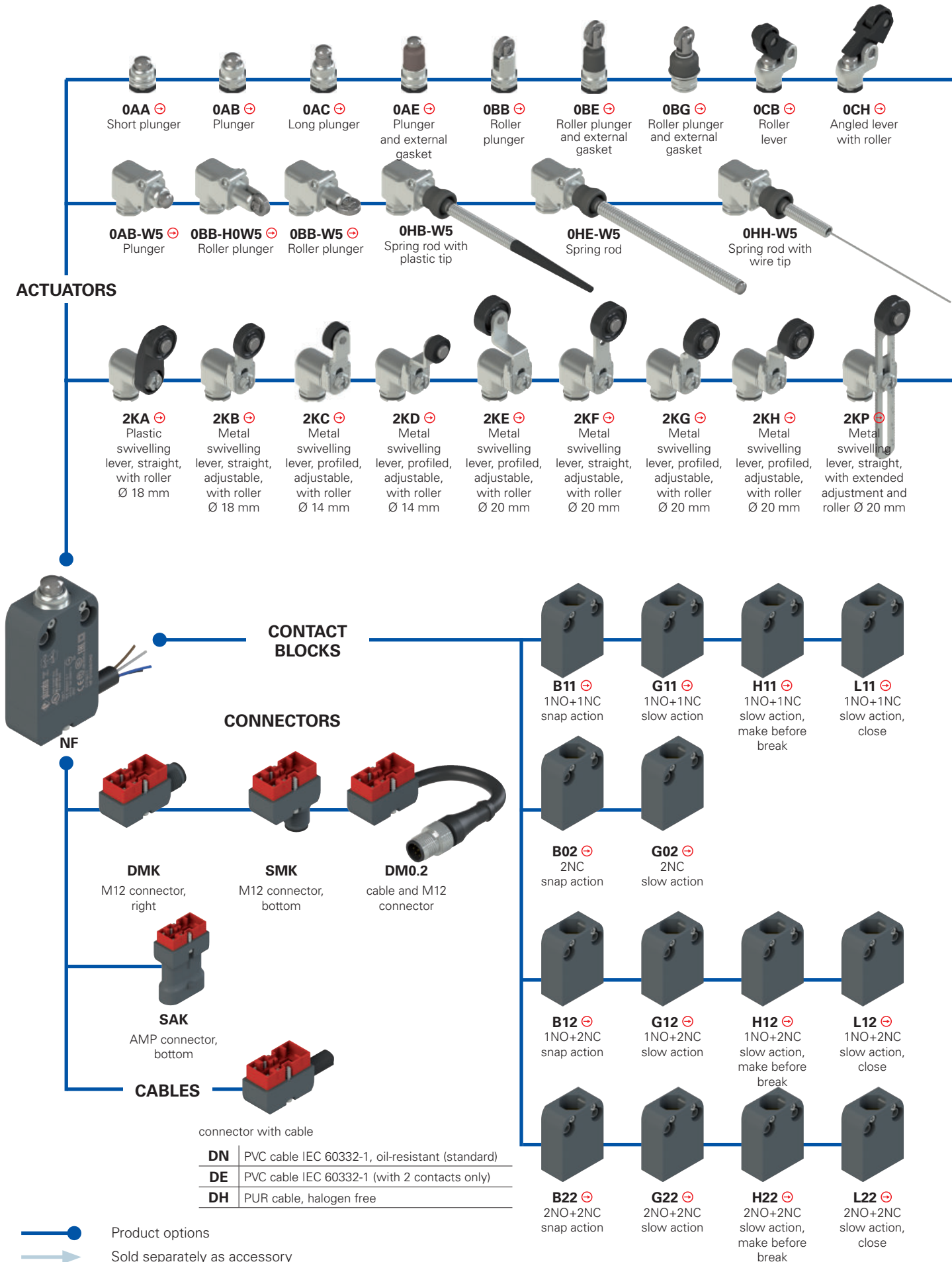
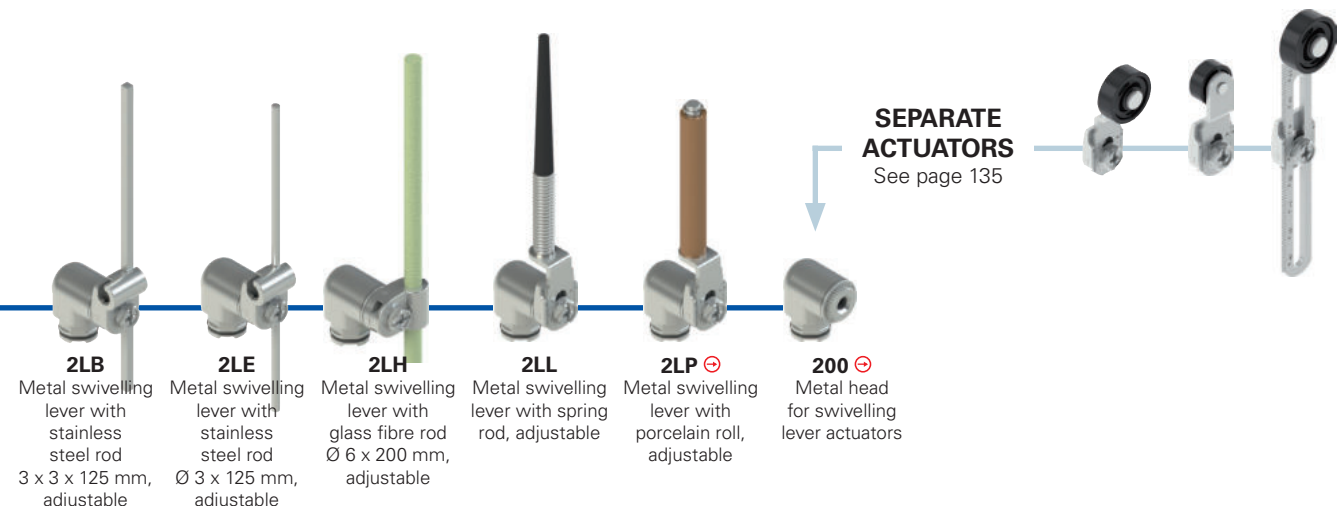
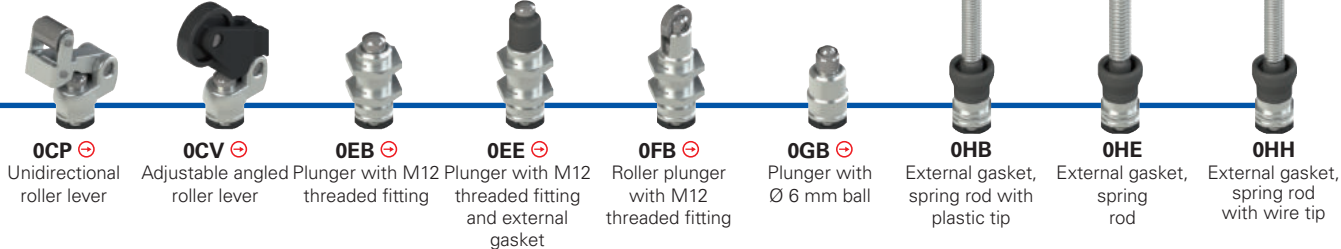


Selection diagram for item combinations of the NF series





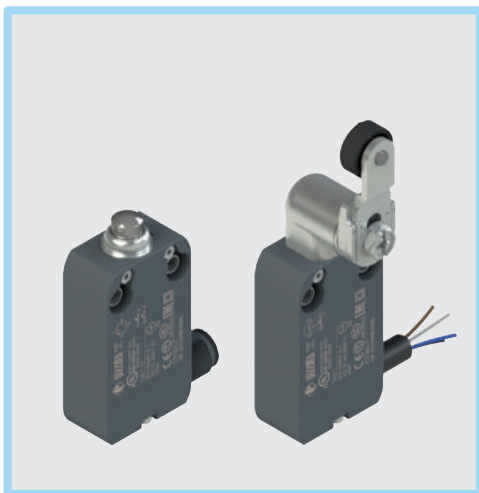
SEPARATE ACTUATORS
See page 135

Code structure

Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

article options
NF B110AB-DN2 GR7T6W5

| | | | |
|----------------------------------|---|--------------------------------|---|
| Housing | NF technopolymer, hole spacing 20 mm | Redirection | without redirection W5 90° redirection |
| Contact block | B11 1NO+1NC, snap action (standard) B02 2NC, snap action (standard) B12 1NO+2NC, snap action (standard) B22 2NO+2NC, snap action (standard) BA1 1NO+1NC, snap action, change-over (available with M connector only) G11 1NO+1NC, slow action (standard) G02 2NC, slow action (standard) G12 1NO+2NC, slow action (standard) G22 2NO+2NC, slow action H11 1NO+1NC, slow action, make before break H12 1NO+2NC, slow action, make before break H22 2NO+2NC, slow action, make before break L11 1NO+1NC, slow action, close L12 1NO+2NC, slow action, close L22 2NO+2NC, slow action, close | Ambient temperature | -25°C ... +80°C (standard) T6 -40 °C ... +80 °C |
| Other contact blocks on request. | | Rollers | standard roller R30 stainless steel Ø 10.6 mm R29 stainless steel Ø 13 mm R18 technopolymer, Ø 14 mm R23 stainless steel Ø 14 mm R7 technopolymer, Ø 18 mm R22 technopolymer, Ø 20 mm R24 stainless steel Ø 20 mm R19 technopolymer, Ø 22 mm R25 technopolymer, Ø 35 mm |
| Actuator heads | 0 without head 2 head for swivelling lever actuators | Contact type | silver contacts (standard) G silver contacts, 1 µm gold coating |
| Actuators | AA short plunger AB plunger ... | Connection type | 0.2 cable, length: 0.2 m with M12 connector (available for DM0.2 versions only) 2 cable, length: 2 m (standard) 5 cable, length 5 m (other cable lengths available on request) K integrated connector |
| Output direction | D cable or connector, right S connector, bottom | Cable or connector type | N PVC cable IEC 60332-1, oil-resistant (standard) E PVC cable IEC 60332-1 (with 2 contacts only) H PUR cable, halogen free M M12 connector A AMP Superseal 1.5 connector |



Main features

- Technopolymer housing, right or bottom cable output
- Protection degrees IP67 and IP69K
- 2 types of integrated cable available
- Versions with M12 connector suitable for safety applications ⊕
- Versions with AMP connector
- 14 contact blocks available
- 37 actuators available

Quality marks:



| | |
|---------------|----------------------|
| IMQ approval: | CA02.04562 |
| UL approval: | E131787 |
| CCC approval: | 2013010305653520 |
| EAC approval: | RU C-IT.AQ35.B.00454 |

Technical data

Housing

Housing made of glass fibre reinforced technopolymer, self-extinguishing, shock-proof and with double insulation □.

Versions with integrated cable, standard length 2 m. Other lengths 0.5 ... 10 m or special cables available on request.

Versions with integrated M12 connector.

Versions with 0.2 m cable length and M12 connector, other lengths 0.1 ... 3 m available on request

Protection degree:

IP67 acc. to EN 60529

IP69K acc. to ISO 20653

(Protect the cables from direct high-pressure and high-temperature jets)

Corrosion resistance in saline mist:

≥ 300 hours in NSS acc. to ISO 9227

General data

Ambient temperature for switches without cable: -25°C ... + 80°C (standard)

-40°C ... + 80°C (T6 option)

Ambient temperature for switches with cable:

See table on page 128

Max. actuation frequency:

3600 operating cycles/hour

Mechanical endurance:

20 million operating cycles

Mounting position:

any

Safety parameter B_{10D} :

40,000,000 for NC contacts

Mechanical interlock, not coded:

type 1 acc. to EN ISO 14119

Tightening torques for installation:

see page 231

Electrical data

Rated impulse withstand voltage (U_{imp}):

4 kV

Conditional short circuit current:

1000 A acc. to EN 60947-5-1

Pollution degree:

3

In compliance with standards:

IEC 60947-5-1, EN 60947-5-1, IEC 60204-1, EN 60204-1, EN ISO 14119, EN ISO 12100, EN 60529, EN 50581, ISO 20653, UL 508, CSA 22.2 No.14.

Compliance with the requirements of:

Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU,

RoHS Directive 2011/65/EU.

Positive contact opening in conformity with standards:

IEC 60947-5-1, EN 60947-5-1.

⚠ Installation for safety applications:

Use only switches marked with the symbol ⊕ next to the product code. Always connect the safety circuit to the **NC contacts** (normally closed contacts: see "Internal cable wiring" on page 128) as required by **EN ISO 14119, paragraph 5.4** for specific interlock applications and **EN ISO 13849-2 tables D3** (well-tries components) and **D.8** (failure exclusions) for safety applications in general. Actuate the switch **at least up to the positive opening travel** shown in the travel diagrams on page 232. Actuate the switch **at least with the positive opening force**, reported in brackets below each article, next to the actuating force value. All applicable standards must be respected too.

⚠ **If not expressly indicated in this chapter, for correct installation and utilization of all articles see the instructions given on pages 223 to 236.**

⚠ **Important: Switch off the circuit voltage before disconnecting the connector from the switch. The connector is not suitable for separation of electrical loads.**

Features approved by IMQ

| | |
|--|---|
| Rated insulation voltage (U_i): | 250 Vac |
| Conventional free air thermal current (I_n): | 10 A (1-2 contacts) / 6 A (2-3 contacts) / 4 A (4 contacts or 4-pole M12 connector) |
| Protection against short circuits (fuse): | 10 A (1-2 contacts) / 6 A (2-3 contacts) / 4 A (4 contacts or 4-pole M12 connector) type gG |
| Rated impulse withstand voltage (U_{imp}): | 4 kV |
| Protection degree of the housing: | IP67 |
| MA terminals (crimped terminals) | |
| Pollution degree: | 3 |
| Utilization category: | AC15 / DC13 (with connector) |
| Operating voltage (U_o): | 250 Vac (50 Hz) / 24 Vdc (with connector) |
| Operating current (I_o): | 3 A / 2 A (with connector) |

Forms of the contact element: X, Y, X+Y, X+X, Y+Y, Y+Y+X, X+X+Y, X+X+Y+Y, Zb
Positive opening of contacts on contact blocks B01, B11, B02, B12, B21, B22, G01, G11, G02, G12, G21, G22, L01, L11, L02, L12, L21, L22, H01, H11, H02, H12, H21, H22

In compliance with standards: EN 60947-1, EN 60947-5-1, fundamental requirements of the Low Voltage Directive 2014/35/EU.

Please contact our technical department for the list of approved products.

Features approved by UL

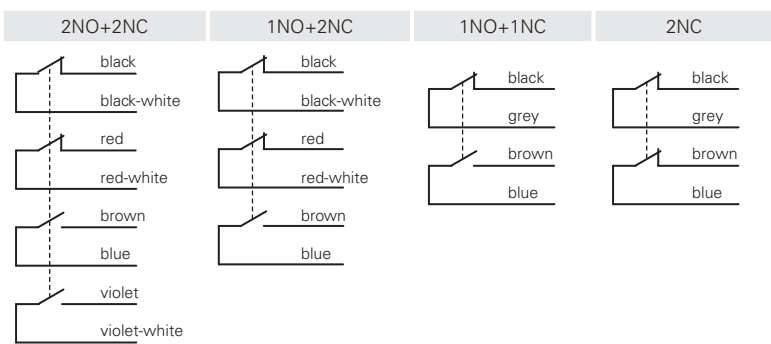
| | |
|---|---|
| Electrical Ratings: | R300 pilot duty (28 VA, 125 250 Vdc) B300 pilot duty (360 VA, 120 240 Vac) (1 cont.) B300 pilot duty (360 VA, 120 240 Vac) (2 - 3 cont. without connector) C300 pilot duty (180 VA, 120 240 Vac) (2 - 3 cont. with connector) C300 pilot duty (180 VA, 120 240 Vac) (4 cont.) |
| Environmental Ratings: | Types 1, 4X, 6, 12, 13 Types 1, 4X "indoor use only" (1 - 2 cont. with "E" type cable) |
| Screws torque of the detachable connector housing nominal is 0.2 ÷ 0.3 Nm. | |
| Please contact our technical department for the list of approved products. | |



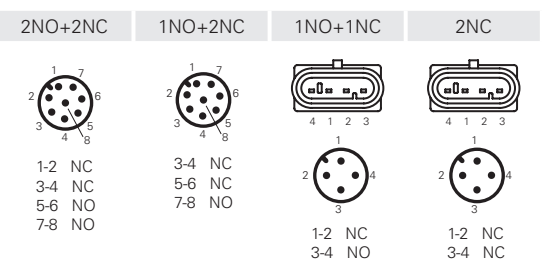
Ambient temperatures for switches with cable and electrical data

| | Connection type | Output with cable | | | | | | Output with M12 connector | | Output with AMP connector | |
|---|--|----------------------------|---|------------------------------|---|---|---|--|--|-----------------------------|-------|
| | | 2 contacts | | | 3 contacts | 4 contacts | | 2 contacts | 3 or 4 contacts | 2 contacts | |
| | Cable or connector type | E | N | H | N | N | H | M12 connector, 5-pole | M12 connector, 8-pole | AMP Superseal 1.5 connector | |
| Cable features | Conductors | 4x0.75 mm ² | 4x0.75 mm ² | 4x0.75 mm ² | 6x0.5 mm ² | 8x0.34 mm ² | 8x0.34 mm ² | 4x0.34 mm ² | 8x0.25mm ² | | |
| | Application field | General | General | General, mobile installation | General | General | General, mobile installation | General | General | General | |
| | In compliance with standards | H05VV-F | H05VV5-F | 05EQ-H | 03VV-F | 03VV-F | 03E7Q-H | 03VV-H | 03VV-H | / | |
| | Sheath | PVC | PVC OIL RESISTANT | PUR HALOGEN FREE | PVC OIL RESISTANT | PVC OIL RESISTANT | PUR HALOGEN FREE | PVC OIL RESISTANT | PVC OIL RESISTANT | / | |
| | Self-extinguishing | IEC 60332-1-2 | IEC 60332-1-2 UL 758:FT1 CEI 20-22 II | IEC60332-1-2 UL 758:FT1 | IEC 60332-1-2 UL 758:FT1 CEI 20-22 II | IEC 60332-1-2 UL 758:FT1 CEI 20-22 II | IEC 60332-1-2 UL 758:FT1 CEI 20-22 II | IEC60332-1-2 UL 758:FT1 CEI 20-22 II | IEC60332-1-2 UL 758:FT1 CEI 20-22 II | / | |
| | Oil resistant | / | UL 758 CSA 22.2 N°210 | UL 758 CSA 22.2 N°210 | UL 758 CSA 22.2 N°210 | UL 758 CSA 22.2 N°210 | UL 758 CSA 22.2 N°210 | UL 758 CSA 22.2 N°210 | UL 758 CSA 22.2 N°210 | / | |
| | Max. speed | / | / | 300 m/min | / | / | 300 m/min | 50 m/min | 50 m/min | / | |
| | Max. acceleration | / | / | 30 m/s ² | / | / | 30 m/s ² | 5 m/s ² | 5 m/s ² | / | |
| | Minimum bending radius | 70 mm | 70 mm | 70 mm | 108 mm | 108 mm | 70 mm | 75 mm | 90 mm | / | |
| | Outer diameter | 7 mm | 7 mm | 7 mm | 7 mm | 7 mm | 7 mm | 6 mm | 6 mm | / | |
| | End stripped | 80mm | 80mm | 80mm | 80mm | 80mm | 80mm | / | / | / | |
| | Copper conductors IEC 60228 | Class 5 | Class 5 | Class 6 | Class 5 | Class 5 | Class 6 | Class 6 | Class 6 | / | |
| Engraving | Standard | 6266 | 6279 | 6272 | 6276 | 6283 | 6263 | 6275 | / | | |
| Ambient temperature with cable extended (T₆) standard | Cable, fixed installation | -15°C +60°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | / | |
| | Cable, flexible installation | +5°C +60°C | -5°C +80°C | -25°C +80°C | -5°C +80°C | -5°C +80°C | -25°C +80°C | -15°C +80°C | -15°C +80°C | / | |
| | Cable, mobile installation | / | / | -25°C +80°C | / | / | -25°C +80°C | -15°C +80°C | -15°C +80°C | / | |
| | Cable, fixed installation | / | / | -40°C +80°C | / | / | -40°C +80°C | / | / | / | |
| | Cable, flexible installation | / | / | -40°C +80°C | / | / | -40°C +80°C | / | / | / | |
| | Cable, mobile installation | / | / | -40°C +80°C | / | / | -40°C +80°C | / | / | / | |
| Electrical data | Thermal current I _{th} | 10 A | 10 A | 10 A | 6 A | 3 A | 3 A | 4 A | 2 A | 10 A | |
| | Rated insulation voltage U _i | 250 Vac | 250 Vac | 250 Vac | 250 Vac | 250 Vac | 250 Vac | 250 Vac 300 Vdc | 30 Vac 36 Vdc | 250 Vac 300 Vdc | |
| | Protection against short circuits (fuse) | 10 A 500 V type gG | 10 A 500 V type gG | 10 A 500 V type gG | 6 A 500 V type gG | 3 A 500 V type gG | 3 A 500 V type gG | 4 A 500 V type gG | 2 A 500 V type gG | 10 A 500 V type gG | |
| | Utilization category DC13 | 24 V | 2 A | 2 A | 2 A | 2 A | 2 A | 2 A | 2 A | 2 A | 2 A |
| | | 125 V | 0.4 A | 0.4 A | 0.4 A | 0.4 A | 0.4 A | 0.4 A | 0.4 A | / | 0.4 A |
| | | 250 V | 0.3 A | 0.3 A | 0.3 A | 0.3 A | 0.3 A | 0.3 A | 0.3 A | / | 0.3 A |
| | Utilization category AC15 | 24 V | 4 A | 4 A | 4 A | 4 A | 3 A | 3 A | 4 A | 2 A | 4 A |
| 120 V | | 4 A | 4 A | 4 A | 4 A | 3 A | 3 A | 4 A | / | 4 A | |
| 250 V | | 4 A | 4 A | 4 A | 4 A | 3 A | 3 A | 4 A | / | 4 A | |
| Approvals | CE cULus IMQ EAC CCC | CE cULus IMQ EAC CCC | CE cULus EAC | CE cULus IMQ EAC CCC | CE cULus IMQ EAC CCC | CE cULus EAC | CE cULus EAC | CE cULus IMQ EAC CCC | CE cULus EAC | CE cULus EAC CCC | |

Internal cable wiring



Connector pin assignment



Female connectors see page 208

Contact type:

- R** = snap action
- L** = slow action

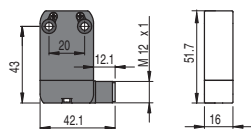
| | | | | | | External gasket | | | | | | | |
|-----------------|----------|--------------------|---|--------------------|---------------|--------------------|---------|--------------------|---|--------------------|---------------|--------------------|---------|
| | | | | | | | | | | | | | |
| Contact block | | | | | | | | | | | | | |
| B11 | R | NF B110AA-DN2 | ➔ | 1NO+1NC | NF B110AB-DN2 | ➔ | 1NO+1NC | NF B110AC-DN2 | ➔ | 1NO+1NC | NF B110AE-DN2 | ➔ | 1NO+1NC |
| B02 | R | NF B020AA-DN2 | ➔ | 2NC | NF B020AB-DN2 | ➔ | 2NC | NF B020AC-DN2 | ➔ | 2NC | NF B020AE-DN2 | ➔ | 2NC |
| B12 | R | NF B120AA-DN2 | ➔ | 1NO+2NC | NF B120AB-DN2 | ➔ | 1NO+2NC | NF B120AC-DN2 | ➔ | 1NO+2NC | NF B120AE-DN2 | ➔ | 1NO+2NC |
| B22 | R | NF B220AA-DN2 | ➔ | 2NO+2NC | NF B220AB-DN2 | ➔ | 2NO+2NC | NF B220AC-DN2 | ➔ | 2NO+2NC | NF B220AE-DN2 | ➔ | 2NO+2NC |
| G11 | L | NF G110AA-DN2 | ➔ | 1NO+1NC | NF G110AB-DN2 | ➔ | 1NO+1NC | NF G110AC-DN2 | ➔ | 1NO+1NC | NF G110AE-DN2 | ➔ | 1NO+1NC |
| G02 | L | NF G020AA-DN2 | ➔ | 2NC | NF G020AB-DN2 | ➔ | 2NC | NF G020AC-DN2 | ➔ | 2NC | NF G020AE-DN2 | ➔ | 2NC |
| G12 | L | NF G120AA-DN2 | ➔ | 1NO+2NC | NF G120AB-DN2 | ➔ | 1NO+2NC | NF G120AC-DN2 | ➔ | 1NO+2NC | NF G120AE-DN2 | ➔ | 1NO+2NC |
| G22 | L | NF G220AA-DN2 | ➔ | 2NO+2NC | NF G220AB-DN2 | ➔ | 2NO+2NC | NF G220AC-DN2 | ➔ | 2NO+2NC | NF G220AE-DN2 | ➔ | 2NO+2NC |
| Max. speed | | page 231 - type 4 | | page 231 - type 4 | | page 231 - type 4 | | page 231 - type 4 | | page 231 - type 4 | | page 231 - type 4 | |
| Actuating force | | 7 N (25 N ➔) | | 7 N (25 N ➔) | | 7 N (25 N ➔) | | 7 N (25 N ➔) | | 7 N (25 N ➔) | | 7 N (25 N ➔) | |
| Travel diagrams | | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 1 | |

Contact type:

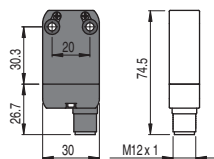
- R** = snap action
- L** = slow action

| | | External gasket | | External gasket | | With stainless steel roller on request | | | | | | | |
|-----------------|----------|--------------------|---|--------------------|---------------|--|---------|--------------------|---|--------------------|---------------|--------------------|---------|
| | | | | | | | | | | | | | |
| Contact block | | | | | | | | | | | | | |
| B11 | R | NF B110BB-DN2 | ➔ | 1NO+1NC | NF B110BE-DN2 | ➔ | 1NO+1NC | NF B110BG-DN2 | ➔ | 1NO+1NC | NF B110CB-DN2 | ➔ | 1NO+1NC |
| B02 | R | NF B020BB-DN2 | ➔ | 2NC | NF B020BE-DN2 | ➔ | 2NC | NF B020BG-DN2 | ➔ | 2NC | NF B020CB-DN2 | ➔ | 2NC |
| B12 | R | NF B120BB-DN2 | ➔ | 1NO+2NC | NF B120BE-DN2 | ➔ | 1NO+2NC | NF B120BG-DN2 | ➔ | 1NO+2NC | NF B120CB-DN2 | ➔ | 1NO+2NC |
| B22 | R | NF B220BB-DN2 | ➔ | 2NO+2NC | NF B220BE-DN2 | ➔ | 2NO+2NC | NF B220BG-DN2 | ➔ | 2NO+2NC | NF B220CB-DN2 | ➔ | 2NO+2NC |
| G11 | L | NF G110BB-DN2 | ➔ | 1NO+1NC | NF G110BE-DN2 | ➔ | 1NO+1NC | NF G110BG-DN2 | ➔ | 1NO+1NC | NF G110CB-DN2 | ➔ | 1NO+1NC |
| G02 | L | NF G020BB-DN2 | ➔ | 2NC | NF G020BE-DN2 | ➔ | 2NC | NF G020BG-DN2 | ➔ | 2NC | NF G020CB-DN2 | ➔ | 2NC |
| G12 | L | NF G120BB-DN2 | ➔ | 1NO+2NC | NF G120BE-DN2 | ➔ | 1NO+2NC | NF G120BG-DN2 | ➔ | 1NO+2NC | NF G120CB-DN2 | ➔ | 1NO+2NC |
| G22 | L | NF G220BB-DN2 | ➔ | 2NO+2NC | NF G220BE-DN2 | ➔ | 2NO+2NC | NF G220BG-DN2 | ➔ | 2NO+2NC | NF G220CB-DN2 | ➔ | 2NO+2NC |
| Max. speed | | page 231 - type 2 | | page 231 - type 5 | | page 231 - type 5 | | page 231 - type 5 | | page 231 - type 3 | | page 231 - type 3 | |
| Actuating force | | 7 N (25 N ➔) | | 7 N (25 N ➔) | | 7 N (25 N ➔) | | 7 N (25 N ➔) | | 5 N (25 N ➔) | | 5 N (25 N ➔) | |
| Travel diagrams | | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 2 | | page 232 - group 2 | |

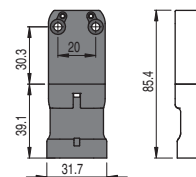
M12 connector, right



M12 connector, bottom



AMP Superseal 1.5 connector



To order a product with M12 right connector, replace DN2 with DMK in the codes shown above.

Example:
NF B110AA-DN2 → NF B110AA-DMK

To order a product with M12 bottom connector, replace DN2 with SMK in the codes shown above.

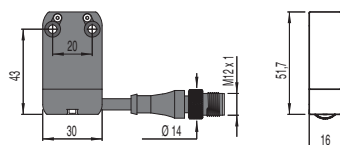
Example:
NF B110AA-DN2 → NF B110AA-SMK

To order a product with AMP connector, replace DN2 with SAK in the codes shown above. Example:

NF B110AA-DN2 → NF B110AA-SAK

| Contact type: | With stainless steel roller on request | | Unidirectional operation | | Secured only by means of threaded head | |
|--|--|---------|--------------------------|---------|--|---------|
| | | | | | | |
| R = snap action L = slow action | | | | | | |
| Contact block | | | | | | |
| B11 R | NF B110CH-DN2 | 1NO+1NC | NF B110CP-DN2 | 1NO+1NC | NF B110CV-DN2 | 1NO+1NC |
| B02 R | NF B020CH-DN2 | 2NC | NF B020CP-DN2 | 2NC | NF B020CV-DN2 | 2NC |
| B12 R | NF B120CH-DN2 | 1NO+2NC | NF B120CP-DN2 | 1NO+2NC | NF B120CV-DN2 | 1NO+2NC |
| B22 R | NF B220CH-DN2 | 2NO+2NC | NF B220CP-DN2 | 2NO+2NC | NF B220CV-DN2 | 2NO+2NC |
| G11 L | NF G110CH-DN2 | 1NO+1NC | NF G110CP-DN2 | 1NO+1NC | NF G110CV-DN2 | 1NO+1NC |
| G02 L | NF G020CH-DN2 | 2NC | NF G020CP-DN2 | 2NC | NF G020CV-DN2 | 2NC |
| G12 L | NF G120CH-DN2 | 1NO+2NC | NF G120CP-DN2 | 1NO+2NC | NF G120CV-DN2 | 1NO+2NC |
| G22 L | NF G220CH-DN2 | 2NO+2NC | NF G220CP-DN2 | 2NO+2NC | NF G220CV-DN2 | 2NO+2NC |
| Max. speed | page 231 - type 3 | | page 231 - type 3 | | page 231 - type 3 | |
| Actuating force | 5 N (25 N \ominus) | | 3 N (25 N \ominus) | | 3 N (25 N \ominus) | |
| Travel diagrams | page 232 - group 2 | | page 232 - group 6 | | page 232 - group 3 | |
| | | | | | page 232 - group 1 | |

| Contact type: | Secured only by means of threaded head | | Secured only by means of threaded head | | Plunger with Ø 6 mm ball | | External gasket | |
|--|--|---------|--|---------|--------------------------|---------|--------------------|---------|
| | | | | | | | | |
| R = snap action L = slow action | | | | | | | | |
| Contact block | | | | | | | | |
| B11 R | NF B110EE-DN2 | 1NO+1NC | NF B110FB-DN2 | 1NO+1NC | NF B110GB-DN2 | 1NO+1NC | NF B110HB-DN2 | 1NO+1NC |
| B02 R | NF B020EE-DN2 | 2NC | NF B020FB-DN2 | 2NC | NF B020GB-DN2 | 2NC | NF B020HB-DN2 | 2NC |
| B12 R | NF B120EE-DN2 | 1NO+2NC | NF B120FB-DN2 | 1NO+2NC | NF B120GB-DN2 | 1NO+2NC | NF B120HB-DN2 | 1NO+2NC |
| B22 R | NF B220EE-DN2 | 2NO+2NC | NF B220FB-DN2 | 2NO+2NC | NF B220GB-DN2 | 2NO+2NC | NF B220HB-DN2 | 2NO+2NC |
| G11 L | NF G110EE-DN2 | 1NO+1NC | NF G110FB-DN2 | 1NO+1NC | NF G110GB-DN2 | 1NO+1NC | / | / |
| G02 L | NF G020EE-DN2 | 2NC | NF G020FB-DN2 | 2NC | NF G020GB-DN2 | 2NC | NF G020HB-DN2 | 2NC |
| G12 L | NF G120EE-DN2 | 1NO+2NC | NF G120FB-DN2 | 1NO+2NC | NF G120GB-DN2 | 1NO+2NC | / | / |
| G22 L | NF G220EE-DN2 | 2NO+2NC | NF G220FB-DN2 | 2NO+2NC | NF G220GB-DN2 | 2NO+2NC | / | / |
| Max. speed | page 231 - type 4 | | page 231 - type 2 | | page 231 - type 2 | | 1 m/s | |
| Actuating force | 7 N (25 N \ominus) | | 7 N (25 N \ominus) | | 7 N (25 N \ominus) | | 0.03 Nm | |
| Travel diagrams | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 1 | | page 232 - group 4 | |

Cable and M12 connector


To order a product with cable and M12 connector:
 replace DN2 with DM0.2 in the codes shown above. Example:
 NF B110AA-DN2 → NF B110AA-DM0.2

Contact type:

- R** = snap action
- L** = slow action

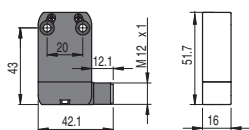
| | External gasket | | External gasket | | With stainless steel roller on request | | With stainless steel roller on request | |
|-----------------|--------------------|-----------------------|-----------------------|-------------------------------------|--|--|--|--|
| | | | | | | | | |
| Contact block | | | | | | | | |
| B11 | R | NF B110HE-DN2 1NO+1NC | NF B110HH-DN2 1NO+1NC | NF B112KA-DN2 \rightarrow 1NO+1NC | NF B112KB-DN2 \rightarrow 1NO+1NC | | | |
| B02 | R | NF B020HE-DN2 2NC | NF B020HH-DN2 2NC | NF B022KA-DN2 \rightarrow 2NC | NF B022KB-DN2 \rightarrow 2NC | | | |
| B12 | R | NF B120HE-DN2 1NO+2NC | NF B120HH-DN2 1NO+2NC | NF B122KA-DN2 \rightarrow 1NO+2NC | NF B122KB-DN2 \rightarrow 1NO+2NC | | | |
| B22 | R | NF B220HE-DN2 2NO+2NC | NF B220HH-DN2 2NO+2NC | NF B222KA-DN2 \rightarrow 2NO+2NC | NF B222KB-DN2 \rightarrow 2NO+2NC | | | |
| G11 | L | / | / | NF G112KA-DN2 \rightarrow 1NO+1NC | NF G112KB-DN2 \rightarrow 1NO+1NC | | | |
| G02 | L | NF G020HE-DN2 2NC | NF G020HH-DN2 2NC | NF G022KA-DN2 \rightarrow 2NC | NF G022KB-DN2 \rightarrow 2NC | | | |
| G12 | L | / | / | NF G122KA-DN2 \rightarrow 1NO+2NC | NF G122KB-DN2 \rightarrow 1NO+2NC | | | |
| G22 | L | / | / | NF G222KA-DN2 \rightarrow 2NO+2NC | NF G222KB-DN2 \rightarrow 2NO+2NC | | | |
| Max. speed | 1 m/s | | 1 m/s | | page 231 - type 1 | | page 231 - type 1 | |
| Actuating force | 0.07 Nm | | 0.03 Nm | | 0.07 Nm (0.25 Nm \rightarrow) | | 0.07 Nm (0.25 Nm \rightarrow) | |
| Travel diagrams | page 232 - group 4 | | page 232 - group 4 | | page 232 - group 5 | | page 232 - group 5 | |

Contact type:

- R** = snap action
- L** = slow action

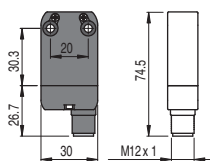
| | With stainless steel roller on request | | With stainless steel roller on request | | With stainless steel roller on request | | With stainless steel roller on request | |
|-----------------|--|-------------------------------------|--|-------------------------------------|--|--|--|--|
| | | | | | | | | |
| Contact block | | | | | | | | |
| B11 | R | NF B112KC-DN2 \rightarrow 1NO+1NC | NF B112KD-DN2 \rightarrow 1NO+1NC | NF B112KE-DN2 \rightarrow 1NO+1NC | NF B112KF-DN2 \rightarrow 1NO+1NC | | | |
| B02 | R | NF B022KC-DN2 \rightarrow 2NC | NF B022KD-DN2 \rightarrow 2NC | NF B022KE-DN2 \rightarrow 2NC | NF B022KF-DN2 \rightarrow 2NC | | | |
| B12 | R | NF B122KC-DN2 \rightarrow 1NO+2NC | NF B122KD-DN2 \rightarrow 1NO+2NC | NF B122KE-DN2 \rightarrow 1NO+2NC | NF B122KF-DN2 \rightarrow 1NO+2NC | | | |
| B22 | R | NF B222KC-DN2 \rightarrow 2NO+2NC | NF B222KD-DN2 \rightarrow 2NO+2NC | NF B222KE-DN2 \rightarrow 2NO+2NC | NF B222KF-DN2 \rightarrow 2NO+2NC | | | |
| G11 | L | NF G112KC-DN2 \rightarrow 1NO+1NC | NF G112KD-DN2 \rightarrow 1NO+1NC | NF G112KE-DN2 \rightarrow 1NO+1NC | NF G112KF-DN2 \rightarrow 1NO+1NC | | | |
| G02 | L | NF G022KC-DN2 \rightarrow 2NC | NF G022KD-DN2 \rightarrow 2NC | NF G022KE-DN2 \rightarrow 2NC | NF G022KF-DN2 \rightarrow 2NC | | | |
| G12 | L | NF G122KC-DN2 \rightarrow 1NO+2NC | NF G122KD-DN2 \rightarrow 1NO+2NC | NF G122KE-DN2 \rightarrow 1NO+2NC | NF G122KF-DN2 \rightarrow 1NO+2NC | | | |
| G22 | L | NF G222KC-DN2 \rightarrow 2NO+2NC | NF G222KD-DN2 \rightarrow 2NO+2NC | NF G222KE-DN2 \rightarrow 2NO+2NC | NF G222KF-DN2 \rightarrow 2NO+2NC | | | |
| Max. speed | page 231 - type 1 | | page 231 - type 1 | | page 231 - type 1 | | page 231 - type 1 | |
| Actuating force | 0.07 Nm (0.25 Nm \rightarrow) | | 0.07 Nm (0.25 Nm \rightarrow) | | 0.07 Nm (0.25 Nm \rightarrow) | | 0.07 Nm (0.25 Nm \rightarrow) | |
| Travel diagrams | page 232 - group 5 | | page 232 - group 5 | | page 232 - group 5 | | page 232 - group 5 | |

M12 connector, right



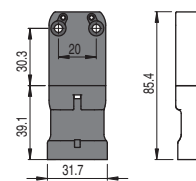
To order a product with M12 right connector, replace DN2 with DMK in the codes shown above.
Example:
NF B110AA-DN2 \rightarrow NF B110AA-DMK

M12 connector, bottom



To order a product with M12 bottom connector, replace DN2 with SMK in the codes shown above.
Example:
NF B110AA-DN2 \rightarrow NF B110AA-SMK

AMP Superseal 1.5 connector



To order a product with AMP connector, replace DN2 with SAK in the codes shown above. Example:
NF B110AA-DN2 \rightarrow NF B110AA-SAK



Contact type:

R = snap action
L = slow action

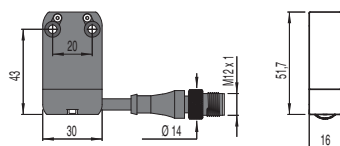
| | With stainless steel roller on request | With stainless steel roller on request | With stainless steel roller on request | Square rod, 3x3 mm, stainless steel |
|-----------------|---|--|--|-------------------------------------|
| Contact block | | | | |
| B11 | R NF B112KG-DN2 \oplus 1NO+1NC | NF B112KH-DN2 \oplus 1NO+1NC | NF B112KP-DN2 \oplus 1NO+1NC | NF B112LB-DN2 1NO+1NC |
| B02 | R NF B022KG-DN2 \oplus 2NC | NF B022KH-DN2 \oplus 2NC | NF B022KP-DN2 \oplus 2NC | NF B022LB-DN2 2NC |
| B12 | R NF B122KG-DN2 \oplus 1NO+2NC | NF B122KH-DN2 \oplus 1NO+2NC | NF B122KP-DN2 \oplus 1NO+2NC | NF B122LB-DN2 1NO+2NC |
| B22 | R NF B222KG-DN2 \oplus 2NO+2NC | NF B222KH-DN2 \oplus 2NO+2NC | NF B222KP-DN2 \oplus 2NO+2NC | NF B222LB-DN2 2NO+2NC |
| G11 | L NF G112KG-DN2 \oplus 1NO+1NC | NF G112KH-DN2 \oplus 1NO+1NC | NF G112KP-DN2 \oplus 1NO+1NC | NF G112LB-DN2 1NO+1NC |
| G02 | L NF G022KG-DN2 \oplus 2NC | NF G022KH-DN2 \oplus 2NC | NF G022KP-DN2 \oplus 2NC | NF G022LB-DN2 2NC |
| G12 | L NF G122KG-DN2 \oplus 1NO+2NC | NF G122KH-DN2 \oplus 1NO+2NC | NF G122KP-DN2 \oplus 1NO+2NC | NF G122LB-DN2 1NO+2NC |
| G22 | L NF G222KG-DN2 \oplus 2NO+2NC | NF G222KH-DN2 \oplus 2NO+2NC | NF G222KP-DN2 \oplus 2NO+2NC | NF G222LB-DN2 2NO+2NC |
| Max. speed | page 231 - type 1 | page 231 - type 1 | page 231 - type 1 | 1.5 m/s |
| Actuating force | 0.07 Nm (0.25 Nm \oplus) | 0.07 Nm (0.25 Nm \oplus) | 0.07 Nm (0.25 Nm \oplus) | 0.07 Nm |
| Travel diagrams | page 232 - group 5 | page 232 - group 5 | page 232 - group 5 | page 232 - group 5 |

Contact type:

R = snap action
L = slow action

| | Round rod, Ø 3 mm, stainless steel | Glass fibre rod | | Porcelain roller |
|-----------------|------------------------------------|-----------------------|-----------------------|-----------------------------------|
| Contact block | | | | |
| B11 | R NF B112LE-DN2 1NO+1NC | NF B112LH-DN2 1NO+1NC | NF B112LL-DN2 1NO+1NC | NF B112LP-DN2E24 \oplus 1NO+1NC |
| B02 | R NF B022LE-DN2 2NC | NF B022LH-DN2 2NC | NF B022LL-DN2 2NC | NF B022LP-DN2E24 \oplus 2NC |
| B12 | R NF B122LE-DN2 1NO+2NC | NF B122LH-DN2 1NO+2NC | NF B122LL-DN2 1NO+2NC | NF B122LP-DN2E24 \oplus 1NO+2NC |
| B22 | R NF B222LE-DN2 2NO+2NC | NF B222LH-DN2 2NO+2NC | NF B222LL-DN2 2NO+2NC | NF B222LP-DN2E24 \oplus 2NO+2NC |
| G11 | L NF G112LE-DN2 1NO+1NC | NF G112LH-DN2 1NO+1NC | NF G112LL-DN2 1NO+1NC | NF G112LP-DN2E24 \oplus 1NO+1NC |
| G02 | L NF G022LE-DN2 2NC | NF G022LH-DN2 2NC | NF G022LL-DN2 2NC | NF G022LP-DN2E24 \oplus 2NC |
| G12 | L NF G122LE-DN2 1NO+2NC | NF G122LH-DN2 1NO+2NC | NF G122LL-DN2 1NO+2NC | NF G122LP-DN2E24 \oplus 1NO+2NC |
| G22 | L NF G222LE-DN2 2NO+2NC | NF G222LH-DN2 2NO+2NC | NF G222LL-DN2 2NO+2NC | NF G222LP-DN2E24 \oplus 2NO+2NC |
| Max. speed | 1.5 m/s | 1.5 m/s | 1.5 m/s | 0.5 m/s |
| Actuating force | 0.07 Nm | 0.07 Nm | 0.07 Nm | 0.04 Nm |
| Travel diagrams | page 232 - group 5 | page 232 - group 5 | page 232 - group 5 | page 232 - group 5 |

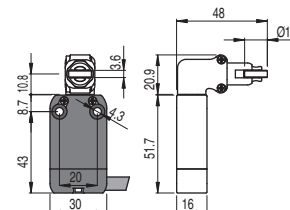
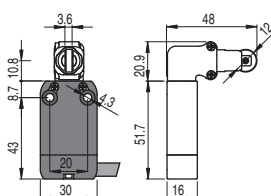
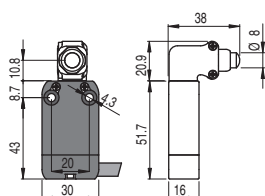
Cable and M12 connector



To order a product with cable and M12 connector:
replace DN2 with DM0.2 in the codes shown above. Example:
NF B110AA-DN2 → NF B110AA-DM0.2

Contact type:

R = snap action
L = slow action

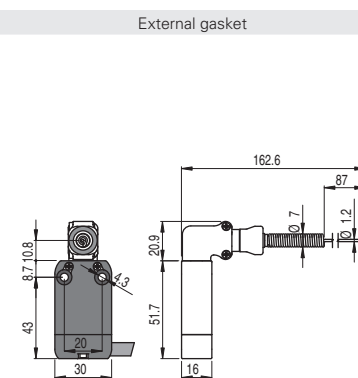
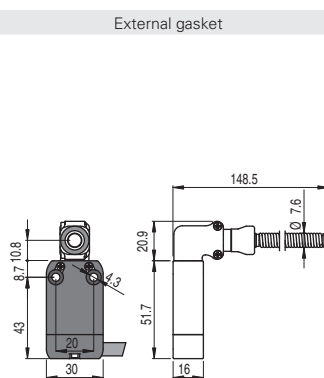
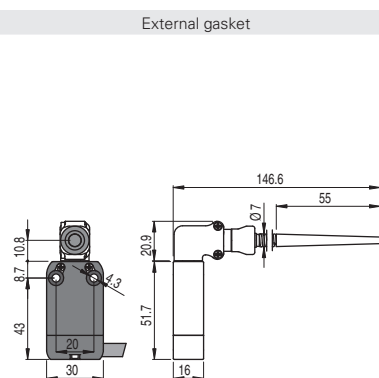


Contact block

| | | | | | | | | | | | | |
|-----------------|--------------------|-----------------|---|---------|--------------------|---|---------|-----------------|--------------------|---------|--|--|
| B11 | R | NF B110AB-DN2W5 | ⊕ | 1NO+1NC | NF B110BB-DN2H0W5 | ⊕ | 1NO+1NC | NF B110BB-DN2W5 | ⊕ | 1NO+1NC | | |
| B02 | R | NF B020AB-DN2W5 | ⊕ | 2NC | NF B020BB-DN2H0W5 | ⊕ | 2NC | NF B020BB-DN2W5 | ⊕ | 2NC | | |
| B12 | R | NF B120AB-DN2W5 | ⊕ | 1NO+2NC | NF B120BB-DN2H0W5 | ⊕ | 1NO+2NC | NF B120BB-DN2W5 | ⊕ | 1NO+2NC | | |
| B22 | R | NF B220AB-DN2W5 | ⊕ | 2NO+2NC | NF B220BB-DN2H0W5 | ⊕ | 2NO+2NC | NF B220BB-DN2W5 | ⊕ | 2NO+2NC | | |
| G11 | L | NF G110AB-DN2W5 | ⊕ | 1NO+1NC | NF G110BB-DN2H0W5 | ⊕ | 1NO+1NC | NF G110BB-DN2W5 | ⊕ | 1NO+1NC | | |
| G02 | L | NF G020AB-DN2W5 | ⊕ | 2NC | NF G020BB-DN2H0W5 | ⊕ | 2NC | NF G020BB-DN2W5 | ⊕ | 2NC | | |
| G12 | L | NF G120AB-DN2W5 | ⊕ | 1NO+2NC | NF G120BB-DN2H0W5 | ⊕ | 1NO+2NC | NF G120BB-DN2W5 | ⊕ | 1NO+2NC | | |
| G22 | L | NF G220AB-DN2W5 | ⊕ | 2NO+2NC | NF G220BB-DN2H0W5 | ⊕ | 2NO+2NC | NF G220BB-DN2W5 | ⊕ | 2NO+2NC | | |
| Max. speed | page 231 - type 4 | | | | page 231 - type 2 | | | | page 231 - type 2 | | | |
| Actuating force | 9.5 N (25 N ⊕) | | | | 9.5 N (25 N ⊕) | | | | 9.5 N (25 N ⊕) | | | |
| Travel diagrams | page 232 - group 1 | | | | page 232 - group 1 | | | | page 232 - group 1 | | | |

Contact type:

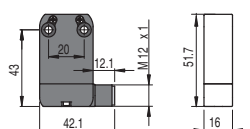
R = snap action
L = slow action



Contact block

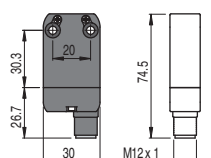
| | | | | | | | | | | | | |
|-----------------|--------------------|-----------------|--|---------|--------------------|--|---------|-----------------|--------------------|---------|--|--|
| B11 | R | NF B110HB-DN2W5 | | 1NO+1NC | NF B110HE-DN2W5 | | 1NO+1NC | NF B110HH-DN2W5 | | 1NO+1NC | | |
| B02 | R | NF B020HB-DN2W5 | | 2NC | NF B020HE-DN2W5 | | 2NC | NF B020HH-DN2W5 | | 2NC | | |
| B12 | R | NF B120HB-DN2W5 | | 1NO+2NC | NF B120HE-DN2W5 | | 1NO+2NC | NF B120HH-DN2W5 | | 1NO+2NC | | |
| B22 | R | NF B220HB-DN2W5 | | 2NO+2NC | NF B220HE-DN2W5 | | 2NO+2NC | NF B220HH-DN2W5 | | 2NO+2NC | | |
| G11 | L | / | | / | / | | / | / | | / | | |
| G02 | L | NF G020HB-DN2W5 | | 2NC | NF G020HE-DN2W5 | | 2NC | NF G020HH-DN2W5 | | 2NC | | |
| G12 | L | / | | / | / | | / | / | | / | | |
| G22 | L | / | | / | / | | / | / | | / | | |
| Max. speed | 1 m/s | | | | 1 m/s | | | | 1 m/s | | | |
| Actuating force | 0.08 Nm | | | | 0.12 Nm | | | | 0.08 Nm | | | |
| Travel diagrams | page 232 - group 4 | | | | page 232 - group 4 | | | | page 232 - group 4 | | | |

M12 connector, right



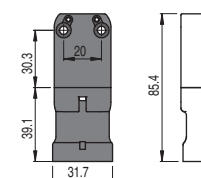
To order a product with M12 right connector, replace DN2 with DMK in the codes shown above.
 Example:
 NF B110AA-DN2 → NF B110AA-DMK

M12 connector, bottom



To order a product with M12 bottom connector, replace DN2 with SMK in the codes shown above.
 Example:
 NF B110AA-DN2 → NF B110AA-SMK

AMP Superseal 1.5 connector



To order a product with AMP connector, replace DN2 with SAK in the codes shown above. Example:
 NF B110AA-DN2 → NF B110AA-SAK

All values in the drawings are in mm

Accessories See page 207

→ The 2D and 3D files are available at www.pizzato.com

Accessories Packs of **10 pcs.**

| Article | Description |
|---------|-----------------------------|
| VN DT1F | Spacer for NA and NF series |

By installing spacers between two switches, it is possible to have 2 or more pre-wired switches, preventing them from slipping.

M12 female connectors with cable For details see page 208


- Technical data:**
- Polyurethane connector body
 - Class 6 copper conductors acc. to IEC 60228 - mobile installation
 - Gold-plated contacts
 - Self-locking ring nut
 - High flexibility cable with PVC sheath suitable to be used in drag chains, acc. to IEC 60332-3 and CEI 20-22II. With polyurethane sheath on request

Code structure **Attention!** The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

VF CA4PD3M

| No. of poles | |
|--------------|----------|
| 4 | 4 poles |
| 5 | 5 poles |
| 8 | 8 poles |
| 12 | 12 poles |

| Cable sheath | |
|--------------|----------------|
| P | PVC (standard) |
| U | PUR |

| Connector type | |
|----------------|---------------------|
| D | straight (standard) |
| G | angled |

| Connection type | |
|-----------------|-------|
| M | M12x1 |

| Cable length (L) | | No. of poles | | | |
|------------------|----------------------|--------------|---|---|----|
| | | 4 | 5 | 8 | 12 |
| 1 | 1 metre | | | | |
| 2 | 2 metres | | | | |
| 3 | 3 metres (standard) | • | • | | |
| 4 | 4 metres | | | | |
| 5 | 5 metres (standard) | • | • | • | • |
| ... | | | | | |
| 0 | 10 metres (standard) | • | • | • | • |

Other lengths on request

Stock items

- VF CA4PD3M
- VF CA4PD5M
- VF CA4PD0M
- VF CA5PD3M
- VF CA5PD5M
- VF CA5PD0M
- VF CA8PD5M
- VF CA8PD0M
- VF CA12PD5M
- VF CA12PD0M

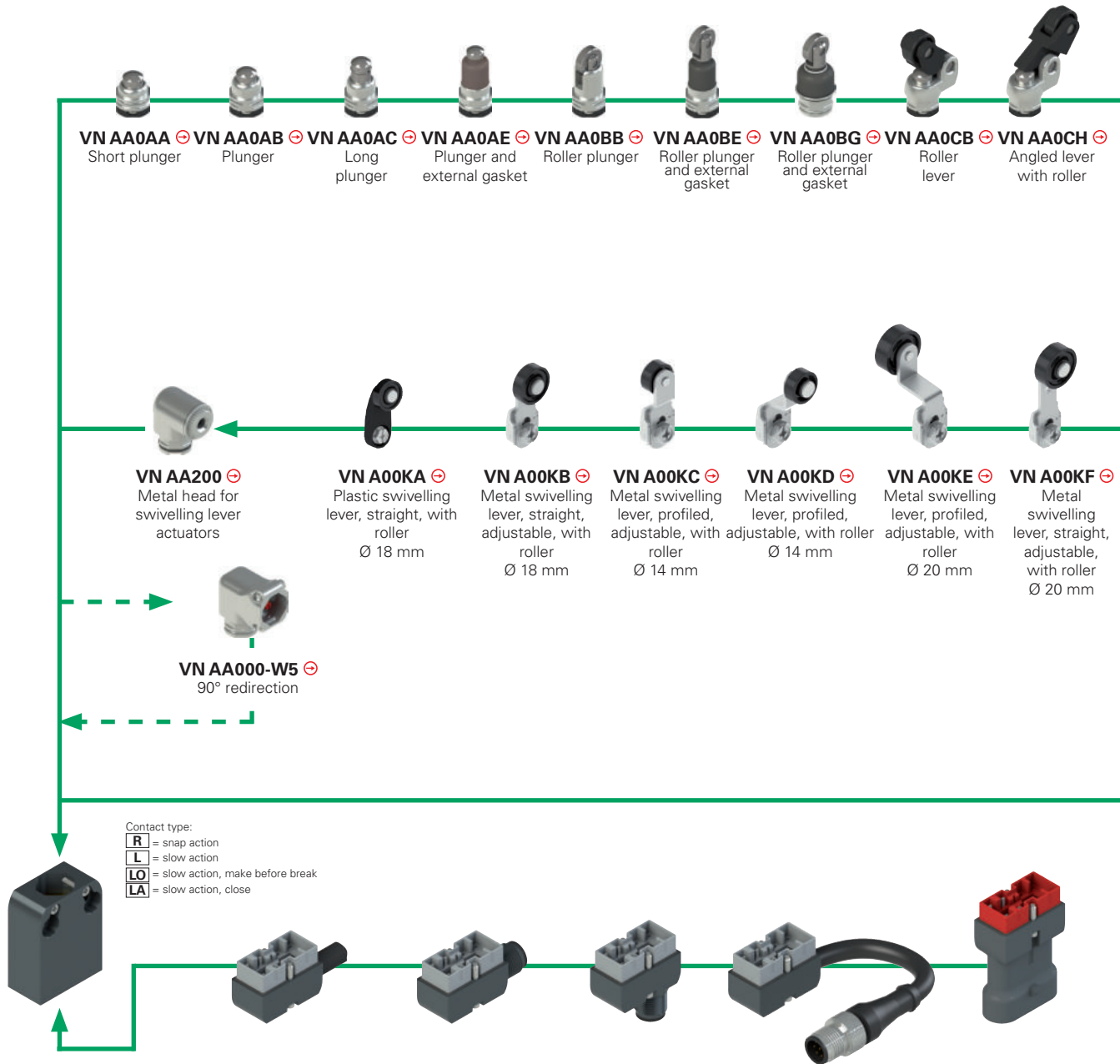
Attention! For items not in stock the minimum order quantity is 100 pcs.

Field wireable M12 female connectors


- General data**
- Technopolymer connector body
 - Gold-plated contacts
 - Screw terminals for cable screw fittings
 - Max. operating voltages: 250 Vac/dc (4 and 5-pole), 30 Vac/dc (8-pole)
 - Maximum current: 4 A
 - Protection degree: IP67 acc. to EN 60529
 - Ambient temperature: -25°C ... +85°C
 - Wire cross-section: 0.25 mm² (24 AWG) ... 0.5 mm² (20 AWG)

| Article | Description | no. of poles |
|--------------|---|--------------|
| VF CBMP4DM04 | Field wireable M12 female connector, straight, for Ø 4 ... 6.5 mm multipolar cables | 4 |
| VF CBMP5DM04 | Field wireable M12 female connector, straight, for Ø 4 ... 6.5 mm multipolar cables | 5 |
| VF CBMP8DM04 | Field wireable M12 female connector, straight, for Ø 4 ... 7 mm multipolar cables | 8 |

Selection diagram for item combinations of the NA - NB - NF series



| METAL housing, NA hole spacing 20 mm |
|--------------------------------------|
| NA B11000 ⊕ 1NO+1NC R |
| NA G11000 ⊕ 1NO+1NC L |
| NA L11000 ⊕ 1NO+1NC LA |
| NA H11000 ⊕ 1NO+1NC LO |
| NA B02000 ⊕ 2NC R |
| NA G02000 ⊕ 2NC L |
| NA B20000 ⊕ 2NO R |
| NA G20000 ⊕ 2NO L |
| NA B12000 ⊕ 1NO+2NC R |
| NA G12000 ⊕ 1NO+2NC L |
| NA L12000 ⊕ 1NO+2NC LA |
| NA H12000 ⊕ 1NO+2NC LO |
| NA B22000 ⊕ 2NO+2NC R |
| NA G22000 ⊕ 2NO+2NC L |
| NA L22000 ⊕ 2NO+2NC LA |
| NA H22000 ⊕ 2NO+2NC LO |

| Metal connector with cable | Cable length (m) |
|----------------------------|------------------|
| VN CM11DN2 | 2 |
| VN CM11DN5 | 5 |
| VN CM02DN2 | 2 |
| VN CM02DN5 | 5 |
| VN CM20DN2 | 2 |
| VN CM20DN5 | 5 |
| VN CM12DN2 | 2 |
| VN CM12DN5 | 5 |
| VN CM22DN2 | 2 |
| VN CM22DN5 | 5 |

| M12 metal connector, right |
|----------------------------|
| VN CM11DMK |
| VN CM02DMK |
| VN CM20DMK |
| VN CM12DMK |
| VN CM22DMK |

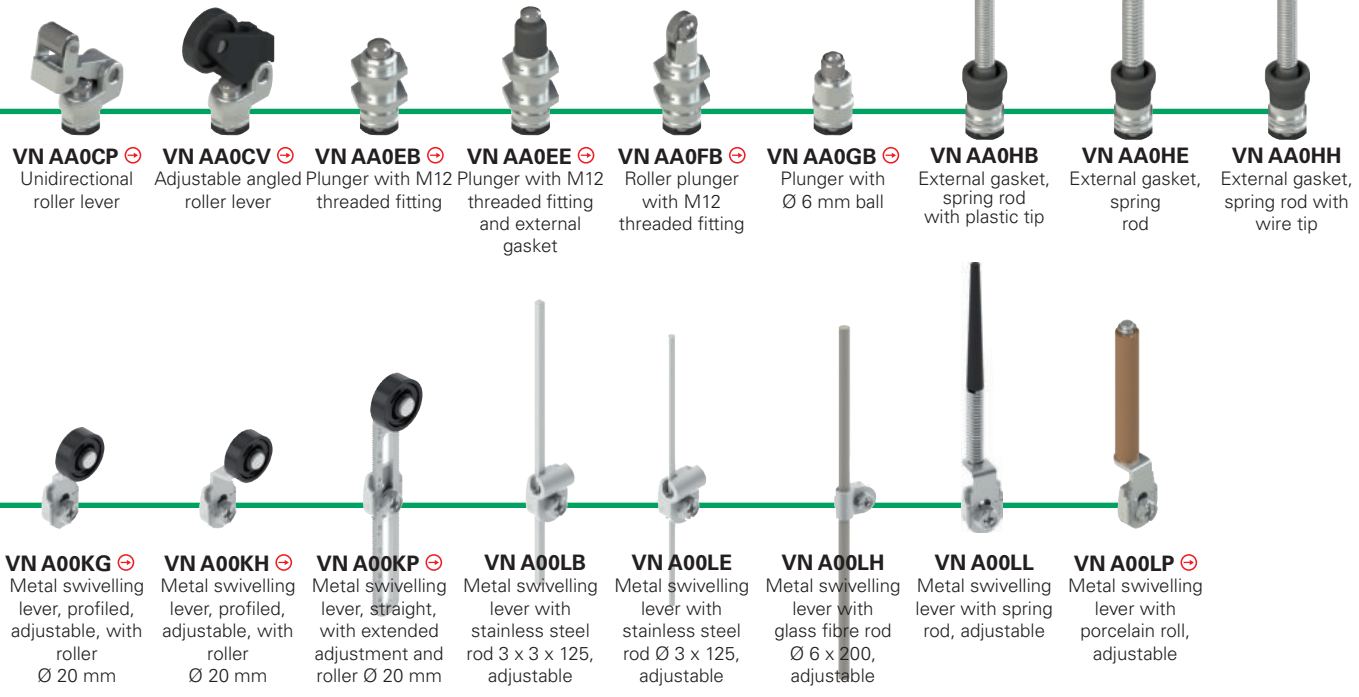
| M12 metal connector, bottom |
|-----------------------------|
| VN CM11SMK |
| VN CM02SMK |
| VN CM20SMK |
| VN CM12SMK |
| VN CM22SMK |

| Metal connector with cable and M12 connector | Cable length (m) |
|--|------------------|
| VN CM11DM0.2 | 0.2 |
| VN CM02DM0.2 | 0.2 |
| VN CM20DM0.2 | 0.2 |
| VN CM12DM0.2 | 0.2 |
| VN CM22DM0.2 | 0.2 |

| AMP technopolymer connector, bottom |
|-------------------------------------|
| VN CM11SAK |
| VN CM02SAK |
| VN CM20SAK |

To order a NB series housing, replace NA with NB in the codes shown above. Example: NA B11000 → NB B11000

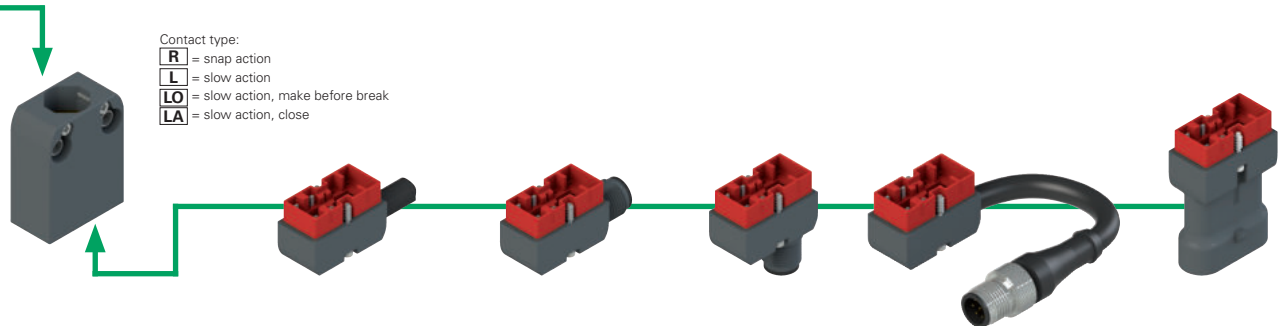
⚠ It is not allowed to install VN CM***** connectors on technopolymer housings



VN AA0CP ⊕ Unidirectional roller lever
VN AA0CV ⊕ Adjustable angled roller lever
VN AA0EB ⊕ Plunger with M12 threaded fitting
VN AA0EE ⊕ Plunger with M12 threaded fitting and external gasket
VN AA0FB ⊕ Roller plunger with M12 threaded fitting
VN AA0GB ⊕ Plunger with Ø 6 mm ball
VN AA0HB External gasket, spring rod with plastic tip
VN AA0HE External gasket, spring rod
VN AA0HH External gasket, spring rod with wire tip

VN A00KG ⊕ Metal swivelling lever, profiled, adjustable, with roller Ø 20 mm
VN A00KH ⊕ Metal swivelling lever, profiled, adjustable, with roller Ø 20 mm
VN A00KP ⊕ Metal swivelling lever, straight, with extended adjustment and roller Ø 20 mm
VN A00LB Metal swivelling lever with stainless steel rod 3 x 3 x 125, adjustable
VN A00LE Metal swivelling lever with stainless steel rod Ø 3 x 125, adjustable
VN A00LH Metal swivelling lever with glass fibre rod Ø 6 x 200, adjustable
VN A00LL Metal swivelling lever with spring rod, adjustable
VN A00LP ⊕ Metal swivelling lever with porcelain roll, adjustable

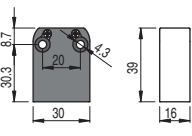
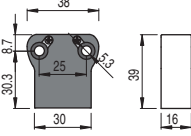
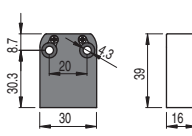
Contact type:
R = snap action
L = slow action
LO = slow action, make before break
LA = slow action, close



| NF TECHNOPOLYMER housing, 20 mm hole spacing | Technopolymer connector with cable | Cable length (m) | M12 technopolymer connector, right | M12 technopolymer connector, bottom | Technopolymer connector with cable and M12 connector | Cable length (m) | AMP technopolymer connector, bottom |
|--|------------------------------------|------------------|------------------------------------|-------------------------------------|--|------------------|-------------------------------------|
| NF B11000 ⊕ 1NO+1NC R | VN CP11DN2 | 2 | VN CP11DMK | VN CP11SMK | VN CP11DM0.2 | 0.2 | VN CP11SAK |
| NF G11000 ⊕ 1NO+1NC L | VN CP11DN5 | 5 | | | | | |
| NF L11000 ⊕ 1NO+1NC LA | VN CP02DN2 | 2 | VN CP02DMK | VN CP02SMK | VN CP02DM0.2 | 0.2 | VN CP02SAK |
| NF H11000 ⊕ 1NO+1NC LO | VN CP02DN5 | 5 | | | | | |
| NF B02000 ⊕ 2NC R | VN CP20DN2 | 2 | VN CP20DMK | VN CP20SMK | VN CP20DM0.2 | 0.2 | VN CP20SAK |
| NF G02000 ⊕ 2NC L | VN CP20DN5 | 5 | | | | | |
| NF B20000 ⊕ 2NO R | VN CP12DN2 | 2 | VN CP12DMK | VN CP12SMK | VN CP12DM0.2 | 0.2 | VN CP12SAK |
| NF G20000 ⊕ 2NO L | VN CP12DN5 | 5 | | | | | |
| NF B22000 ⊕ 2NO+2NC R | VN CP22DN2 | 2 | VN CP22DMK | VN CP22SMK | VN CP22DM0.2 | 0.2 | VN CP22SAK |
| NF G22000 ⊕ 2NO+2NC L | VN CP22DN5 | 5 | | | | | |
| NF L22000 ⊕ 2NO+2NC LA | | | | | | | |
| NF H22000 ⊕ 2NO+2NC LO | | | | | | | |

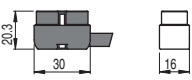
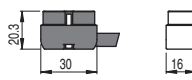
⚠ It is not allowed to install VN CP***** connectors on metal housings

Housings

| NA metal housings | | NB metal housings | | Contact type: R = snap action L = slow action LO = slow action, make before break LA = slow action, close | NF technopolymer housings | |
|---|---------------------|---|---------------------|---|--|---------------------|
|  | |  | | |  | |
| NA B11000 | ⊕ 1NO+1NC R | NB B11000 | ⊕ 1NO+1NC R | | NF B11000 | ⊕ 1NO+1NC R |
| NA G11000 | ⊕ 1NO+1NC L | NB G11000 | ⊕ 1NO+1NC L | | NF G11000 | ⊕ 1NO+1NC L |
| NA L11000 | ⊕ 1NO+1NC LA | NB L11000 | ⊕ 1NO+1NC LA | | NF L11000 | ⊕ 1NO+1NC LA |
| NA H11000 | ⊕ 1NO+1NC LO | NB H11000 | ⊕ 1NO+1NC LO | | NF H11000 | ⊕ 1NO+1NC LO |
| NA B12000 | ⊕ 1NO+2NC R | NB B12000 | ⊕ 1NO+2NC R | | NF B12000 | ⊕ 1NO+2NC R |
| NA G12000 | ⊕ 1NO+2NC L | NB G12000 | ⊕ 1NO+2NC L | | NF G12000 | ⊕ 1NO+2NC L |
| NA L12000 | ⊕ 1NO+2NC LA | NB L12000 | ⊕ 1NO+2NC LA | | NF L12000 | ⊕ 1NO+2NC LA |
| NA H12000 | ⊕ 1NO+2NC LO | NB H12000 | ⊕ 1NO+2NC LO | | NF H12000 | ⊕ 1NO+2NC LO |
| NA B22000 | ⊕ 2NO+2NC R | NB B22000 | ⊕ 2NO+2NC R | | NF B22000 | ⊕ 2NO+2NC R |
| NA G22000 | ⊕ 2NO+2NC L | NB G22000 | ⊕ 2NO+2NC L | | NF G22000 | ⊕ 2NO+2NC L |
| NA L22000 | ⊕ 2NO+2NC LA | NB L22000 | ⊕ 2NO+2NC LA | | NF L22000 | ⊕ 2NO+2NC LA |
| NA H22000 | ⊕ 2NO+2NC LO | NB H22000 | ⊕ 2NO+2NC LO | | NF H22000 | ⊕ 2NO+2NC LO |

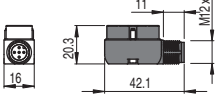
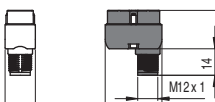
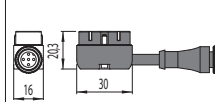
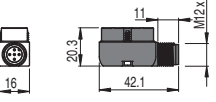
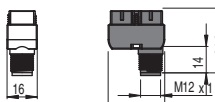


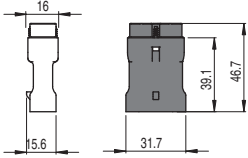

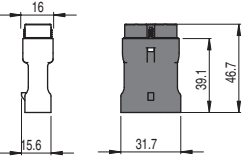
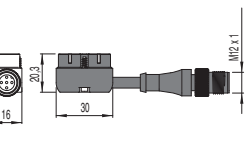
Connectors with cable

| metal connectors for NA and NB housings | | | Other cable lengths on request | technopolymer connectors for NF housings | | | |
|---|------------------|---|--------------------------------|--|------------------|---|---|
|  | Cable length (m) | Cable type N = PVC H = PUR HALOGEN FREE | |  | Cable length (m) | Cable type N = PVC H = PUR HALOGEN FREE | |
| VN CM11DN2 | 1NO+1NC | 2 | | VN CP11DN2 | 1NO+1NC | 2 | |
| VN CM11DN5 | 1NO+1NC | 5 | | VN CP11DN5 | 1NO+1NC | 5 | |
| VN CM12DN2 | 1NO+2NC | 2 | | N | VN CP12DN2 | 1NO+2NC | 2 |
| VN CM12DN5 | 1NO+2NC | 5 | | | VN CP12DN5 | 1NO+2NC | 5 |
| VN CM22DN2 | 2NO+2NC | 2 | | | VN CP22DN2 | 2NO+2NC | 2 |
| VN CM22DN5 | 2NO+2NC | 5 | | VN CP22DN5 | 2NO+2NC | 5 | |
| VN CM11DH2 | 1NO+1NC | 2 | | H | VN CP11DH2 | 1NO+1NC | 2 |
| VN CM11DH5 | 1NO+1NC | 5 | | | VN CP11DH5 | 1NO+1NC | 5 |
| VN CM12DH2 | 1NO+2NC | 2 | | | VN CP22DH2 | 2NO+2NC | 2 |
| VN CM12DH5 | 1NO+2NC | 5 | | | VN CP22DH5 | 2NO+2NC | 5 |

M12 or AMP connectors

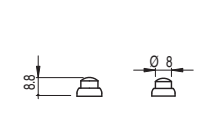
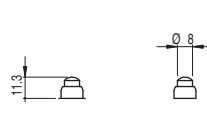
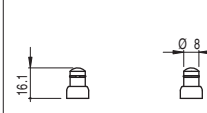
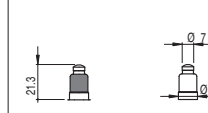
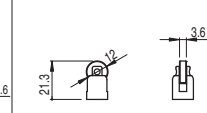
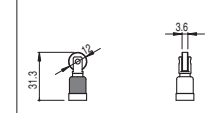
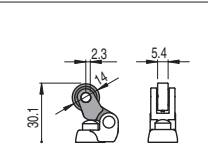
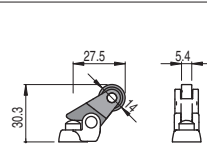
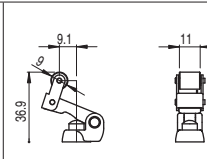
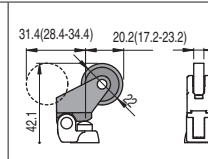
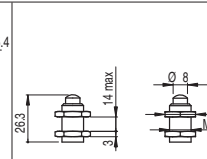
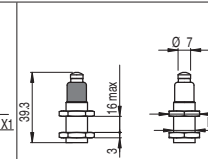
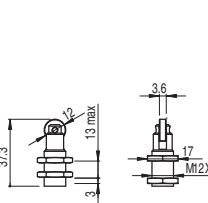
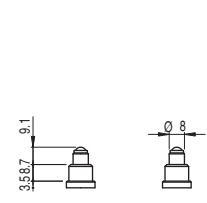
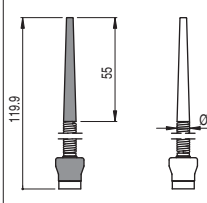
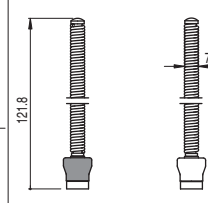
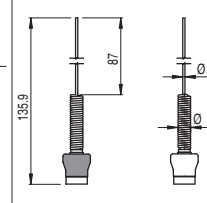
⚠ Important: Always check that the applied electric load is within the voltage and current limits defined for the connectors. See tables on page 118 and 128.

| metal connectors for NA and NB housings | | | technopolymer connectors for NF housings | | |
|---|---|---|--|---|---------|
| M12 connector, right | M12 connector, bottom | with cable and M12 connector | M12 connector, right | M12 connector, bottom | |
|  |  |  |  |  | |
| VN CM11DMK | 1NO+1NC | VN CM11SMK | 1NO+1NC | VN CP11DMK | 1NO+1NC |
| VN CM02DMK | 2NC | VN CM02SMK | 2NC | VN CP02DMK | 2NC |
| VN CM22DMK | 2NO+2NC | VN CM22SMK | 2NO+2NC | VN CP22DMK | 2NO+2NC |
| | | VN CM11DM0.2 | 1NO+1NC | | |
| | | VN CM02DM0.2 | 2NC | | |
| | | VN CM22DM0.2 | 2NO+2NC | | |

| technopolymer connectors for NA and NB housings | | technopolymer connectors for NF housings | |
|--|---|--|---|
| AMP superseal 1.5 | with cable and M12 connector | AMP superseal 1.5 | with cable and M12 connector |
|  |  |  |  |
| VN CM11SAK | 1NO+1NC | VN CP11SAK | 1NO+1NC |
| VN CM02SAK | 2NC | VN CP02SAK | 2NC |
| VN CM20SAK | 2NO | VN CP20SAK | 2NO |
| | | VN CP11DM0.2 | 1NO+1NC |
| | | VN CP02DM0.2 | 2NC |
| | | VN CP22DM0.2 | 2NO+2NC |

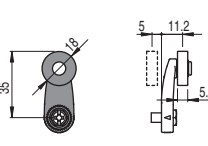
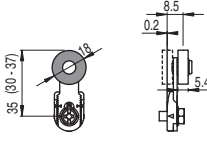
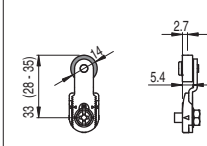
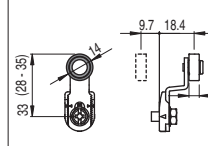
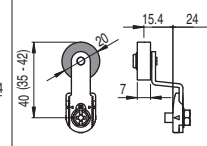
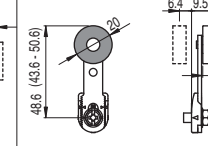
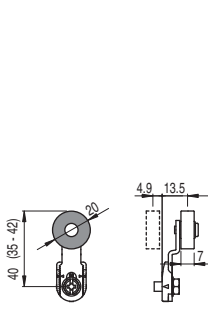
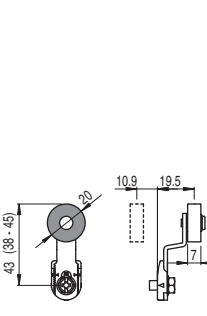
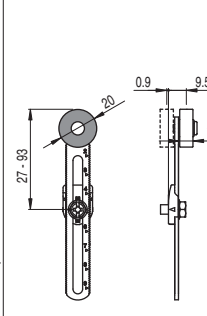
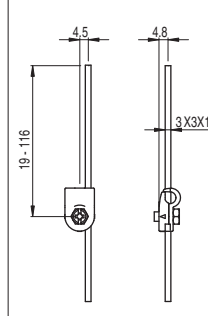
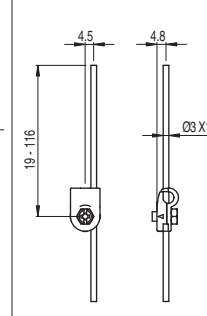
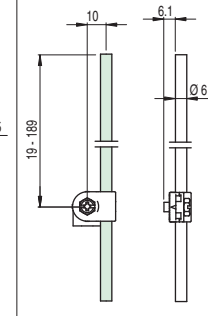
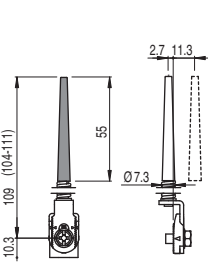
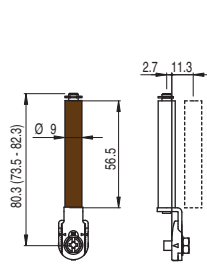
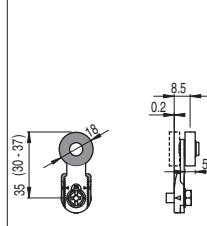
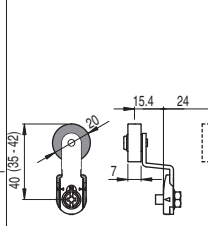
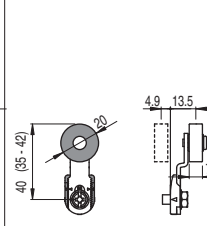
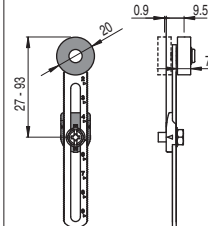


Actuators

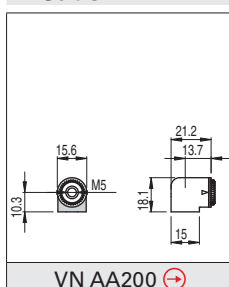
| | | | | | |
|---|---|---|--|---|---|
|  |  |  |  |  |  |
| VN AA0AA (↻) | VN AA0AB (↻) | VN AA0AC (↻) | VN AA0AE (↻) | VN AA0BB (↻) | VN AA0BE (↻) |
|  |  |  |  |  |  |
| VN AA0CB (↻) | VN AA0CH (↻) | VN AA0CP (↻) | VN AA0CV (↻) | VN AA0EB (↻) | VN AA0EE (↻) |
|  |  |  |  |  | |
| VN AA0FB (↻) | VN AA0GB (↻) | VN AA0HB | VN AA0HE | VN AA0HH | |

Levers

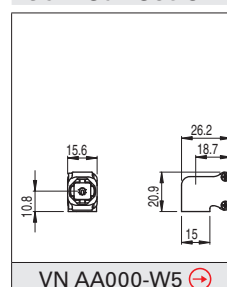
ATTENTION: These separate actuators can be used only with items of the NA, NB and NF series.

| | | | | | |
|---|---|---|--|---|---|
|  |  |  |  |  |  |
| VN A00KA (↻) | VN A00KB (↻) | VN A00KC (↻) | VN A00KD (↻) | VN A00KE (↻) | VN A00KF (↻) |
|  |  |  |  |  |  |
| VN A00KG (↻) | VN A00KH (↻) | VN A00KP (↻) | VN A00LB | VN A00LE | VN A00LH |
|  |  | Levers with external metallic parts in stainless steel | | | |
| VN A00LL | VN A00LP (↻) |  |  |  |  |
| | | VN A00KB-V38 (↻) | VN A00KE-V38 (↻) | VN A00KG-V38 (↻) | VN A00KP-V38 (↻) |

Heads



90° redirection



All values in the drawings are in mm

Accessories See page 207

→ The 2D and 3D files are available at www.pizzato.com