

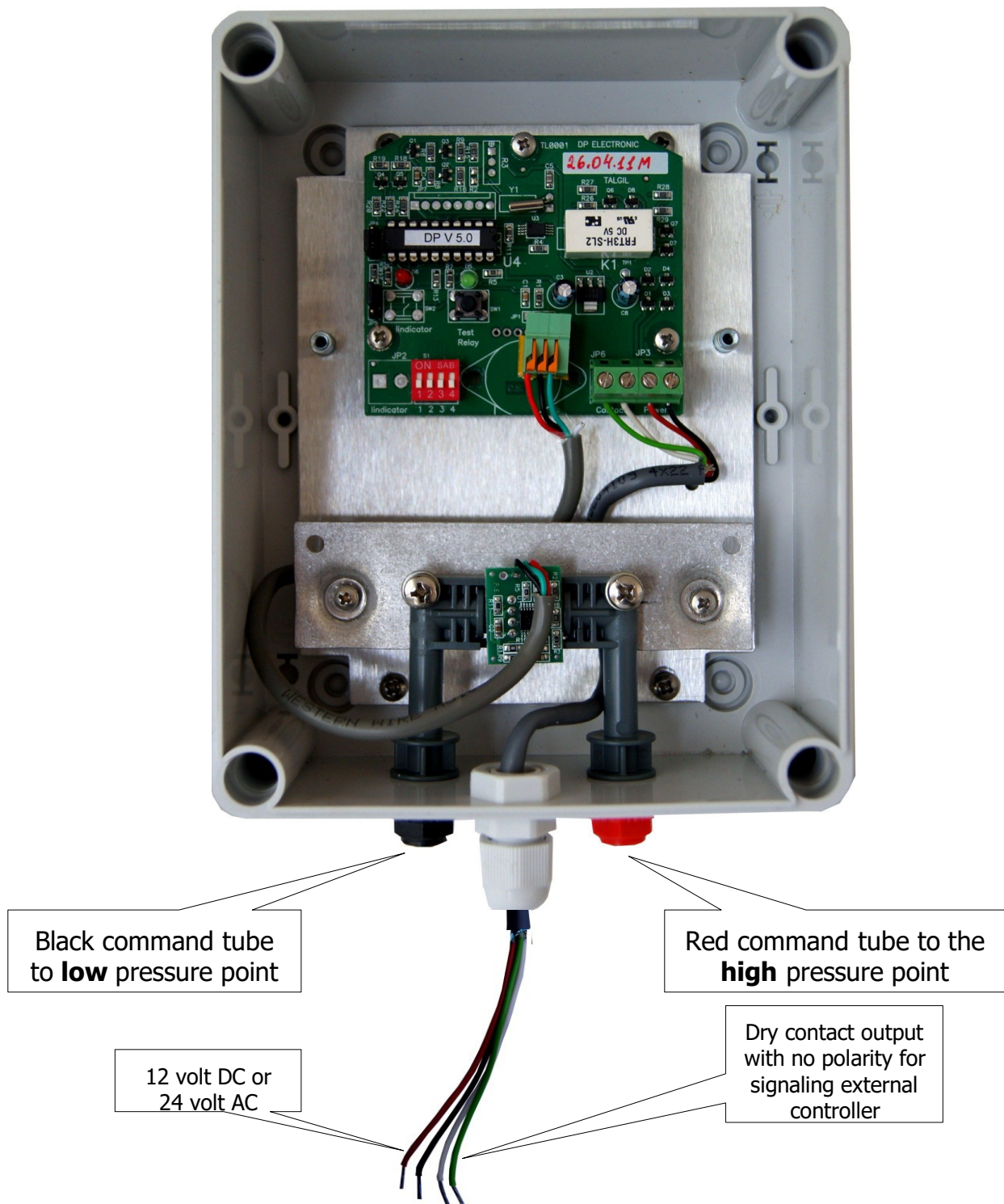


PRESSURE SENSOR [DP] USER GUIDE



Goldtec Control Systems Pty Ltd
Email: info@goldtecsystems.com.au
Web: www.goldtecsystems.com.au

The digital differential pressure sensor DP measures the pressure difference between two points and when the difference exceeds a predefined set-point it reacts by closing a dry contact output. The unit is meant to be used with backflushing systems of automatic filters, it is highly accurate and low power consuming.



Starting Up

The electronic board contains 4 dip-switches (S1) which serve for starting up the system and selecting the reaction setpoint. When all the 4 switches are in OFF position (pointing down) the unit is not active. When there is at least one switch ON (pointing up) the unit is active. The active state is indicated by the blinking of the red LED, a short blink each 5 seconds.

Reaction set-point setting

The state of the 4 dip-switches S1 defines the pressure difference at which the unit will react by closing its dry contact output, this point is known as the reaction set-point. As long as the pressure difference stays above the defined set point the contact remains closed. The following table shows the connection between the position of S1 and the pressure difference associated with each setting,

Position No.	S1 (1-ON ; 0-OFF) 1 2 3 4	Reaction pressure difference	
		Atm.	psi
00	0 0 0 0	The unit is not active	
00	1 0 0 0	0.1	2
02	0 1 0 0	0.3	4
00	1 1 0 0	0.4	6
04	0 0 1 0	0.5	8
00	1 0 1 0	0.7	00
06	0 1 1 0	0.8	02
00	1 1 1 0	1.0	04
08	0 0 0 1	1.1	06
00	1 0 0 1	1.2	08
00	0 1 0 1	1.4	20
00	1 1 0 1	1.5	22
02	0 0 1 1	1.6	24
00	1 0 1 1	1.8	26
04	0 1 1 1	1.9	28
00	1 1 1 1	2.0	00

The red LED indications

The LED behavior	Indicated state
The LED is OFF	The unit is not active
A short blink every 5 seconds	Normal operation & battery level above 9.5 v
3 fast blinks every 5 seconds	Operating with low battery, less than 9 v

Testing the dry contact operation

The electronic board contains a “test switch” that when pushed will cause the dry contact to be closed for 5 seconds. As usually, the closing of the contact will be indicated by lighting the green LED.

Remarks

- For energy saving purposes the pressure difference is checked every 15 seconds. Then 16 samples are taken continuously, the average of these samples is considered as the current pressure difference reading.
- For energy saving purposes the position of JP4 can be changed so that the middle pin will be connected to the upper pin (instead of to the lower pin). As a result of this, the LED indications will be stopped.
- The user is not permitted to touch any of the jumpers except for JP4 ! Any change in the position of the jumpers may disturb the operation of the unit. The correct jumpers setting is as shown in the picture above.
- When the battery voltage drops below 6.5 volts the dry contact is opened regardless of the pressure difference and the unit turns itself OFF.
- Optionally a display can be added to the unit in order to add the ability to see the currently measured pressure difference.



GOLDTEC

CONTROL SYSTEMS



Website: <https://goldtecsystems.com.au/>



Facebook: @Goldtec Control Systems



LinkedIn: @Goldtec Control Systems

