



Caution: « pH » MODUPAC built-in only 2 relays outputs and 2 analogues outputs. Functions of each output must be defined during the programming task. All the possibilities of module could not be used until all outputs are affected.

c) Programming protocols:



See the annex document: « MODUPAC pH programming synoptic»



Caution: Repairs must be done by a qualified technician and must be sent in our customer service.



Recycled products: Paper and carton boxes must be recycled according to standards.



WEEE directives: Electricals parts must be forwarded us to perform recycling process according to 2002/96/CE European directives and to the management of the electric and electronic wastes (WEEE).

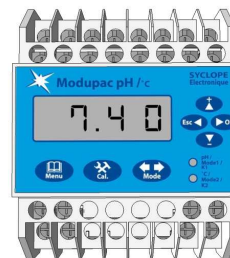


In case of troubles, call our customer service.

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 Subject to modifications.

MODUPAC (pH) 4...20mA pH acquisitions Module for standard DIN 4U rails



Power supply: 24 Volts DC Power: 3Watts max with « Power » module
Input 1: 4...20mA PH according to measurement cell type.
 Measurement ranges: 0 to 14 pH and -1 to 15 pH
Input 2: pT100 temperature probe
 Measurement range: 0 to 100°C (For other values contact us)
 2 programmable discrete relays outputs Max: 48V@1A
 2 programmable analogues outputs (Regulations or data transfer "BMS")
 1 RS485 communication output connection with « COMT » module
 1 discrete input for distant remote or flow sensor.



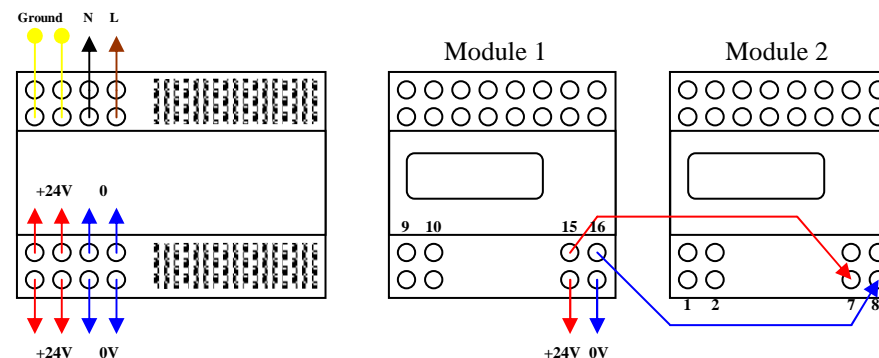
Note: It is essential to use 24V DC 1,5 A MODUPAC "Power" module in order to insure the correct operation of "pH" module and to preserve the galvanic isolation of the equipments.

1: Connecting / Supplies:

a) 230Volts 50Hz and 24Volts DC chain supplies connecting.



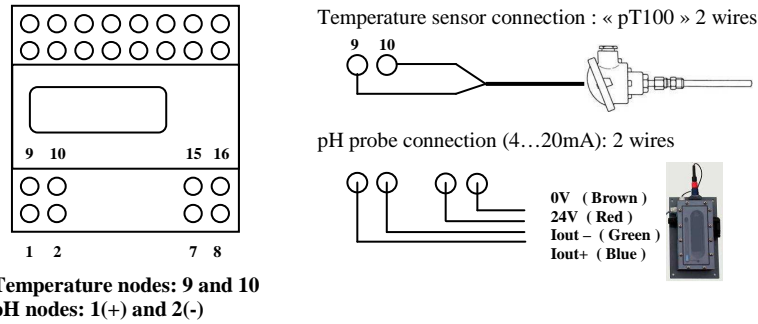
Caution: « MODUPAC Power » power module must be installed according to applicable standards. It must be protect by a thermal circuit breaker or a fuse.



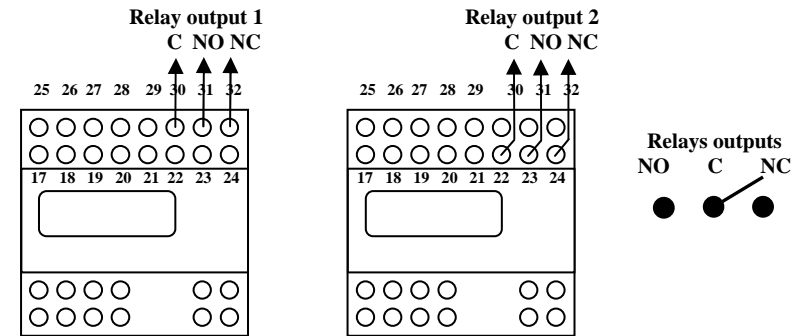
Maximal number of modules chained with « MODUPAC Power » module is finding out by maximal consumption of each acquisition module.

Ex: Power supply MODUPAC « Power » Ref: **MAL0000**: 30W
 Maximal power of MODUPAC « pH » 3W
 Maximal number of module by supply: **10**

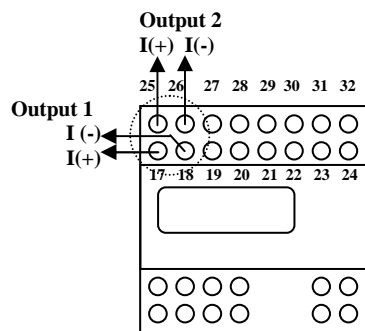
b) (Optional) Temperature sensor and pH cells connection.



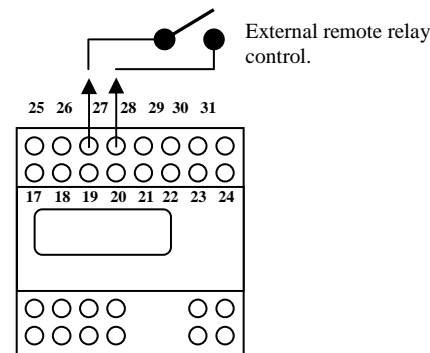
e) Relays outputs connection:



c) 0/4...20mA analogues outputs connection and.....

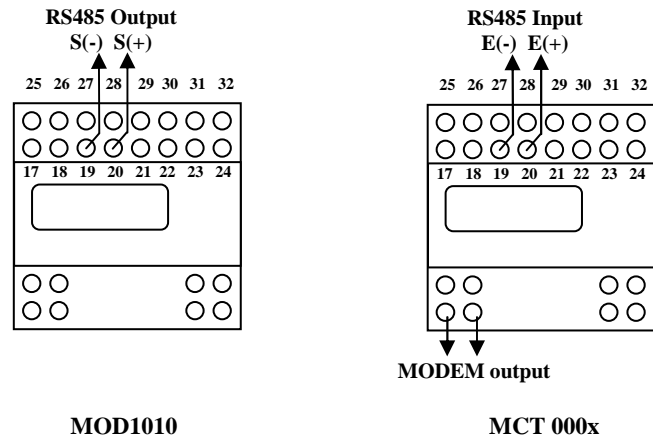


The remote control discrete input:



Caution: When the remote control is disabled (open circuit) both indicators blinks.

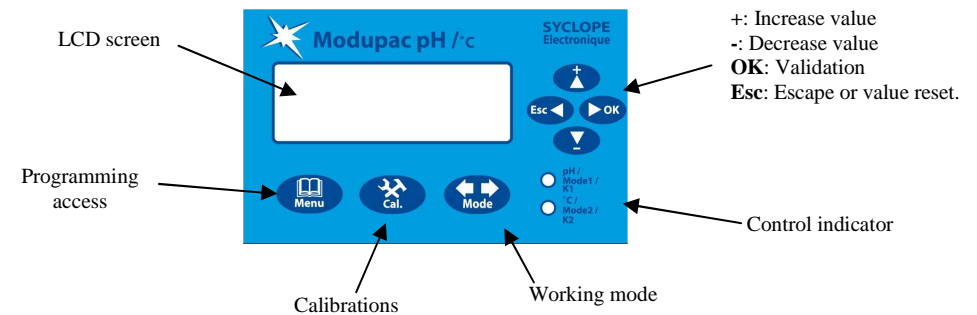
d) RS485 communication output connection with «COMT»module:



Caution: Relays outputs don't support more power.
Maximal voltage on relay can't exceed 48 Volts (AC or DC)
Maximal current can't exceed 1A.

2: Programming:

a) Module presentation:



b) Main functions

The MODUPAC « pH » can be programmed to do following functions:

- ✓ Regulator, Analyser for pH
(According the probe type "Input 1: 4...20mA)
- ✓ Available in different measurement range versions: 0 to 14 pH and -1 to 15 pH
- ✓ Regulator, Analyser for temperature 0 to 100°C (Input 2: pt100).
- ✓ pH and temperature with P, PI, PID and auto-adaptive regulation.
 - Proportional band : 1 to 100 %
 - Constant : 1 to 100 %
 - Integral time : 1 to 1000 s
 - Derived time : 1 to 1000 s
 - Dead band : 0 to 50 %
- ✓ Discrete mode regulation, width modulation, frequency modulation or 3 points regulation.
- ✓ Programmable alarm threshold high and low value, for each input.
- ✓ Remote discrete control input or pulsed frequency control.
- ✓ 2 relays outputs configurable in alarm or regulation.
- ✓ 2 0/4...20mA outputs configurable in regulation or data transfer (BMS).
- ✓ RS 485 communication output to save and transmit data with « COMT » module.