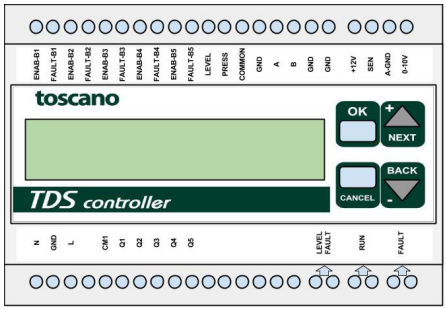
toscano

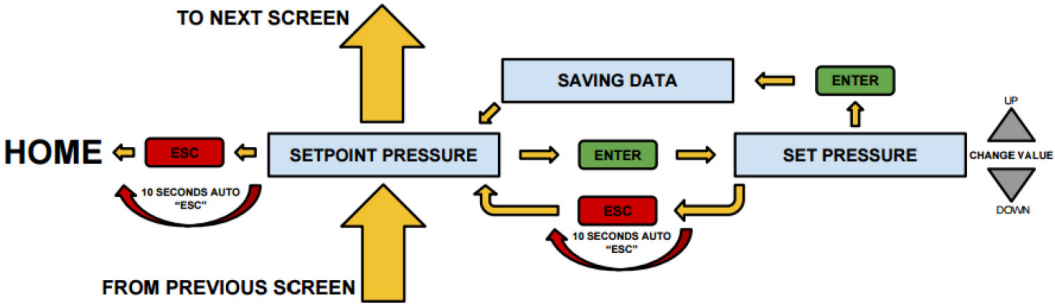
TDS Controller

Alternating relay for booster sets with variable frequency drive (one drive per pump)

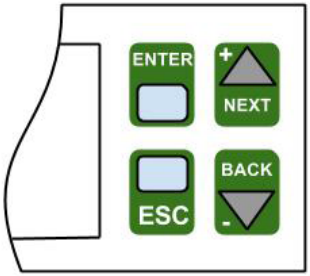
- Up to 5 pumps with auto rotation, one drive per pump, for use in both booster set or HVAC.
- Compact device.
- Simple set menu (only 11 steps).
- DIN rail mounting or with screws into cabinet.
- Width 125mm (7 modules).
- It has two terminal blocks:
  a. Upper: digital inputs wiring, 4-20mA analog input, and 0-10V isolated analog output.
  b. Bottom: 230V AC supply input and output connections for drives, plus three ordinary signals (level fault, at least one pump running and control fault).
- On the main screen the persistent failures are displayed, and will remain in memory even if the cause of the failure has disappeared.



Setting example



Menu





-START
-ENTER



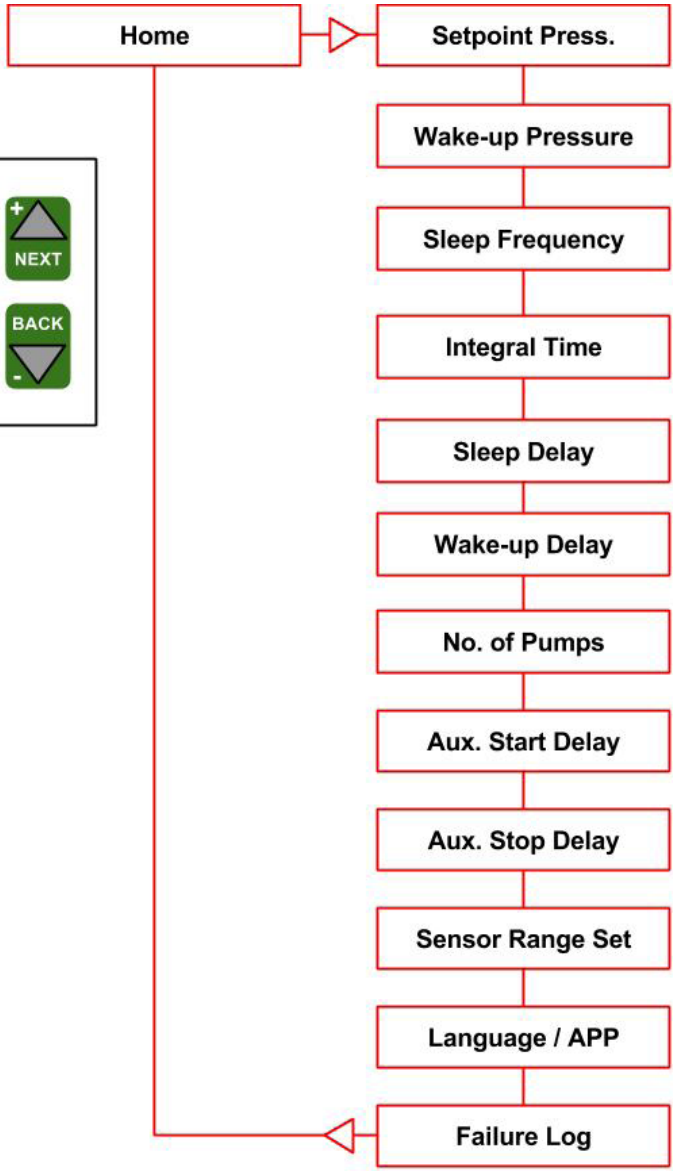
-STOP
-ESCAPE



-NEXT
-UP



-BACK
-DOWN



Menu description and configuration

- **Home**:

Home screen where the current device state (AUTO or OFF), the current sensor pressure and the number of running pumps are displayed.

- **Setpoint Press.**:

Screen for setting the pressure setpoint that we want to keep.

- **Wake-up Pressure**:

Screen for setting the pressure under which the controller must awaken from its hibernation or sleep state.

- **Sleep Frequency (% of sleep frequency)**:

Setting as % of the frequency below which the drive must go into hibernation or sleep mode. For an easy and quick setting in this screen, the set value and the real-time value are displayed.

- **Integral Time**:

Setting of the controller response time to sensor pressure changes.

- **Sleep Delay**:

Setting of controller delay in going into hibernation or sleep mode.

- **Wake-up Delay**:

Setting of the controller delay in waking-up from hibernation, once the pressure has fallen below the minimum pressure value.

- **No. of Pumps**:

Number of pumps installed in the system, up to a maximum of 5.

- **Aux. Start Delay**:

Delay for starting the auxiliary pumps.

- **Aux. Stop Delay**:

Delay for stopping the auxiliary pumps.

- **Sensor Range Set**:

Setting of the 4-20mA sensor range: 6, 10, 16, 20, 25, 40 bar or meters of water column (m w.c.), by application (booster set or HVAC).

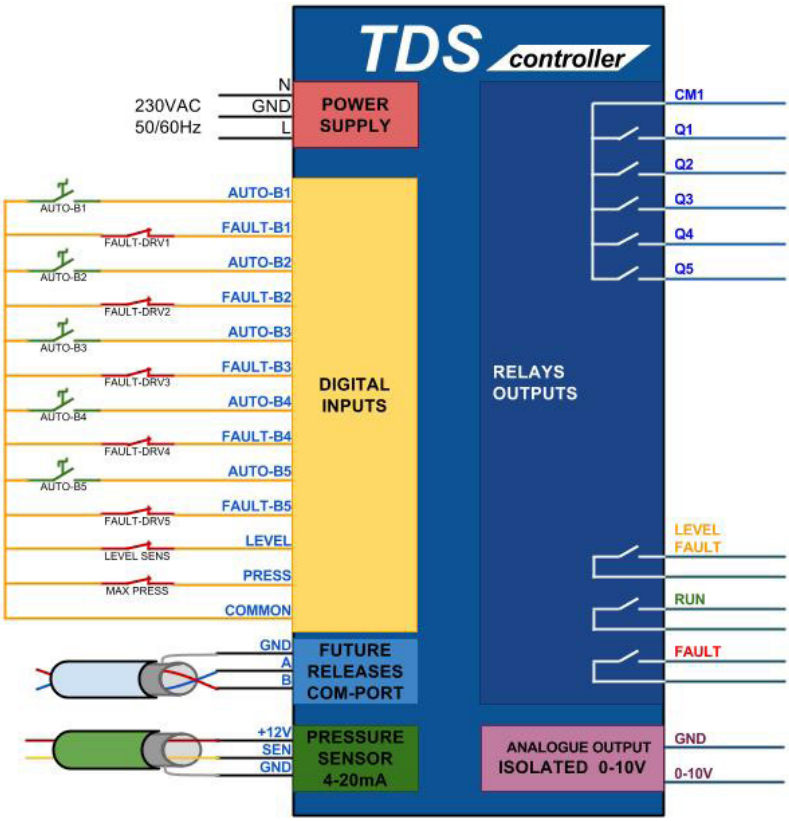
- **Language / APP**:

Language selection for both home and setup screens (currently in Spanish, English and French). It also selects whether the controller manages a booster set or HVAC.

- **Failure Log**:

Failure log for the operation failures. This log is not cleared until the user do it manually.

Wiring



Running signals to drives

Parallel wiring to all drives

Specifications

Supply voltage	110...240V AC - 50/60Hz
Consumption	5W
Relay outputs	5A - 30V DC / 5A - 250V AC
Digital inputs control voltage	12V DC
Pressure sensor supply output	12V DC
Main supply protection	Through built-in resistive fuses
Power suply isolation	1500V AC
Mounting	DIN rail / Front
Size / Weight / IP / Temperature	124x89x55mm / 320g / IP20 / -10º...+60º C