

# Rosemount 3154K Nuclear Qualified Pressure Transmitter

## INDUSTRY LEADING PERFORMANCE

- Qualified per KTA 3505
- 350 kGy (35 Mrads) TID Gamma Radiation
- Vibration to 5g seismic and 7g APC
- LOCA/HELB 160°C (320°F) for 1 hour
- 0.2% Reference Accuracy
- For use in PWR inside containment and fuel building



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## Results Driven by Proven Measurement

### Introduction

Rosemount 3154K Nuclear Pressure Transmitters are designed for precision pressure measurements in nuclear applications which require reliable performance and safety over an extended service life. These transmitters were qualified per KTA 3505 at radiation levels of 350 kGy TID gamma radiation, vibration levels up to 5g seismic and 7g APC, and for steam pressure/temperature performance. Stringent quality control during the manufacturing process includes traceability of pressure-retaining parts, special nuclear cleaning, and hydrostatic testing.

### Applications

Intended areas of installation in Pressurized Water Reactors (PWR) are inside containment and the fuel building.

### Transmitter Description

Rosemount 3154K Transmitters are similar in construction and performance to the proven Rosemount 3051 Transmitters. Units are available

in absolute (AP), gauge (GP), and differential (DP) configurations, with 6 pressure range options.

Direct electronic sensing with the completely sealed coplanar capacitance sensing element (see Figure 1) eliminates mechanical force transfer and problems associated with shock and vibration. Installation and commissioning are simplified by compact design, 2-wire system compatibility, and non-interacting external span and zero adjustments for standard calibrations. Wiring terminals and electronics are in separate compartments, so the electronics remain sealed during installation.

### Operation

Process pressure is transmitted through an isolating diaphragm and silicone oil fill fluid to a sensing diaphragm in the center of the sensor. The reference pressure is transmitted in a like manner to the other side of the sensing diaphragm. The capacitance plates on both sides of the sensing diaphragm detect the position of the sensing diaphragm.

Figure 1 – The Sensor Cell

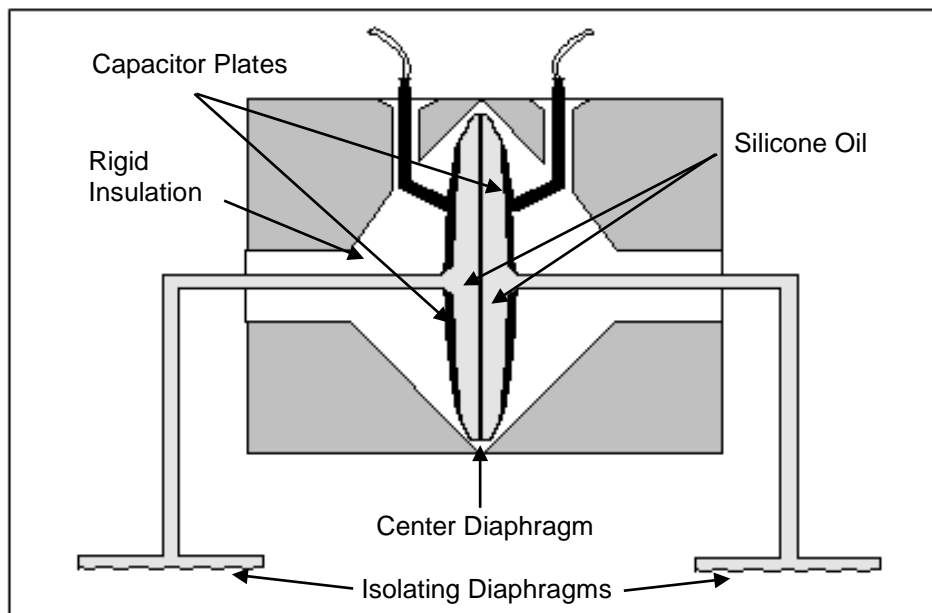
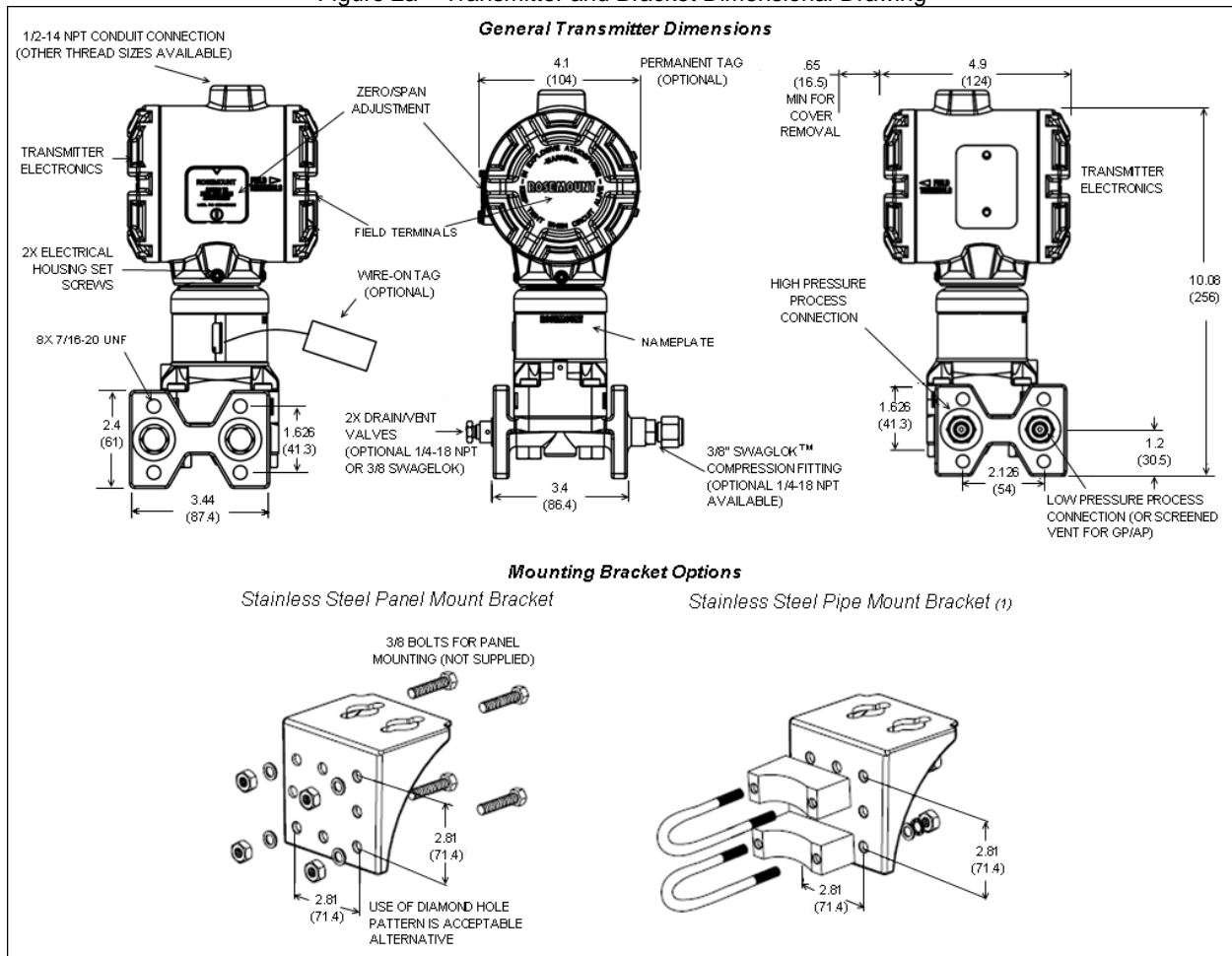


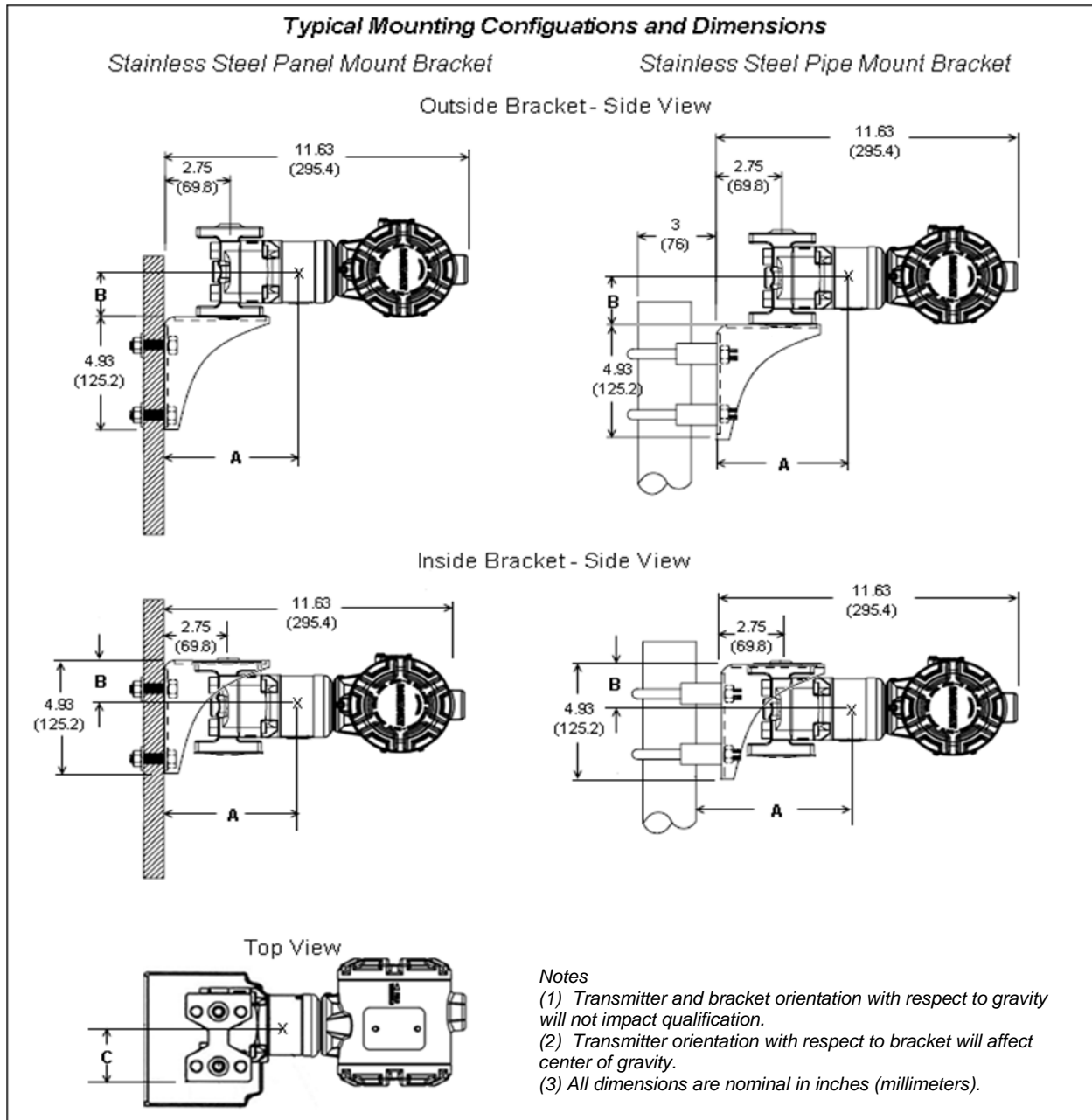
Figure 2a – Transmitter and Bracket Dimensional Drawing



**Notes**

- (1) A pipe-mount kit with three (3) U-bolts (not shown) is also available. The use of a third U-bolt is necessary to meet KTA seismic requirements in installations where the KTA Airplane Crash (APC) value of 7g is applicable
- (2) All dimensions are nominal in inches (millimeters)

Figure 2b – Typical Mounting Configurations



CENTER OF GRAVITY DIMENSIONS		Stainless Steel Panel Mount Bracket	Stainless Steel Pipe Mount Bracket (2 U-bolts)
Transmitter Mounted Outside of Bracket	A	5.6 (142.2)	4.8 (121.9)
	B	0.9 (22.9)	0.9 (22.9)
	C	2.1 (53.3)	2.0 (50.8)
Transmitter Mounted Inside of Bracket	A	5.6 (142.2)	4.8 (121.9)
	B	1.6 (40.6)	1.8 (45.7)
	C	2.1 (53.3)	2.1 (53.3)

**SPECIFICATIONS**

**Nuclear Specifications**

Qualified per KTA 3505 as documented in Rosemount report D2012001

**Seismic**

*KTA 3505*

When exposed to sweep between 5-35 Hz at 5g (DBE) input acceleration (at 1 octave/minute) and sweep between 5-100 Hz at 7g (APC) input acceleration (at 10 octaves/minute or less) accuracies are as shown in the following table:

Range Code	5g Sine Sweeps Effect		7g Sine Sweeps Effect (APC)	
	During (1)	After (2)	During (1)	After (2)
1, 2	±1.25% URL	Within reference accuracy	±1.5% URL	±0.3% span
3-6	±0.3% URL	Within reference accuracy	±0.7% URL	±0.3% span

*IEEE Std 344™-1987*

When exposed to a disturbance defined by a required response spectrum with a ZPA of 8.5g, accuracies are as shown in the following table:

Range Code	Triaxial Random Multifrequency 8.5g ZPA	
	During (1)	After (2)
1	±1.25% URL	Within reference accuracy
2	±0.5% URL	Within reference accuracy
3-4	±0.3% URL	Within reference accuracy
5-6	±0.2% URL	Within reference accuracy

- (1) This error indicates the "deviation" performance of the transmitter seen during the seismic event.
- (2) This error indicates the "shift" seen in transmitter performance after the seismic event.

**Radiation**

Exposed to a Total Integrated Dose (TID) of 350 kGy (35 Mrads), consisting of 50 kGy (5 Mrads) of normal radiation followed by 300 kGy (30 Mrads) of accident radiation.

During and after initial exposure to a Total Integrated Dose (TID) of 50 kGy (5 Mrads) at a dose rate of 500 Gy/hr (50 krads/hr), accuracies are as shown in the following table:

Output Code	Range Code	Radiation Effect
ALL	ALL	±(0.5% URL + 0.5% span)

During and after exposure to an additional Total Integrated Dose (TID) of 300 kGy (30 Mrads) at a dose rate corresponding to a 400 hour period of

exposure, accuracies are as shown in the following table:

Output Code	Range Code	Radiation Effect
ALL	ALL	±(0.75% URL + 1.0% span)

**Steam Pressure/Temperature**

When exposed to 160°C (320°F), 5.95 bars abs (86.3 psia) for one hour, cooling to 126°C (259°F) at four hours, concurrent with chemical spray, accuracies are as shown in the following table:

Output Code	Range Code	Steam Pressure/Temperature Effect
R	1	±(2.0% URL + 3.0% span)
	2-6	±(1.0% URL + 2.25% span)
T	1-6	±(2.0% URL + 6.0% span)

**Post DBE Operation**

Performance for 1 year following a DBE will be within ±1.5% URL (at reference conditions)

**Impact Testing**

18 impacts of 30g acceleration and 11 millisecond duration (3 impacts in each direction in each axis, for a total of 18 impacts)

**Nuclear Cleaning**

Process wetted surfaces cleaned to <1ppm chloride content

**Hydrostatic Testing**

Hydrostatically tested to 150% of maximum working pressure for differential pressure transmitters.

Hydrostatically tested at the overpressure limit for gauge and absolute pressure transmitters.

All range code 1 transmitters tested to 2000 psi (13.79 MPa).

**Traceability**

Per 10CFR50 Appendix B, NQA-1, KTA 1401-3507, and ISO 9001:2008; chemical and physical certification of pressure retaining parts

**Qualified Life per Arrhenius Equation**

(as endorsed by IEEE Std 323™)

20 years at 40°C (104°F)

## Performance Specifications

Based on zero-based calibration spans under reference conditions.

### Accuracy

Range Code	Accuracy
1-6	±0.2% of calibrated span

*Includes the effects of linearity, hysteresis, and repeatability.*

### Drift

Range Code	Drift Effect per 30 months
1	±0.2% URL
2-6	±(0.1% URL + 0.1% span)

### Temperature Effect

Range Code	Temperature Effect (per 100°F (55.6°C) Temperature Shift)
1	±(0.55% URL + 1.0% span)
2-6	±(0.15% URL + 0.6% span)
AP Range 3	±(0.6% URL + 0.5% span)
AP Range 4/5	±(0.25% URL + 0.5% span)

*This specification may be linearly interpolated down to 27.8°C (50°F) temperature interval.*

### Overpressure Effect <sup>(1)</sup>

Based on full overpressure limits:

- Range 1: 13.79 MPa (2000 psig)
- Range 2-5: 25.00 MPa (3626 psig)
- Range 6: 41.37 MPa (6000 psig)

### Rosemount 3154KD

Range Code	Overpressure Effect	
	One-Sided	Two-Sided Sequential
1-3	±0.25% URL	±0.5% URL
4-5	±0.3% URL	±2.0% URL

### Rosemount 3154KG and 3154KA

Range Code	One-Sided Overpressure Effect
1-3	±0.25% URL
4-6	±0.3% URL

*(1) Overpressure specifications do not include transmitters with P9 option – please contact RNII for additional information*

### High Static Line Pressure Zero Effect (3154KD only)

The High Static Line Pressure Zero Effect can be calibrated out by the customer at line pressure (see 3150 Series Reference Manual 00809-0100-4835 for additional information). If it is not calibrated out, the error associated with the High Static Line Pressure Zero Effect is as follows:

For high static line pressure (Ps) less than 13.79 MPa (2000 psi):

Range Code	High Static Line Pressure Zero Effect Ps ≤ 13.79 MPa (2000 psi)
1	±0.25 URL per 6.89 MPa (1000 psi)
2-5	±0.1% URL per 6.89 MPa (1000 psi)

*This specification may be linearly interpolated in 6.89 MPa (1000 psi) increments.*

For high static line pressure (Ps) greater than 13.79 MPa (2000 psi):

Range Code	High Static Line Pressure Zero Effect Ps > 13.79 MPa (2000 psi)
1	Not Applicable
2-5	±(0.2 + (0.2(Ps-13.79 MPa)/6.89 MPa))% URL

*This specification may be linearly interpolated in 6.89 MPa (1000 psi) increments.*

### High Static Line Pressure Span Effect

#### 3154KD Ranges 1, 2 and 3

Range Code	High Static Line Pressure Span Effect per 6.89 MPa (1000 psi)
1	±(0.4% URL + 0.4% span)
2, 3	±(0.1% URL + 0.1% span)

#### 3154KD Ranges 4 and 5

Rosemount 3154KD ranges 4 and 5 experience a span shift when operated at high static line pressure. It is linear and correctable during calibration.

If no correction for the systematic High Static Line Pressure Span Effect is performed, the error is as follows:

Range Code	High Static Line Pressure Span Effect Error per 6.89 MPa (1000 psi)
4	-1.0% ± 0.2% input reading
5	-1.25% ± 0.2% input reading

If the correction procedure as outlined in the 3150 Series Reference Manual 00809-0100-4835 is applied, the remaining correction uncertainty for the High Static Line Pressure Span Effect for ranges 4 and 5 is as follows:

Range Code	High Static Line Pressure Span Correction Uncertainty per 6.89 MPa (1000 psi)
4, 5	±0.2% input reading

It is possible to improve the accuracy of the 3154KD at high static line pressure for applications requiring enhanced performance. Please contact RNII for additional information.

### Power Supply Effect

Less than 0.005% of span / volt

**Load Effect**

No load effect other than the change in voltage supplied to the transmitter

**Electromagnetic Compatibility**

Meets the specifications defined in the following standards:

- EN 61000-6-2 and EN 61000-6-4 (see Rosemount report D2010005)
- EN 61326-1 and EN 61326-2-3 (see Rosemount report D2008005)

**Transient Protection (Option T1)**

Designed in accordance with IEEE C62.41.2-2002:  
Location Category B  
6kV crest (0.5 microseconds – 100 kHz)  
3kA crest (8 x 20 microseconds)  
6 kV crest (1.2 x 50 microseconds)

**Mounting Position Effect**

No span effect; zero shift of up to 0.37 kPa (1.5 inH<sub>2</sub>O) which can be calibrated out.

**Functional Specifications**

**Service**

Liquid, gas, vapor

**Output**

4-20 mA

**Power Supply**

Maximum supply voltage

- 50 VDC

Maximum allowable supply voltage ripple

- less than 1 volt peak-to-peak ripple for ripple frequency less than or equal to 120 Hz

**Load Limits**

See Figure 3

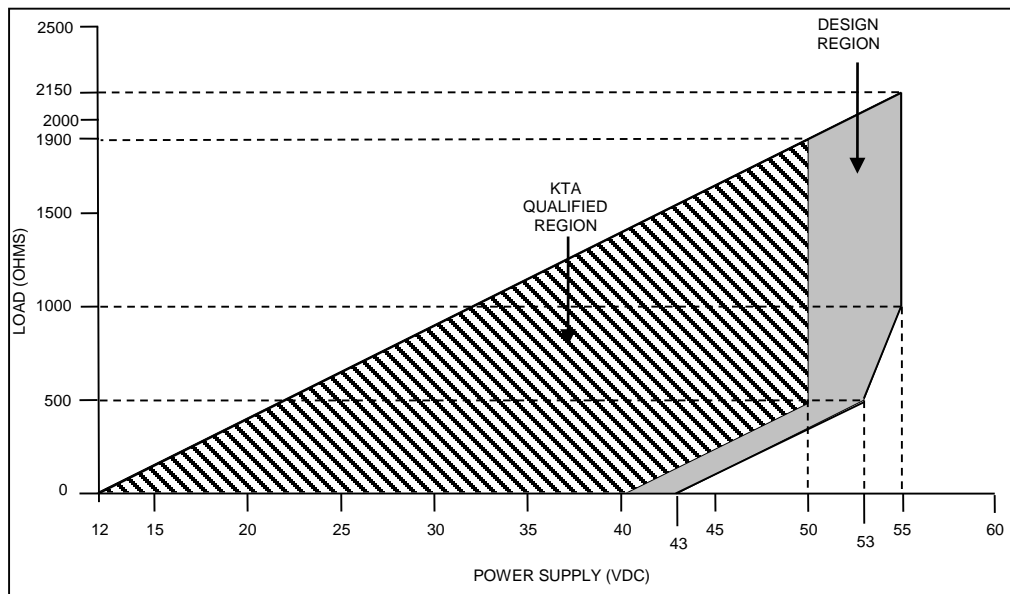
**Dielectric Withstand Test**

707 VDC, 60 seconds, leakage less than 1 mA

**Insulation Resistance Test**

500 VDC, 60 seconds, IR greater than 100 MOhm

Figure 3 – Transmitter Supply vs. Load



## Span and Zero Adjustments

External adjust; non-interacting for standard adjustments

## Zero Elevation, Zero Suppression

### Maximum Zero Elevation

Zero is adjustable to the Lower Range Limit (LRL)

### Maximum Zero Suppression

Zero is adjustable to 90% of the Upper Range Limit (URL) (80% for Range 1)

## Range Down

10:1 (5:1 for Range 1)

## Response Time

Time constant (63.2%) at 37.8°C (100°F)

## Output Code R

Range Code	Fixed Time Response (Max)	
	DP / GP	AP
1	2.00 sec	N/A
2	0.50 sec	N/A
3	0.20 sec	0.20 sec
4-6	0.20 sec	0.20 sec

## Output Code T (Continuously Adjustable Damping)

Range Code	Minimum Time Response in the Max Damping Position
1	2.00 sec
2-6	1.20 sec

Note: In the Minimum Damping Position, the values for Fixed Time Response apply.

## Temperature Limits

Normal Operating Limits: 4.4°C to 93.3°C (40°F to 200°F)

Qualified Storage Limits: -40.0°C to 48.9°C (-40°F to 120°F)

## Humidity Limits

0 to 100% relative humidity

## Enclosure Rating

NEMA 4X (IP 66)

## Volumetric Displacement

Less than 0.082 cm<sup>3</sup> (less than 0.005 in<sup>3</sup>)

## Turn-On Time

2 seconds maximum

## Maximum Working Pressure

Larger of Static Pressure Limit or Upper Range Limit (URL)

## Pressure Ranges

Adjustable within the range shown; upper range limit (URL) is the highest pressure shown

## Rosemount 3154KD and 3154KG

Range Code	Pressure Range
1	0-1.25 to 0-6.23 kPa (0-5 to 0-25 inH <sub>2</sub> O)
2	0-6.23 to 0-62.3 kPa (0-25 to 0-250 inH <sub>2</sub> O)
3	0-24.9 to 0-249 kPa (0-100 to 0-1000 inH <sub>2</sub> O)
4	0-206.8 to 0-2068 kPa (0-30 to 0-300 psig)
5	0-1379 kPa to 0-13.79 MPa (0-200 to 0-2000 psig)
6	0-2758 kPa to 0-27.58 MPa (0-400 to 0-4000 psig) <i>Range 6 not available on 3154KD</i>

## Rosemount 3154KA<sup>(1)</sup>

Range Code	Pressure Range
3	0-24.9 to 0-249 kPa (0-100 to 0-1000 inH <sub>2</sub> O abs)
4	0-206.8 to 0-2068 kPa (0-30 to 0-300 psia)
5	0-1379 kPa to 0-13.79 MPa (0-200 to 0-2000 psia)
6	0-2758 kPa to 0-27.58 MPa (0-400 to 0-4000 psia)

(1) Extended operation below 3.5 kPa absolute pressure (0.5 psia) is not recommended.

## Static Pressure Limits (3154KD only)

Range Code	Static Pressure Limit
1	3.45 kPa to 13.79 MPa (0.5 psia to 2000 psig)
2-5	3.45 kPa to 25.00 MPa (0.5 psia to 3626 psig)

## Overpressure Limits

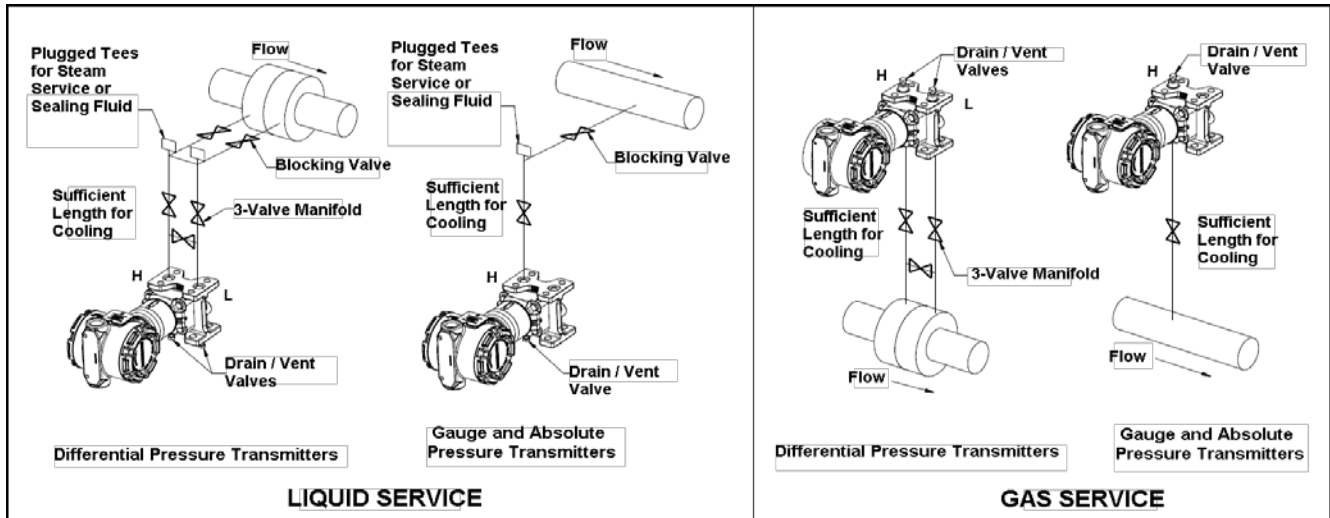
Range Code	Overpressure Limit
1	13.79 MPa (2000 psig)
2-5	25.00 MPa (3626 psig) <i>[31.03 MPa (4500 psig) with P9 option]</i>
6	41.37 MPa (6000 psig)

## Burst Pressure

Minimum burst pressure is 68.95 MPa (10,000 psig)



Figure 4 – Transmitter Installation Examples (liquid, gas or steam)



Please note that transmitters depicted in Figure 4 are intended for reference only.

## Physical Specifications

### Materials of Construction

Numbers in parentheses indicate where part is located in Figure 5

**Isolating Diaphragms (8)**  
316L SST

**Drain/Vent Valves (10)**  
316L SST

**Process Flanges (10)**  
CF3M (Cast version of 316L SST)

**Process Seal (C-rings) (9)**  
Silver-plated Inconel™ X-750

**Electronics Housing O-rings (2)**  
Ethylene Propylene

**Fill Fluid (8)**  
Silicone Oil

**Sensor Module Housing (8)**  
CF3M (cast version of 316L SST)

**Flange Bolts (11)**  
316 SST

### Electronics Housing (5)

CF8M (cast version of 316 SST)

### Mounting Bracket

CF8M (cast version of 316 SST)

### Mounting Bolts (bracket to transmitter)

SAE J429 Carbon Steel

### Process Connections

1/4-18 NPT (per EN 61518 / IEC 61518); or 3/8 Swagelok®

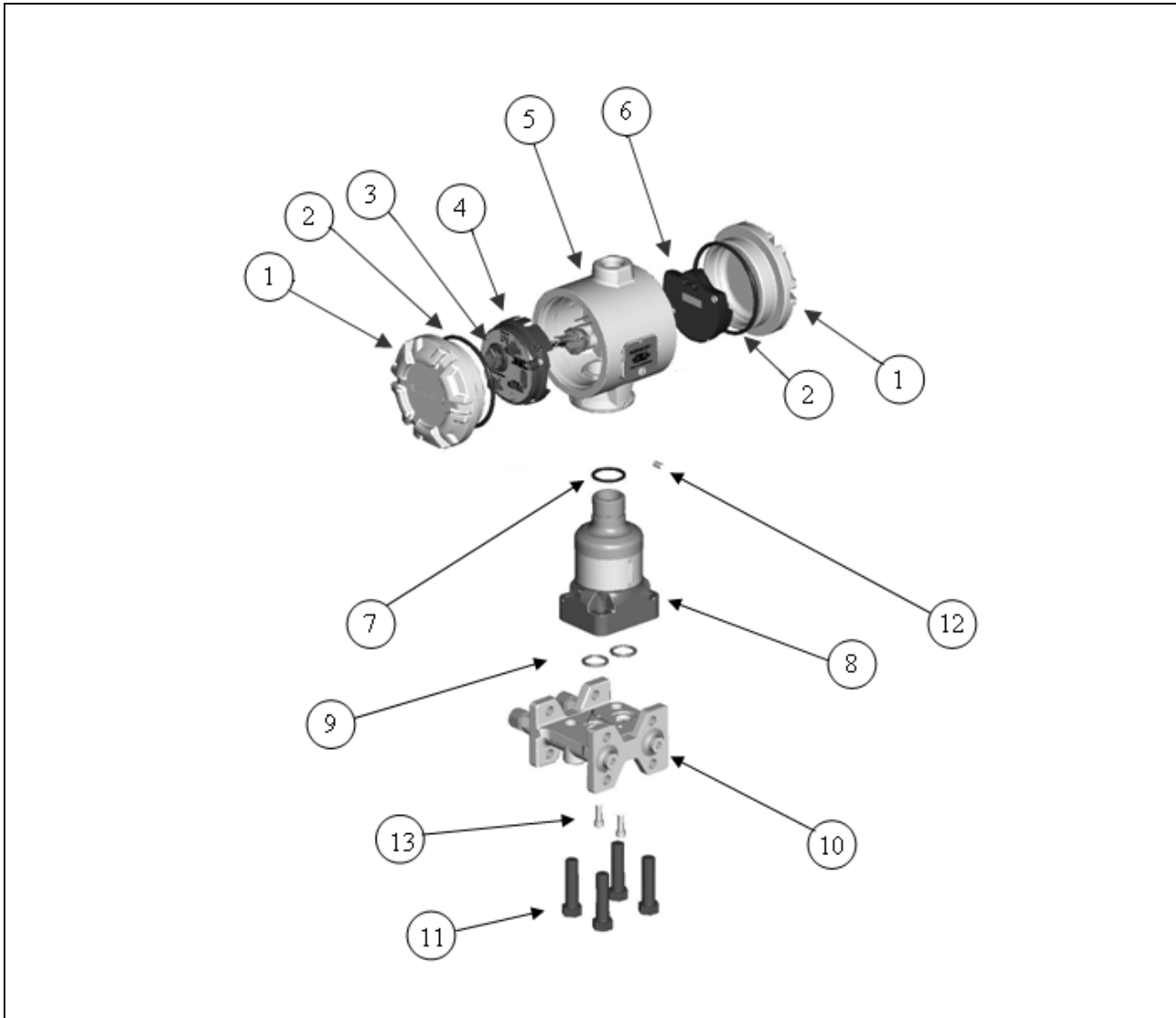
### Electrical Connections

1/2-14 NPT conduit with screw terminals; M20-1.5, PG13.5, and G ½ threads are optional

### Weight

- 7.5 kg (16.6 lbs) (excluding bracket)
- 9.9 kg (21.8 lbs) (including SST panel mounting bracket)
- 11.4 kg (25.1 lbs) (including SST 2" pipe mounting bracket with 2 u-bolts)
- 11.5 kg (25.4 lbs) (including SST 2" pipe mounting bracket with 3 u-bolts)

Figure 5 – Parts Drawing and Table, Exploded View



ITEM #	DESCRIPTION	ITEM #	DESCRIPTION
1	Electronics Cover	8	Sensor Module
2	O-ring for Electronics Cover	9	C-rings for Process Flange
3	Coarse Zero Select Jumper	10	Process Flange
4	Electronics Assembly	11	Bolts for Process Flange
5	Electronics Housing Assembly (includes set screws)	12	Housing Set Screws
6	Terminal Block Assembly	13	Flange Cap Screws
7	O-ring for Header		

Figure 6 – Electrical Block Diagram

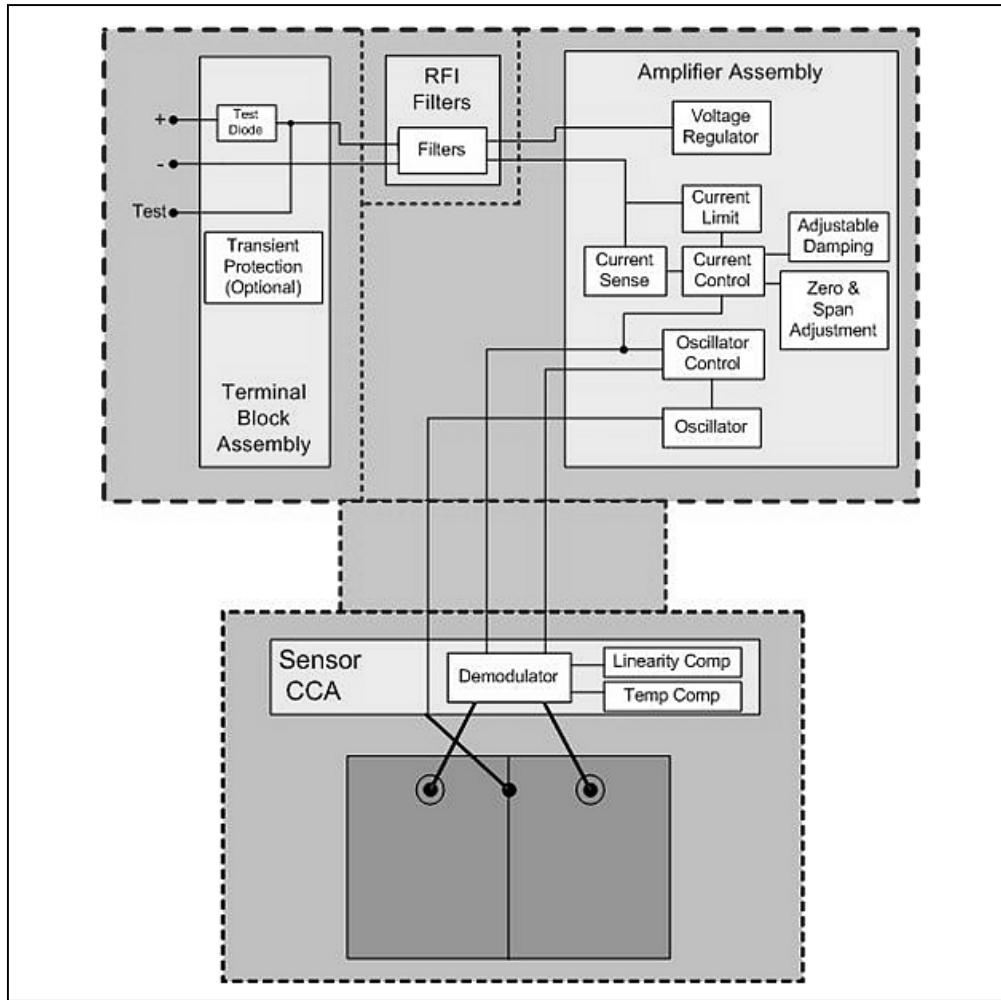
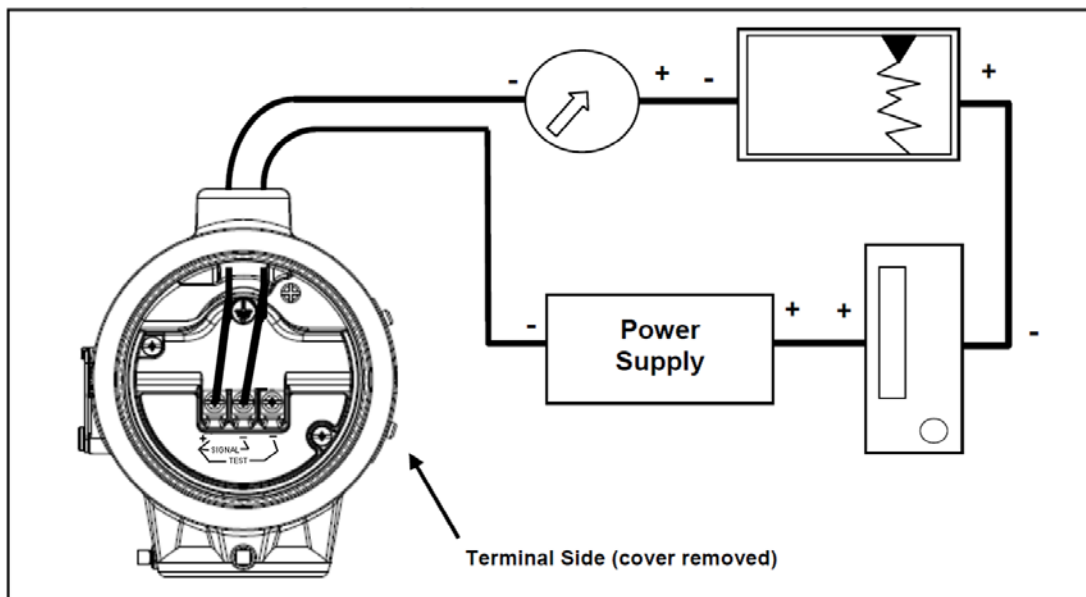


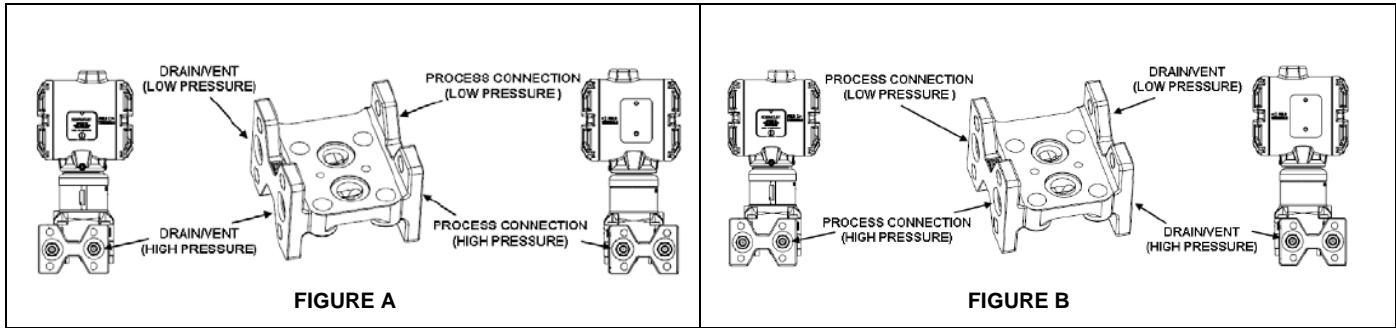
Figure 7 – Typical transmitter wiring connection



### ORDERING INFORMATION

Model	Transmitter Type			
3154KD	Nuclear Differential Pressure Transmitter	Range code 1	13.79 MPa (2000 psig)	Static Pressure Limit
		Range codes 2-5	25.00 MPa (3626 psig)	Static Pressure Limit
3154KG	Nuclear Gauge Pressure Transmitter			
3154KA	Nuclear Absolute Pressure Transmitter			
PRESSURE RANGES				
Code	Differential	Gauge <sup>(1)</sup>	Absolute <sup>(2)</sup>	
<i>Lower Range Limit (LRL) to Upper Range Limit (URL) / Minimum Span</i>				
1	-6.23 to 6.23 kPa / 1.25 kPa (-25 to 25 inH <sub>2</sub> O / 5 inH <sub>2</sub> O)	-6.23 to 6.23 kPa / 1.25 kPa (-25 to 25 inH <sub>2</sub> O / 5 inH <sub>2</sub> O)	N/A	
2	-62.3 to 62.3 kPa / 6.23 kPa (-250 to 250 inH <sub>2</sub> O / 25 inH <sub>2</sub> O)	-62.3 to 62.3 kPa / 6.23 kPa (-250 to 250 inH <sub>2</sub> O / 25 inH <sub>2</sub> O)	N/A	
3	-249 to 249 kPa / 24.9 kPa (-1000 to 1000 inH <sub>2</sub> O / 100 inH <sub>2</sub> O)	-97.9 to 249 kPa / 24.9 kPa (-393 to 1000 inH <sub>2</sub> O / 100 inH <sub>2</sub> O)	0 to 249 kPa abs / 24.9 kPa abs (0 to 1000 inH <sub>2</sub> O abs / 100 inH <sub>2</sub> O abs)	
4	-2068 to 2068 kPa / 206.8 kPa (-300 to 300 psi / 30 psi)	-97.9 to 2068 kPa / 206.8 kPa (-14.2 to 300 psig / 30 psi)	0 to 2068 kPa abs / 206.8 kPa abs (0 to 300 psia / 30 psia)	
5	-13.79 to 13.79 MPa / 1379 kPa (-2000 to 2000 psi / 200 psi)	-97.9 kPa to 13.79 MPa / 1379 kPa (-14.2 to 2000 psig / 200 psig)	0 to 13.79 MPa abs / 1379 kPa abs (0 to 2000 psia / 200 psia)	
6	N/A	-97.9 kPa to 27.58 MPa / 2758 kPa (-14.2 to 4000 psig / 400 psig)	0 to 27.58 MPa abs / 2758 kPa abs (0 to 4000 psia / 400 psia)	
Code	Transmitter Output			
R	4-20mA Analog			
T	4-20mA Analog with Adjustable Damping			
Code	Isolating Diaphragm			
2	316L SST			
Code	Process Flange Type / Material	Process Connection	Drain/Vent	Orientation
F0	Traditional / SST (meets EN 61518 / IEC 61518)	1/4 - 18 NPT <sup>(3)</sup>	1/4 - 18 NPT Drain Hole <sup>(3)</sup>	See Figure A
F1	Traditional / SST (meets EN 61518 / IEC 61518)	1/4 - 18 NPT <sup>(3)</sup>	Welded V/D Valve	See Figure A
F2	Traditional / SST	Welded 3/8 inch Swagelok <sup>®</sup>	1/4 - 18 NPT Drain Hole <sup>(3)</sup>	See Figure A
F3	Traditional / SST	Welded 3/8 inch Swagelok <sup>®</sup>	Welded V/D Valve	See Figure A
F4	Traditional / SST	Welded 3/8 inch Swagelok <sup>®</sup>	Welded 3/8 inch Swagelok <sup>®</sup>	See Figure A
F5	Traditional / SST (meets EN 61518 / IEC 61518)	1/4 - 18 NPT <sup>(3)</sup>	Welded V/D Valve	See Figure B
S1	Remote Seal, One Sided	See 3159 Product Data Sheet (00813-0100-4859)	See 3159 Product Data Sheet (00813-0100-4859)	See 3159 Product Data Sheet (00813-0100-4859)
S2	Remote Seal, Two Sided	See 3159 Product Data Sheet (00813-0100-4859)	See 3159 Product Data Sheet (00813-0100-4859)	See 3159 Product Data Sheet (00813-0100-4859)

Continued on Next Page



<b>Code Housing, Conduit Connection</b>	
E	SST, ½-14 ANPT
F	SST, M20-1.5
G	SST, PG13.5
H	SST, G1/2
J	SST, Welded
<b>Code Mounting Bracket</b>	
0	No Bracket
2	Traditional Process Flange Bracket, SST Panel, CS Mounting Hardware
3	Traditional Process Flange Bracket, SST, 2" Pipe (2 U-bolts), CS Mounting Hardware <sup>(4)</sup>
4	Traditional Process Flange Bracket, SST, 2" Pipe (3 U-bolts), CS Mounting Hardware <sup>(5)</sup>
<b>Code Standard Options</b>	
CA	Connector – Souriau 8NA1Y receptacle <sup>(6) (7)</sup>
C2	Connector – Unassembled (provided separately in package), connector P/N must be specified <sup>(8)</sup>
C3	Connector – Assembled to transmitter, connector P/N must be specified <sup>(6)</sup>
C5	Connector - Assembled to transmitter at authorized facility, connector P/N must be specified <sup>(9)</sup>
D2	Conduit Elbow – Unassembled (provided separately in package), conduit elbow P/N must be specified <sup>(8)</sup>
D3	Conduit Elbow – Assembled to transmitter, conduit elbow P/N must be specified <sup>(6)</sup>
D5	Conduit Elbow – Assembled to transmitter at authorized facility, conduit elbow P/N must be specified <sup>(9)</sup>
E1	ATEX Flameproof Approval
E6	CSA Explosion proof approval
P4	Calibration at Line Pressure
P5	Process seal helium leak test
P6	Over-ranged calibration <sup>(10)</sup>
P8	Time response test
P9	Extended Overpressure Limit (Up to 31.03 MPa [4,500 psig])
Q8	Material Certification for Process Wetted and Pressure Retaining Parts
Q9	Special Documentation / Certification – per customer request

**Continued on Next Page...**

R1	Sensor Module rotated 180° from standard <sup>(11)</sup>
R4	Electronics Housing rotated 180° from standard <sup>(11)</sup>
T1	Transient Protection
V5	External Ground Screw Kit
W1	Additional Customer Tagging Information – Permanent Tag attached to electronics housing (see Figure 2a)
W2	Additional Customer Tagging Information – Wire-on Tag attached to nameplate (see Figure 2a)
<b>Typical Model Number: 3154K D 2 R 2 F0 E 0 C3 W1</b>	

- (1) 3154KG LRL varies with atmospheric pressure.
- (2) Extended operation below 3.5 kPa absolute pressure (0.5 psia) is not recommended.
- (3) Customer assumes responsibility for qualifying interfaces on these options.
- (4) The pipe mount kit provided with mounting bracket option code “3” contains two u-bolts and is qualified for DBE seismic events up to 5g per KTA 3505.
- (5) The pipe mount kit provided with mounting bracket option code “4” contains three u-bolts and is qualified for Airplane Crash (APC) seismic events up to 7g per KTA 3505.
- (6) Installation will be performed at the Rosemount Nuclear factory. Certification of the connector or conduit elbow installation and instrument/connector or conduit elbow interface will be provided by Rosemount Nuclear.
- (7) This option can be used only in conjunction with Option Code “J” of the Housing, Conduit Connection.
- (8) Qualification of the connector or conduit elbow installation and instrument/connector or conduit elbow interface is the responsibility of the end user.
- (9) Installation of the connector or conduit elbow will be performed under the applicable Emerson QA program and performed per approved installation procedures. Certification of the connector or conduit elbow installation and instrument/connector or conduit elbow interface will be provided by the factory performing the installation.
- (10) Over-range limit varies by pressure range. Please contact RNII for more details.
- (11) The R1 and R4 options cannot be used together on a single transmitter.

## Product Data Sheet

00813-0200-4854 Rev AD

May 2016

# Rosemount 3154K

### Standard Accessories

One instruction manual is included with each shipment.

### Calibration

Transmitters are factory calibrated to the customer's specified range. If calibration is not specified, transmitters are calibrated at maximum range (0 to URL). Calibration is performed at ambient temperature and atmospheric pressure.

### Additional Customer Tagging Information

Additional tagging is optional and will be provided when either option W1 or W2 is included in the model number. All tags are SST. The transmitter will be tagged in accordance with customer requirements (within space limitations defined below).

	Permanent Tag (W1)	Wire-on Tag (W2)
Nominal Character Height	2.54 mm (0.10 in)	4.76 mm (0.188 in)
Maximum Number of Lines	4	4
Maximum Characters per Line	14	20

### Special Options

Please Contact Rosemount Nuclear Instruments, Inc. for special transmitter needs.

### Spare Parts

A spare part list for the Rosemount 3154K pressure transmitter is located within the Rosemount 3150 Series Reference Manual 00809-0100-4835.

### Transportation and Storage

During transportation and storage, transmitters shall be transported only in their original packaging supplied by Rosemount Nuclear.

### Documentation

#### Certifications

Certification of compliance will be provided for each Rosemount 3154K Pressure Transmitter for nuclear qualification, accuracy, special cleaning, hydrostatic testing, and traceability. Chemical and physical reports and identification of pressure-retaining parts will be on file at Rosemount Nuclear Instruments, Inc.

#### Revision Control

As-built drawing and part number revisions of baseline qualification hardware are provided in RNII Document EIF-3154-EPR-01.

The evolution of important drawings, part numbers, manufacturing tests and inspection procedures associated with Rosemount 3154K transmitters is documented in Reference File RF-3154-EPR-01. The reference file is maintained in accordance with RNII's documented quality system and is intended to satisfy the requirements of "Reference File" as defined by RCC-E and "Document Catalogue" as defined by KTA.

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**REVISIONS**

**Changes from Rev AC to Rev AD**

Page (Old)	Page (New)	Changes
Throughout	Throughout	Update document revision and implementation date.
6	6	Revised accuracy specification for pressure range 6 transmitters from $\pm 0.25\%$ of calibrated span to $\pm 0.2\%$ of calibrated span.
8	8	Revised response time specification for pressure range 3 transmitters with output code R (all pressure types) from 0.25 sec to 0.20 sec.
8	8	Revised response time specification for pressure range 2-6 transmitters with output code T in the maximum damping position from 0.80 sec to 1.20 sec.

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*Rosemount Nuclear Instruments, Inc. satisfies all obligations coming from legislation to harmonize product requirements in the European Union.*