

Programmable converter with variable duty cycle output Positioning relay DNL35-MLi



• Process inputs

(Volt , mA, Sensor supply, potentiometer)

• 2 , 3 or 4 relays outputs

(programmable output in PWM)

• Measure display (10 000 pts)

(Setting with front face or RS232)

• Universal power supply

• Low cycle time 20ms



The DNL35-MLi allows the conversion of analog signals in pulse width modulated free potential contact (duty cycle is proportional to input signal).

The transfer function (slope, offset, dead zone) are freely configurable to adjust to application.

DESCRIPTION:

Process inputs:

- Current (with or without sensor supply)
- Voltage, potentiometer.

Calculation function :

- special linearization on 26 points

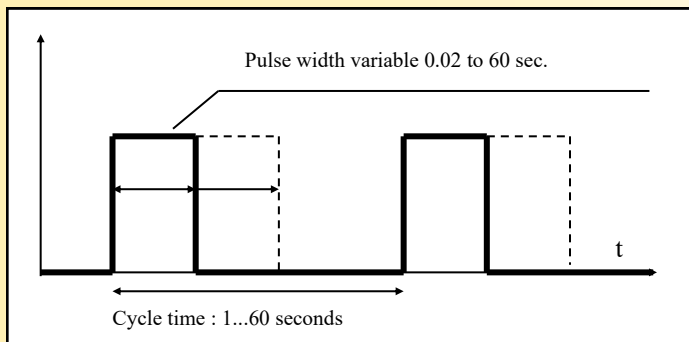
Front face :

- 1 Green LED for power
- Matrix alphanumeric 4 digits LED display
- 2 push buttons for device configuration
- 4 Red LED for relay status indication

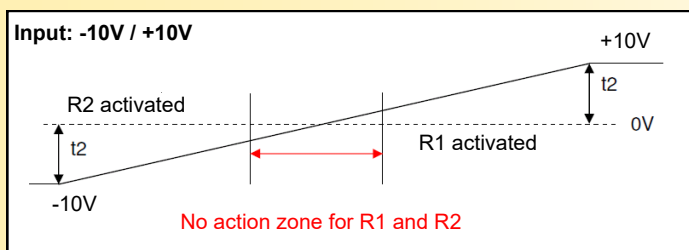
Relays:

- up to 4 relays outputs (Normally open contact).
- cycle time (period) and operating range configurable
- temporal resolution 20 ms mini (cycle time of converter)

Chronogram of output signal :



Example of transfer function :



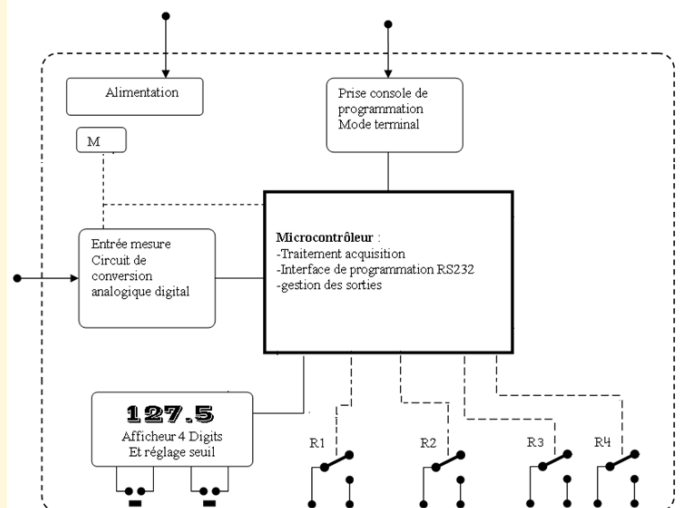
Feature:

- Din rail mounting, 23mm width
- Pluggable terminal blocks, section maxi 2.5mm²
- Universal switching power supply:
20....to.....265Vac/dc or 9Vdc.....to.....30Vdc
- Conformal coating.
- galvanic isolation input/output/power supply

CONFIGURATION:

- This device may be configured via the front face button or with the RS232 serial link (jack 3.5), under any system with can emulate a terminal. (No specific software to install, interface cord provided separately).
- configuration setting saved in FLASH memory, data retention > 20 years,
- Firmware evolution possible (uploaded via the RS232 link)

Synoptic:



Version and order code:

DNL35-MLi : Standard version with 2 relays outputs

option /R3 : 3 relays
/R4 : 4 relays

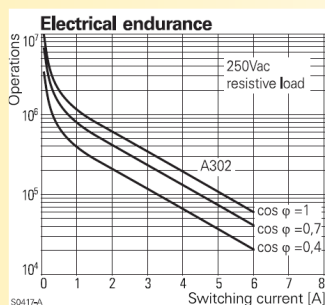
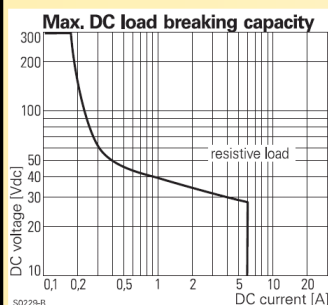
Input

(resolution :14 bits ; reference 5 ppm)

Type	Range	Accuracy
Voltage (Low level)	- 250 to 2000mVdc	+/- 40 μ V
Input impedance	1 Mohms	to +/-1 mV
<i>(on two measure ranges : 250mV and 2000 mV)</i>		
Voltage (High level)	- 25 to 200Vdc	+/- 0.02 V
Input impedance	500 kOhms	to +/-0.8 V
<i>(on two measure ranges : 25 V and 200 V)</i>		
Current	- 4mA à 40 mA	+/- 0.01 mA
Input impedance	50 Ohms	

RELAYS

electro mechanic relay (static relay in option)
 Switching power 5A - 250Vac-dc
 close delay 5ms maxi
 open delay 5ms maxi

**POWER SUPPLY**

Universal: (2 versions: standard and low voltage, not polarized)
 standard : 20.....to.....265Vac/dc
 low voltage : 9 Vdc.....to.....30Vdc.
 consumption < 3 VA

AUXILIARY

Sensor supply 22 V regulated +/- 5% (50mA)
 Potentiometer reference 5 V regulated +/- 0.15% (20mA)

ENVIRONMENT

Operating temperature -10 to +60 °C
 Storage temperature -20 to +85 °C
 Thermal drift < 20 PPM / °C
 (of full scale)
 Humidity 85 % (non condensed)
 Weight ~ 160 g
 Protection rating IP20
 Dielectric strength 1500 Vac continuous
 2500 Vac 1 minute.

Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC dips	

**WIRING AND OUTLINE DIMENSIONS:**