proof: Ex d IIC T6/T5 Gb Ex tD A21 IP66/67 T95°C	Note 1	T6: -20°C to 65°C 95°C, T5: -20°C to 85°C
		Intrinsically Safe: Ex ia IIC T4 Ga Ex ic IIC T4 Gc	Note 2	-20°C to 70°C
		Non-Incendive Ex nA IIC T4 Gc	Note 1	--20°C to 85°C
		Enclosure: IP66/ IP67	ALL	ALL
		STANDARDS: GB 3836.1-2010; GB 3836.2-2010; GB 3836.4-2014; GB 3836.19-2010; GB 3836.20-2010; GB 12476.1-2013; GB 12476.5-2013		
P	CCoE/ PESO	Flame-proof: Ex db IIC T6..T5 Gb	Note 1	T6: -20°C to 65°C T5: -20°C to 85°C
		Intrinsically Safe: Ex ia IIC T4 Ga	Note 2	-20°C to 70°C
		Enclosure: IP66/ IP67	ALL	ALL
		STANDARDS: IEC 60079-0: 2011; IEC 60079-1: 2014; IEC 60079-11: 2011; IEC 60079-7: 2006; IEC 60079-31: 2013		

K	cCSAus	Explosion proof: Class I, Division 1, Groups A, B, C, D;T6..T4	Note 1	T6: -50°C to +65°C T4, T5: -50 °C to 85°C
		Dust Ignition Proof: Class II, III, Division 1, Groups E, F, G; T4 Class I Zone 1 Ex db IIC T4 Gb Ex db IIC T4 Gb Zone 21 Ex tb IIIC T 95°C Db Ex tb IIIC T 95°C Db		
		Intrinsically Safe: CSA 14.2689056 Class I, II, III, Division 1, Groups A, B, C, D, E, F, G; T4 Ex ia IIC T4 Ga	Note 2	-50°C to 70°C
		Non-Incendive Class I, Division 2, Groups A, B, C, D; T4 Class I Zone 2 Ex nA IIC T4 Gc Ex nA IIC T4 Gc	Note 1	-50°C to 85°C
		Enclosure: 4X/ IP66/ IP67	ALL	ALL
Standards: CSA C22.2 No. 0: 2015; CSA C22.2 No. 30: 2016; CSA C22.2 No. 94-M91; CSA C22.2 No. 25: 2017; CSA C22.2 No. 61010-1: 2017; CSA-C22.2No.157: 2016; C22.2 No. 213: 2017; C22.2 No. CSA 60079-0:2015; C22.2 No. 60079-1: 2016; C22.2 No. 60079-11: 2014; C22.2 No. 60079-15: 2016; C22.2 No. 60079-31: 2015; ANSI/ ISA12.12.01-2017; ANSI/ ISA 61010-1: 2016; ANSI/ UL 60079-0: 2013; ANSI/ UL 60079-1: 2015; ANSI/ UL 60079-11: 2014; ANSI/ UL 60079-15: 2013; ANSI/ UL 60079-31: 2015 ; FM 3600: 2011; FM 3615: 2006; FM Class 3616: 2011; ANSI/ UL 913: 2015; UL 916: 2015; ANSI/ UL 12.27.01: 2017; ANSI/UL 50E: 2015				

Notes

- Operating Parameters:**
Input: 4-20 mA; 42 VDC max, 30 mA
- Intrinsically Safe Entity Parameters**
For details see Control Drawing, 50089981.

A4. Marking ATEX Directive

a. General

The following information is provided as part of the labeling of the Remote Indicator:

- Name and Address of the manufacturer
- The serial number of the Remote Indicator is located on the Meter Body data-plate. The first two digits of the serial number identify the year (02) and the second two digits identify the week of the year (23); for example, 0223xxxxxxx indicates that the product was manufactured in 2002, in the 23rd week.

b. Apparatus Marked with Multiple Types of Protection

The user must determine the type of protection required for installation the equipment. The user shall then check the box [] adjacent to the type of protection used on the equipment certification nameplate. Once a type of protection has been checked on the nameplate, the equipment shall not then be reinstalled using any of the other certification types.

c. WARNINGS and Cautions

Non-Incendive / Non-Sparking (Division 2 and Zone 2 Environments):

WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2

Intrinsically Safe (Divisions 1, Zone 1 and Zone 2 Environments):

WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY.

WARNING – DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT.

Explosion-Proof (Division 1 and Zone 1 Environments):

WARNING – DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT.

WARNING – DO NOT OPEN WHEN ENERGIZED
“OPEN CIRCUIT BEFORE REMOVING COVER”

Flameproof (Division 1 and Zone 1 Environments):

WARNING – DO NOT OPEN WHEN ENERGIZED

General Requirements / Increased Safety (Zone 1):

WARNING – DO NOT OPEN WHEN ENERGIZED

WARNING – OPEN CIRCUIT BEFORE REMOVING COVER

All Protective Measures:

WARNING: FOR CONNECTION IN AMBIENTS ABOVE 60°C USE WIRE RATED 105°C

- a. Consult the manufacturer for dimensional information on the flameproof joints for repair.
- b. Painted surface of the RMA 800 series may store electrostatic charge and become a source of ignition in applications with a low relative humidity less than approximately 30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust or oil. Cleaning of the painted surface should only be done with a damp cloth.
- c. The ambient temperature range, maximum process temperature and applicable temperature class of the equipment is as follows:

RMA801: T4 for $-50^{\circ}\text{C} < \text{Ta} < 85^{\circ}\text{C}$

RMA803: T4 for $-20^{\circ}\text{C} < \text{Ta} < 70^{\circ}\text{C}$
- d. The RMA800 series enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be considered during installation and use to prevent impact or friction to avoid impact.
- e. If a charge-generating mechanism is present, the exposed metallic part on the enclosure is capable of storing a level of electrostatic charge that could become incandescent for IIC gases. Therefore, the user/installer shall implement precautions to prevent the buildup of electrostatic charge, e.g., earthing the metallic part. This is particularly important if the equipment is installed in a zone 0 location.
- f. On installation, the RMA800 series shall be provided with supply transient protection external to the apparatus such that the voltage at the supply terminals of the RMA800 series does not exceed 140% of the voltage rating of the equipment.

COPYRIGHT 2019, HONEYWELL INTERNATIONAL INC. NEITHER THIS DOCUMENT NOR THE INFORMATION CONTAINED HEREIN SHALL BE REPRODUCED, USED OR DISCLOSED TO OTHERS WITHOUT THE WRITTEN AUTHORIZATION OF HONEYWELL. USE, DUPLICATION, OR DISCLOSURE OF THIS DOCUMENT IS SUBJECT TO THE RESTRICTIONS SET FORTH IN AGREEMENT NOTED ON COVER SHEET HEREIN. NO WARRANTY SHALL BE CONSTRUED AS CONFERRING BY IMPLICATION, ESTOPPEL, OR OTHERWISE ANY LICENSE TO ANY PATENT, TRADEMARK, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT OF HONEYWELL, OR ANY THIRD PARTY.

4. Intrinsically safe installation shall be in accordance with:
 - a. FM (USA): ANSI/NFPA 70, NEC® Articles 504 and 505.
 - b. CSA (Canada): Canadian Electrical Code (CEC), part 1, section 18.
 - c. ATEX: Requirements of EN 60079-14, 12.3 (See also 5.2.4).
 - d. IECEx: Requirements of IEC 60079-14, 12.3 (See also 5.2.4).
5. ENTITY approved equipment shall be installed in accordance with the manufacturer's Intrinsic Safety Control Drawing.
6. The Intrinsic Safety concept allows in connection with the ENTITY Approved Intrinsically safe devices with ENTITY parameters not specifically examined in combination as a system when:

Uo, Voc, or $\leq U_i$ or V_{max} ; Io, Isc, or $\leq I_i$ or I_{max} ; Ca or $Co \geq Ci + C_{cable}$, La or $Lo \geq Li + L_{cable}$, Po $\leq Pi$.

Where two separate barrier channels are required, one dual-channel or two single-channel barriers may be used, where in either case, both channels have been Certified for use together with combined entity parameters that meet the above equations.
7. System Entity Parameters:

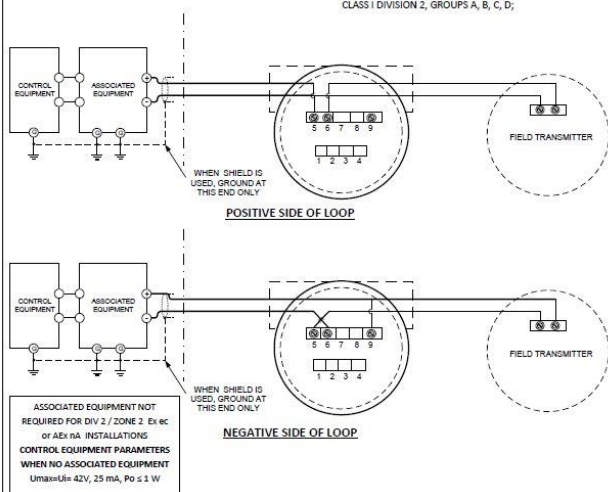
RMA 800 Remote Meter: V_{max} Voc or Uo, I_{max} Isc or Io;
RMA 800 Remote Meter: $C_i + C_{cable} \leq C_{control}$ Apparatus Ca;
RMA 800 Remote Meter: $L_i + L_{cable} \leq L_{control}$ Apparatus La.
8. When the electrical parameters of the cable are unknown, the following values may be used:

Capacitance: 197pF/m (60 pF/ft)
Inductance: 0.66µH/m (0.020µH/ft).
9. Control equipment that is connected to Associated Equipment must not use or generate more than 250 V.
10. Associated equipment must be FM, CSA ATEX or IECEx (depending on location) listed. Associated equipment may be installed in a Class I, Division 2 or Zone 2 Hazardous (Classified) location if so approved.
11. Non-Self-Isolated equipment (grounded power systems) must be connected to a suitable ground electrode per:
 - a. FM (USA): NFPA 70, Article 504 and 505. The resistance of the ground path must be less than 1.0 ohm.
 - b. CSA (Canada): Canadian Electrical Code (CEC), part 1, section 10.
 - c. ATEX: Requirements of EN 60079-14, 12.2.4.
 - d. IECEx: Requirements of IEC 60079-14, 12.2.4.
12. Intrinsically Safe DIVISION 1, Zone 0 WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR USE IN HAZARDOUS LOCATIONS.
13. Division 2/Zone 2: WARNING: DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT.
14. NO REVISION OF THIS CONTROL DRAWING IS PERMITTED WITHOUT AUTHORIZATION FROM THE AGENCIES listed.
15. For release approvals see ECO-0103558.

MASTER FILE TYPE: MS WORD	DRAWN			Honeywell		
	CHECKED			CONTROL DRAWING		
	DEV ENG			RMA 800 SERIES REMOTE METER		
	MFG ENG			DIVISIONS 1 AND 2 / ZONE 0 AND 2		
	QA ENG					
	TOLERANCE UNLESS NOTED			A/ A4	50089981	
	ANGULAR DIMENSION			SCALE: None	USED ON	SH. 1 OF 6

ENTITY PARAMETERS "Ex ia" and Ex ic"	Associated Apparatus
Ui or Vmax ≥ 6 and ≤ 30 V	Uo, Voc or Vt ≥ 6 and ≤ 30 V
Ii or Imax ≤ 225 mA	Io (Isc or It) ≤ 225 mA
PI or Pmax = 1W	Pa ≤ 1 W
Cie 28.2nF	Ca or Co $\geq C_{cable} + C_{MIA 800}$
Lie 4 μ H	La or Lo $\geq L_{cable} + L_{MIA 800}$

HAZARDOUS (CLASSIFIED) LOCATION
CLASS I, CLASS II, DIVISION 1, GROUPS A, B, C, D, E, F & G;
ZONE 0 IIC & ZONE 2 IIC,
CLASS I DIVISION 2, GROUPS A, B, C, D:

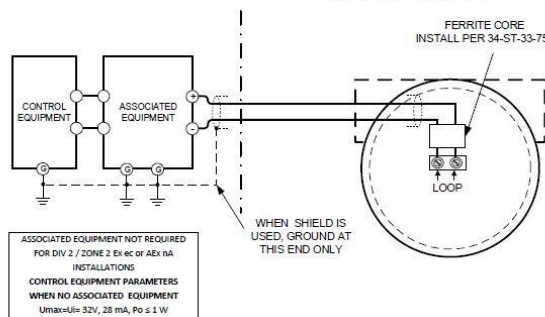


Honeywell	A/ A4	50089981		
	SCALE: None	REV E	DATE 8/12/19	SH. 2 of 3

ENTITY PARAMETERS "Ex Ia" and Ex Ic"	Associated Apparatus
U_i or $V_{max} \leq 30V$ I_i or $I_{max} \leq 180\text{ mA}$	U_o, V_{oc} or $V_t \leq 30V$ I_o (Isc or It) $\leq 180\text{ mA}$
P_i or $P_{max} = 1W$	$P_o \leq 1W$
$C_{in} \geq nF$	C_a or $C_o \geq C_{L_{min}} + C_{MINA\ 800}$
$L_{in} \geq 9\ \mu H$	L_a or $L_o \geq L_{L_{min}} + L_{MINA\ 800}$

ENTITY PARAMETERS "Ex ia" and Ex ic"
Ui or Vmax = 17.5V
Ii or Imax ≤ 380 mA
Pi or Pmax ≤ 5.32W
Li = 9 μH
Ci = 0 nF

HAZARDOUS (CLASSIFIED) LOCATION
CLASS I, CLASS II, DIVISION 1, GROUPS A, B, C, D, E, F & G;
ZONE 0 IIC & ZONE 2 IIC,
CLASS I DIVISION 2, GROUPS A, B, C, D;



Honeywell	A/A4	50089981		
	SCALE: None	REV E	DATE 8/12/19	SH. 3 of 3

Sales and Service

For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact one of the offices below.

ASIA PACIFIC (TAC) hfs-tac-support@honeywell.com

Australia Honeywell Limited, Phone: +(61) 7-3846 1255, FAX: +(61) 7-3840 6481
Toll Free 1300-36-39-36, Toll Free Fax: 1300-36-04-70

China – PRC – Shanghai, Honeywell China Inc. Phone: (86-21) 5257-4568,
Fax: (86-21) 6237-2826

Singapore, Honeywell Pte Ltd. Phone: +(65) 6580 3278. Fax: +(65) 6445-3033

South Korea, Honeywell Korea Co Ltd. Phone: +(822)799 6114. Fax: +(822) 792 9015

EMEA, Phone: + 80012026455 or +44 (0)1202645583. FAX: +44 (0) 1344 655554

Email: (Sales) sc-cp-apps-salespa62@honeywell.com

or (TAC) hfs-tac-support@honeywell.com

AMERICAS, Honeywell Process Solutions, Phone: 1-800-423-9883,

or 1-215/641-3610. (TAC) hfs-tac-support@honeywell.com.

Sales 1-800-343-0228. Email: (Sales) FP-Sales-Apps@honeywell.com

Knowledge Base search engine <http://bit.ly/2N5Vldi>

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information.

If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose**. Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For more information

To learn more about SmartLine Devices, visit <https://process.honeywell.com>

Or contact your Honeywell Account Manager

Process Solutions

Honeywell

1250 W Sam Houston Pkwy S
Houston, TX 77042

Honeywell Control Systems Ltd
Honeywell House, Skimped Hill Lane
Bracknell, England, RG12 1EB

Shanghai City Centre, 100 Jungi Road
Shanghai, China 20061

<https://process.honeywell.com>

34-ST-25-63, Rev.7

February 2022

©2022 Honeywell International Inc.

Honeywell