

Base unit - NLC-055-024D-08I-04QTP-00A



2700453

<https://www.phoenixcontact.com/us/products/2700453>

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24 V DC Nanoline base unit. Equipped with 8 digital inputs, 2 analog (0-10 V) inputs and 4 PNP digital output channels. Additional I/O channels can be added using a maximum of three I/O extension modules. Optional communication modules provide network or serial connectivity. Optional Operator Panel provides user interface. Programming is via nanoNavigator.

Commercial Data

Item number	2700453
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	D01
Product Key	DRACAA
Catalog Page	Page 461 (C-8-2015)
GTIN	4046356646536
Weight per Piece (including packing)	335.6 g
Weight per Piece (excluding packing)	321.5 g
Customs tariff number	85371098
Country of origin	IN

Technical Data

Product properties

Product type	Base unit
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Electrical properties

Supply

Supply voltage	24 V DC (Power available to the I/O and Communications modules)
Supply voltage range	19.2 V DC ... 30 V DC
Power supply connection	Screw connection
Max. current consumption	250 mA
Typical current consumption	100 mA

Real-time clock

Realtime clock	Yes (battery-backed)
Description realtime clock	±2 s/day @ 25°C ±4 s/day @ -20 °C ... +60 °C Lithium BR2330

Input data

Analog

Description of the input	Analog input
Number of inputs	2
A/D converter resolution	12 bit (monotonic)
Connection technology	Screw connection
Voltage input signal	0 V DC ... 10 V DC
Input resistance of voltage input	20 kΩ
Input filter	Digital
Limit frequency (3 dB)	1 Hz (3 dB)
Measuring principle	Successive approximation
Protective circuit	Transient voltage suppression

Digital

Input name	Digital inputs
Description of the input	EN 61131-2 type 1 NPN/PNP
Number of inputs	8
Connection method	Screw connection
Input voltage range "0" signal	0 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	5 mA DC (On) < 100 mA (Off)
Typical response time	60 μs (on) 70 μs (OFF)

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Counter

Number of inputs	2
Input frequency	6 kHz

Output data

Digital

Output name	Digital outputs
Output description	PNP outputs
Connection method	Screw connection
Number of outputs	4
Protective circuit	Short-circuit and overload protection
Maximum output current per channel	500 mA
Maximum output current per module / terminal block	2 A
Nominal output voltage	24 V DC
Nominal load, inductive	12 VA
Nominal load, lamp	12 W
Nominal load, ohmic	12 W
Maximum operating frequency with ohmic nominal load	100 Hz

Connection data

Connection method	Screw connection
Conductor cross section, rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12

Interfaces

Operator Panel

Connection method	RJ45/COMBICON
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RS-232

Connection method	Slot 1
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USB

Connection method	Slot 1
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Software

System requirements

Engineering tool	nanoNavigator 3 or above
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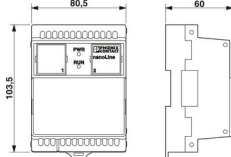
Dimensions

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Dimensional drawing		
Width		80.5 mm
Height		103.5 mm
Depth		60 mm

Material specifications

Color	white
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	90 %
Permissible humidity (storage/transport)	90 %

Mounting

Mounting type	DIN rail mounting
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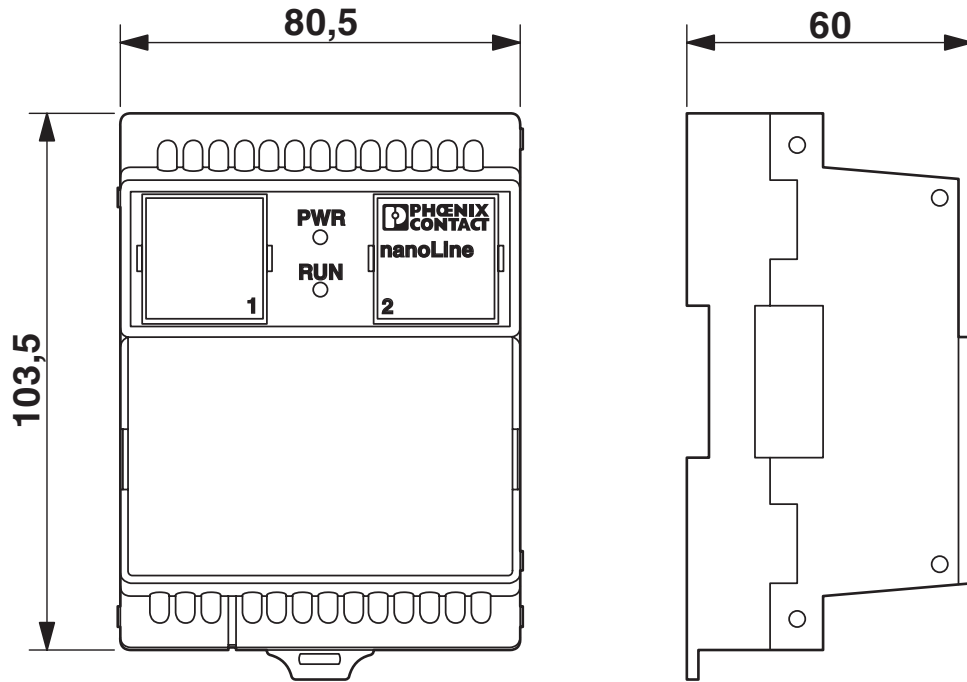


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Drawings

Dimensional drawing



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Approvals



EAC

Approval ID: TR_TS_D_01831-19



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705

cULus Listed

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Classifications

ECLASS

ECLASS-9.0	27242216
ECLASS-10.0.1	27242216
ECLASS-11.0	27242216

ETIM

ETIM 8.0	EC001417
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UNSPSC

UNSPSC 21.0	39122300
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Accessories

Covering hood

Covering hood - NLC-MOD-CAP-PXC - 2701292

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Replacement cover for slot 2 in base unit.



Covering hood

Covering hood - NLC-MOD-CAP - 2701289

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Replacement cover for slot 1 in base unit.



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I/O extension module

I/O extension module - NLC-IO-06I-04QTP-01A - 2701072

<https://www.phoenixcontact.com/us/products/2701072>



I/O extension module for use with Nanoline base unit. Equipped with 6 digital input and 4 PNP digital output channels. A maximum of three I/O extension modules can be attached to a base unit.

I/O extension module

I/O extension module - NLC-IO-06I-04QTN-01A - 2701085

<https://www.phoenixcontact.com/us/products/2701085>



I/O extension module for use with Nanoline base unit. Equipped with 6 digital input and 4 NPN digital output channels. A maximum of three I/O extension modules can be attached to a base unit.

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I/O extension module

I/O extension module - NLC-IO-03I-04QRD-05A - 2701328

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I/O extension module for use with Nanoline 24 V DC base unit. Equipped with 3 digital input and 4, 5 A relay output channels. A maximum of three I/O extension modules can be attached to a base unit.

I/O extension module

I/O extension module - NLC-IO-4AI - 2701098

<https://www.phoenixcontact.com/us/products/2701098>



I/O extension module for use with Nanoline base unit. Equipped with 4 analog input channels. A maximum of three I/O extension modules can be attached to a base unit.

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I/O extension module

I/O extension module - NLC-IO-2AI-2AO-01 - 2701040

<https://www.phoenixcontact.com/us/products/2701040>



I/O extension module for use with Nanoline base unit. Equipped with 2 analog input (0...10 V DC, -10...+10 V DC, 0/4...20 mA) and 2 analog output (0...10 V DC, 0/4...20 mA) channels. A maximum of three I/O extension modules can be attached to a base unit.

Operator terminal

Operator terminal - NLC-OP1-LCD-032-4X20 - 2701137

<https://www.phoenixcontact.com/us/products/2701137>



User interface for Nanoline controllers. Mounts directly on the base unit. Can be mounted remotely using the mounting kit.

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Mounting kit

Mounting kit - NLC-OP1-MKT - 2701140

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Mounting kit



nanoLC module

nanoLC module - NLC-MOD-RS232 - 2701179

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RS-232 connection for data transfer or software configuration



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Option module

Option module - NLC-MOD-RS485 - 2701182

<https://www.phoenixcontact.com/us/products/2701182>

RS-485 connection for data transfer or software configuration



nanoLC module

nanoLC module - NLC-MOD-USB - 2701195

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Serial connection to PC's USB port for data transfer or software configuration



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Communication module

Communication module - NLC-COM-ENET-MB1 - 2701124

<https://www.phoenixcontact.com/us/products/2701124>



Ethernet communication module. Allows the Nanoline controller to be connected to an Ethernet, operating as a Modbus TCP Server.

Communication module

Communication module - NLC-COM-GSM - 2701344

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GSM communication module. Allows SMS messaging to and from the Nanoline controller when connected to the GSM network.

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Cable

Cable - NLC-PC/SERIAL-CBL 2M - 2701234

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Cable, serial, 9-pos. D-SUB to RJ11/12



Cable

Cable - NLC-PC/USB-CBL 2M - 2701247

<https://www.phoenixcontact.com/us/products/2701247>

Cable, serial



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