

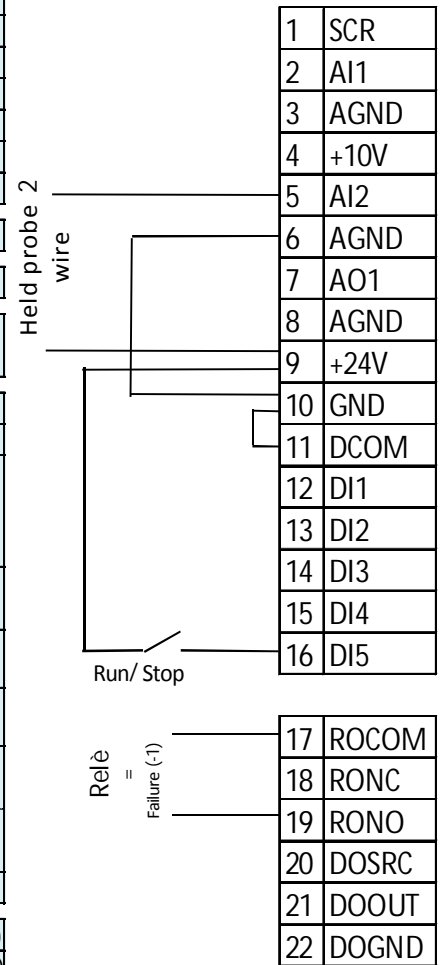
Control PID ACS355

Below you will find the wiring diagram for the connection and the main parameters to be set for correct operation.

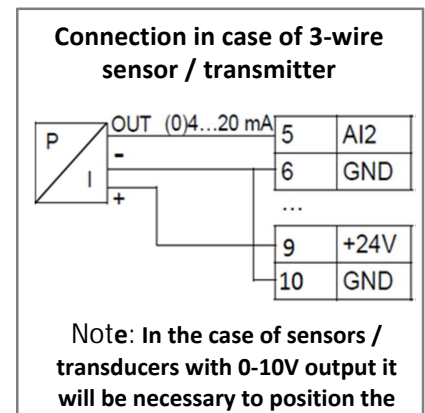
N.B. 2 precautions to be taken into account when working with the PID function:

- When in PID function (EXT2) constant speeds can not be used.
- If the machine shows continuous oscillations due to the continuous attempt to recover the error between Setpoint and Value of feedback, this oscillation can be amortized through the parameters 4001 Proportional Gain and 4002 Integration Time.

Parametri	Basic Control Panel	Assistant Control Panel
9902	6	PID CONTROL
9904	3	V/F
9905	Nominal voltage of the motor	Nominal voltage of the motor
9906	Nominal Current of the motor	Nominal Current of the motor
9907	Nominal Frequency of the motor	Nominal Frequency of the motor
9908	Nominal Speed of the motor	Nominal Speed of the motor
9909	Nominal Power of the motor	Nominal Power of the motor
1102	7	EST2
1601	0	NON SELEZ
2007	Minimum output frequency of drive (Typically 25Hz for pumps)	Minimum output frequency of drive (Typically 25Hz for pumps)
4001	1s (Gain of PID)	1s (Gain of PID)
4002	10s (Integration time of PID)	10s (Integration time of PID)
4006	Unit of measurement read by the probe (For the complete list refer to the units of measurement shown in the drive manual in parameter 3405) ES: Bar = 22	Select the unit of measure read from held probe
4007	Insert the number of decimal that you want to view (ES. 2 --> 4,25 Bar)	Insert the number of decimal that you want to view (ES. 2 --> 4,25 Bar)
4008	MIN value (es. Bar) of the probe (Read the probe data)	MIN value (es. Bar) of the probe (Read the probe data)
4009	MAX value (es. Bar) of the probe (Read the probe data)	MAX value (es. Bar) of the probe (Read the probe data)
4010	19: It means changing the setpoint through Par. 4011	INTERNAL: It means changing the setpoint through Par. 4011
	0: It means changing the setpoint through the panel drive	Keyboard: It means changing the setpoint through the panel drive
4011	Set point value to be kept constant	set point value to be kept constant
3401	103 (Signal shown on the display)	FREQ OUTPUT (Signal shown on the display)
3408	130 (Signal shown on the display)	PID1 FEED BACK (Signal shown on the display)
3415	128 (Signal shown on the display)	SETPT PID1 (Signal shown on the display)



OPZIONAL (Function Sleep PID)		
To stop the drive once the set-point has been reached and to prevent the motor from running		
4022	7	INTERNAL
4023	Rotation frequency below which the inverter after the time of parameter 4024 will go into stand-by and switch off the pump. (Attention: the value in Hz must be greater than the value set in the 2007 parameter)	Rotation frequency below which the inverter after the time of parameter 4024 will go into stand-by and switch off the pump. (Attention: the value in Hz must be greater than the value set in the 2007 parameter)
4024	Delay time before putting the inverter in stand-by (for example 5s) once the requirement set in parameter 4023 has been reached	Delay time before putting the inverter in stand-by (for example 5s) once the requirement set in parameter 4023 has been reached
4025	Pressure difference for pump restart (ES: Setpoint = 4 Bar Restart = 3.5 Bar VALUE TO SET = 0.5 Bar)	Pressure difference for pump restart (ES: Setpoint = 4 Bar Restart = 3.5 Bar VALUE TO SET = 0.5 Bar)



Note: When the inverter goes into sleep mode the alarm 2018 (sleep PID active) will appear in this alarm does not affect the operation of the inverter, but indicates the "sleep" status and the consequent switching off of the pump.