

Operating Instructions Solid State Dual Switch UDS7-BX

Operation:


The pressure switch should be installed and operated only by authorized persons. After being switched on the UDS7-BX runs through a self-test. The device is menu operated and configured with three keys on the front. With the "M" key (= mode) you change between the dialog values and the adjusted/actual values. With the keys "▲" = up and "▼" = down you change between the dialog values in the menu or change the values/functions in the menus (see below: "List of functions"). If the dialog is not continued within two minutes the device automatically returns to the measuring mode. When the programming lock is entered, "LOCK" appears in the display when an attempt is made to change values.

Programming:

The setting menu is activated with the **mode** key. The dialog items are selected with the "▲" and "▼" keys. If the mode key is pressed again the corresponding value for the dialog item is shown and can be altered with the "▲" and "▼" keys. If the dialog with the unit is not continued within two minutes the device automatically returns to the measuring mode without accepting the new values. To terminate programming more quickly, you can switch back to the measuring mode (primary menu) from any item in the menu by pressing and holding the M-key for five seconds.

If the programming lock has been activated, the values can be shown, but no changes made, i.e. when Level 0 is active ("LOCK" appears in the display when an attempt is made to change values).

Agency Approvals:

CE 0081
 ISSeP 09 ATEX 034X
 II 2 G D
 Ex d IIC T6
 Ex tD A21 IP65 T80°C
 -40°C ≤ Tamb ≤ +60°C

Barksdale

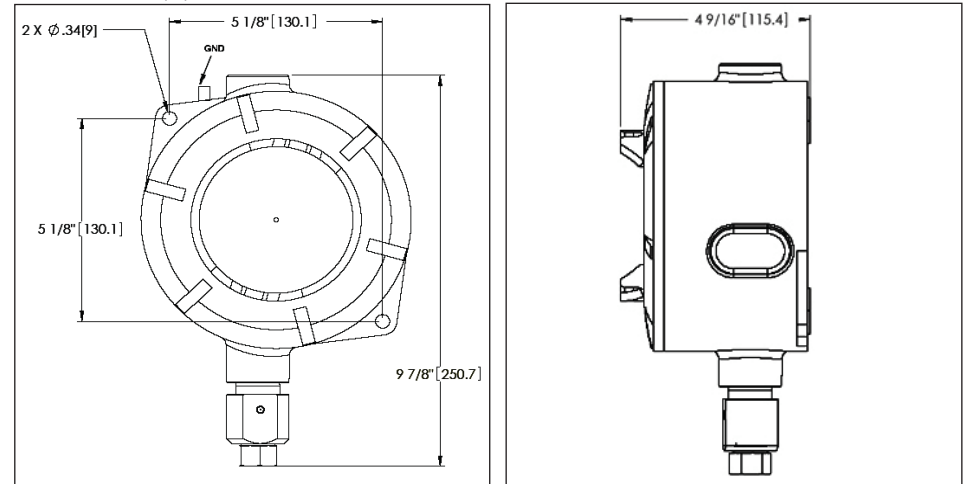
CONTROL PRODUCTS

Barksdale Inc.

3211 Fruitland Avenue
 Los Angeles, CA 90058-0843
 U.S.A.
 Phone: (323) 589 - 6181
 Fax: (323) 589 - 3463
 E-mail: sales@barksdale.com
 www.barksdale.com

See Barksdale's Standard Conditions of Sale • Specifications are subject to modification at any time
 Bulletin #272280 A • 07/09 • ©2009 • Printed in the U.S.A.

Dimensions (in) UDS7-BX



1. Product description

Intended Applications

- This dual pressure switch is a device to monitor system pressure and has up to two switching outputs and one analog output.
- This instrument should only be installed in systems where the maximum pressure (Pmax) is not exceeded, according to the values on the type label.
- **Attention:** This device is not designed to be used as the only safety relevant element in a pressurized system according to PED 97/23/EC.

2. Starting operations

Caution: To reduce the risk of ignition of hazardous atmospheres, disconnect the device from the supply circuit before opening. Keep assembly tightly closed when in operation.

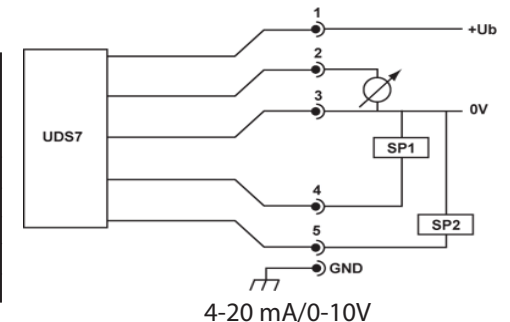
Only assemble or disassemble the device with no pressure applied!

Connecting the switch

- Mount the pressure switch from bottom to the fitting with a wrench and no more than 45 Nm torque.
- Electrical connection: 3/4" NPT female. Seal with certified junction box.
- Process connection: 1/4" NPT female (std).

Electrical connections

Terminal Connection	Description
6-Position	
Pin 1	Voltage (Ub): 15-28 VDC
Pin 2	Analog: 4-20 mA or 0-10 voltage
Pin 3	Common (-)
Pin 4	SP1: 0.4 A Max
Pin 5	SP2: 0.4 A Max
Pin 6	Internal Ground



List of functions:

(xxxx = 125% f. s.)

Dialog item	Value	Description
MENÜ	-1...9999	Primary display, e.g. the value selected in the DISP menu appears here
DISP	Display value which should be permanently in the display: act actual measured value sp1 switching point SP1 sp2 switching point SP2 max maximum peak value min minimum peak value
ACT.		-1...9999 Display of actual measured value in bar
UNIT	bar psi psi HPa mbar	Fixing the unit bar = bar The unit is shown in the display appr. psi x = psi x 10 every 30 sec. for appr. 5 sec. psi = psi HPa = Hekto-Pascal mbar = millibar
UND		Unit display "on" or "off"
SP.1	none switching output deactivated wind window technology stnd standard evaluation SP2 erro error output
ON-1 value	-1 ... xxxx	Switch-on point for SP1; if the ON value is smaller than the OFF the switching point evaluation is falling
OFF-1	-1 ... xxxx	Switch-off point for SP1
DLY1	0,0s...9,9s	Switch-on / switch-off delay for SP1 in seconds
INV-1	Inversion of switching output SP1 hlfs high-level-fail-save (normally open function) llfs low-level-fail-save (normally closed function)
SP.2	none switching output deactivated wind window technology stnd standard evaluation SP2 erro error output
ON-2	-1 ... xxxx	Switch-on point for SP2; if the ON value is smaller than the OFF value the switching point evaluation is falling
OFF-2	-1 ... xxxx	Switch-off point for SP2
DLY2	0,0s...9,9s	Switch-on / switch-off delay for SP2 in seconds
INV-2	-----	Inversion of switching output SP2 hlfs high-level-fail-save (normally open function) llfs low-level-fail-save (normally closed function)
MAX	-1 ... xxxx	Display of peak value
CLR.H	-----	Delete the maximum value memory ----- no deletion clr delete value

Dialog item	Value	Description
CDLY	0,0s...9,9s	Time setting to delete the maximum value memory after switching point SP1 is reached (manual deletion is still possible)
MIN	-1 ... xxxx	Display of peak value "Min"
CLRL	-----	Delete the minimum value memory ----- no deletion clr delete value
OFFS	-9,9 ...+xx	Measured value offset in bar
CUT	0,0 ... +xx	Cut-off. e.g. signal suppression at measuring range start in bar
DLDS	0,0 ... 9,9s	Time delay for currently displayed value in seconds
ERRC	-----	Error messages: 0: -ok- no error 1: max exceeding pos. measuring range 2: min exceeding neg. measuring range 3: dig1 switching output 1 error 4: dig2 switching output 2 error 5: anao analog output error 6: sens sensor error 7: data data error (EEProm) 8: prog program error 9: cal calibration error
V7.X	Lev0...Lev2	Programming lock indication (see code) Version display with actual input level: 0 : only display of operating parameters, no changes possible 1 : only switching points can be set ("max" and "min" memories) 2 : release user level (all operating parameters for customer)
LITH	20 ... 100	Change display brightness 20...100% (only for units with Dot-Matrix display)
AOZS	0 ... 9999	Scale the analog output - start value (e. g. 0 bar = 4 mA)
AOFS	0 ... 9999	Scale the analog output - end value (e. g. 400 bar = 20 mA) (output signal start value always corresponds to the display initial value, e. g. 0 bar = 4mA) Maximum turn-down 4 : 1, i.e. at values below 25 % of the measuring range the analog output is switched off
CODE	000...999	Security Sequence Lev1: 471 Allow to change switching point parameters only Lev2: 740 Able to reconfigure all allowable parameters Lev0: 999 All parameters will be lock
OPT (onlyV7.X)	-----	For internal use only