



## THE MODULES

### DC Power Supply



DL 2613

Laboratory power supply with two fixed voltage outputs and protected against short-circuit.

#### Technical features:

Output voltages: +15 V ; 0 V ; -15 V  
Output current: 2,4 A (3 A for a short period).  
Power supply: single-phase from mains (see the identification plate)  
Two led (+15 V ; -15 V) for the indication of the nominal voltage.  
Mains switch with pilot lamp

### Voltage Reference Generator



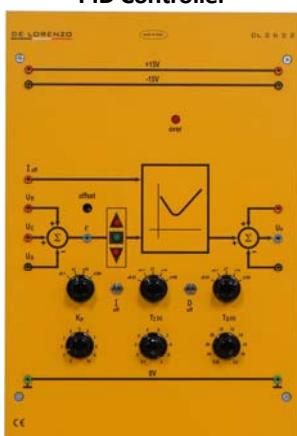
DL 2614

It allows the realization of a voltmetric reference signal through a potentiometer mounted on the same panel or by transferring an external reference signal. Moreover, there is the possibility to generate voltmetric step reference signals.

#### Technical features

Power supply: +15 V ; 0 V ; -15 V  
Range of the continuous regulation reference signal:  
from - 10 V to + 10 V  
from 0 to + 10 V  
Range of the step reference signal:  
from - 10 V to + 10 V  
from 0 to + 10 V  
Switch for selecting between internal potentiometer reference signal and external reference signal  
Switch for selecting between the 0 / ±10 V range and the 0 / +10 V range

### PID Controller



DL 2622

Standard industrial controller that can be used as P, PI, PD or PID controller in the closed loop automatic control systems.

#### Technical features

Power supply: +15 V ; 0 V ; -15 V  
Input summing node for two different reference variables UR and UC and for one controlled variable UA.  
Signal voltage range: -10V .... +10V  
Parameters of the controller continuously adjustable  
Proportional gain: Kp = 0 ... 1000  
Time of the integral action: TI = 1ms ... 100s  
Time of the derivative action: TD = 0.2ms ... 20s  
Reset input of the integral controller.  
Output summing node to add or subtract noise variables.  
Measurement terminal for the error signal.  
Adjustment screw for the output offset.  
Three led indicator of the sense of deviation.  
Coarse and fine adjustment of the proportional gain Kp, of the time of the integral action TI and of the time of the derivative action TD.  
Indicator of over-range: led "over" on when the output voltage is higher than 10 V or lower than -10 V.  
Input Ioff for resetting the I controller.