

# Rosemount 752 FOUNDATION™ fieldbus Remote Indicator



- Two-wire segment powered device
- Displays up to eight values
- Link Master Capability
- Optional PID, Characterizer, Arithmetic, and Integrator Function Blocks

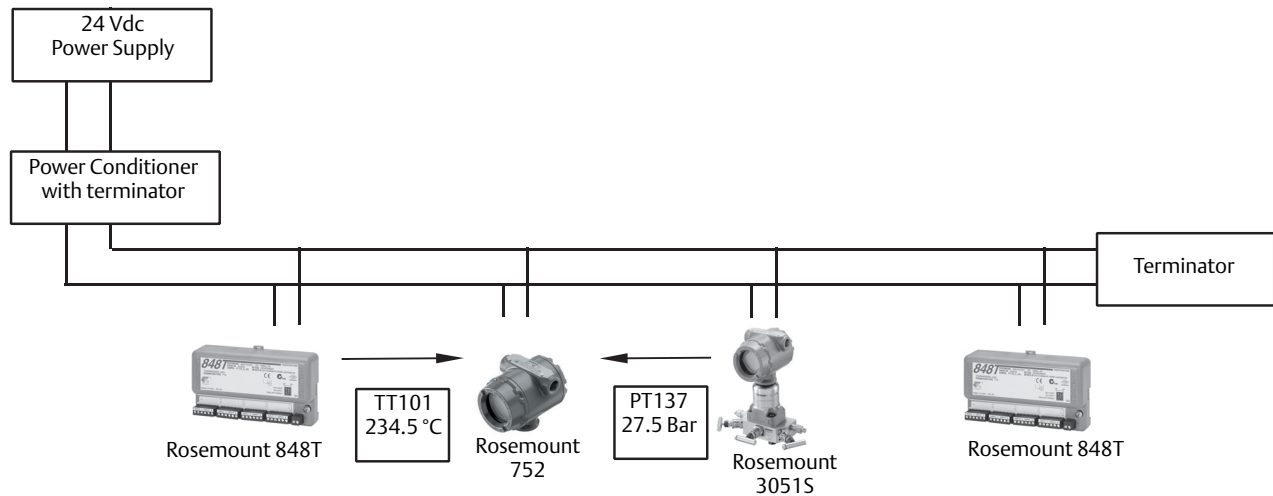
# Display Data Wherever Needed with the Rosemount 752 Remote Fieldbus Indicator

The Rosemount 752 FOUNDATION fieldbus Remote Indicator is useful for displaying the value of a controlled variable next to a final control device or for displaying information from transmitters mounted in inaccessible locations. The Indicator can be located anywhere along the segment to allow information to be displayed wherever it is needed.

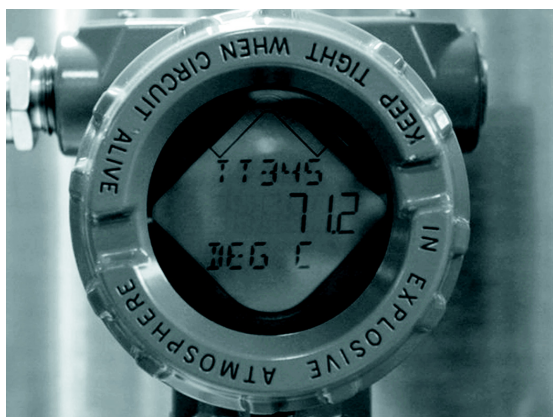
The 752 Remote Indicator can display a function block output from any device on the FOUNDATION fieldbus H1 segment. Up to 8 values can be configured with Tag and engineering units. The data is scrolled sequentially in 3-second increments. In addition to displaying values from fieldbus devices, the 752 Remote Indicator can provide advanced calculations and control capability through the optional function block suite. Function blocks provided include Input Selector, Input Characterizer, Arithmetic, Integrator, and PID with autotune.

The Rosemount 752 is a core component of the PlantWeb® digital plant architecture. Visit [www.plantweb.com](http://www.plantweb.com) to learn how to get the most out of any fieldbus project.

**Figure 1. The Rosemount 752 can Display up to Eight Variables Coming from any Device on the Fieldbus Segment**



**Figure 2. Rosemount 752 Display**



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## Ordering Information

Specification and selection of product materials, options, or components must be made by the purchaser of the equipment. See [page 6](#) for more information on Material Selection.

**Table 1. Rosemount 752 Fieldbus Remote Indicator Ordering Information**

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.

The Expanded offering is subject to additional delivery lead time.

Model	Product type			
752	Fieldbus Remote Indicator			
<b>Transmitter output</b>				
F	FOUNDATION fieldbus digital signal			★
Housing style		Material	Conduit entry size	
1A	PlantWeb Housing	Aluminum	1/2-14 NPT	★
1B	PlantWeb Housing	Aluminum	M20 x 1.5 (CM20)	★
1C	PlantWeb Housing	Aluminum	JIS G <sup>1/2</sup>	★
1J	PlantWeb Housing	SST	1/2-14 NPT	★
1K	PlantWeb Housing	SST	M20 x 1.5 (CM20)	★
1L	PlantWeb Housing	SST	JIS G <sup>1/2</sup>	★

### Options (include with selected model number)

PlantWeb control functionality			
A01	FOUNDATION fieldbus Advanced Control Function Block Suite		★
<b>Product certifications</b>			
E5	FM Explosion-Proof, Dust-Ignition-proof		★
I5	FM Intrinsically Safe, Division 2		★
IE <sup>(1)</sup>	FM FISCO Intrinsically Safe		★
K5	FM Explosion-proof; Intrinsically Safe; Division 2; Dust Ignition-proof Combination		★
E6	CSA Explosion-proof; Division 2; Dust Ignition-proof		★
I6	CSA Intrinsically Safe		★
IF <sup>(1)</sup>	CSA FISCO Intrinsically Safe		★
K6	CSA Explosion-proof; Intrinsically Safe; Division 2; Dust Ignition-proof Combination		★
E1	ATEX Flameproof		★
I1	ATEX Intrinsic Safety		★
IA <sup>(1)</sup>	ATEX FISCO Intrinsic Safety		★
N1	ATEX Type n		★
ND	ATEX Dust		★
K1	ATEX Flameproof; Intrinsic Safety; Type n; Dust Combination		★

**Table 1. Rosemount 752 Fieldbus Remote Indicator Ordering Information**

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.

The Expanded offering is subject to additional delivery lead time.

I7	IECEX Intrinsic Safety	★
IG <sup>(1)</sup>	IECEX FISCO Intrinsically Safe	★
N7	IECEX Type n	★
E7	IECEX Flameproof	★
I2	INMETRO Intrinsic Safety	★
E2	INMETRO Flameproof	★
KA	CSA and ATEX: Flameproof; Intrinsically Safe; Division 2 Combination	★
KB	FM and CSA: Explosion-proof; Intrinsically Safe; Division 2; Dust Ignition-proof Combination	★
KC	FM and ATEX: Explosion-proof; Intrinsically Safe; Division 2 Combination	★
KM	Technical Regulations Customs Union (EAC) Flameproof, Intrinsic Safety	★
IM	Technical Regulations Customs Union (EAC) Intrinsic Safety	★
EM	Technical Regulations Customs Union (EAC) Flameproof	★
NM	Technical Regulations Customs Union (EAC) Type N	★
<b>Transient protection</b>		
T1 <sup>(1)</sup>	Integral Transient Protector	★
<b>Conduit electrical connector</b>		
GE <sup>(2)</sup>	M12, 4-pin, Male Connector (eurofast <sup>®</sup> )	★
GM <sup>(2)</sup>	A size Mini, 4-pin, Male Connector (minifast <sup>®</sup> )	★
<b>Extended Product warranty</b>		
WR3	3-year limited warranty	★
WR5	5-year limited warranty	★
<b>Typical model number: 752 F 1A A01 E1</b>		

(1) The T1 option is not needed with FISCO Product Certifications, transient protection is included in the FISCO product certification codes IA, IE, IF, and IG.

(2) Not available with certain hazardous location certifications. Contact your local Emerson Process Management representative for details.

# Specifications

## Functional specifications

### Current consumption

17.5 mA

### Power requirements

External power required;  
operates a 9.0 - 32.0 Vdc on a Fieldbus terminated segment

### Temperature limits

-4 to 175 °F (-20 to 80 °C)

### Ambient storage

-40 to 185 °F (-40 to 85 °C)

### Humidity limits

0 - 100% relative humidity

### Electrical connections

1/2 - 14 NPT, G 1/2, and M20 x 1.5 (CM20) conduit

## Performance specifications

Configurable to display up to eight function block output values.  
Display sequences through configured variables at 3-second intervals.

### Conformance to specifications [ $\pm 3\sigma$ (Sigma)]

Technology leadership, advanced manufacturing techniques, and statistical process control ensure specification conformance to at least  $\pm 3\sigma$ .

### Software upgrade in the field

Software for the 752 with FOUNDATION fieldbus is easy to upgrade in the field using the FOUNDATION fieldbus Common Device Software Download procedure.

### Block execution times

PID: 10 ms

Arithmetic: 10 ms

Input Selection: 10 ms

Signal Characterizer: 10 ms

Integrator: 10 ms

### Advanced Control Function Block Suite (Option Code A01)

#### Input selector block

Selects between inputs and generates an output using specific selection strategies such as minimum, maximum, midpoint, average, or first "good."

#### Arithmetic block

Provides pre-defined application-based equations including flow with partial density compensation, electronic remote sensors, hydrostatic tank gauging, ratio control, and others.

### Signal characterizer block

Characterizes or approximates any function that defines an input/output relationship by configuring up to twenty X, Y coordinates. The block interpolates an output value for a given input value using the curve defined by the configured coordinates.

### Integrator block

Compares the integrated or accumulated value from one or two variables to pre-trip and trip limits and generates discrete output signals when the limits are reached. This block is useful for calculating total flow, total mass, or volume over time.

## Physical specifications

### Material selection

Emerson provides a variety of Rosemount products with various product options and configurations including materials of construction that can be expected to perform well in a wide range of applications. The Rosemount product information presented is intended as a guide for the purchaser to make an appropriate selection for the application. It is the purchaser's sole responsibility to make a careful analysis of all process parameters (such as all chemical components, temperature, pressure, flow rate, abrasives, contaminants, etc.), when specifying product materials, options, and components for the particular application. Emerson Process Management is not in a position to evaluate or guarantee the compatibility of the process fluid or other process parameters with the product options, configuration, or materials of construction selected.

### Weight

2.5 lb (1.1 kg)

# Product Certifications

## Approved manufacturing locations

Rosemount Inc. — Chanhassen, Minnesota USA

### European directive information

The EC declaration of conformity for all applicable European directives for this product can be found on the Rosemount website at [www.rosemount.com](http://www.rosemount.com). A hard copy may be obtained by contacting our local sales office.

### Electro Magnetic Compatibility (EMC)

EN 61326: 2006

### ATEX directive (94/9/EC)

Emerson Process Management complies with the ATEX Directive.

## Hazardous locations certifications

### North American Certifications

#### Factory Mutual (FM) Approvals

**E5** Explosion-proof for Class I, Division 1, Groups B, C, and D; Dust Ignition-proof for Class II and Class III, Division 1, Groups E, F, and G hazardous locations; T5 (-50 °C to 80 °C), conduit seal not required

Enclosure Type 4X

**I5/IE** Intrinsically Safe for use in Class I, Division 1, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class III, Division 1; Class I, Zone 0, AEx ia IIC T4; when connected in accordance with Rosemount drawing 00752-1010; Temperature Code T4 ( $T_a = 60\text{ °C}$ ); Non-incendive for Class I, Division 2, Groups A, B, C, and D. Enclosure Type 4X  
For entity parameters see control drawing 00752-1010.

#### Canadian Standards Association (CSA) Approvals

**E6** Explosion-proof for Class I, Division 1, Groups B, C, D; Dust Ignition-proof for Class II, Groups E, F, G; Dust Ignition-proof for Class III  
Temperature Code T5, ( $T_a = 80\text{ °C}$ )  
Suitable for Class I, Division 2, Groups A, B, C, D;  
Temperature Code T3C ( $T_a = 40\text{ °C}$ ),


Enclosure Type 4X

**I6/IF** Intrinsically Safe for Class I, Division 1, Groups A, B, C, D when installed in accordance with Rosemount drawing 00752-1020.

Temperature Code T3C ( $T_a = 40\text{ °C}$ ).

Enclosure Type 4X

### European Certifications

**E1** ATEX Flameproof  
Certificate Number: KEMA 03 ATEX2476X  II 2 G  
Ex d IIC T6 ( $-50\text{ °C} \leq T_a \leq 65\text{ °C}$ )  
Ex d IIC T5 ( $-20\text{ °C} \leq T_a \leq 80\text{ °C}$ )  
 $V_{max} = 32\text{ V}$

 1180

#### Special Condition for Safe Use (X):

1. The Ex d blanking elements, cable glands, and wirings shall be suitable for a temperature of 90 °C. In case of repair, contact the manufacturer for information on the dimensions of the flame proof joints.

#### I1/IA ATEX Intrinsic Safety

Certificate Number: Baseefa03ATEX0239X  II 1G

Ex ia IIC T4 ( $-20\text{ °C} \leq T_a \leq 60\text{ °C}$ )


 1180

**Table 2. Input Parameters**

Fieldbus	FISCO
$U_i = 30\text{ Vdc}$	$U_i = 17.5\text{ Vdc}$
$I_i = 300\text{ mA}$	$I_i = 380\text{ mA}$
$P_i = 1.3\text{ W}$	$P_i = 5.32\text{ W}$
$C_i = 0$	$C_i = 0$
$L_i = 0$	$L_i = 0$


#### 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 6.3.12 of EN 60079-11:2007. This must be taken into account during installation.
2. The enclosure may be aluminium, protected against low-levels of impact by a coating of epoxy polyester or polyurethane paint. The risk of high-levels of impact must be considered in any installation and protected accordingly.

**N1** ATEX Type n  
 Certificate Number: Baseefa03ATEX0240X  II 3 G  
 Ex nA II T5 ( $T_a = -20\text{ }^\circ\text{C} \leq T_a \leq 70\text{ }^\circ\text{C}$ )  
 Input Parameters:  
 $U_i = 32\text{ Vdc}$   
 $C_i = 0$   
 $L_i = 0$

**Special Condition for Safe Use (X):**

1. The apparatus is not capable of withstanding the 500 V insulation test required by Clause 6.8.1 of EN 60079-15:2005. This must be taken into account when installing the apparatus.

**ND** ATEX Dust  
 Certificate Number: KEMA 03 ATEX2476X  II 1 D  
 Ex tD A20 IP66 T105 °C ( $-20\text{ }^\circ\text{C} \leq T_a \leq 85\text{ }^\circ\text{C}$ )  
 $V = 32\text{ V Max}$

**Special Condition for Safe Use (X):**

1. The Ex d blanking elements, cable glands, and wirings shall be suitable for a temperature of 90 °C. In case of repair, contact the manufacturer for information on the dimensions of the flame proof joints.

**Technical Regulations Customs Union (EAC)**

KM, IM, EM, NM Contact an Emerson Process Management representative for additional information

**International Certifications**

**I7/IG** IECEx Intrinsic Safety  
 Certificate Number: IECEx BAS 04.0028X  
 Ex ia IIC T4 ( $-20\text{ }^\circ\text{C} \leq T_a \leq 60\text{ }^\circ\text{C}$ )

**Table 3. Input Parameters**

Fieldbus	FISCO
$U_i = 30\text{ V}$	$U_i = 17.5\text{ V}$
$I_i = 300\text{ mA}$	$I_i = 380\text{ mA}$
$P_i = 1.3\text{ W}$	$P_i = 5.32\text{ W}$
$C_i = 0$	$C_i = 0$
$L_i = 0$	$L_i = 0$

**Special Conditions for Safe Use (X):**

1. When fitted with the transient option, the apparatus is not capable of withstanding the 500 V electrical strength test as defined in clause 6.4.12 of IEC 60079-11:1999. This must be taken into account during installation.
2. The enclosure may be aluminum, protected against low-levels of impact by a coating of epoxy polyester or polyurethane paint. The risk of high-levels of impact must be considered in any installation and protected accordingly.

**N7** IECEx Type n  
 Certificate Number: IECEx BAS 04.0030X  
 Ex nA II T5 ( $-40\text{ }^\circ\text{C} \leq T_a \leq 70\text{ }^\circ\text{C}$ )

**Special Condition for Safe Use (X):**

1. When fitted with the transient option, the apparatus is not capable of withstanding the 500 V electrical strength test as defined in Clause 8 of IEC 60079-15:1987. This must be taken into account when installing the apparatus.

**E7** IECEx Flameproof  
 Certificate Number: IECEx KEM 10.0066X  
 Ex d IIC T5 ( $-20\text{ }^\circ\text{C} < T_a < 80\text{ }^\circ\text{C}$ ) Gb  
 Ex d IIC T6 ( $-20\text{ }^\circ\text{C} < T_a < 65\text{ }^\circ\text{C}$ ) Gb  
 $V_{max} = 32\text{ Vdc}$

IECEx Dust  
 Certificate Number: IECEx KEM 10.0066X  
 Ex tD A20 IP66 T105 °C ( $-20 < T_a < 85\text{ }^\circ\text{C}$ )

**Special Condition for Safe Use (X):**

1. The Ex d blanking elements, cable glands, and wirings shall be suitable for a temperature of 90 °C. In case of repair, contact the manufacturer for information on the dimensions of the flameproof joints.

**Brazilian Certifications**

**E2** Brazilian Flameproof (INMETRO)  
 Certificate Number: NCC 5500.09X  
 Ex d IIC T5 ( $-20 < T_a < 80\text{ }^\circ\text{C}$ ) Gb  
 Ex d IIC T6 ( $-20 < T_a < 65\text{ }^\circ\text{C}$ ) Gb  
 $V_{max} = 32\text{ Vdc}$

**Special Condition for Safe Use (X):**

1. The Ex d blanking elements, cable glands, and wirings shall be suitable for a temperature of 90 °C. In case of repair, contact the manufacturer for information on the dimensions of the flame proof joints.

**I2** Brazilian Intrinsic Safety (INMETRO)  
 Certificate Number: NCC 6975.10X  
 Ex ia IIC T4 ( $-20 < T_a < 60\text{ }^\circ\text{C}$ ) Ga

**Table 4. Input Parameters**

$U_i = 30\text{ V}$
$I_i = 300\text{ mA}$
$C_i = 0$
$L_i = 0$



**Special Conditions for Safe Use (X):**

1. When fitted with the transient option, the apparatus is not capable of withstanding the 500V test as defined in Clause 6.3.12 of EN60079-11:2007. This must be taken into account during installation.
2. The enclosure may be aluminum, protected against low levels of impact by a coating of epoxy polyester or polyurethane paint. The risk of high levels of impact must be considered in any installation and protected accordingly.

**Combination certifications**

Stainless steel certification tag is provided when optional approval is specified. Once a device labeled with multiple approval types is installed, it should not be reinstalled using any other approval types. Permanently mark the approval label to distinguish it from unused approval types.

- K5** FM Combination (E5, I5)
- K6** CSA Combination (E6, I6)
- K1** ATEX Combination (E1, I1, N1, ND)
- KA** CSA and ATEX Combination (E6, I6, E1, I1)
- KB** FM and CSA Combination (E5, I5, E6, I6)
- KC** FM and ATEX Combination (E5, I5, E1, I1)

# Dimensional Drawings

Figure 3. Pipe Mount Installations

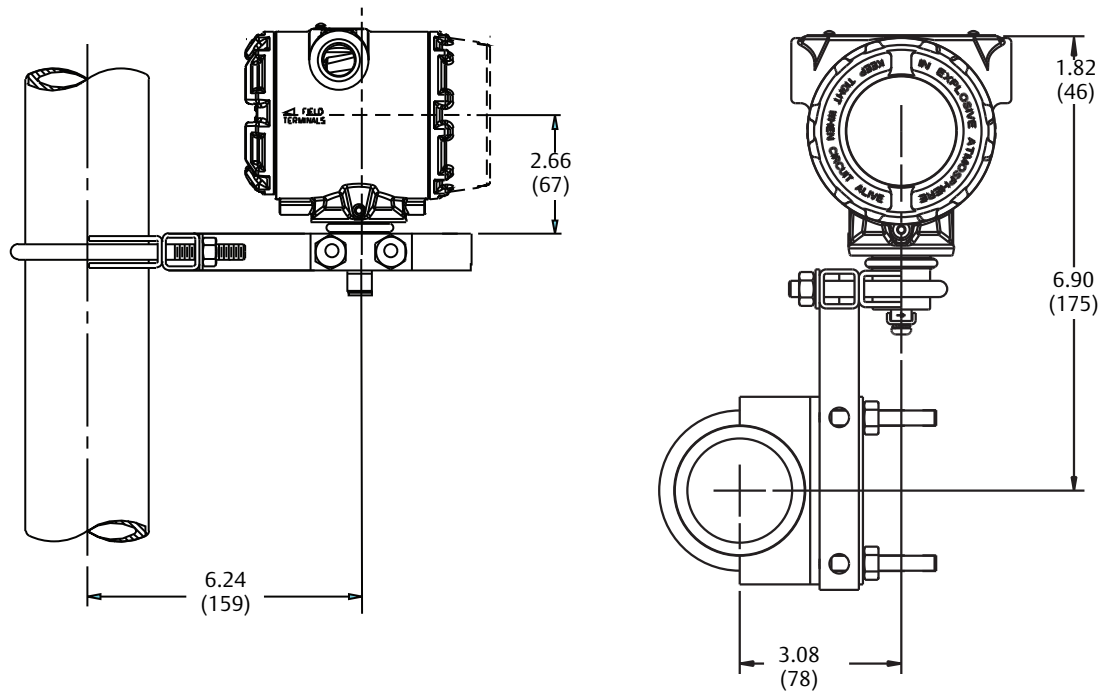
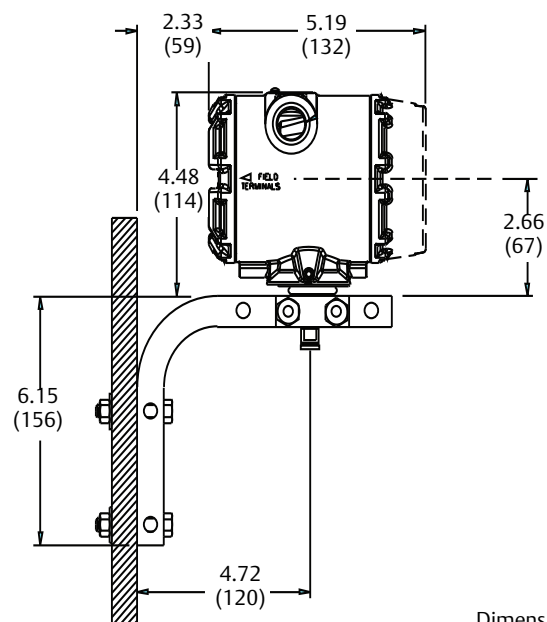


Figure 4. Panel Mount Installations



Dimensions are in inches (millimeters)



**Emerson Process Management**

Rosemount Inc.  
8200 Market Boulevard  
Chanhassen, MN 55317 USA  
T (U.S.) 1-800-999-9307  
T (International) (952) 906-8888  
F (952) 906-8889  
[www.rosemount.com](http://www.rosemount.com)

**Emerson Process Management**

Blegistrasse 23  
P.O. Box 1046  
CH 6341 Baar  
Switzerland  
T +41 (0) 41 768 6111  
F +41 (0) 41 768 6300  
[www.rosemount.com](http://www.rosemount.com)

**Emerson Process Management**

Asia Pacific Pte Ltd  
1 Pandan Crescent  
Singapore 128461  
T +65 6777 8211  
F +65 6777 0947  
Service Support Hotline: +65 6770 8711  
Email: [Enquiries@AP.EmersonProcess.com](mailto:Enquiries@AP.EmersonProcess.com)  
[www.rosemount.com](http://www.rosemount.com)

**Emerson Process Management**

**Latin America**  
1300 Concord Terrace, Suite 400  
Sunrise, Florida 33323 USA  
T + 1 954 846 5030  
[www.rosemount.com](http://www.rosemount.com)

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