



LogikaControl

We know how

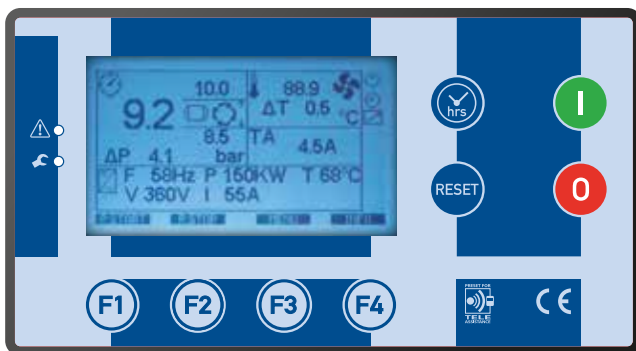
LOGIK 31-S  
LOGIK 33-S

## Electronic Controller Logik 31-S / Logik 33-S

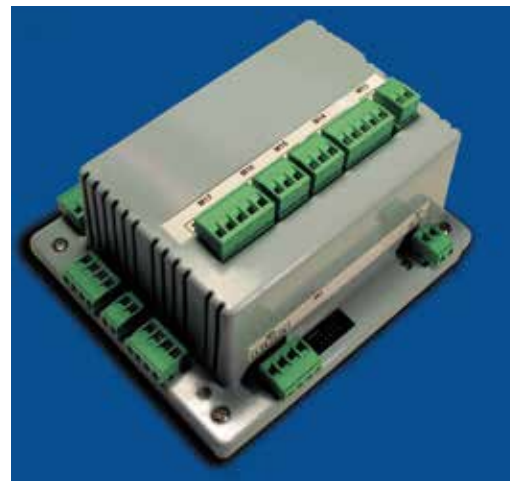
Logik 31-S and Logik 33-S are industrial electronic control devices developed for the optimal management of big size screw compressors both ON/OFF and Drive (Inverter) technology. Thanks to the modular hardware configuration, Logik 31-S and Logik 33-S offer a dedicated controller for every type of application.

Logik 31-S and Logik 33-S are equipped with serial port RS485 for the connection to other Logik controllers equipped with serial port for Multiunit operation.

Control panel visualization through graphic back-light LCD (128 x 240 dots)



CPU



**Logik 31-S**  
CPU BASE

Suitable for screw compressors equipped with two pressure transducers and two temperature probes. Programming of three working cycles/day for a week through time-keeper with buffer battery.

**Logik 33-S**  
CPU BASE + DRIVE BOARD

Suitable for inverter (drive) screw compressors: drive control via serial port RS232 or RS485 (ask Logika Control for available models) and/or via I/O, equipped with two pressure transducers and two temperature probes. Programming of three working cycles/day for a week through time-keeper with buffer battery.



LogikaControl

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- Conformity to EC regulation
- Grey auto-extinguishing box in ABS:  
IP64 for the control panel;  
CPU to assemble into the electrical board
- Inputs and outputs via terminal-block board to wires.
- Working temperature: 0°C (32°F) ÷ 55°C (131°F) with 90% RH (non condensing).
- Storage temperature: -20°C (-4°F) ÷ 70°C (158°F).
- Visualization through graphic back-light LCD (128 x 240 dots)
- Messages selectable into 9 languages: Italian – English – French – German – Spanish – Portuguese – Turkish – Russian – Polish.
- nr. 2 leds
- nr. 8 key-buttons
- nr. 2 serial ports RS 232:
  - nr.1 for connection to CPU
  - nr.1 available for future development

#### CPU BASE

- Power supply: 12Vac ± 10% 50÷60Hz.
- Nr. 2 serial ports:
  - a) RS232 for connection to control panel
  - b) RS485 for Multiunit operation (max. 4 units).
- nr. 1 time-keeper with buffer battery
- nr. 4 analog inputs:
  - oil temperature probe
  - auxiliary temperature probe settable via software into:  
temperature drop or absolute temperature
  - working pressure transducer
  - auxiliary pressure transducer settable via software into:  
pressure drop or absolute pressure
- nr. 3 digital inputs to Logika control phases unit
- nr. 1 input to PTC or Klicson for motor protection
- nr. 6 opto isolated digital inputs 12-24 Vac to detect:
  - IN 1 = emergency stop button
  - IN 2 = thermal motor
  - IN 3 = thermal fan
  - IN 4 = remote start/stop
  - IN 5 = settable via software into: door electrical cabinet open
  - control phase relay - air filter pressure switch
  - IN 6 = separator filter pressure switch
- nr. 7 outputs via relay with contact 1.5A max. (general use):
  - RL1 = line contactor
  - RL2 = delta contactor
  - RL3 = star contactor
  - RL4 = load solenoid valve
  - RL5 = fan contactor
  - RL6 = condensate drain solenoid valve or compressor status
  - RL7 = alarm
- Check min. and max. power supply to CPU
- The controller switches OFF due to micro interruption longer than ~ 300 ms

#### DRIVE BOARD (INVERTER)

Power supply: 24Vdc ± 10% from inverter

Connection to drive via:

- a) "I/O": all Drives supported; the display does not visualize data from inverter
- b) "Serial port RS232 / 485"; the display visualizes the data from inverter

#### I/O CONNECTION

- nr. 1 digital input = detection inverter failure
- nr. 2 outputs via transistor:
  - OUT 1 = inverter run
  - OUT 2 = inverter run fixed frequency
- nr. 1 analog input 0÷10V and/or 4÷20mA = detection inverter working frequency
- nr. 2 analog outputs :
  - AN.1 = 4÷20mA and/or AN.1= 0÷10V = communication of the working pressure
  - AN.2= 0÷10V = communication of working set

#### SERIAL CONNECTION

- nr. 1 RS232 for inverter operation (see DRIVE manual for communication protocol supported)
- nr. 1 RS485 for inverter operation (see DRIVE manual for communication protocol supported)
- nr. 1 digital input a 24 V dc = detection inverter failure

#### ACCESSORIES:

- nr. 1 or 2 temperature probes KTY TPE black cable, length 2.5 m, working range -10 ÷ 130°C, resolution 1°C, accuracy ± 1°C.
- nr. 1 Logika control phases unit
  - for power supply 230V three phase
  - for power supply 380 ÷ 400V three phase
  - for power supply 440 ÷ 460V three phase
- nr. or 2 pressure transducers 4÷20 m.A. 2 wires, stainless steel membrane AISI 316L, working range 0 ÷ 15 bar, resolution 0,1bar, accuracy ± 0,1bar.

