



沪制01150183号

VER. NO.	LC3010-2009
CAT. NO.	XSBSQ-004



智能型浮筒液位(界位)变送器

INTELLIGENT BUOYANCY
LIQUID LEVEL(INTERFACE) TRANSMITTER

LC3010

操作手册

OPERATION MANUAL

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LC3010 新版 475HART 手操器调试说明

- 1、 确认仪表的参数设置情况。
2 online – 2 Configure – 1 Guided Setup – 1 Instrument Setup
- 2、 设置零位。
2 online – 2 Configure – 5 Calibration – 1 Primary – 3 Partial
Calibration -1 Capture Zero
- 3、 两点标定。
2 online – 2 Configure – 5 Calibration – 1 Primary – 2 Full
Calibration – 2 Two Point Calibration
- 4、 设置阻尼。
2 online – 2 Configure – 2 Manual Setup – 2 Variables – 4 PV
Damping
- 5、 回路测试
2 online – 3 Service Tools – 3 Maintenance – 1 tests – 2 Loop Test

常用调试详细说明:

1、确认仪表的参数设置情况。

2 online – 2 Configure – 1 Guided Setup – 1 Instrument Setup

Do you have displacer weight, volume, and driver length data available?

1. Yes

2. No

选择 yes.

WARNING. Loop should be removed from automatic control.

ENTER

Displacer weight Units(kg)

g

kg

lb

ounce

ENTER

默认出厂选择 kg.

Displacer volume Units(ml)

L

in3

mm3

ml

ENTER

默认出厂选择 ml.

Displacer Length Units(ml)

ft

m

in

cm

m

ENTER

默认出厂选择 cm.

Enter Displacer weight (1.8kg)

1.8

ENTER

根据实际的浮筒重量输入。

Enter Displacer volume (800ml)

800

ENTER

根据实际的浮体积输入。

Enter Displacer Rod Length (100cm)

100

ENTER

根据实际的浮筒长度输入。

Instrument mounting (right)

Left of displacer

Right of displacer

根据实际情况选择。

TT Material ()

ENTER

根据实际情况选择。

Select measurement application (level)

Level

Interface

Density

ENTER

根据实际情况选择。

Level offset(0.000000)

0.000

ENTER

默认情况下输入零。

Range values are being initialized based on level offset and the displacer size.

OK

Select desired output action: (direct)

Direct

Reverse

ENTER

默认情况下选择 direct.

Engineering units for PV (cm)

ft

m

in

cm

mm

ENTER

ENTER

默认出厂选择 cm.

Upper range value (PV value at 20mA)(100.000)

100

ENTER

根据实际情况输入。

lower range value (PV value at 4mA)(0.000)

0

ENTER

根据实际情况输入。

PV alert thresholds are being initialized at 100%,95%,5%and

0%span.

ENTER

Initializing temperature alert thresholds (°C)

HI LO

Instrument: 80 -40

Process: 232 -200

ENTER

Initializing alert dead bands

PV: 0.5%span

Temperature:1.0°C

ENTER

PV alert are being disabled (HiHi LoLo affect AO)

Temperature alerts are being enabled.

OK

Use alert setup menu to adjust as desired.

OK

Process fluid density. (1.000)

1.000

ENTER

输入实际的液体密度。

Instrument setup complete ready for calibration. Optional parameters may be set in detailed setup menu.

ENTER

Loop can be returned to automatic control.

ENTER

6、 设置零位。

2 online – 2 Configure – 5 Calibration – 1 Primary – 3 Partial

Calibration -1 Capture Zero

WARNING. Loop should be removed from automatic control.

ENTER

Set process input t to zero level

Condition (zero differential buoyancy)

OK

Verify instrument is coupled to torque tube and coupling access is closed .when input condition is correct and stable .continue.

ENTER

Zero reference established.

OK

7、 两点标定。

2 online – 2 Configure – 5 Calibration – 1 Primary – 2 Full

Calibration – 2 Two Point Calibration

WARNING. Loop should be removed from automatic control.

OK

Need assistance?

1 yes

2 no

ENTER

默认选择 YES .

Adjust the process condition to an observable state between 0% and 100%

OK

allow input condition and instrument output to settle to steady state – the continue .

OK

Inter your independent observation. PV value: (cm)

0

ENTER

Adjust process condition to a new state as for from prior value as practical (min 5% span)

OK

注意! 此时就要调节液位或者砝码的重量到满度或者满度至少变化量程 5%的要求。

Input your independent observation for point 2 PV value: (c m)

100

ENTER

Calibrated torque tube rate = 9.2888 lbf-in/deg.

OK

Zero reference re-established at 0.0126 deg shaft rotation.

OK

Loop can be returned to automatic control.

ENTER

8、 设置阻尼。

2 online – 2 Configure – 2 Manual Setup – 2 Variables – 4 PV

Damping

9、 回路测试

2 online – 3 Service Tools – 3 Maintenance – 1 tests – 2 Loop Test

FIELDVUE™ DLC3010 Digital Level Controller

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DLC3010 Digital Level Controller



475 Field Communicator



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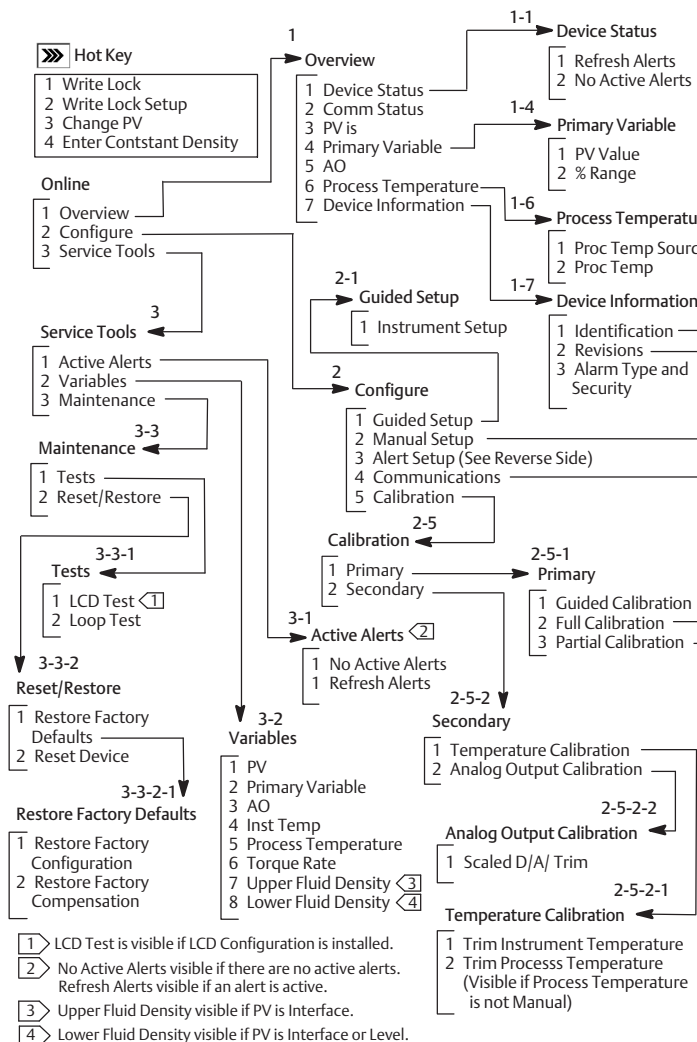
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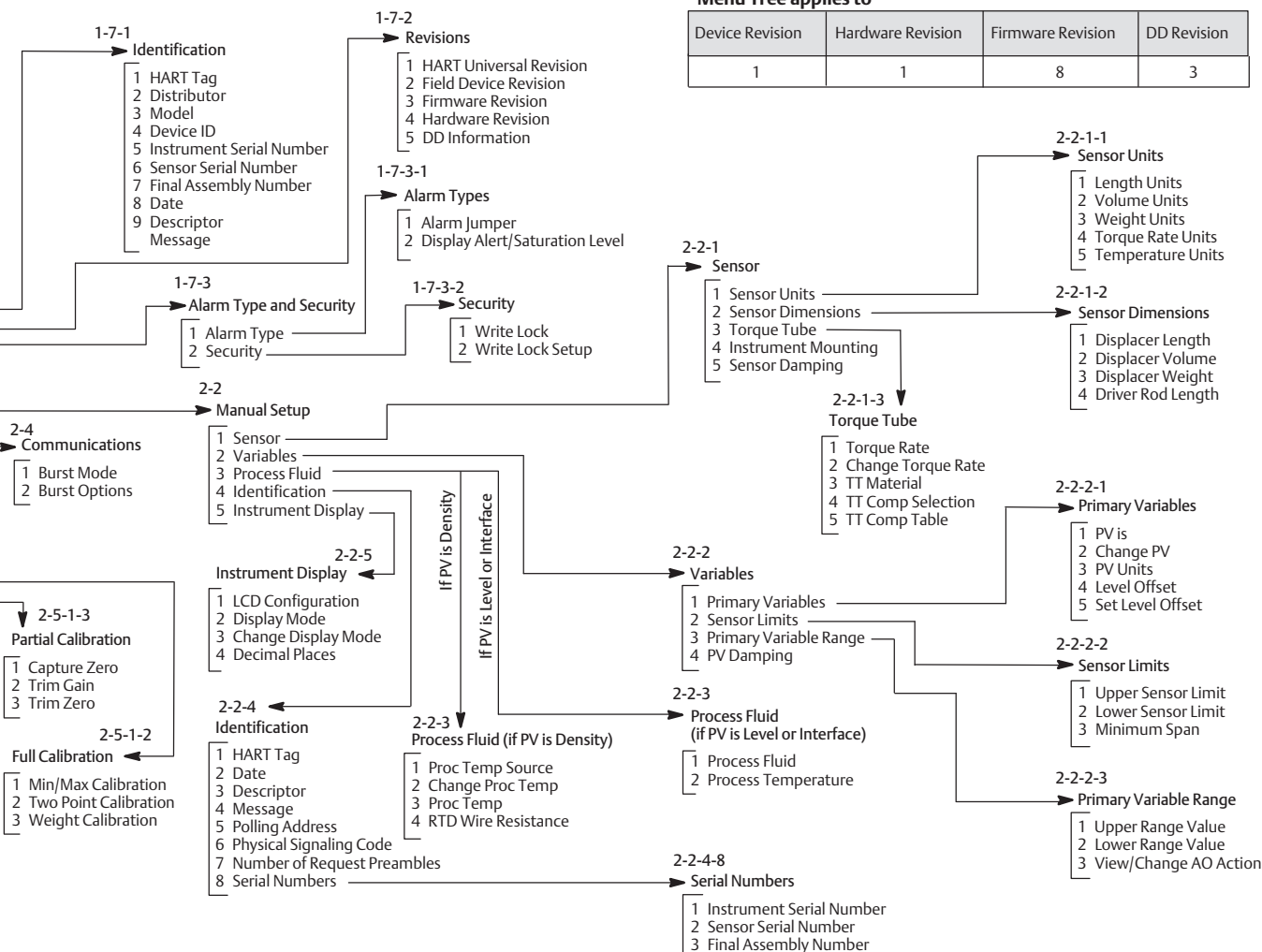
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Field Communicator Menu Tree

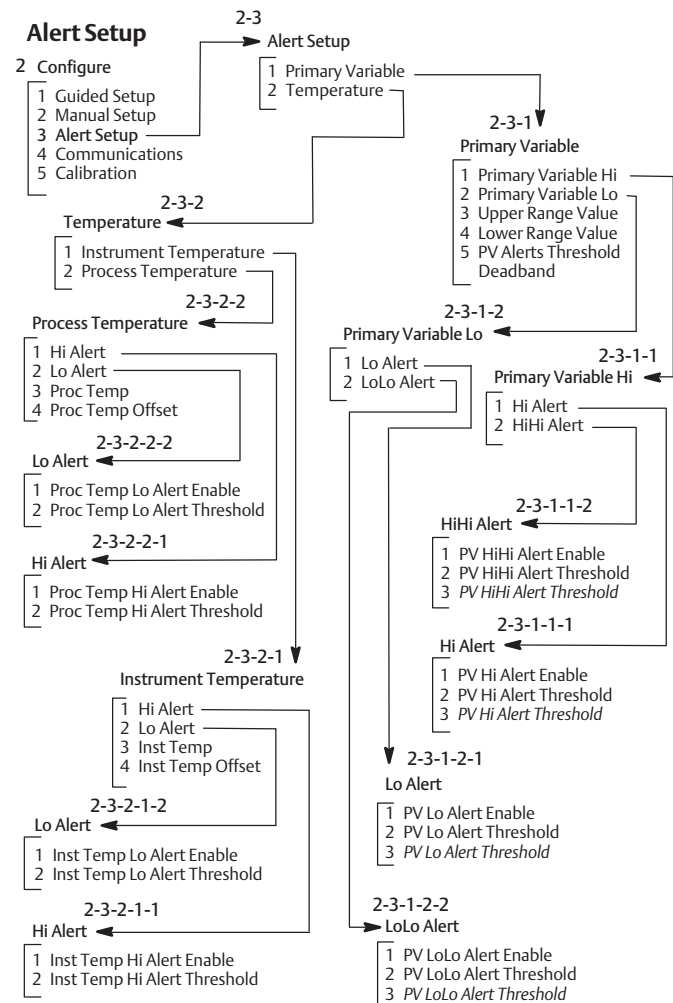


DLC3010 Digital Level Controller



Menu Tree applies to

Device Revision	Hardware Revision	Firmware Revision	DD Revision
1	1	8	3



Function/Variable	Fast-Key Sequence
Active Alerts	3-1
Alarm Jumper	1-7-3-1-1
Analog Output	1-5
Burst Mode	3-2-3
Burst Options	2-4-1
Calibration, Guided	2-4-2
Calibration, Min/Max	2-5-1-1
Calibration, Partial, Capture Zero	2-5-1-2-1
Calibration, Partial, Trim Gain	2-5-1-3-1
Calibration, Partial, Trim Zero	2-5-1-3-2
Calibration, Temperature	2-5-1-3-3
Calibration, Two Point	2-5-2-1
Calibration, Weight	2-5-1-2-3
Change Process Temperature	2-2-3-2-2(1)
	2-2-3-2-2(2)(3)
Change Primary Variable	Hot Key-3
Change Torque Rate	2-2-2-1-2
Comm Status	2-2-1-3-2
Date	1-2
DD Information	1-7-1-8
Decimal Places	2-2-4-2
Descriptor	1-7-2-5
Device ID	2-2-5-4
Device Status	1-7-1-9
Display Alert/Saturation Level	2-2-4-3
Display Mode	1-7-1-4
Distributor	1-1
Enter Constant Density	1-7-3-1-2
	2-2-5-2
	1-7-1-2
Field Device Revision	Hot-Key-4
	2-2-3-1-3(2)(5)
	2-2-3-1-4(2)(6)
Final Assembly Number	1-7-2-2
Firmware Revision	1-7-1-7
Guided Setup	2-2-4-8-3
Hardware Revision	1-7-2-3
	1-7-2-4

Function/Variable	Fast-Key Sequence
HART Tag	1-7-1-1
HART Universal Revision	2-2-4-1
Instrument Mounting	1-7-2-1
Instrument Serial Number	2-2-1-4
Instrument Temperature	1-7-1-5
Instrument Temperature (Alert Setup)	2-2-4-8-1
LCD Configuration	3-2-4
LCD Test	2-3-2-1
Level Offset	2-2-5-1
Loop Test	3-3-1-1(4)
	2-2-2-1-4
	3-3-1-1
	3-3-1-2(4)
Lower Density Table(3)	2-2-3-1-2-1(3)(5)
	2-2-3-1-3-2(3)(6)
	2-2-3-1-1(3)(5)
	2-2-3-1-2(3)(6)
	3-2-7(5)
	3-2-8(6)
Lower Fluid Density	2-2-2-3-2
Lower Range Value	2-3-1-4
Lower Sensor Limit	2-2-2-2-2
Measure Density	2-2-3-1-4(3)(5)
Message	2-2-4-4
Minimum Sensor Span	2-2-2-2-3
Model (Device)	2-2-4-7
Number of Request Preambles	1-4-2
Percent Range	3-2-2-2(3)
Physical Signalling Code	1-6-2
Polling Address	2-2-3-2(3)
Primary Variable Hi (Alert Setup)	2-2-3-3(1)
Primary Variable Lo (Alert Setup)	3-2-5-2(3)
	1-6-2
Process Temperature	2-2-3-2-3(2)(3)
	2-2-3-3(1)
	3-2-5-2(3)
Process Temperature (Alert Setup)	2-3-2-2
Process Temperature Source	1-6-1
	2-2-3-1(1)

Function/Variable	Fast-Key Sequence
Process Temperature Source	2-2-3-2-1(2)(3)
PV Alerts Threshold Deadband	2-3-1-5
PV Damping	2-2-2-4
PV is	1-3
	2-2-2-1-1
PV Units	2-2-2-1-3
PV Value	1-4-1
	3-2-2-1(3)
Reset Device	3-3-2-2
Restore Factory Defaults	3-3-2-1
RTD Wire Resistance	2-2-3-2-4(2)(3)
	2-2-3-4(1)
Scaled D/A Trim	2-5-2-2-1
Sensor Damping	2-2-1-5
Sensor Dimensions (Displacer Units)	2-2-1-2
Sensor Serial Number	1-7-1-6
Sensor Units	2-2-4-8-2
Set Level Offset	2-2-1-1
Torque Rate	2-2-2-1-5
	2-2-1-3-1
	3-2-6
Torque Tube Compensation Selection	2-2-1-3-4
Torque Tube Compensation Table	2-2-1-3-5
Torque Tube Material	2-2-1-3-3
Upper Density Table	2-2-3-1-3-1(3)(6)
	2-2-3-1-1(3)(6)
Upper Fluid Density	3-2-7(6)
	2-2-2-3-1
Upper Range Value	2-3-1-3
Upper Sensor Limit	2-2-2-2-1
View/Change AO Action	2-2-2-3-3
Write Lock	Hot Key-1
	1-7-3-2-1
Write Lock Setup	Hot Key-2
	1-7-3-2-2

1. If PV is Density
 2. If PV is Level or Interface
 3. Not included in menu tree
 4. LCD Configuration is installed
 5. If PV is Level
 6. If PV is Interface

Italics text indicates Method