

DIFFERENTIAL PRESSURE VALUES AND LIMITS

Select units, then enter lower trim value (LTV), and upper trim value (UTV). LTV and UTV must be within the minimum and maximum range limits as stated in the Range Limits table (see page 5).

- Select Units:
- | | |
|---|--|
| <input type="checkbox"/> inH ₂ O (inches of water) ★ | <input type="checkbox"/> mBar |
| <input type="checkbox"/> inHg | <input type="checkbox"/> g/cm ² |
| <input type="checkbox"/> ftH ₂ O | <input type="checkbox"/> Kgm/cm ² |
| <input type="checkbox"/> mmH ₂ O | <input type="checkbox"/> Pa |
| <input type="checkbox"/> mmHg | <input type="checkbox"/> kPa |
| <input type="checkbox"/> PSI | <input type="checkbox"/> Torr |
| <input type="checkbox"/> Bar | <input type="checkbox"/> Atm |

Enter Trim Values: Lower Trim Value (LTV) Upper Trim Value (UTV) Default Values

_____ _____ 0, URL ★

- Damping in seconds: 0.108 0.216 0.432 0.864 ★ 1.728
 (select one) 3.456 6.912 13.824 27.648

TEMPERATURE VALUES AND LIMITS (Complete only if the process temperature input is ordered.)

Select units, then enter lower trim value (LTV), and upper trim value (UTV). LTV and UTV must be within the minimum and maximum range limits of -44 to 1220°F (-42 to 660 °C).

- Select Unit: DEG_F (Degrees Fahrenheit) ★ DEG_C (Degrees Celsius)
 DEG_K (Degrees Kelvin)

Enter Trim Values: Lower Trim Value (LTV) Upper Trim Value (UTV) Default Values

_____ _____ -40, 1200 ★

- Damping in seconds: 0.108 0.216 0.432 0.864 ★ 1.728
 (select one) 3.456 6.912 13.824 27.648

LEVEL CALCULATION

- Density Units (select one): g/cm³ ★ kg/m³ lb/gal lb/ft³ g/ml
 kg/l g/l lb/in³ ton/yd³

Process Density (enter a value between 0.1 and 15 g/cm³): _____
 _____ (1.0 g/cm³ ★)

- Level Units (select one) Feet Inches ★ Centimeters Meter

Controller Height (enter a value between -300 and 300 m in units of measure): _____ (0.0 ★)

Local Gravity (enter a value between 9.5 m/s² and 10 m/s²): _____ (9.80665 m/s² ★)

Level Damping (enter a value between 0.0 and 32.0 sec): _____ (0.0 sec ★)

Level LRV (select a value between level_lrl and level_url): _____ (0.0 inches ★)

Level URV (select any value between level_lrl and level_url): _____ (100.0 inches ★)

★ Indicates default value.

CONTROLLER

LIMITS

		<u>Valid Range</u>
Manual Rate Limit:	_____ (0.0 %/sec ★)	≥ 0%/sec (0 = OFF)
Auto Out Hi Limit:	_____ (105 % ★)	AutoOutLoLimit + 10% to 105%
Auto Out Lo Limit:	_____ (-0.625 % ★)	-0.625% to AutoOutHiLimit-10%
Setpoint Rate Limit:	_____ (0.0 in/sec ★)	≥ 0 units/sec (0 = OFF)

MODE SHED

Mode Shed Output: _____ (0.0 % ★) -2.5% to 112.5%

Mode Shed Action (select one): Freeze Output Shed to Manual★

Mode Shed Method (select one): No Return Return★

OUTPUT SETTINGS

Power Up Output: _____ (0.0 % ★) -0.625% to 105%

CONTROLLER CONFIGURATION

		<u>Valid Range</u>
Control Action (select one):	<input type="checkbox"/> Reverse ★ <input type="checkbox"/> Direct	
Control Type (select one):	<input type="checkbox"/> P★ <input type="checkbox"/> PI <input type="checkbox"/> PD <input type="checkbox"/> PID	
Control Tuning:		
Gain (P)	_____ (1.0 ★)	0 to 500
Reset (I)	_____ (0.0 ★)	≥ 0.0 sec
Rate (R)	_____ (0.0 ★)	≥ 0.0 sec
Manual Bias	_____ (0.0% ★)	0 to 100 %
Derivative Filter	_____ (0.125 ★)	0.125 to 1.0
Balance Time:	_____ (10.0 sec ★)	0 to 3,600 sec
Adaptive Bias Control:		
ABC Enable	<input type="checkbox"/> Off ★ <input type="checkbox"/> On	
Static Error	_____ (1.0 ft★)	0 to 20 ft
Threshold	_____ (1.0 in/sec ★)	0 to 10 in/sec
Setpoint:	_____ (required; no default)	
Setpoint Limits:		
Setpoint Hi Limit	_____ (100 inches ★)	SetpointLoLimit to Level URL
Setpoint Lo Limit	_____ (0 inches ★)	Level LRL to SetpointHiLimit
Setpoint Tracking:	<input type="checkbox"/> Off ★ <input type="checkbox"/> On	

★ Indicates default value.

AUTOTUNER (Complete only if option code CC is ordered.)

		Valid Range
Target Setpoint:	_____ (required; no default)	
Tune Alpha:	_____ (3.0 ★)	0.5 to 10
Tune Cycles:	_____ (1 ★)	1 to 3
Tune Out Max:	_____ (0.0% ★)	TuneOutMin to AutoOutHiLimit ⁽¹⁾
Tune Out Min:	_____ (0.0% ★)	AutoOutLoLimit to TuneOutMax ⁽¹⁾
Tune Level Max:	_____ (0 inches ★)	TuneLevelMin to Level URL
Tune Level Min:	_____ (0 inches ★)	Level LRL to TuneLevelMax
Tune Time Limit:	_____ (0 minutes ★)	0 to 1000 minutes
Tune Overshoot:	_____ (0 inches ★)	0 to 25 inches

(1) Also limited by AutoOutHigh and AutoOutLow Limits.

LOCAL OPERATOR INTERFACE (Complete only if LOI is ordered.)

NOTE: The first displayed variable is always Level.

Second displayed variable (select one): none ★ Setpoint Control Output DP Value PT Value

Third displayed variable (select one): none ★ Setpoint Control Output DP Value PT Value

Fourth displayed variable (select one): none ★ Setpoint Control Output DP Value PT Value

Displayed Pressure Units: inH₂O (inches of water)★ mBar
 inHg g/cm²
 ftH₂O Kgm/cm²
 mmH₂O Pa
 mmHg kPa
 PSI Torr
 Bar Atm

Displayed Level Units (select one): ft meters inches ★ cm

Displayed Temperature Units (select one): °C °F ★ °K

★ **Indicates default value.**

TABLE 1. Level Controller Range Limits.

Units	Modle 3095 Level Controller Range Limits			
	Range 2 DP Span		Range 3 DP Span	
	min	max	min	max
inH ₂ O	2.5	250	10	830
inHg	0.18356	18.356	0.73424	60.9420
ftH ₂ O	0.20833	20.8333	0.83333	69.1667
mmH ₂ O	63.5	6350	254	21082
mmHg	4.66243	466.243	18.6497	1547.93
PSI	0.09016	9.0156	0.36063	29.9319
Bar	0.00622	0.62161	0.02486	2.0637
mBar	6.21606	621.606	24.8642	2063.73
g/cm ²	6.33861	633.861	25.3545	2104.42
Kg/cm ²	0.00634	0.63386	0.02535	2.10442
Pa	621.606	62160.6	2486.42	206373
kPa	.62161	62.1606	2.48842	206.373
Torr	4.66242	466.242	18.6497	1547.93
Atm	0.00613	0.61348	0.02454	2.03675

Rosemount Inc.

8200 Market Boulevard
Chanhassen, MN 55317 USA
Tel 1-800-999-9307
Telex 4310012
Fax (612) 949-7001
© 1998 Rosemount, Inc.



Fisher-Rosemount Limited

Heath Place
Bognor Regis
West Sussex PO22 9SH
England
Tel 44 (1243) 863 121
Fax 44 (1243) 867 5541

**Fisher-Rosemount
Singapore Pte Ltd.**

1 Pandan Crescent
Singapore 128461
Tel (65) 777-8211
Fax (65) 777-0947
Tlx RS 61117 FRSPL

All rights reserved.
<http://www.rosemount.com>



00806-0100-4741 Rev. AB 11/98

ROSEMOUNT®

FISHER-ROSEMOUNT™ Managing The Process Better.™