

Products → Low Voltage Products and Systems → Control Products → Contactors → Block Contactors

## General Information

<b>Extended Product Type:</b>	NSL31E-81
<b>Product ID:</b>	1SBH103001R8131
<b>EAN:</b>	3471523056114
<b>Catalog Description:</b>	NSL31E-81 24VDC Contactor Relay
<b>Long Description:</b>	NSL... contactor relays are used for switching auxiliary circuits and control circuits. - Poles and auxiliary contacts blocks: 4-pole contactor relays, front-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 including the "Mechanically Linked" symbol on the contactor relay side) - Control circuit: DC operated with solid core magnet circuit. The polarity on the coil terminals (A1+ and A2-) must be respected - Accessories: a wide range of accessories is available NSL... contactors are fitted with low consumption DC coils and are suitable for a direct control by PLC outputs.

## Ordering

<b>Minimum Order Quantity:</b>	1 piece
<b>Customs Tariff Number:</b>	85364900

## Popular Downloads

<b>Data Sheet, Technical Information:</b>	1SBC100173C0201
<b>Instructions and Manuals:</b>	1SBC101020M9701

## Dimensions

<b>Product Net Width:</b>	45 mm
<b>Product Net Depth:</b>	72.5 mm
<b>Product Net Height:</b>	68 mm
<b>Product Net Weight:</b>	0.280 kg

## Technical

<b>Number of Auxiliary Contacts NO:</b>	3
<b>Number of Auxiliary Contacts NC:</b>	1
<b>Standards:</b>	IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14
<b>Rated Operational Voltage:</b>	Auxiliary Circuit 690 V Main Circuit 690 V
<b>Rated Frequency (f):</b>	Auxiliary Circuit 50 / 60 Hz
<b>Conventional Free-air Thermal Current (I<sub>th</sub>):</b>	acc. to IEC 60947-5-1, q = 40 °C 10 A

<b>Rated Operational Current AC-15</b> <b>(I<sub>e</sub>):</b>	(220 / 240 V) 4 A (24 / 127 V) 6 A (400 / 440 V) 3 A (500 V) 2 A (690 V) 2 A
<b>Rated Short-time Withstand Current (I<sub>cw</sub>):</b>	for 0.1 s 140 A for 1 s 100 A
<b>Maximum Electrical Switching Frequency:</b>	AC-15 1200 cycles per hour DC-13 900 cycles per hour
<b>Rated Operational Current DC-13</b> <b>(I<sub>e</sub>):</b>	(110 V) 0.55 A / 60 A (125 V) 0.55 A / 69 A (220 V) 0.27 A / 60 A (24 V) 6 A / 144 A (250 V) 0.27 A / 68 A (48 V) 2.8 A / 134 A (72 V) 1 A / 72 A
<b>Rated Insulation Voltage (U<sub>i</sub>):</b>	acc. to UL/CSA 600 V acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V
<b>Rated Impulse Withstand Voltage (U<sub>imp</sub>):</b>	6 kV
<b>Maximum Mechanical Switching Frequency:</b>	3600 cycles per hour
<b>Rated Control Circuit Voltage (U<sub>c</sub>):</b>	DC Operation 24 V
<b>Operate Time:</b>	Between Coil De-energization and NC Contact Closing 15 ... 20 ms Between Coil De-energization and NO Contact Opening 13 ... 17 ms Between Coil Energization and NC Contact Opening 31 ... 53 ms Between Coil Energization and NO Contact Closing 36 ... 59 ms
<b>Connecting Capacity Auxiliary Circuit:</b>	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Rigid 1/2x 0.75 ... 2.5 mm <sup>2</sup>
<b>Connecting Capacity Control Circuit:</b>	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Rigid 1/2x 0.75 ... 2.5 mm <sup>2</sup>
<b>Wire Stripping Length:</b>	Auxiliary Circuit 9 mm Control Circuit 9 mm
<b>Degree of Protection:</b>	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20
<b>Terminal Type:</b>	Screw Terminals

## Environmental

<b>Ambient Air Temperature:</b>	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... +70 °C
<b>Climatic Withstand:</b>	Category B according to IEC 60947-1 Annex Q

<b>Maximum Operating Altitude</b>	3000 m
<b>Permissible:</b>	
<b>Resistance to Vibrations acc. to IEC 60068-2-6:</b>	5 ... 300 Hz 3 g Closed position / 2 g Open position
<b>Resistance to Shock acc. to IEC 60068-2-27:</b>	Closed, Shock Direction: A 20 g Closed, Shock Direction: B1 15 g Closed, Shock Direction: C1 19 g Closed, Shock Direction: C2 14 g Open, Shock Direction: A 10 g Open, Shock Direction: B1 5 g Open, Shock Direction: C1 8 g Open, Shock Direction: C2 8 g Shock Direction: B2 10 g
<b>RoHS Status:</b>	Following EU Directive 2002/95/EC August 18, 2005 and amendment

## Technical UL/CSA

<b>Tightening Torque UL/CSA:</b>	Auxiliary Circuit 9 in·lb Control Circuit 9 in·lb
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## Certificates and Declarations (Document Number)

<b>CB Certificate:</b>	CB_CN_32453
<b>CCC Certificate:</b>	CCC_2007010305248106
<b>Declaration of Conformity - CE:</b>	1SBD250016U1000
<b>Environmental Information:</b>	1SBD250160E1000
<b>GOST Certificate:</b>	GOST_POCCCNME77B07821.pdf
<b>Instructions and Manuals:</b>	1SBC101020M9701
<b>RoHS Information:</b>	1SBD251003E1000
<b>UL Certificate:</b>	UL_220108-E312527A
<b>UL Listing Card:</b>	NOA_E312527.pdf

## Container Information

<b>Package Level 1 Units:</b>	1 piece
<b>Package Level 1 Width:</b>	78 mm
<b>Package Level 1 Length:</b>	80 mm
<b>Package Level 1 Height:</b>	48 mm
<b>Package Level 1 Gross Weight:</b>	0.28 kg
<b>Package Level 1 EAN:</b>	3471523056114
<b>Package Level 2 Units:</b>	40 piece
<b>Package Level 2 Width:</b>	250 mm
<b>Package Level 2 Length:</b>	315 mm
<b>Package Level 2 Height:</b>	195 mm
<b>Package Level 2 Gross Weight:</b>	12.500 kg

Package Level 3 Units: 960 piece

## Classifications

Object Classification Code: K

ETIM 4: EC000196 - Contactor relay

ETIM 5: EC000196 - Contactor relay

ETIM 6: EC000196 - Contactor relay

UNSPSC: 39121500

