Backwash Controller
with integrated differential pressure switch
(solenoids 24V)
TIC DP24

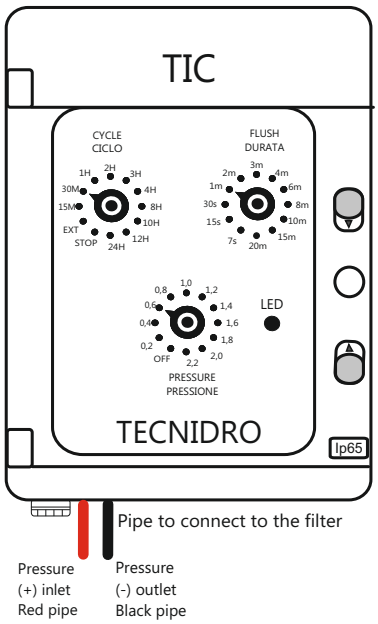
TECNIDRO

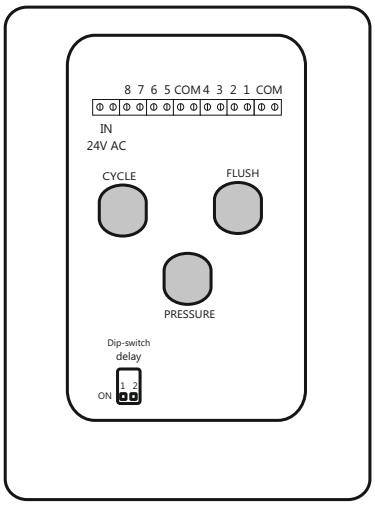
Backwash Controller -TIC DP

Backwash Controller TIC-DP24

TIC-DP24 Controller is a backwash system for filters from 1 up to 8 stations, powered by 24V AC or 220V AC with power transformer (not included).

TIC-DP24 Controller works with 24 V AC solenoids.
The controller is regulated by two commutators, CYCLE and FLUSH with a third option which determines the pressure differential, commutator PRESSURE.



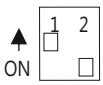


Test of start controller

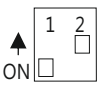
TIC-DP24 Controller allows to develop all the functions using only two commutators (CYCLE and FLUSH) with a third option (PRESSURE) always positioned on the central panel.
The commutator CYCLE defines the interval between a washing and the next.
The commutator FLUSH defines the flushing time.
The commutator PRESSURE defines the delta p (pitch of 0,2 bar) between inlet and outlet that allows the system to start the flushing.
Connect each solenoid wire into the special connectors, the first wire of each solenoid in the connectors named 1, 2, 3, 4, 5, 6, 7, 8 and the second wire in the COM connectors for closing the circuit.
When powered the red led lights 4 times.
After few seconds the controller will start a positioning test for all the solenoids and the places them in their normal position.
The delay between the valves openings and closings is setted by means dip-switches located on the master card inside the controller.

Setting flushing delays

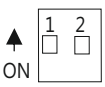
Delay 0 sec.



Delay 15 sec.



Delay 30 sec.



Delay 45 sec.

TECNIDRO S.r.l. - APPARECCHIATURE E SISTEMI PER L'INTERCETTAZIONE ED IL CONTROLLO DI ELEMENTI FLUIDI
Sede legale, uffici e magazzino: Via Girolamo Gastaldi 26/F - 16163 Genova (Italy) - Tel. +39-010-6017016 - Fax. +39-010-6016021
Capitale Soc. 119.000 €. - Iscr. C.C.I.A. 300268 - Iscr. Trib. GE 47165 Fasc. 65413 - Cod. Fisc. e P.IVA 02843850104

Test with Cycle and Flush

Position the CYCLE commutator on Stop position.

1) Holding the CYCLE commutator on Stop position, set the FLUSH commutator, the washing time, from 7 seconds up to 20 minutes.
2) Then set the CYCLE commutator, in available time intervals from 15 minutes to 24 hours.

After having selected the CYCLE the controller will start with the first backwash.
Once fixed the FLUSH and the CYCLE, to change the settings just move the commutators in the panel.
Each time you change the setting of one of these two commutators, the controller will start immediately a new flushing following the new CYCLE and FLUSH settings.
The delay between the valve opening and closing, as already mentioned previously, it is setted by a dip switch inside the master card.

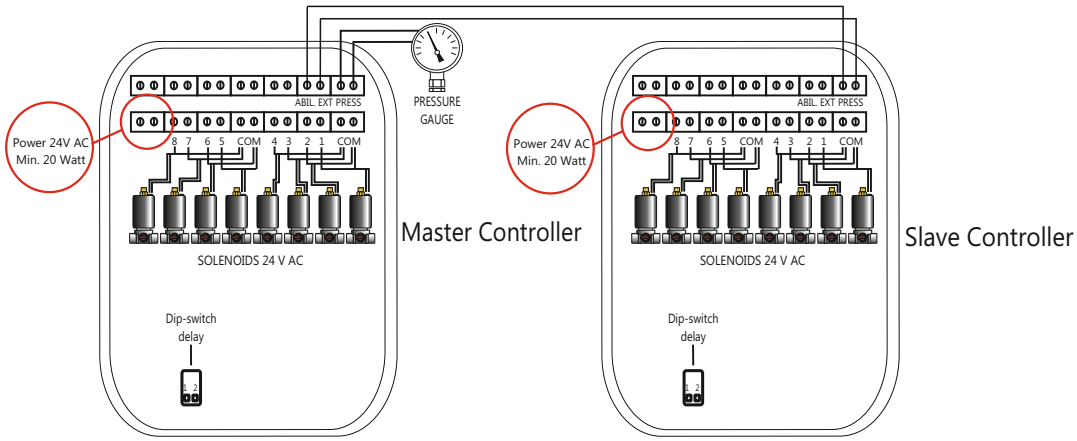
Flashing led informations

During the waiting between filter washing there is a flash every 4 seconds.
During the washing caused by a temporal expiration there is a fast flash every second.
In case of flushing caused by a differential pressure bigger than the setted ones, the led flashes quickly two times for the whole backwashing period.
The system can indifferently be used with external or internal differential pressure switch.
The sisten can also be used to read the grade of pressure loss of the filter. In order to execute this task, select the commuator CYCLE and put in Stop position and then move the commutator PRESSURE; each time this commutator is moved the differential pressure is checked.
If the delta p is bigger the led remains turned on, if lower, the led shortly flashes (15 seconds).
Expired the measuring time, the led will be switched off.
After setting back the PRESSURE commutator to the desired value, reset the normal flushing condition by fixing CYCLE and FLUSH commutators following the previous instructions.

Controller in sequence

If you want more Backwash Controllers in sequence, you can connect the first unit (MASTER) to a second unit (SLAVE) through two electric wires.
Connect the wires into the connector ABIL. EXT for the first controller and in connector PRESS. for the second controller as showed in the picture in the next page (Is mandatory that the polarity is mantained).
In this way is possible to connect as many SLAVE controllers as you need.
The washing will be managed by the first controller (MASTER).
Once the washing of the first unit (MASTER) is finished it will send a signal to the second unit (SLAVE) through the electrical connection (polarity must be observed).
After few seconds, the second unit will make its own backwash.
The CYCLE is setted by the first unit (MASTER), while the time FLUSH is setted each unit individually (SLAVE).

Controller in sequence connections:



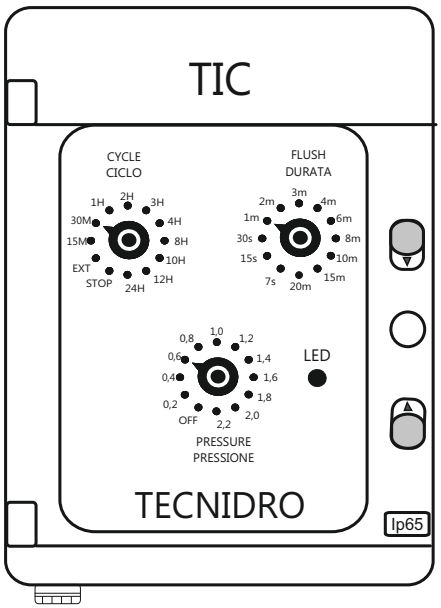
Technichal Features:

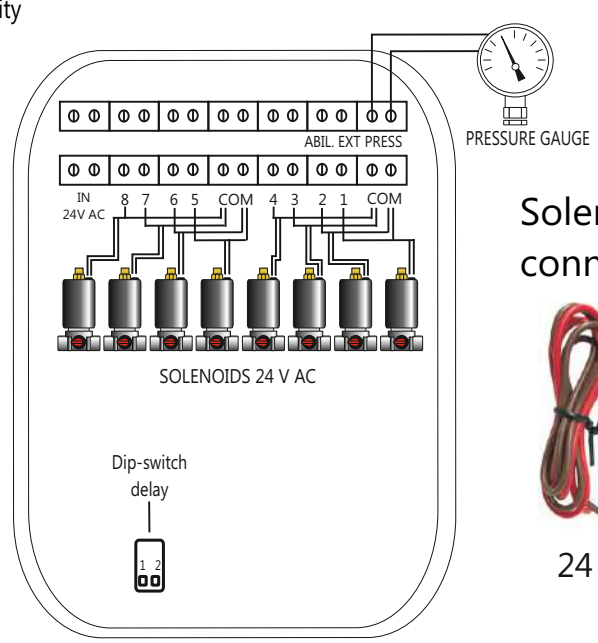
Housing **:**	Box Ip65
Power Supply :	24 V AC, Minimum 20 W
Output :	1 to 8 stations + n° 1 slave controller
Washing Time (FLUSH):	7-15-30 sec. – 1-2-3-4-6-8-10-15-20 min.
Waiting Time (CYCLE) :	15-30 min. – 1-2-3-4-8-10-12-24 h.
Internal pressure switch (PRESSURE) :	Delta p 0,2-0,4-0,8-1,0-1,2-1,4-1,8-2,0-2,2. Bar
Waiting time between closing and opening valves:	With dip switch (0, 15, 30, 45 sec.).
Starts :	Manually - Periodic - Periodic with pressure switch priority

Connessioni interne:

1-2-3-4-5-6-7-8

-COM :	Filter Stations with 24V AC solenoids
Press:	Esternal differencial pressure switch (on single or Master controller)
IN 24V AC:	External power
Press:	Slave controller in sequence (on SLAVE controller)
Abil ext:	Master Controller





Solenoid to be connected:

24 V AC