

Nanoline

Programmable relay for small control applications



The Nanoline programmable relay from Phoenix Contact focuses on simplicity and flexibility. Specifically designed for small control applications with less than 26 inputs and 16 outputs Nanoline features easy networking and modular I/O expansion options.

The system also supports flexible and modular expansion for maximum adaptability to meet your requirements. Nanoline makes programming your application easy – the support required is minimal.

Advantages:

- Easy and intuitive programming in ladder logic or flow-chart via. free nano-Navigator software
- Networking option via. Modbus TCP or Modbus RTU
- Removable operator panel with HMI capability
- Wireless GSM modem communication module option
- Select only the necessary project components with this easy-to-use, tightly integrated, modular system

Flexible Modular Design:

Nanoline from Phoenix Contact impresses with its flexibility. The key feature is its modular design. The individual Nanoline components can be combined as required by your system.

1) Base unit :

The basic units are available for various supply voltages and with different I/O combinations. For tailored use, connect additional modules to the basic unit as an option.

- I/O extension module
- Communication module
- Control panel
- Real-time clock



2) I/O extension module:

Depending on the number of I/Os, you can extend your Nanoline basic module with additional I/O extension modules. The combination of digital and analog I/Os may vary.

3) Communication Modules :

With its serial communication modules, the Nanoline system sets new standards in connectivity. This results in easy integration and distributed monitoring and control. Read and write I/O points, registers, flags, timers, counters and system flags – with the RS-232 or RS-485 module, you can use your Nanoline logic module as a Modbus RTU server. Using RS-232, RS-485 or USB module to connect the logic module to your PC, the configuration can be carried out with the nanoNavigator software.

4) Ethernet extension module:

The Ethernet extension module enables the optimum integration of Nanoline in your network. you can also use your Nanoline logic module as a Modbus TCP server. This will allow you to read and write I/O points, registers, timers, counters and program and system flags – independently of the program - from any location. Protect Nanoline against unauthorized use: secure your Ethernet access by means of password-protected access.

5) Real Time Clock :

For applications that require time or date functions, you can extend your Nanoline module with a real-time clock.

6) Control panel :

The control panel is the interface for interaction. Using the operator panel, the operator can view the status of all I/O points, registers, timers, counters, program flags and system flags. The program also sends messages to the display to provide directions or ask for information.

It offers a numerical keypad. In addition, each of the 14 keys on the control panel can be used to create user-specific menus in a flowchart.

Selection Chart Guide:

Modules	Voltage	No. of Inputs	No. of Outputs	Type	Voltage	Item Code	Order No.
Base	24 VDC	6	4	Transistor (PNP)	24 VDC	NLC-050-024D-06I-04QTP-00A	2701027
	24 VDC	6	4	Transistor (NPN)	24 VDC	NLC-050-024D-06I-04QTN-00A	2701030
	24 VDC	6	4	Relay	24 VDC	NLC-050-024D-06I-04QRD-05A	2701043
	24 VDC/VAC	8	4	Relay	24 VDC / VAC	NLC-050-024X-08I-04QRX-05A	2701056
	100...240VAC	8	4	Relay	100 to 240 VAC	NLC-050-100A-08I-04QRA-05A	2701069
	24 VDC	8	4	Transistor (PNP)	24 VDC	NLC 055 024D 08I 04QTP 00A	2700453
		2			0-10V		
	24 VDC	8	4	Relay	24 VDC	NLC-055-024D-08I-04QRD-05A	2700464
		2			0-10V		
	24 VDC	8	4	Relay	24 VDC	NLC-055-100A-08I-04QRA-05A	2700487
	2			0-10V			
IO Expansion	24 VDC	6	4	Transistor (PNP)	24 VDC	NLC-IO-06I-04QTP-01A	2701072
	24 VDC	6	4	Transistor (NPN)	24 VDC	NLC-IO-06I-04QTN-01A	2701085
	24 VDC	3	4	Relay	24 VDC	NLC-IO-03I-04QRD-05A	2701328
	24 VDC	4			0-10 V, 0-20 mA	NLC-IO-4AI	2701098
	24 VDC	2	2		0...10 V DC, -10...+10 V DC, 0/4...20 mA	NLC IO 2AI 2AO 01	2701040
Communications	10/100 Mbps Ethernet, Modbus TCP Server					NLC-COM-ENET-MB1	2701124
	RS 232 Communication, Modbus RTU Client, Programming port					NLC-MOD-RS232	2701179
	Rs 485 Communication, Modbus RTU Client, Programming port					NLC-MOD-RS485	2701182
	USB Communication, Programming port					NLC-MOD-USB	2701195
Accessories	LCD Display, 4 lines x 20 char, 32mm diagonal, high contrast backlit display					NLC-OP1-LCD-032-4X20	2701127
	Panel mounting kit for LCD display					NLC-OP1-MKT	2701140
	Real time Clock module					NLC-MOD-RTC	2701153
	Memory Module					NLC-MOD-MEM-032K	2701166