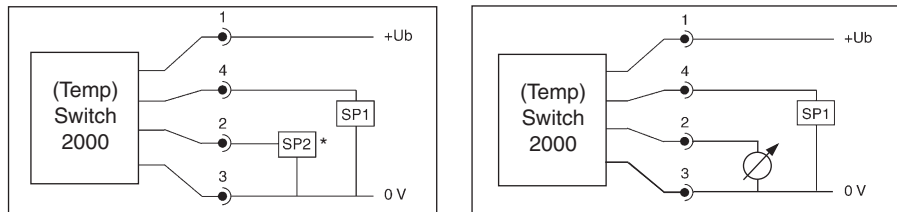


Electrical connections (scheme)



* SP2 = Diagnosis output (DESINA®-version)

Operation:

The pressure switch should be installed and operated only by authorized persons. After being switched on the Switch 2000 / TempSwitch 2000 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 software 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 holding the "M"-key pressed for five seconds.

If the key lock has been activated, the values can be shown, but no changes made. ("LOH" appears in the display when an attempt is made to change values). The key lock is activated by pressing the "↑" and "↓" keys simultaneously for at least five seconds. Press again to deactivate the key lock again.

DESINA conformity:

When the switch operates in systems according to DESINA standard, switching point SP2 has to be programmed as monitoring function: Enter the value **Err** (error output) in programming step **SP2** and the value **LFS** (normally closed function) in programming step **W2**. In case of error identification (see **Err** menu) a diagnosis signal is automatically actuated on the alarm display on the front panel and on switching point SP2 (pin 2).

Barksdale
CONTROL PRODUCTS

Art.-Nr.: 923-1092 / Index G, 01. 10. 2005
Software version: V 2.1 and higher
Specifications are subject
to changes without notice.

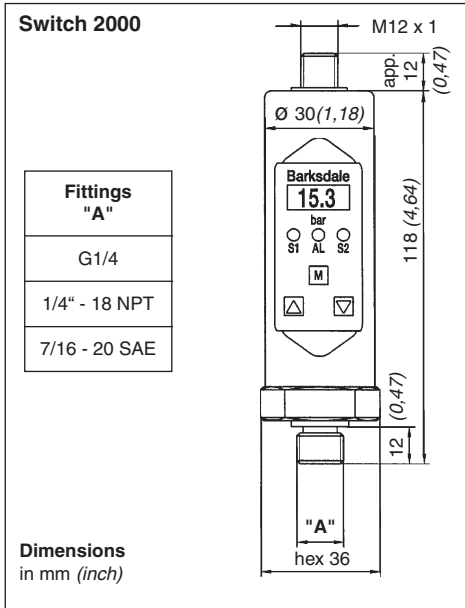
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Operating Instructions Dual Pressure Switch Switch 2000 and Dual Temperature Switch TempSwitch 2000



1. Product description

Intended Applications

- The dual pressure switch monitors system pressures and has up to two switching outputs and one analog output.
- The dual temperature switch monitors media temperature into which the probe is immersed and has up to two switching outputs and one analog output.
- According to DESINA® standard.
- The instruments must only be installed in systems where the maximum pressure Pmax or the maximum temperature Tmax is not exceeded (according to the values on the type label).
- (only TempSwitch 2000) when the rotatable display is adjusted the switch has to be fixed with the allen screw at the front side with a 3 Nm torque (allen key 1,5 mm).
- **Attention:** This device is not designed to be used as the only safety relevant element in pressurized systems according PED 97/23/RC.

2. Starting operations

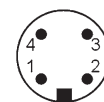
Only install or uninstall the device when depressurized!

Connecting the switch

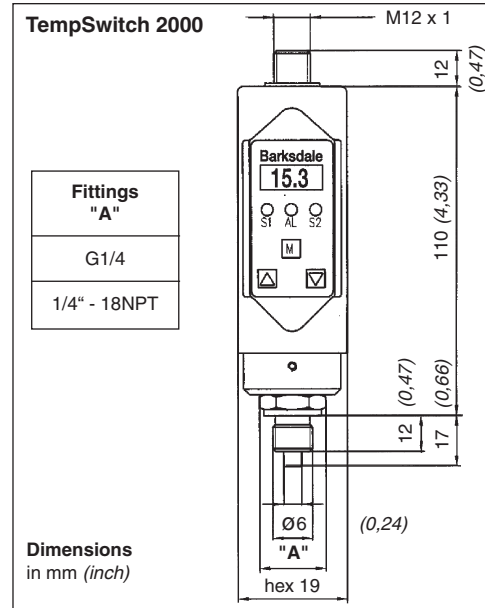
- Mount the pressure switch from bottom to the fitting with a wrench hex 36 (1/4") resp. 19 with 45 Nm torque.
- Electrical connection depends on the type of pressure switch (see type label) according to the chart below.

Electrical connections

Plug 4-pin,
M12 x 1



Plug M 12 x 1, 4-pin	Model with 1 switching output	Model with 2 switching outputs (DESINA®)	Model with 1 switching output and 1 analog output
Pin 1	+Ub (15...32 V DC)	+Ub (15...32 V DC)	+Ub (15...32 V DC)
Pin 2	-	SP2 (0,5 A max.)	analog
Pin 3	0 V	0 V	0 V
Pin 4	SP1 (0,5 A max.)	SP1 (0,5 A max.)	SP1 (0,5 A max.)



Dimensions

in mm (inch)

List of functions: Switch 2000

Dialog item	Value	Description
Act	0...400	Display of the actually measured value
SI	...	Select the display unit Switch 2000 TempSwitch 2000 nbr = mbar PSH = psi x 10 hPo = hPa oC = °Celsius bor = bar PSI = psi nPo = mPa oF = °Fahrenheit
Und		Activation unit display on = unit display on (every 30 sec) off = no unit display
SP1	...	win = window technology Err = error output Std = standard evaluation
on1	0...xxx	Switch-on point for SP1; if the ON value is smaller than the OFF value the switching point evaluation is falling
off1	0...xxx	Switch-off point for SP1
dS1	0,0 s...9,9 s	Switch-on delay for SP1 in seconds
dr1	0,0 s...9,9 s	Switch-off delay for SP1 in seconds
lu1	...	Inversion of switching output SP1 HFS = high-level-fail-save (normally open function) LFS = low-level-fail-save (normally closed function)
Only models with 2nd switching contact:		
SP2		win = window technology Err = error output Std = standard evaluation
on2	0...xxx	Switch-on point for SP2; if the ON value is smaller than the OFF value the switching point evaluation is falling
off2	0...xxx	Switch-off point for SP2
dS2	0,0 s...9,9 s	Switch-on delay for SP2 in seconds
dr2	0,0 s...9,9 s	Switch-off delay for SP2 in seconds
lu2	...	Inversion of switching output SP2 HFS = high-level-fail-save (normally open function) LFS = low-level-fail-save (normally closed function)

List of functions: Switch 2000

Dialog item	Value	Description
Only models with analog output:		
RO2	0...xxx	Scale the analog output - start value (e. g. 0 bar = 4 mA)
ROF	0...xxx	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
Only models with 2nd switching contact:		
nRH	0...xxx	Display of peak value „Max“ (xxxx: = max. 125 % f. s.)
CLR	...	Delete the maximum value memory no = no deletion YES = delete value
Err		Error display: OK = no error nRH = exceeding pos. meas. range nIn = exceeding pos. meas. range SEn = sensor error SP1 = error switching output 1 SP2 = error switching output 2 dAt = data error (EEProm) PrG = program error CRl = calibration error oNo = error analog out
Note: When changing units from psi to bar or bar to psi, the switching point values must be changed accordingly.		