PRODUCT-DETAILS

# NSL22E-81

## NSL22E-81 24VDC Contactor Relay



### General Information

| | |
|---|---|
| Extended Product Type | NSL22E-81 |
| Product ID | 1SBH103001R8122 |
| EAN | 3471523056015 |
| Catalog Description | NSL22E-81 24VDC Contactor Relay |
| Long Description | 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

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|---|---|
| Minimum Order Quantity | 1 piece |
| Customs Tariff Number | 85364900 |

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## Popular Downloads

| | |
|---|---|
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Instructions and Manuals | 1SBC101020M9701 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

## Dimensions

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|---|---|
| Product Net Width | 45 mm |
| Product Net Depth / Length | 72.5 mm |
| Product Net Height | 68 mm |
| Product Net Weight | 0.28 kg |

## Technical

| | |
|---|---|
| Number of Auxiliary Contacts NO | 2 |
| Number of Auxiliary Contacts NC | 2 |
| Standards | IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14 |
| Rated Operational Voltage | Auxiliary Circuit 690 V<br>Main Circuit 690 V |
| Rated Frequency (f) | Auxiliary Circuit 50 / 60 Hz |
| Conventional Free-air Thermal Current ($I_{th}$) | acc. to IEC 60947-5-1, Θ = 40 °C 10 A |
| Rated Operational Current AC-15 ($I_e$) | (500 V) NC 2<br>(500 V) 2 A<br>(690 V) 2 A<br>(24 / 127 V) 6 A<br>(220 / 240 V) 4 A<br>(400 / 440 V) 3 A |
| Rated Short-time Withstand Current Low Voltage ($I_{cw}$) | for 0.1 s 140 A<br>for 1 s 100 A |
| Maximum Electrical Switching Frequency | (AC-15) 1200 cycles per hour<br>(DC-13) 900 cycles per hour |
| Rated Operational Current DC-13 ($I_e$) | (24 V) 6 A / 144 W<br>(48 V) 2.8 A / 134 W<br>(72 V) 1 A / 72 W<br>(110 V) 0.55 A / 60 W<br>(125 V) 0.55 A / 69 W<br>(220 V) 0.27 A / 60 W<br>(250 V) 0.27 A / 68 W |
| Rated Insulation Voltage ($U_i$) | acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V<br>acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage ($U_{imp}$) | Auxiliary Circuit 6 kV |
| Maximum Mechanical Switching Frequency | 3600 cycles per hour |
| Rated Control Circuit Voltage ($U_c$) | DC Operation 24 V |
| Operate Time | Between Coil De-energization and NC Contact Closing 15 ... 20 ms<br>Between Coil De-energization and NO Contact Opening 13 ... 17 ms<br>Between Coil Energization and NC Contact Opening 31 ... 53 ms<br>Between Coil Energization and NO Contact Closing 36 ... 59 ms |
| Connecting Capacity | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² |

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| | |
|---|---|
| Auxiliary Circuit | Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm²<br>Rigid 1/2x 0.75 ... 2.5 mm² |
| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm²<br>Rigid 1/2x 0.75 ... 2.5 mm² |
| Wire Stripping Length | Auxiliary Circuit 9 mm<br>Control Circuit 9 mm |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 |
| Terminal Type | Screw Terminals |

## Technical UL/CSA

| | |
|---|---|
| Tightening Torque UL/CSA | Auxiliary Circuit 9 in·lb<br>Control Circuit 9 in·lb |

## Environmental

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|---|---|
| Ambient Air Temperature | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air -40 ... 70 °C |
| Climatic Withstand | Category B according to IEC 60947-1 Annex Q |
| Maximum Operating Altitude Permissible | Without Derating 3000 m |
| Resistance to Shock acc. to IEC 60068-2-27 | Closed, Shock Direction: A 20 g<br>Closed, Shock Direction: B1 15 g<br>Closed, Shock Direction: C1 19 g<br>Closed, Shock Direction: C2 14 g<br>Open, Shock Direction: A 10 g<br>Open, Shock Direction: B1 5 g<br>Open, Shock Direction: C1 8 g<br>Open, Shock Direction: C2 8 g<br>Shock Direction: B2 10 g |
| Resistance to Vibrations | 3g Closed Position & 2g Open Position 5 ... 300 Hz |

## Material Compliance

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|---|---|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Information | 2CMT2021-006277 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| Toxic Substances Control Act - TSCA | 2CMT2023-006525 |
| WEEE B2C / B2B | Business To Business |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |

## Certificates and Declarations

| | |
|---|---|
| CB Certificate | CB_CN_32453 |
| CCC Certificate | CCC_2007010305248106 |
| CQC Certificate | CQC2007010305248106 |
| Declaration of Conformity - CCC | 2020980304001219 |
| Declaration of | 1SBD250016U1000 |

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|---|---|
| Conformity - CE | |
| Declaration of Conformity - UKCA | 1SBD250051U1000 |
| GOST Certificate | GOST_POCCCNME77B07821.pdf |
| UL Certificate | UL_220108-E312527A |
| UL Listing Card | NOA_E312527.pdf |

## Container Information

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|---|---|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 78 mm |
| Package Level 1 Depth / Length | 80 mm |
| Package Level 1 Height | 48 mm |
| Package Level 1 Gross Weight | 0.28 kg |
| Package Level 1 EAN | 3471523056015 |
| Package Level 2 Units | 40 piece |
| Package Level 2 Width | 250 mm |
| Package Level 2 Depth / Length | 315 mm |
| Package Level 2 Height | 195 mm |
| Package Level 2 Gross Weight | 11.2 kg |
| Package Level 3 Units | 960 piece |

## Classifications

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|---|---|
| Object Classification Code | K |
| ETIM 7 | EC000196 - Contactor relay |
| ETIM 8 | EC000196 - Contactor relay |
| ETIM 9 | EC000196 - Contactor relay |
| eClass | V11.0 : 27371001 |
| UNSPSC | 39121529 |
| IDEA Granular Category Code (IGCC) | 4763 >> Power contactor, DC switching |

## Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|---|---|---|---|---|
| 1SBN050020R1000 | RT5/32 Surge Suppressor | RT5/32 | 1 | piece |
| 1SBN050010R1000 | RV5/50 Surge Suppressor | RV5/50 | 1 | piece |

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## Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → NS Contactor Relays → NSL



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