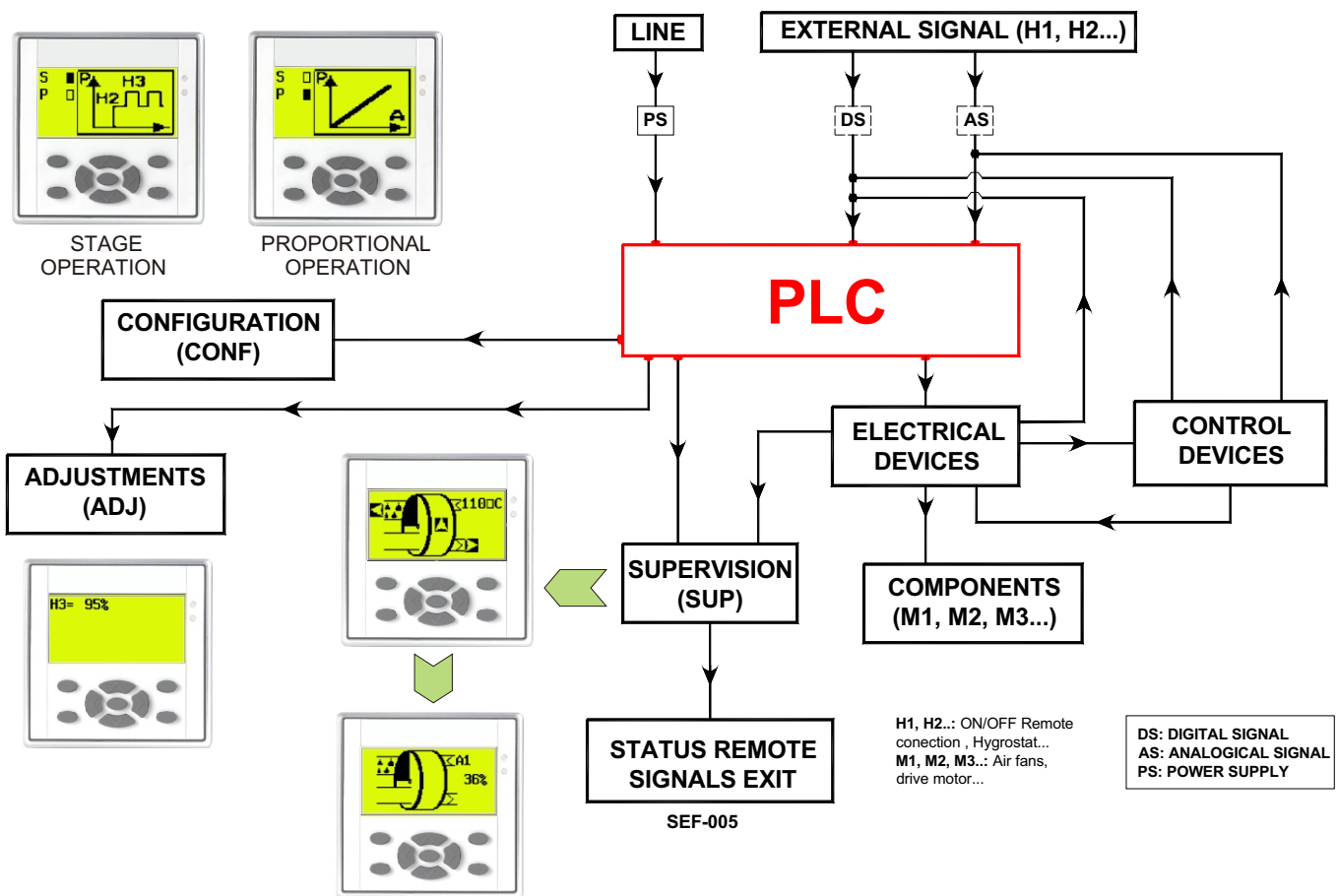




Air Humidity Control

MICROPROCESSOR PLC MFD-TITAN



FISAIR air desiccant dehumidifiers DFRA series are assembled with two air fans and one desiccant wheel driving motor as mobile components. As static components of variable operation they have an electric resistances air heater, two air filters and two air dampers for the air flow regulation. The operative control of these components in order to achieve the desired unit performance and machine security / protection is made, traditionally, with electro-mechanical components as relays, thermostats, switches, etc.

The integration in the operative management and supervision of the logic programmable relay (PLC) MFD-TITAN obtains a faster, preciser, trustworthy and simpler operation of the dehumidifier. Furthermore, it reduces the electrical box components.

MICROPROCESSOR PLC MFD-TITAN

GENERAL DATA

The electronic controller has an LCD screen self lighted and monochromatic of 62x32 mm, a navigation keypad and (for the FISAIR basic configuration) up to 4 analogical + 20 digital inputs; for the output it is able to give 10 digital and 1 analogical signals which correctly programmed to the dehumidifier operation, make possible the following functions:

MFD-TITAN FUNCTIONS

1) Operative functions:

- Air fans on/off
- Desiccant wheel driving motor on/off
- Two or more stages / proportional (by static relay -SSR-) regulation of electrical resistances heater.

2) Measuring and supervising:

- Unit diagram on the screen, showing components operation.
- Proportional operation supervising display.
- Reactivation air temperature.
- Rotor turning.
- Minimum reactivation air flow.
- Static relay (SSR) temperature, if assembled.

3) Securities and alarms:

- Double thermostatic reactivation temperature security.
- Self-timer for turning-off wet air fan and driving motor, for unit cooling.
- Alarm and auto-stop for over temperature on reactivation.
- Alarm and auto-stop for lack of air flow on reactivation.
- Alarm and auto-stop for lack of desiccant wheel turning.
- Alarm and auto-stop for any motor thermal protection shot.
- Alarm and auto-stop for resistances electric protection shot.
- Heater stop for SSR over temperature.

4) Extra ancillary functions:

- Analogical control of the pre / post cooling coil water control valve actuator.
- Digital proportional control (pulse modulation) or on/off control for a second cooling coil.
- Digital proportional control (pulse modulation) or on/off control for a third heating coil.

Remark: For these functions, an analogical signal is requested, or alternately integrate to the PLC the corresponding and compatible sensors.

PLC FOR THE UNITS WITH STEAM HEATER (OPTIONAL)

Above comments are valid, but the ones related with the electric heater and its securities. Also, consider that the steam control valve should be consider as another control, as the SSR is changed for this valve actuator.



FISAIR, S.L.
Uranio,20 - Pl. AIMAYR
28330 San Martin de la Vega
MADRID (SPAIN)
☎ +34-91 692 15 14 - 📠 +34-91 691 64 56
e-mail : info@fisair.com
www.fisair.com

DISTRIBUTOR :

AB KLIMATIZACE®

AB Klimatizace, s.r.o., Bráfova 9a, 616 00 Brno
tel.: 541 215 445, 737 285 067 fax: 541 240 799
www.abklimatizace.cz obchod@abklimatizace.cz