



EMERSON Rosemount 752 Remote Indicator User Guide

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EMERSON Rosemount 752 Remote Indicator



Safety messages

This guide provides basic guidelines for Rosemount 752 Remote Indicator. It does not provide instructions for configuration, diagnostics, maintenance, service, troubleshooting, Explosion-proof, Flameproof, or intrinsically safe (I.S.) installations. Refer to the Rosemount 752 Reference Manual for more instruction. This manual is also available electronically on Emerson.com/Rosemount.

WARNING

Explosions could result in death or serious injury.

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

- Before connecting a communicator in an explosive atmosphere, ensure the instruments in the segment are installed in accordance with intrinsically safe or non-incendive field wiring practices.
- In an explosion-proof/flameproof installation, do not remove the indicator cover when power is applied to the unit.

Electrical shock can result in death or serious injury.

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

Conduit/cables entries

- Unless marked, the conduit/cable entries in the housing use a 1/2–14 NPT thread form. Entries marked “M20” are M20 × 1.5 thread form. On devices with multiple conduit entries, all entries will have the same thread form. Only use plugs, adapters, glands, or conduit with a compatible thread form when closing these entries.
- When installing in a hazardous location, use only appropriately listed or Ex certified plugs, glands, or adapters

in cable/conduit entries.

Wiring connection

Wiring for FOUNDATION™ Fieldbus protocol

1. Remove the housing cover on terminal compartment side.

Note

Do not remove the cover in explosive atmospheres when the circuit is live. Signal wiring supplies all power to the indicator.

2. Connect the power leads to the terminals marked “FIELDBUS WIRING” as shown in Figure 1-1.

Note

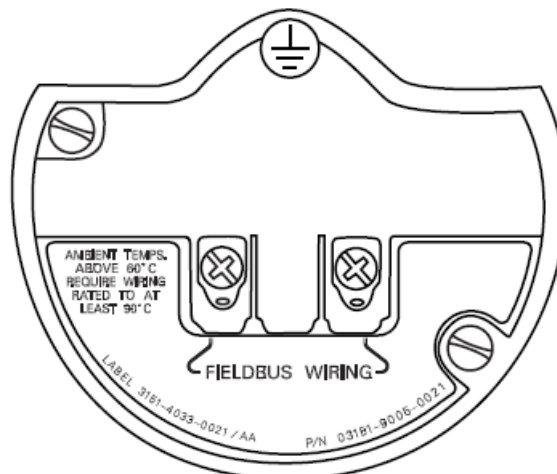
The power terminals are not polarity sensitive.

3. Plug and seal unused conduit connections on the indicator housing to avoid moisture accumulation in the terminal side.
 - If you do not seal unused connections, mount the indicator with the electrical housing positioned downward for drainage.
 - Install wiring with a drip loop.
 - Arrange the drip loop so the bottom is lower than the conduit connections and the indicator housing.

Note

Do not apply high voltage (e.g. ac line voltage) to the indicator terminals. Abnormally high voltage can damage the unit. Indicator terminals are rated to 32 Vdc.

Fieldbus Terminal Block



Electrical considerations

Proper electrical installation is necessary to prevent errors due to improper grounding and electrical noise. Shielded, twisted pair cable should be used for best results in electrically noisy environments. Cable type A is recommended by FOUNDATION™ Fieldbus protocol.

Power supply

The indicator requires between 9 and 32 Vdc (9 and 15 Vdc for FISCO) to operate and provide complete functionality. The dc power supply should provide power with less than two percent ripple.

Power conditioner

A Fieldbus segment requires a power conditioner to isolate the power supply, filter, and decouple the segment from other segments attached to the same power supply.

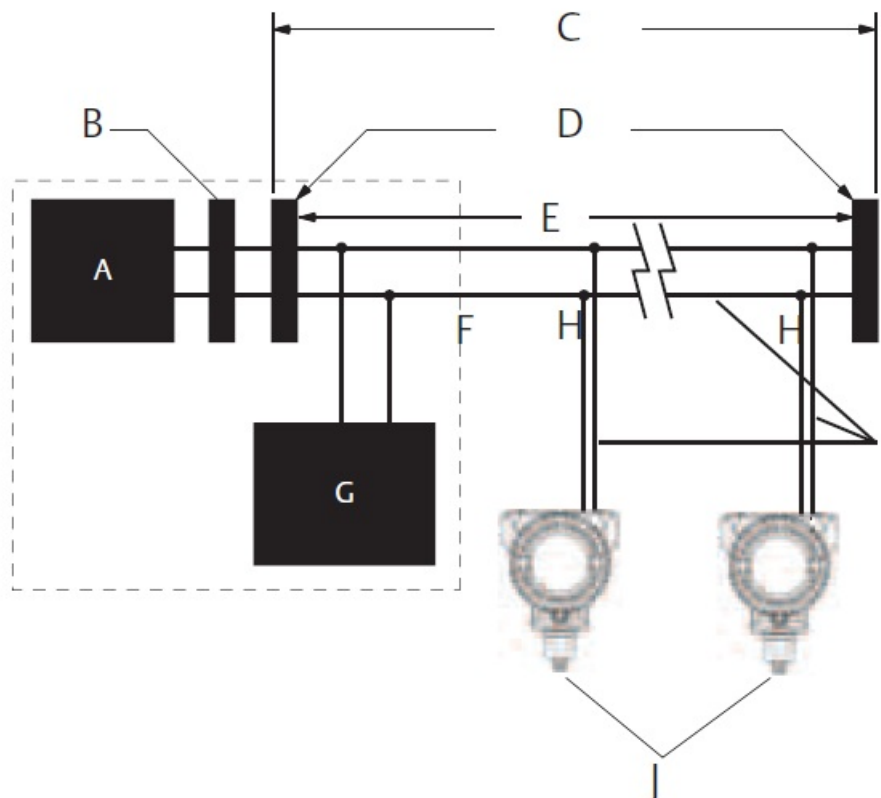
Grounding

Signal wiring of the Fieldbus segment cannot be grounded. Grounding out one of the signal wires will shut down the entire FOUNDATION™ Fieldbus segment.

Shield wire ground

To protect the Fieldbus segment from noise, grounding techniques for shield wire usually require a single grounding point for shield wire to avoid creating a ground loop. The ground point is typically at the power supply.

FOUNDATION Fieldbus Indicator Field Wiring



Intrinsically safe installations may allow fewer devices per I.S. barrier due to current limitations.

- **A.** Power supply
- **B.** Integrated power conditioner and filter
- **C.** 6234 ft. (1900 m) max (depending upon cable characteristics)
- **D.** Terminators
- **E.** Fieldbus segment
- **F.** Trunk(1)
- **G.** FOUNDATION™ Fieldbus configuration tool
- **H.** Spur
- **I.** Signal wiring
- **J.** Fieldbus devices on segment

1. The power supply, filter, first terminator, and configuration tool are typically located in the control room.

Surges/transients

The indicator will withstand electrical transients of the energy level usually encountered in static discharges or induced switching transients. However, high-energy transients, such as those induced in wiring from nearby lightning strikes, can damage the indicator.

Optional transient protection terminal block

The transient protection terminal block can be ordered as an installed option (option code T1 in the indicator model number) or as a spare part. The spare part number is 03151-4131-0002. The lightning bolt symbol shown identifies it as a transient protection terminal block.


Note

The Fieldbus physical layer specification requires indicator communication during extreme operating conditions of 250 Vrms common mode signal. The transient terminal block was designed to limit common mode voltages to 90 V and cannot be used in these extreme operating conditions.

Grounding the indicator case

Always ground the indicator case in accordance with national and local electrical codes. The most effective indicator case grounding method is a direct connection to earth ground with minimal impedance. Methods for grounding the indicator case include:

Internal ground connection

The internal ground connection screw is inside the terminal side of the electronics housing. The screw is identified by a ground symbol () , and is standard on the Rosemount 752 Remote Indicators.

External ground assembly

Ground screw is located at the bottom of the mounting bracket.

Note

Grounding the indicator case using the threaded conduit connection may not provide a sufficient ground. The transient protection terminal block (option code T1) will not provide transient protection unless the indicator case is properly grounded. Use the above guidelines to ground the indicator case. Do not run transient protection ground wire with signal wiring; the ground wire may carry excessive current if a lightning strike occurs.

Configure the transducer block

The LCD display transducer block can be configured to sequence eight different process variables. If a function block is scheduled in the Rosemount 752 that links a process variable from another device on the segment, that process variable can be displayed on the LCD display. To configure the Rosemount 752 Fieldbus Indicator use any FOUNDATION™ Fieldbus configuration tool to modify the configuration parameters for each value that is to be displayed.

Configuration parameters

Note

Some host systems may ask for the device's capability level during commissioning. If prompted, the correct value to enter for the Rosemount 752 is 1.

DISPLAY_PARAM_SEL

The DISPLAY_PARAM_SEL parameter specifies how many process variables will be displayed. Select up to eight display parameters.

BLK_TAG_#

Enter the Block Tag of the function block that contains the parameter to be displayed. The default function block tags from the factory are:

- PID_1200_XXXX
- ISEL_1300_XXXX
- CHAR_1400_XXXX
- ARITH_1500_XXXX
- INTEG_1600_XXXX

Note

XXXX represents the last four digits of the device ID.

BLK_TYPE_#

Enter the Block Type of the function block that contains the parameter to be displayed. (e.g. ISEL PID, etc.)

PARAM_INDEX_#

Choose the parameter to be displayed.

CUSTOM_TAG_#

The CUSTOM_TAG_# is an optional user-specified tag identifier that can be configured to be displayed with the parameter in place of the block tag. Enter a tag of up to five characters.

UNITS_TYPE_#

The UNITS_TYPE_# parameter is generally selected via a drop-down menu with three options: AUTO, CUSTOM, or NONE. Select CUSTOM and be sure to configure the CUSTOM_UNITS_# parameter. Select NONE if the parameter is to be displayed without associated units.

CUSTOM_UNITS_#

Specify custom units to be displayed with the parameter. Enter up to six characters. To display Custom Units the UNITS_TYPE_# must be set to CUSTOM.

Note

_# represents the specified parameter number.

Product Certification**Rev 1.17****Product Certification**

Rev 1.17A copy of the EU Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the EU Declaration of Conformity can be found at Emerson.com/Rosemount.

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 a nationally recognized test laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

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.

USA

E5 FM Explosion-proof and Dust-Ignition proof

- **Certificate:** FM16US0090
- **Standards:** FM 3600:2011, FM 3615:2006, FM 3616:2011, FM 3810:2005, ANSI/NEMA®-250:2003
- **Markings:** XP CL I, DIV 1, GP B, C, D T5; DIP CL II DIV ($-20\text{ °C} \leq T_a \leq 80\text{ °C}$); Seal not required; Type 4X

I5/IE FM Intrinsically Safe, Division 2/FISCO Intrinsically Safe

- **Certificate:** FM17US0348X
- **Standards:** FM 3600:2018, FM 3610:2018, FM 3611:2004, FM 3810:2005, ANSI/NEMA 250:2003, ANSI/ISA-60079-0:2013, ANSI/ISA-60079-11:2014, ANSI/ISA 61010-1:2004
- **Markings:** IS CL I, II, III, DIV 1, GP A, B, C, D, E, F, G T4; IS CL I, ZONE 0, AEx ia IIC T4; ($-20\text{ °C} \leq T_a \leq 60\text{ °C}$); NI CL I, DIV 2, GP A, B, C, D T4; ($-20\text{ °C} \leq T_a \leq 60\text{ °C}$); Install per 00752-1010; Type 4X
- **FISCO Field Device:** IS CL I, II, III, DIV 1, GP A, B, C, D, E, F, G T4; IS CL I, ZONE 0, AEx ia IIC T4; ($-20\text{ °C} \leq T_a \leq 60\text{ °C}$); Install per 00752-1010; Type 4X

Canada

E6 CSA Explosion-proof and Dust-Ignition proof, Division 2

- **Certificate:** 1563767
- **Standards:** CSA C22.2 No. 25-1966, CSA 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 C22.2 No. 213-M1987
- **Markings:** CL I, DIV 1, GP B, C, D; CL II, DIV 1, GP E,F,G; CL III; ($-50\text{ °C} \leq T_a \leq 80\text{ °C}$); CL I, DIV 2 GP A, B, C, D T3C; ($-20\text{ °C} \leq T_a \leq 40\text{ °C}$); Seal not required; Type 4X

I6/IF CSA Intrinsically Safe/FISCO Intrinsically Safe

- **Certificate:** 1563767
- **Standards:** CSA C22.2 No. 25-1966, CSA 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 C22.2 No. 213-M1987
- **Markings:** CL I, DIV 1, GP A, B, C, D T3C ($-20\text{ °C} \leq T_a \leq 40\text{ °C}$); Install per 00752-1020; Type 4X FISCO field device; CL I, DIV 1, GP A, B, C, D T3C ($-20\text{ °C} \leq T_a \leq 40\text{ °C}$); Install per 00752-1020; Type 4X

Europe

E1 ATEX Flameproof

- **Certificate:** KEMA03ATEX2476X
- **Standards:** EN 60079-0:2012+A11:2013, EN 60079-1:2014
- **Markings:** II 2 G; Ex db IIC T6...T5 Gb, T5 ($-60\text{ °C} \leq T_a \leq 80\text{ °C}$), T6 ($-60\text{ °C} \leq T_a \leq 70\text{ °C}$); IP66

Special Conditions for Safe Use (X):

1. Flameproof joints are not intended for repair.
2. Non-standard paint options may cause risk from electrostatic discharge. Avoid installations that could cause electrostatic build-up on painted surfaces, and only clean the painted surfaces with a damp cloth. If the paint is ordered through a special option code, contact the manufacturer for more information.

I1/IA ATEX Intrinsic Safety/FISCO Intrinsic Safety

- **Certificate:** Baseefa03ATEX0239X
- **Standards:** EN 60079-0:2012+A11:2013, EN 60079-11:2012
- **Markings:** II 1 G, Ex ia IIC T4 Ga; $(-20\text{ °C} \leq T_a \leq +60\text{ °C})$; IP66 See Table 3-1 for entity parameters.

Special Conditions for Safe Use (X):

1. When fitted with the transient protection option, the apparatus is not capable of withstanding the 500 V test as defined in Clause 6.3.13 of EN 60079-11:2012. This must be taken into account during installation.
2. The Rosemount™ 752 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 a zone 0 area.

N1 ATEX Type n

- **Certificate:** Baseefa03ATEX0240X
- **Standards:** EN 60079-0:2012+A11:2013, EN 60079-15:2010
- **Markings:** II 3 G; Ex nA IIC T5 Gc $(-20\text{ °C} \leq T_a \leq 70\text{ °C})$; IP66

Special Condition for Safe Use (X):

The equipment is not capable of withstanding the 500 V insulation test required by Clause 6.5 of EN 60079-15:2010. This must be taken into account when installing the apparatus.

ND ATEX Dust

- **Certificate:** KEMA03ATEX2476X
- **Standards:** EN 60079-0:2012+A11:2013, EN 60079-31:2014
- **Markings:** II 2 D; Ex tb IIIC T105 °C Db $(-60\text{ °C} \leq T_a \leq 80\text{ °C})$; IP66

Special Conditions for Safe Use (X):

1. Flameproof joints are not intended for repair.
2. Non-standard paint options may cause risk from electrostatic discharge. Avoid installations that could cause electrostatic build-up on painted surfaces, and only clean the painted surfaces with a damp cloth. If paint is ordered through a special option code, contact the manufacturer for more information.

International

E7 IECEx Flameproof

- **Certificate:** IECEx KEM 10.0066X
- **Standards:** IEC 60079-0:2011, IEC 60079-1:2014-06
- **Markings:** Ex db IIC T6...T5 Gb, T5 ($-60\text{ °C} \leq T_a \leq 80\text{ °C}$), T6 ($-60\text{ °C} \leq T_a \leq 70\text{ °C}$); IP66

Special Conditions for Safe Use (X):

1. Flameproof joints are not intended for repair.
2. Non-standard paint options may cause risk from electrostatic discharge. Avoid installations that could cause electrostatic build-up on painted surfaces, and only clean the painted surfaces with a damp cloth. If the paint is ordered through a special option code, contact the manufacturer for more information.

I7/IG IECEx Intrinsic Safety/FISCO Intrinsic Safety

- **Certificate:** IECEx BAS 04.0029X
- **Standards:** IEC 60079-0:2011, IEC 60079-11:2011
- **Markings:** Ex ia IIC T4 Ga; T4($-20\text{ °C} \leq T_a \leq 60\text{ °C}$) IP66 See Table 3-1 for entity parameters.

Special Conditions for Safe Use (X):

1. When fitted with the transient option, the apparatus is not capable of withstanding the 500 V test as defined in Clause 6.3.13 of IEC 60079-11:2011. This must be taken into account during installation.
2. The Rosemount 752 enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from the impact of abrasion if located in a zone 0 area.

N7 IECEx Type n

- **Certificate:** IECEx BAS 04.0030X
- **Standards:** IEC 60079-0:2011, IEC 60079-15:2010
- **Markings:** Ex nA IIC T5 Gc ($-40\text{ °C} \leq T_a \leq 70\text{ °C}$); IP66

Special Condition for Safe Use (X):

When fitted with the transient option, the apparatus is not capable of withstanding the 500 V test as defined in Clause 6.5 of IEC 60079-15:2010 This must be taken into account during installation.

NF IECEx Dust

- **Certificate:** IECEx KEM 10.0066X
- **Standards:** IEC 60079-0:2011, EN 60079-31:2013
- **Markings:** Ex tb IIIC T105 °C Db ($-60\text{ °C} \leq T_a \leq 80\text{ °C}$); IP66

Special Conditions for Safe Use (X):

1. Flameproof joints are not intended for repair.
2. Non-standard paint options may cause risk from electrostatic discharge. Avoid installations that could cause electrostatic build-up on painted surfaces, and only clean the painted surfaces with a damp cloth. If the paint is

ordered through a special option code, contact the manufacturer for more information.

Brazil

E2 INMETRO Flameproof

- **Certificate:** UL-BR 15.1054X
- **Standards:** ABNT NBR IEC 60079-0:2008 + corrigendum 1:2011, ABNT NBR IEC 60079-1:2009 + corrigendum 1:2011
- **Markings:** Ex DB IIC T6... T5 Gb; T6 ($-60\text{ °C} \leq T_{amb} \leq +70\text{ °C}$); T5 ($-60\text{ °C} \leq T_{amb} \leq +80\text{ °C}$)

Special Condition for Safe Use (X):

For information on the dimensions of the flameproof joints, the manufacturer shall be contacted.

I2/IB INMETRO Intrinsic Safety/FISCO Intrinsic Safety

- **Certificate:** UL-BR 16.0078X
- **Standards:** ABNT NBR IEC 60079-0:2008 + Errata 1:2011, ABNT NBR IEC 60079-11:2009, ABNT NBR IEC 60079-26:2008 + Errata 1:2008
- **Markings:** Ex ia IIC T4 ($-20\text{ °C} \leq T_a \leq +60\text{ °C}$) Ga; IP66 3.9 EAC

EM Technical Regulation Customs Union TR CU 012/2011 (EAC) Flameproof

Markings: 1Ex db IIC T6...T5 Gb X; IP66; T5($-60\text{ °C} \leq T_a \leq +80\text{ °C}$), T6($-60\text{ °C} \leq T_a \leq +70\text{ °C}$)

IM Technical Regulation Customs Union TR CU 012/2011 (EAC) Intrinsic Safety

Markings: 0Ex ia IIC T4 Ga X; IP66; T4($-20\text{ °C} \leq T_a \leq +60\text{ °C}$)

See certificate for Special Conditions for Safe Use

IN Technical Regulation Customs Union TR CU 012/2011 (EAC) Intrinsic Safety

Markings: 0Ex ia IIC T4 Ga X; IP66; T4($-20\text{ °C} \leq T_a \leq +60\text{ °C}$) See certificate for Special Conditions for Safe Use

NM Technical Regulation Customs Union TR CU 012/2011 (EAC) Type n

Markings: 2Ex nA IIC T5 Gc X; IP66; T5($-40\text{ °C} \leq T_a \leq +70\text{ °C}$) See certificate for Special Conditions for Safe Use

KM Technical Regulation Customs Union TR CU 012/2011 (EAC) Flameproof, Intrinsic Safety, Type n, and Dust-Ignitionproof

Markings: Ex tb IIIC T105 °C Db X along with markings for EM, IM, and NM above See certificate for Special Conditions for Safe Use

Combinations

- K1 Combination of E1, I1, N1, and ND
- K2 Combination of E2 and I2
- K5 Combination of E5 and I5
- K6 Combination of E6 and I6
- KA Combination of E1, E6, I1, and I6

- KB Combination of E5, E6, I5, and I6
- KC Combination of E5, E1, I5, and I1
- KM Combination of EM, IM, and NM

Entity Parameters

Parameters	Fieldbus	FISCO
U_i	30 V	17.5 V

Entity Parameters (continued)

Parameters	Fieldbus	FISCO
I_i	300 mA	380 mA
P_i	1.3 W	5.32 W
C_i	0 nF	0 nF
L_i	0 μ H	0 μ H

Declaration of Conformity

EU Declaration of Conformity

No: RMD 1054 Rev. I

We,

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

declare under our sole responsibility that the product,

Rosemount 752™ Fieldbus Remote Indicator

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

(name)

1-Feb-19

(date of issue)

EU Declaration of Conformity

No: RMD 1054 Rev. I

EMC Directive (2014/30/EU)

Harmonized Standards: EN61326-1:2013

ATEX Directive (2014/34/EU)

Basefa03ATEX0239X – Intrinsically Safe

Equipment Group II 1 G (Ex ia IIC T4 Ga)

Harmonized Standards:

EN60079-0:2012, EN60079-11:2012

Basefa03ATEX0240X – Type n Certificate

Equipment Group II 3 G (Ex nA IIC T5 Gc)

Harmonized Standards:

EN60079-0:2012, EN60079-35:2010

KEMA 03ATEX2476 X – Flameproof and Dust

Equipment Group II 2 G (Ex db IIC T6 or T5 Db)

Harmonized Standards:

EN60079-0:2012+A11:2013, EN60079-1:2014

Equipment Group II 2 D (Ex tb IIC T105°C Db)

Harmonized Standards:

EN60079-0:2012+A11:2013, EN60079-31:2014



China RoHS

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr +6)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Electronics Assembly	X	O	O	O	O	O
Housing Assembly	O	O	O	X	O	O
Sensor Assembly	X	O	O	O	O	O


- China RoHS Rosemount 752 List of Rosemount 752 Parts with China RoHS Concentration above MCVs

This table is proposed in accordance with the provision of SJ/T11364.

- **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:** 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.

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Documents / Resources

	<p>EMERSON Rosemount 752 Remote Indicator [pdf] User Guide Rosemount 752 Remote Indicator, 752 Remote Indicator, Rosemount Indicator, Indicator</p>
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References

- [Rosemount | Emerson US](#)
- [Emerson Global | Emerson](#)
- [Rosemount | Emerson US](#)
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