

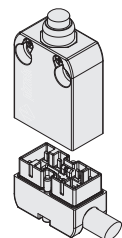
## Description



The result of the long-standing expertise of Pizzato Elettrica in the creation of position switches, the NA, NB, NF series achieve the highest standard of flexibility and depth of range present today on the pre-wired switches market.

Configurable, adjustable, pivotable and, not least, customisable with special cables or custom wiring - these features make these series unique in the current European panorama, ideal for easily providing our customers with customised switches.

## Switches with connectors



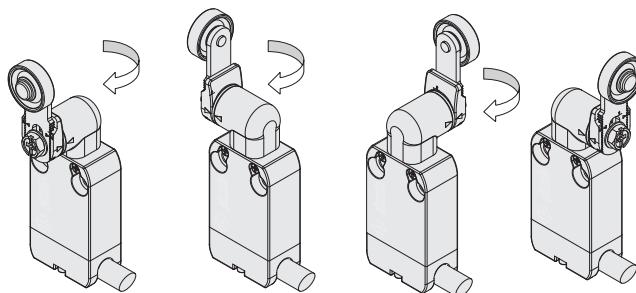
The new fundamental feature of this series of pre-wired switches is that the switch body and the wired connector are separated.

Using the connector the end-user can replace a product on field without having to disconnect the complete wiring.

Moreover in this way it is easier to combine products with different cable types and lengths.

## Head with variable orientation

All heads can be turned in 90° steps. The new head for swivelling levers has been designed with compact dimensions so that it does not protrude over the switch profile. Therefore, it is also possible to install the switches on the wall.



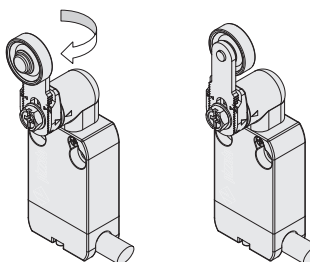
## Protection degrees IP67 and IP69K

**IP69K**  
**IP67**

These devices are designed to be used in the toughest environmental conditions and they pass the IP67 immersion test acc. to EN 60529. They can therefore be used in all environments where maximum protection degree of the housing is required. Due to

their special design, these devices are suitable for use in equipment subjected to cleaning with high pressure hot water jets. These devices meet the IP69K test requirements according to ISO 20653 (water jets with 100 bar and 80°C).

## Reversible levers



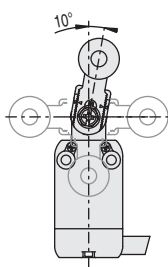
For switches with swivelling lever, the lever can be fastened on straight or reverse side maintaining the positive coupling.

In this way two different working planes of the lever are possible.

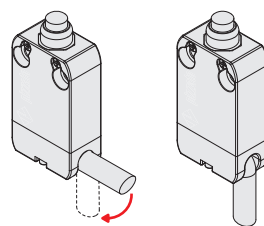
## Adjustable levers

For switches with swivelling lever, the lever can be adjusted in 10° steps over the entire 360° range.

The positive movement transmission is always guaranteed thanks to the particular geometrical coupling between the lever and the revolving shaft as prescribed for safety applications by the German standard BG-GS-ET-15.



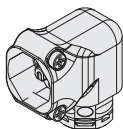
## Orientable cable outputs



The connector with cable is provided with a cavity to allow cable bending up to 90°.

In this way a flush wall mounting is also possible as well as an easier adjustment of the cable to the supporting flange.

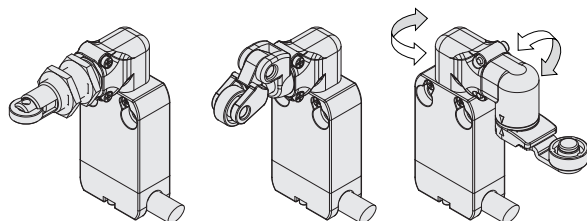
## 90° redirection for actuators



This component highly extends the application possibilities of this product range.

All the actuators that can be attached directly to the body of the switch can also be fastened on this transmission, thus making feasible applications and positioning of the switch that were previously impossible.

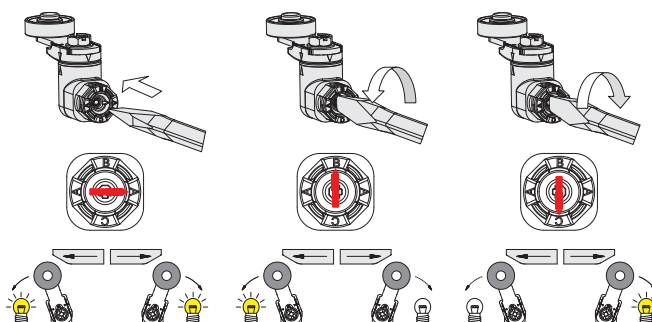
The redirection piece can also be used in case of heads for swivelling levers. Although technically possible, the use of multiple transmissions in series is not recommended.



## Unidirectional heads

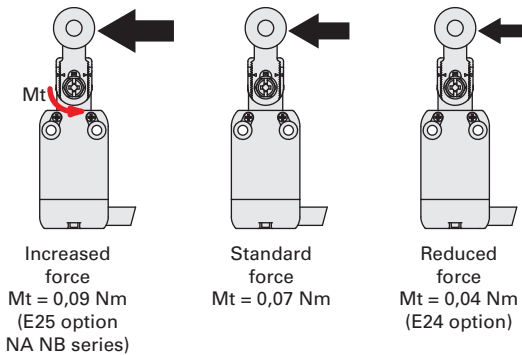
All switches with swivelling lever are supplied with a selector for choosing the lever operating direction.

The following operations are possible: right/left (standard factory setting), only from the right or only from the left. The operating direction can be selected by rotating the dedicated ring mounted on all heads of this kind.

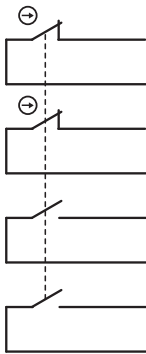


### Increased or reduced actuating force

For actuators with swivelling lever, versions with increased or reduced actuating force are available upon request, in order to have a switch perfectly tailored for the application. For further information contact our technical department.



### Positive opening contact blocks with 1, 2, 3 or 4 poles



These series of contact blocks are versatile and compact.

They have the same dimensions of the previous versions, but now it is possible to have up to 4 different contacts which are galvanically separated and provided with positive opening (NC contacts).

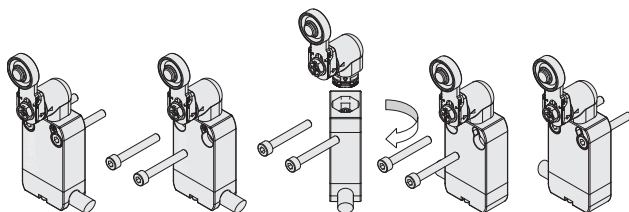
The allowed standard combinations are: 1NO+1NC, 2NC, 1NO+2NC, 2NO+2NC. Other combinations available on request.

The contact blocks have been designed so that they keep the same pin assignment on the connector independently of the action type (slow or snap action) and the number of contacts. In this way, the same cables with connector can be used for units with slow action and snap action as well.

### Reversible housing

Thanks to the shape of the fixing holes and of the switch body, as well as the possibility of rotating the head, make this switch perfectly symmetrical.

If a switch with cable output on the left (since the connector cannot be rotated) is required, it is possible to rotate the complete device by maintaining the final position of the actuator unchanged.



### Extended temperature range

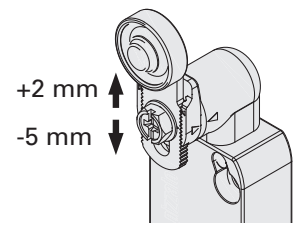
**-40°C**

These devices are also available in a special version suitable for an ambient operating temperature range from -40°C up to +80°C.

They can therefore be used for applications in cold stores, sterilisers and other equipment with low temperature environments. The special materials used to produce these versions retain their characteristics even under these conditions, thereby expanding the installation possibilities.

### Adjustable levers with anti-unscrewing washer

In some applications during the installation of the switches problems are encountered due to the variability of the fastenings and the folds of the structural work.



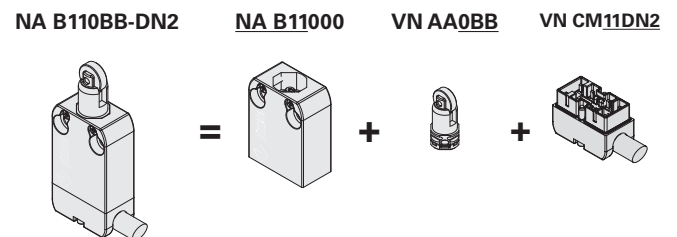
In other cases, small finishing adjustments are required due to the application. Nearly all swivelling levers for switches of the NA, NB and NF series can be adjusted in 1 mm steps along the switch length.

This feature, combined with the additional possibility of the radial adjustment of the actuator, provides the installer with a never before achieved flexibility in the final adjustment of the product.

All this while maintaining the positive geometric locking between lever and swivel shaft as prescribed for safety applications.

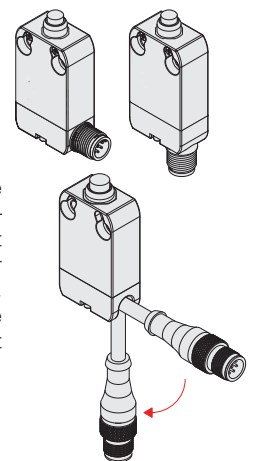
### Switch components available separately

This product series has been provided with a modular design so that single parts can also be ordered separately. This is an asset both for distributors and for final customers of electrical material in the procurement of spare parts as well as for custom combinations.



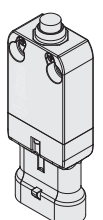
### M12 connectors

All contact configurations are available with M12 connector both with two contacts (with 5-pin M12 connector) as well as 3 or 4 contacts (with 8-pin M12 connector). With exit direction below or to the right, these make application in narrow spaces possible, as, with the simple rotation of the switch, the reversible housing also easily allows the exit direction to the left. The M12 connector is also available at the end of the cable, whose length can be tailored to the customer, and the cable can be bent at 90°, allowing installation on walls.

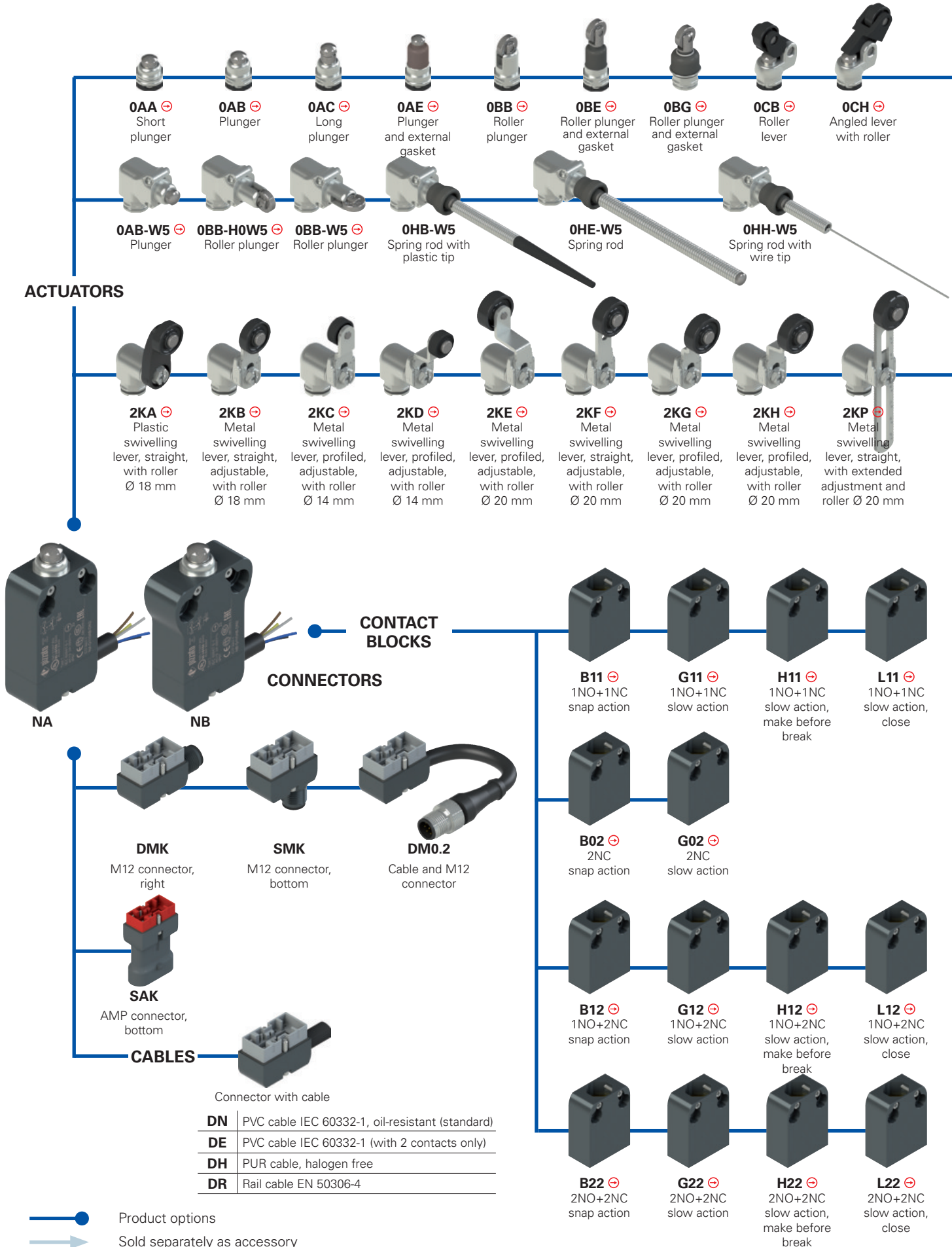


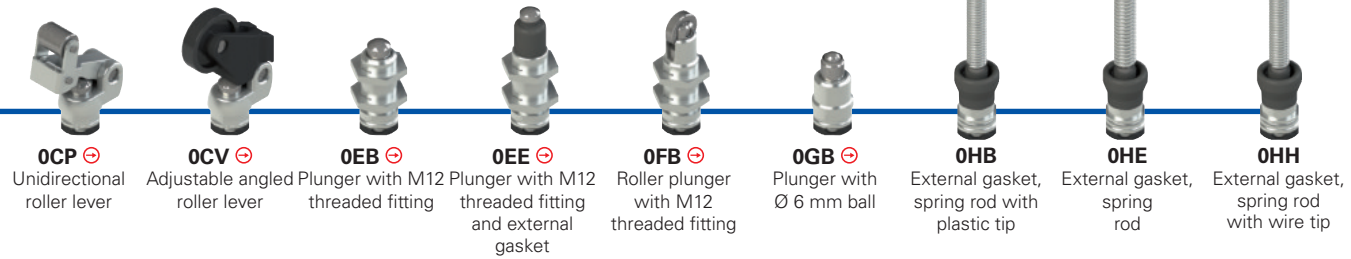
### AMP connectors

Furthermore, AMP connectors for 2-contact versions are available too. These connectors, specially developed for the automotive industry, are immune to vibration due to the quick coupling.

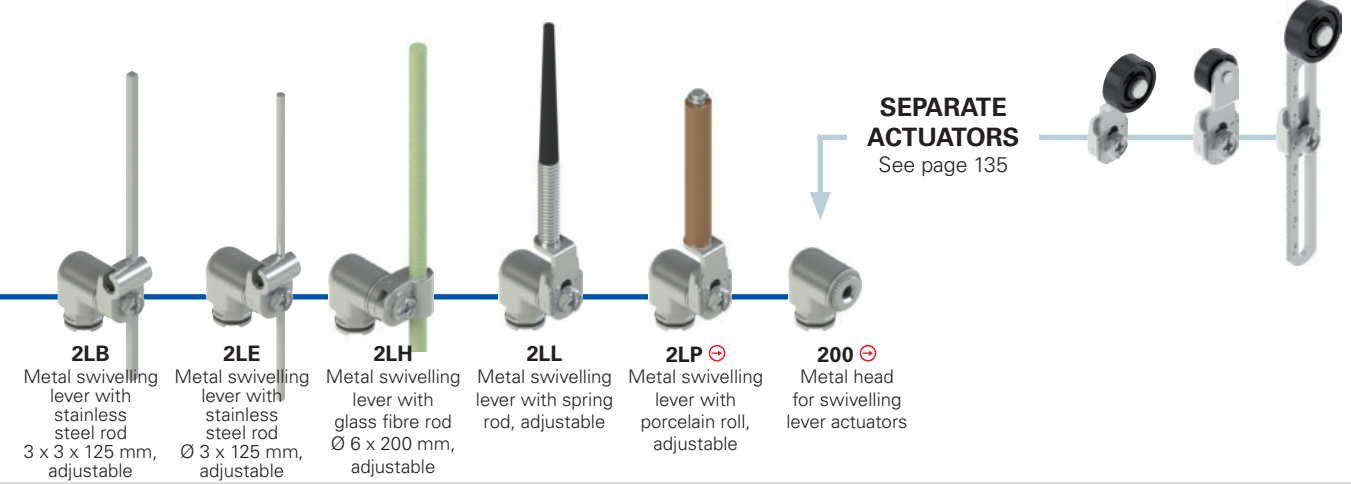


Selection diagram for item combinations of the NA-NB series





**OCP** ⊕ Unidirectional roller lever  
**OCV** ⊕ Adjustable angled roller lever  
**OEB** ⊕ Plunger with M12 threaded fitting  
**OEE** ⊕ Plunger with M12 threaded fitting and external gasket  
**OFB** ⊕ Roller plunger with M12 threaded fitting  
**OGB** ⊕ Plunger with Ø 6 mm ball  
**OHB** External gasket, spring rod with plastic tip  
**OHE** External gasket, spring rod  
**OHH** External gasket, spring rod with wire tip



**2LB** Metal swivelling lever with stainless steel rod 3 x 3 x 125 mm, adjustable  
**2LE** Metal swivelling lever with stainless steel rod Ø 3 x 125 mm, adjustable  
**2LH** Metal swivelling lever with glass fibre rod Ø 6 x 200 mm, adjustable  
**2LL** Metal swivelling lever with spring rod, adjustable  
**2LP** ⊕ Metal swivelling lever with porcelain roll, adjustable  
**200** ⊕ Metal head for swivelling lever actuators

**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  
**NA B110AB-DN2 GR7T6W5**

| Housing   |                                      |
|-----------|--------------------------------------|
| <b>NA</b> | metal, hole spacing 20 mm (standard) |
| <b>NB</b> | metal, hole spacing 25 mm            |

| Contact block |   |
|---------------|---|
| <b>B11</b>    | 1NO+1NC, snap action (standard)                                     |
| <b>B02</b>    | 2NC, snap action (standard)   |
| <b>B12</b>    | 1NO+2NC, snap action (standard)                                     |
| <b>B22</b>    | 2NO+2NC, snap action (standard)                                     |
| <b>BA1</b>    | 1NO+1NC, snap action, change-over (available with M connector only) |
| <b>G11</b>    | 1NO+1NC, slow action (standard)                                     |
| <b>G02</b>    | 2NC, slow action (standard)   |
| <b>G12</b>    | 1NO+2NC, slow action (standard)                                     |
| <b>G22</b>    | 2NO+2NC, slow action  |
| <b>H11</b>    | 1NO+1NC, slow action, make before break                             |
| <b>H12</b>    | 1NO+2NC, slow action, make before break                             |
| <b>H22</b>    | 2NO+2NC, slow action, make before break                             |
| <b>L11</b>    | 1NO+1NC, slow action, close   |
| <b>L12</b>    | 1NO+2NC, slow action, close   |
| <b>L22</b>    | 2NO+2NC, slow action, close   |

Other contact blocks on request.

| Actuator heads |                                     |
|----------------|-------------------------------------|
| <b>0</b>       | without head                        |
| <b>2</b>       | head for swivelling lever actuators |

| Actuators |                  |
|-----------|------------------|
| <b>00</b> | without actuator |
| <b>AA</b> | short plunger    |
| <b>AB</b> | plunger          |
| ...       | .....            |

| Output direction |                           |
|------------------|---------------------------|
| <b>D</b>         | cable or connector, right |
| <b>S</b>         | connector, bottom         |

| Redirection |                     |
|-------------|---------------------|
|             | without redirection |
| <b>W5</b>   | 90° redirection     |

| Ambient temperature |                   |
|---------------------|-------------------|
|                     | -25 °C ... +80 °C |
| <b>T6</b>           | -40 °C ... +80 °C |

| Rollers    |                           |
|------------|---------------------------|
|            | standard roller           |
| <b>R30</b> | stainless steel Ø 10.6 mm |
| <b>R29</b> | stainless steel Ø 13 mm   |
| <b>R18</b> | technopolymer, Ø 14 mm    |
| <b>R23</b> | stainless steel Ø 14 mm   |
| <b>R7</b>  | technopolymer, Ø 18 mm    |
| <b>R22</b> | technopolymer, Ø 20 mm    |
| <b>R24</b> | stainless steel Ø 20 mm   |
| <b>R19</b> | technopolymer, Ø 22 mm    |
| <b>R25</b> | technopolymer, Ø 35 mm    |

| Contact type |                                    |
|--------------|------------------------------------|
|              | silver contacts (standard)         |
| <b>G</b>     | silver contacts, 1 µm gold coating |

| Connection type |   |
|-----------------|---|
| <b>0.2</b>      | cable, length: 0.2 m with M12 connector (available for DM0.2 versions only) |
| <b>2</b>        | cable, length: 2 m (standard)   |
| <b>5</b>        | cable, length 5 m (other cable lengths available on request)                |
| <b>K</b>        | integrated connector  |

| Cable or connector type |   |
|-------------------------|---|
| <b>N</b>                | PVC cable IEC 60332-1, oil-resistant (standard) |
| <b>E</b>                | PVC cable IEC 60332-1 (with 2 contacts only)    |
| <b>H</b>                | PUR cable, halogen free                         |
| <b>R</b>                | Rail cable EN 50306-4                           |
| <b>M</b>                | M12 connector                                   |
| <b>A</b>                | AMP Superseal 1.5 connector                     |



### Main features

- Metal housing, right or bottom cable output
- Protection degrees IP67 and IP69K
- 4 types of integrated cable available
- Versions with M12 connector suitable for safety applications  $\ominus$
- Versions with AMP connector
- 14 contact blocks available
- 36 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

Metal housing, baked with UV resistant powder coating.  
 Versions with integrated cable, standard length 2 m, other lengths 0.5 ... 10 m 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<br>IP69K acc. to ISO 20653<br>(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)<br>-40°C ... + 80°C (T6 option)    |
| Ambient temperature for switches with cable:            | See table on page 118  |
| 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                                    |
| Vibration resistance<br>(0BB, 2KB, 2KC, 2KD actuators): | 5 ... 150 Hz (7.9 m/s <sup>2</sup> )<br>acc. to EN 61373 cl. 9 |
| 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, IEC 60529, 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  $\ominus$  next to the product code. Always connect the safety circuit to the **NC contacts** (normally closed contacts: see "Internal cable wiring" on page 118) as required by **EN ISO 14119, paragraph 5.4** for specific interlock applications and **EN ISO 13849-2 tables D3 (well-trying 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.

⚠ 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. According to EN 60204-1, versions with 8-pole M12 (2NO+2NC) and AMP connector can be used only in SELV circuits.

### Features approved by IMQ

|   |   |
|---|---|
| Rated insulation voltage ( $U_i$ ):                 | 250 Vac   |
| Conventional free air thermal current ( $I_{th}$ ): | 10 A (1-2 contacts) / 6 A (2-3 contacts) / 4 A (4 contacts or 5-pole M12 connector)         |
| Protection against short circuits (fuse):           | 10 A (1-2 contacts) / 6 A (2-3 contacts) / 4 A (4 contacts or 5-pole M12 connector) type gG |
| Rated impulse withstand voltage ( $U_{imp}$ ):      | 4 kV  |
| Protection degree of the housing:                   | IP67  |
| MA terminals (crimped terminals)                    | 3   |
| 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)<br>B300 pilot duty (360 VA, 120 240 Vac) (1 cont.)<br>B300 pilot duty (360 VA, 120 240 Vac) (2 - 3 cont. without connector)<br>C300 pilot duty (180 VA, 120 240 Vac) (2 - 3 cont. with connector)<br>C300 pilot duty (180 VA, 120 240 Vac) (4 cont.) |
| Environmental Ratings:  | Types 1, 4X, 6, 12, 13<br>Types 1, 4X "indoor use only" (1 - 2 cont. with "E" type cable)   |
| Screws torque of the detachable connector housing nominal are | 0.3 ÷ 0.6 Nm.   |

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



## Ambient temperatures for switches with cable and electrical data

| Cable features               | Connection type         | Output with cable                           |                              |  |   |                              |   |  |                             | Output with M12 connector                   |                       | Output with AMP connector    |
|------------------------------|-------------------------|---|------------------------------|--|---|------------------------------|---|--|-----------------------------|---|-----------------------|------------------------------|
|                              | Contact blocks          | 2 contacts                                  |                              |  |   | 3 contacts                   |   | 4 contacts   |                             | 2 contacts                                  | 3 or 4 contacts       | 2 contacts                   |
|                              | Cable or connector type | E   | N                            | H  | R   | N                            | H   | N  | R                           | M12 connector, 5-pole                       | M12 connector, 8-pole | AMP Super-seal 1.5 connector |
| Conductors                   | 5x0.75 mm <sup>2</sup>  | 5x0.75 mm <sup>2</sup>                      | 5x0.75 mm <sup>2</sup>       | 5x0.5mm <sup>2</sup>   | 7x0.5 mm <sup>2</sup>                       | 7x0.5 mm <sup>2</sup>        | 9x0.34 mm <sup>2</sup>                      | 9x0.5 mm <sup>2</sup>  | 5x0.25 mm <sup>2</sup>      | 8x0.25 mm <sup>2</sup>                      |                       |                              |
| Application field            | General                 | General                                     | General, mobile installation | Rail   | General                                     | General, mobile installation | General                                     | Rail   | General                     | General                                     | General               |                              |
| In compliance with standards | H05VV-F                 | H05VV5-F                                    | 05EQ-H                       | EN50306-4<br>IE-300V<br>960.5 mm <sup>2</sup><br>MM-90<br>EN 50306-4<br>EN 43545 | 03VV-F                                      | 03E7Q-H                      | 03VV-F                                      | EN50306-4<br>IE-300V<br>960.5 mm <sup>2</sup><br>MM-90<br>EN 50306-4<br>EN 43545 | 03VV-H                      | 03VW-H                                      | /                     |                              |
| Sheath                       | PVC                     | PVC OIL RESISTANT                           | PUR HALOGEN FREE             | /  | PVC OIL RESISTANT                           | PUR HALOGEN FREE             | PVC OIL RESISTANT                           | /  | PVC OIL RESISTANT           | PVC OIL RESISTANT                           | /                     |                              |
| Self-extinguishing           | IEC 60332-1-2           | IEC 60332-1-2<br>UL 758:FT1<br>CEI 20-22 II | IEC 60332-1-2<br>UL 758:FT1  | IEC 60332-1<br>EN 50305<br>EN 50306-1  | IEC 60332-1-2<br>UL 758:FT1<br>CEI 20-22 II | IEC 60332-1-2<br>UL 758:FT1  | IEC 60332-1-2<br>UL 758:FT1<br>CEI 20-22 II | IEC 60332-1<br>EN 50305<br>EN 50306-1  | IEC 60332-1-2<br>UL 758:FT1 | IEC 60332-1-2<br>CEI 20-22 II<br>UL 758:FT1 | /                     |                              |
| Oil resistant                | /                       | UL 758<br>CSA 22.2 N°210                    | UL 758<br>CSA 22.2 N°210     | /  | UL 758<br>CSA 22.2 N°210                    | UL 758<br>CSA 22.2 N°210     | UL 758<br>CSA 22.2 N°210                    | /  | UL 758<br>CSA 22.2 N°210    | UL 758<br>CSA 22.2 N°210                    | /                     |                              |
| Max. speed                   | /                       | /   | 300 m/min                    | /  | /   | 300 m/min                    | /   | /  | 50 m/min                    | 50 m/min                                    | /                     |                              |
| Max. acceleration            | /                       | /   | 30 m/s <sup>2</sup>          | /  | /   | 30 m/s <sup>2</sup>          | /   | /  | 5 m/s <sup>2</sup>          | 5 m/s <sup>2</sup>                          | /                     |                              |
| Minimum bending radius       | 80 mm                   | 80 mm                                       | 80 mm                        | 60 mm  | 108 mm                                      | 80 mm                        | 108 mm                                      | 65 mm  | 75 mm                       | 90 mm                                       | /                     |                              |
| Outer diameter               | 8 mm                    | 8 mm  | 8 mm                         | 6 mm   | 7 mm  | 7 mm                         | 7 mm  | 6.5 mm   | 6 mm                        | 6 mm  | /                     |                              |
| End stripped                 | 80 mm                   | 80 mm                                       | 80 mm                        | 80 mm  | 80 mm                                       | 80 mm                        | 80 mm                                       | 80 mm  | /                           | /   | /                     |                              |
| Copper conductors IEC 60228  | Class 5                 | Class 5                                     | Class 6                      | Class 5  | Class 5                                     | Class 6                      | Class 5                                     | Class 5  | Class 6                     | Class 6                                     | /                     |                              |
| Engraving                    | Standard                | 6268  | 6280                         | Standard   | 6274  | 6282                         | 6278  | Standard   | 6267                        | 6275  | /                     |                              |

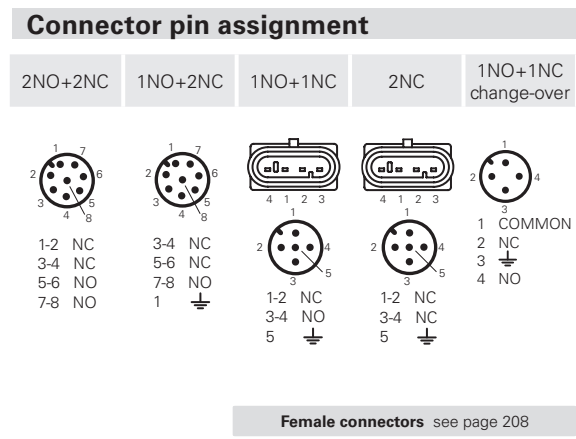
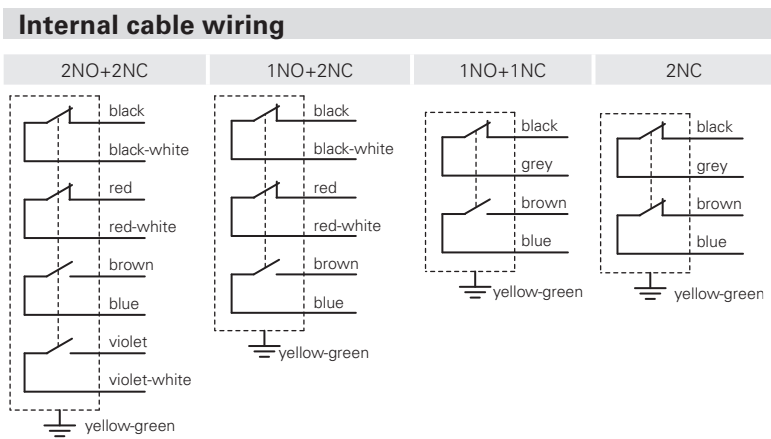
| Ambient temperature with cable extended (T <sub>0</sub> ) | Cable, fixed installation    | -15°C +60°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | -25°C +80°C | / |
|---|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|
|   | Cable, flexible installation | +5°C +60°C  | -5°C +80°C  | -25°C +80°C | -25°C +80°C | -5°C +80°C  | -25°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 | /           | -40°C +80°C | /           | -40°C +80°C | /           | /           | / |
|   | Cable, flexible installation | /           | /           | -40°C +80°C | -40°C +80°C | /           | -40°C +80°C | /           | -40°C +80°C | /           | /           | / |
|   | Cable, mobile installation   | /           | /           | -40°C +80°C | /           | /           | -40°C +80°C | /           | /           | /           | /           | / |

| Electrical data           | Thermal current I <sub>th</sub>          | 10 A                     | 10 A                     | 10 A                     | 6 A                     | 6 A                     | 6 A                     | 3 A                     | 4 A                     | 4 A                     | 2 A                    | 10 A                     |
|---------------------------|--|--------------------------|--------------------------|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|--------------------------|
|                           | Rated insulation voltage U <sub>i</sub>  | 250 Vac                  | 250 Vac                  | 250 Vac                  | 250 Vac                 | 250 Vac                 | 250 Vac                 | 250 Vac                 | 250 Vac                 | 250 Vac                 | 30 Vac<br>300 Vdc      | 30 Vac                   |
|                           | Protection against short circuits (fuse) | 10 A<br>500 V<br>type gG | 10 A<br>500 V<br>type gG | 10 A<br>500 V<br>type gG | 6 A<br>500 V<br>type gG | 6 A<br>500 V<br>type gG | 6 A<br>500 V<br>type gG | 3 A<br>500 V<br>type gG | 4 A<br>500 V<br>type gG | 4 A<br>500 V<br>type gG | 2 A<br>500V<br>type gG | 10 A<br>500 V<br>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                    | 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                     | 4 A                     | 4 A                     | 3 A                     | 4 A                     | 4 A                     | 2 A                    | 4 A                      |
|                           | 120 V                                    | 4 A                      | 4 A                      | 4 A                      | 4 A                     | 4 A                     | 4 A                     | 3 A                     | 4 A                     | 4 A                     | /                      | /                        |
|                           | 250 V                                    | 4 A                      | 4 A                      | 4 A                      | 4 A                     | 4 A                     | 4 A                     | 3 A                     | 4 A                     | 4 A                     | /                      | /                        |

| Approvals | CE cULus<br>IMQ EAC<br>CCC | CE cULus<br>IMQ EAC<br>CCC | CE cULus<br>IMQ EAC<br>CCC | CE IMQ<br>EAC<br>CCC | CE cULus<br>IMQ EAC<br>CCC | CE cULus<br>IMQ EAC<br>CCC | CE cULus<br>IMQ EAC<br>CCC | CE cULus<br>IMQ EAC<br>CCC | CE IMQ<br>EAC<br>CCC | CE cULus<br>IMQ EAC<br>CCC | CE cULus<br>EAC | CE cULus<br>EAC |
|-----------|----------------------------|----------------------------|----------------------------|----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------|----------------------------|-----------------|-----------------|
|-----------|----------------------------|----------------------------|----------------------------|----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------|----------------------------|-----------------|-----------------|



Contact type:

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

Contact block

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

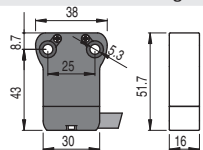
Contact type:

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

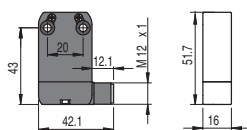
Contact block

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

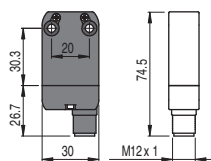
NB series housing



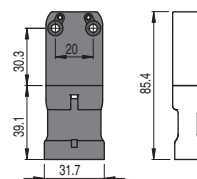
M12 connector, right



M12 connector, bottom



AMP Superseal 1.5 connector



To order a product of the NB series, replace NA with NB in the codes shown above. Example:  
NA B110AA-DN2 → NB B110AA-DN2

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

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

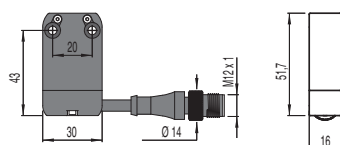
To order a product with AMP connector, replace DN2 with SAK in the codes shown above. Example:  
NA B110AA-DN2 → NA B110AA-SAK



| Contact type:   | With stainless steel roller on request | Unidirectional operation           | Secured only by means of threaded head |                        |
|-----------------|--|------------------------------------|--|------------------------|
|                 | = snap action<br>= slow action         | It does not switch ← It switches → |  |                        |
| Contact block   |  |                                    |  |                        |
| B11             | NA B110CH-DN2  1NO+1NC                 | NA B110CP-DN2  1NO+1NC             | NA B110CV-DN2  1NO+1NC                 | NA B110EB-DN2  1NO+1NC |
| B02             | NA B020CH-DN2  2NC                     | NA B020CP-DN2  2NC                 | NA B020CV-DN2  2NC                     | NA B020EB-DN2  2NC     |
| B12             | NA B120CH-DN2  1NO+2NC                 | NA B120CP-DN2  1NO+2NC             | NA B120CV-DN2  1NO+2NC                 | NA B120EB-DN2  1NO+2NC |
| B22             | NA B220CH-DN2  2NO+2NC                 | NA B220CP-DN2  2NO+2NC             | NA B220CV-DN2  2NO+2NC                 | NA B220EB-DN2  2NO+2NC |
| G11             | NA G110CH-DN2  1NO+1NC                 | NA G110CP-DN2  1NO+1NC             | NA G110CV-DN2  1NO+1NC                 | NA G110EB-DN2  1NO+1NC |
| G02             | NA G020CH-DN2  2NC                     | NA G020CP-DN2  2NC                 | NA G020CV-DN2  2NC                     | NA G020EB-DN2  2NC     |
| G12             | NA G120CH-DN2  1NO+2NC                 | NA G120CP-DN2  1NO+2NC             | NA G120CV-DN2  1NO+2NC                 | NA G120EB-DN2  1NO+2NC |
| G22             | NA G220CH-DN2  2NO+2NC                 | NA G220CP-DN2  2NO+2NC             | NA G220CV-DN2  2NO+2NC                 | NA G220EB-DN2  2NO+2NC |
| Max. speed      | page 231 - type 3                      | page 231 - type 3                  | page 231 - type 3                      | page 231 - type 4      |
| Actuating force | 5 N (25 N )                            | 3 N (25 N )                        | 3 N (25 N )                            | 7 N (25 N )            |
| 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<br>External gasket | Secured only by means of threaded head | Plunger with Ø 6 mm ball | External gasket       |
|-----------------|---|--|--------------------------|-----------------------|
|                 | = snap action<br>= slow action                            |  |                          |                       |
| Contact block   |   |  |                          |                       |
| B11             | NA B110EE-DN2  1NO+1NC                                    | NA B110FB-DN2  1NO+1NC                 | NA B110GB-DN2  1NO+1NC   | NA B110HB-DN2 1NO+1NC |
| B02             | NA B020EE-DN2  2NC  | NA B020FB-DN2  2NC                     | NA B020GB-DN2  2NC       | NA B020HB-DN2 2NC     |
| B12             | NA B120EE-DN2  1NO+2NC                                    | NA B120FB-DN2  1NO+2NC                 | NA B120GB-DN2  1NO+2NC   | NA B120HB-DN2 1NO+2NC |
| B22             | NA B220EE-DN2  2NO+2NC                                    | NA B220FB-DN2  2NO+2NC                 | NA B220GB-DN2  2NO+2NC   | NA B220HB-DN2 2NO+2NC |
| G11             | NA G110EE-DN2  1NO+1NC                                    | NA G110FB-DN2  1NO+1NC                 | NA G110GB-DN2  1NO+1NC   | /                     |
| G02             | NA G020EE-DN2  2NC  | NA G020FB-DN2  2NC                     | NA G020GB-DN2  2NC       | NA G020HB-DN2 2NC     |
| G12             | NA G120EE-DN2  1NO+2NC                                    | NA G120FB-DN2  1NO+2NC                 | NA G120GB-DN2  1NO+2NC   | /                     |
| G22             | NA G220EE-DN2  2NO+2NC                                    | NA G220FB-DN2  2NO+2NC                 | NA 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 )   | 7 N (25 N )                            | 7 N (25 N )              | 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:  
 NA B110AA-DN2 → NA B110AA-DM0.2



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

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

| NB series housing   | M12 connector, right  | M12 connector, bottom  | AMP Superseal 1.5 connector   |
|---|---|--|---|
|   |   |  |   |
| <b>To order a product of the NB series,</b> replace NA with NB in the codes shown above. Example: NA B110AA-DN2 → NB B110AA-DN2 | <b>To order a product with M12 right connector,</b> replace DN2 with DMK in the codes shown above. Example: NA B110AA-DN2 → NA B110AA-DMK | <b>To order a product with M12 bottom connector,</b> replace DN2 with SMK in the codes shown above. Example: NA B110AA-DN2 → NA B110AA-SMK | <b>To order a product with AMP connector,</b> replace DN2 with SAK in the codes shown above. Example: NA B110AA-DN2 → NA B110AA-SAK |

All values in the drawings are in mm

Accessories See page 207

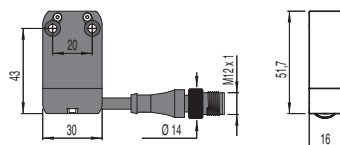
→ The 2D and 3D files are available at [www.pizzato.com](http://www.pizzato.com)



| Contact type:                                    | With stainless steel roller on request | With stainless steel roller on request | With stainless steel roller on request | Square rod, 3x3 mm, stainless steel |
|--|--|--|--|-------------------------------------|
| <b>R</b> = snap action<br><b>L</b> = slow action |  |  |  |                                     |
| Contact block                                    |  |  |  |                                     |
| B11 <b>R</b>                                     | NA B112KG-DN2 (⊕) 1NO+1NC              | NA B112KH-DN2 (⊕) 1NO+1NC              | NA B112KP-DN2 (⊕) 1NO+1NC              | NA B112LB-DN2 1NO+1NC               |
| B02 <b>R</b>                                     | NA B022KG-DN2 (⊕) 2NC                  | NA B022KH-DN2 (⊕) 2NC                  | NA B022KP-DN2 (⊕) 2NC                  | NA B022LB-DN2 2NC                   |
| B12 <b>R</b>                                     | NA B122KG-DN2 (⊕) 1NO+2NC              | NA B122KH-DN2 (⊕) 1NO+2NC              | NA B122KP-DN2 (⊕) 1NO+2NC              | NA B122LB-DN2 1NO+2NC               |
| B22 <b>R</b>                                     | NA B222KG-DN2 (⊕) 2NO+2NC              | NA B222KH-DN2 (⊕) 2NO+2NC              | NA B222KP-DN2 (⊕) 2NO+2NC              | NA B222LB-DN2 2NO+2NC               |
| G11 <b>L</b>                                     | NA G112KG-DN2 (⊕) 1NO+1NC              | NA G112KH-DN2 (⊕) 1NO+1NC              | NA G112KP-DN2 (⊕) 1NO+1NC              | NA G112LB-DN2 1NO+1NC               |
| G02 <b>L</b>                                     | NA G022KG-DN2 (⊕) 2NC                  | NA G022KH-DN2 (⊕) 2NC                  | NA G022KP-DN2 (⊕) 2NC                  | NA G022LB-DN2 2NC                   |
| G12 <b>L</b>                                     | NA G122KG-DN2 (⊕) 1NO+2NC              | NA G122KH-DN2 (⊕) 1NO+2NC              | NA G122KP-DN2 (⊕) 1NO+2NC              | NA G122LB-DN2 1NO+2NC               |
| G22 <b>L</b>                                     | NA G222KG-DN2 (⊕) 2NO+2NC              | NA G222KH-DN2 (⊕) 2NO+2NC              | NA G222KP-DN2 (⊕) 2NO+2NC              | NA 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 ⊕)                    | 0.07 Nm (0.25 Nm ⊕)                    | 0.07 Nm (0.25 Nm ⊕)                    | 0.07 Nm                             |
| Travel diagrams                                  | page 232 - group 5                     | page 232 - group 5                     | page 232 - group 5                     | page 232 - group 5                  |

| Contact type:                                    | Round rod, Ø 3 mm, stainless steel | Glass fibre rod       |                       | Porcelain roller             |
|--|------------------------------------|-----------------------|-----------------------|------------------------------|
| <b>R</b> = snap action<br><b>L</b> = slow action |                                    |                       |                       |                              |
| Contact block                                    |                                    |                       |                       |                              |
| B11 <b>R</b>                                     | NA B112LE-DN2 1NO+1NC              | NA B112LH-DN2 1NO+1NC | NA B112LL-DN2 1NO+1NC | NA B112LP-DN2E24 (⊕) 1NO+1NC |
| B02 <b>R</b>                                     | NA B022LE-DN2 2NC                  | NA B022LH-DN2 2NC     | NA B022LL-DN2 2NC     | NA B022LP-DN2E24 (⊕) 2NC     |
| B12 <b>R</b>                                     | NA B122LE-DN2 1NO+2NC              | NA B122LH-DN2 1NO+2NC | NA B122LL-DN2 1NO+2NC | NA B122LP-DN2E24 (⊕) 1NO+2NC |
| B22 <b>R</b>                                     | NA B222LE-DN2 2NO+2NC              | NA B222LH-DN2 2NO+2NC | NA B222LL-DN2 2NO+2NC | NA B222LP-DN2E24 (⊕) 2NO+2NC |
| G11 <b>L</b>                                     | NA G112LE-DN2 1NO+1NC              | NA G112LH-DN2 1NO+1NC | NA G112LL-DN2 1NO+1NC | NA G112LP-DN2E24 (⊕) 1NO+1NC |
| G02 <b>L</b>                                     | NA G022LE-DN2 2NC                  | NA G022LH-DN2 2NC     | NA G022LL-DN2 2NC     | NA G022LP-DN2E24 (⊕) 2NC     |
| G12 <b>L</b>                                     | NA G122LE-DN2 1NO+2NC              | NA G122LH-DN2 1NO+2NC | NA G122LL-DN2 1NO+2NC | NA G122LP-DN2E24 (⊕) 1NO+2NC |
| G22 <b>L</b>                                     | NA G222LE-DN2 2NO+2NC              | NA G222LH-DN2 2NO+2NC | NA G222LL-DN2 2NO+2NC | NA G222LP-DN2E24 (⊕) 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           |

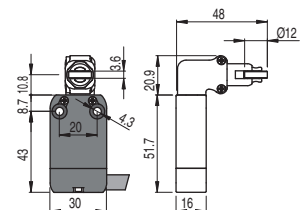
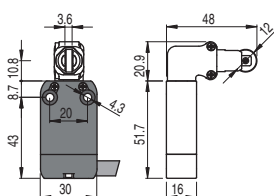
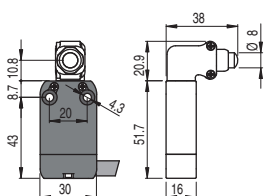
**Cable and M12 connector**



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

Contact type:

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

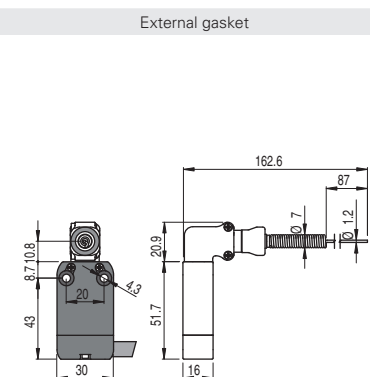
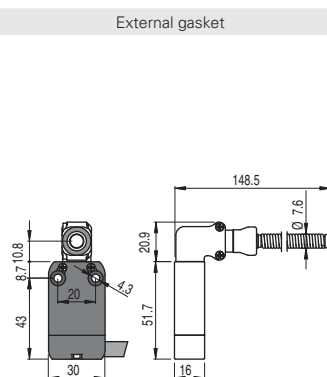
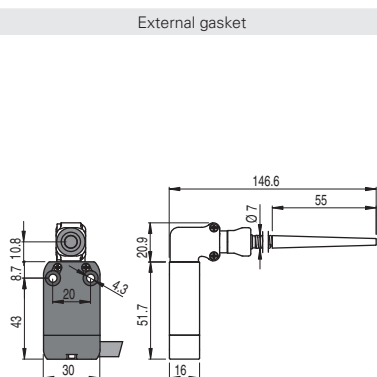


Contact block

|                 |                    |                 |   |         |                    |   |         |                 |                    |         |  |  |
|-----------------|--------------------|-----------------|---|---------|--------------------|---|---------|-----------------|--------------------|---------|--|--|
| B11             | <b>R</b>           | NA B110AB-DN2W5 | ⊕ | 1NO+1NC | NA B110BB-DN2H0W5  | ⊕ | 1NO+1NC | NA B110BB-DN2W5 | ⊕                  | 1NO+1NC |  |  |
| B02             | <b>R</b>           | NA B020AB-DN2W5 | ⊕ | 2NC     | NA B020BB-DN2H0W5  | ⊕ | 2NC     | NA B020BB-DN2W5 | ⊕                  | 2NC     |  |  |
| B12             | <b>R</b>           | NA B120AB-DN2W5 | ⊕ | 1NO+2NC | NA B120BB-DN2H0W5  | ⊕ | 1NO+2NC | NA B120BB-DN2W5 | ⊕                  | 1NO+2NC |  |  |
| B22             | <b>R</b>           | NA B220AB-DN2W5 | ⊕ | 2NO+2NC | NA B220BB-DN2H0W5  | ⊕ | 2NO+2NC | NA B220BB-DN2W5 | ⊕                  | 2NO+2NC |  |  |
| G11             | <b>L</b>           | NA G110AB-DN2W5 | ⊕ | 1NO+1NC | NA G110BB-DN2H0W5  | ⊕ | 1NO+1NC | NA G110BB-DN2W5 | ⊕                  | 1NO+1NC |  |  |
| G02             | <b>L</b>           | NA G020AB-DN2W5 | ⊕ | 2NC     | NA G020BB-DN2H0W5  | ⊕ | 2NC     | NA G020BB-DN2W5 | ⊕                  | 2NC     |  |  |
| G12             | <b>L</b>           | NA G120AB-DN2W5 | ⊕ | 1NO+2NC | NA G120BB-DN2H0W5  | ⊕ | 1NO+2NC | NA G120BB-DN2W5 | ⊕                  | 1NO+2NC |  |  |
| G22             | <b>L</b>           | NA G220AB-DN2W5 | ⊕ | 2NO+2NC | NA G220BB-DN2H0W5  | ⊕ | 2NO+2NC | NA 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:

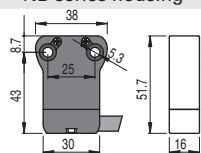
- R** = snap action
- L** = slow action



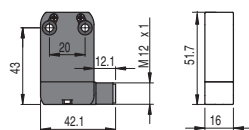
Contact block

|                 |                    |                 |  |         |                    |  |         |                 |                    |         |  |  |
|-----------------|--------------------|-----------------|--|---------|--------------------|--|---------|-----------------|--------------------|---------|--|--|
| B11             | <b>R</b>           | NA B110HB-DN2W5 |  | 1NO+1NC | NA B110HE-DN2W5    |  | 1NO+1NC | NA B110HH-DN2W5 |                    | 1NO+1NC |  |  |
| B02             | <b>R</b>           | NA B020HB-DN2W5 |  | 2NC     | NA B020HE-DN2W5    |  | 2NC     | NA B020HH-DN2W5 |                    | 2NC     |  |  |
| B12             | <b>R</b>           | NA B120HB-DN2W5 |  | 1NO+2NC | NA B120HE-DN2W5    |  | 1NO+2NC | NA B120HH-DN2W5 |                    | 1NO+2NC |  |  |
| B22             | <b>R</b>           | NA B220HB-DN2W5 |  | 2NO+2NC | NA B220HE-DN2W5    |  | 2NO+2NC | NA B220HH-DN2W5 |                    | 2NO+2NC |  |  |
| G11             | <b>L</b>           | /               |  | /       | /                  |  | /       | /               |                    | /       |  |  |
| G02             | <b>L</b>           | NA G020HB-DN2W5 |  | 2NC     | NA G020HE-DN2W5    |  | 2NC     | NA G020HH-DN2W5 |                    | 2NC     |  |  |
| G12             | <b>L</b>           | /               |  | /       | /                  |  | /       | /               |                    | /       |  |  |
| G22             | <b>L</b>           | /               |  | /       | /                  |  | /       | /               |                    | /       |  |  |
| 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 |         |  |  |

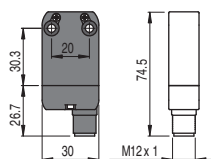
NB series housing



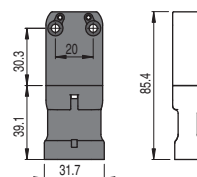
M12 connector, right



M12 connector, bottom



AMP Superseal 1.5 connector



To order a product of the NB series, replace NA with NB in the codes shown above. Example:  
NA B110AA-DN2 → NB B110AA-DN2

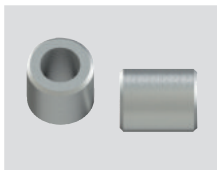
To order a product with M12 right connector, replace DN2 with DMK in the codes shown above. Example:  
NA B110AA-DN2 → NA B110AA-DMK

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

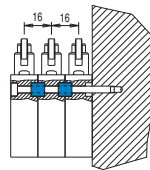
To order a product with AMP connector, replace DN2 with SAK in the codes shown above. Example:  
NA B110AA-DN2 → NA B110AA-SAK

**Accessories** Packs of **10 pcs.**

| Article | Description                 |
|---------|-----------------------------|
| VN DT1F | Spacer for NA and NF series |
| VF D16B | Spacer for NB 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 |          |
|--------------|----------|
| <b>4</b>     | 4 poles  |
| <b>5</b>     | 5 poles  |
| <b>8</b>     | 8 poles  |
| <b>12</b>    | 12 poles |

| Cable sheath |                |
|--------------|----------------|
| <b>P</b>     | PVC (standard) |
| <b>U</b>     | PUR            |

| Connector type |                     |
|----------------|---------------------|
| <b>D</b>       | straight (standard) |
| <b>G</b>       | angled              |

| Connection type |       |
|-----------------|-------|
| <b>M</b>        | M12x1 |

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

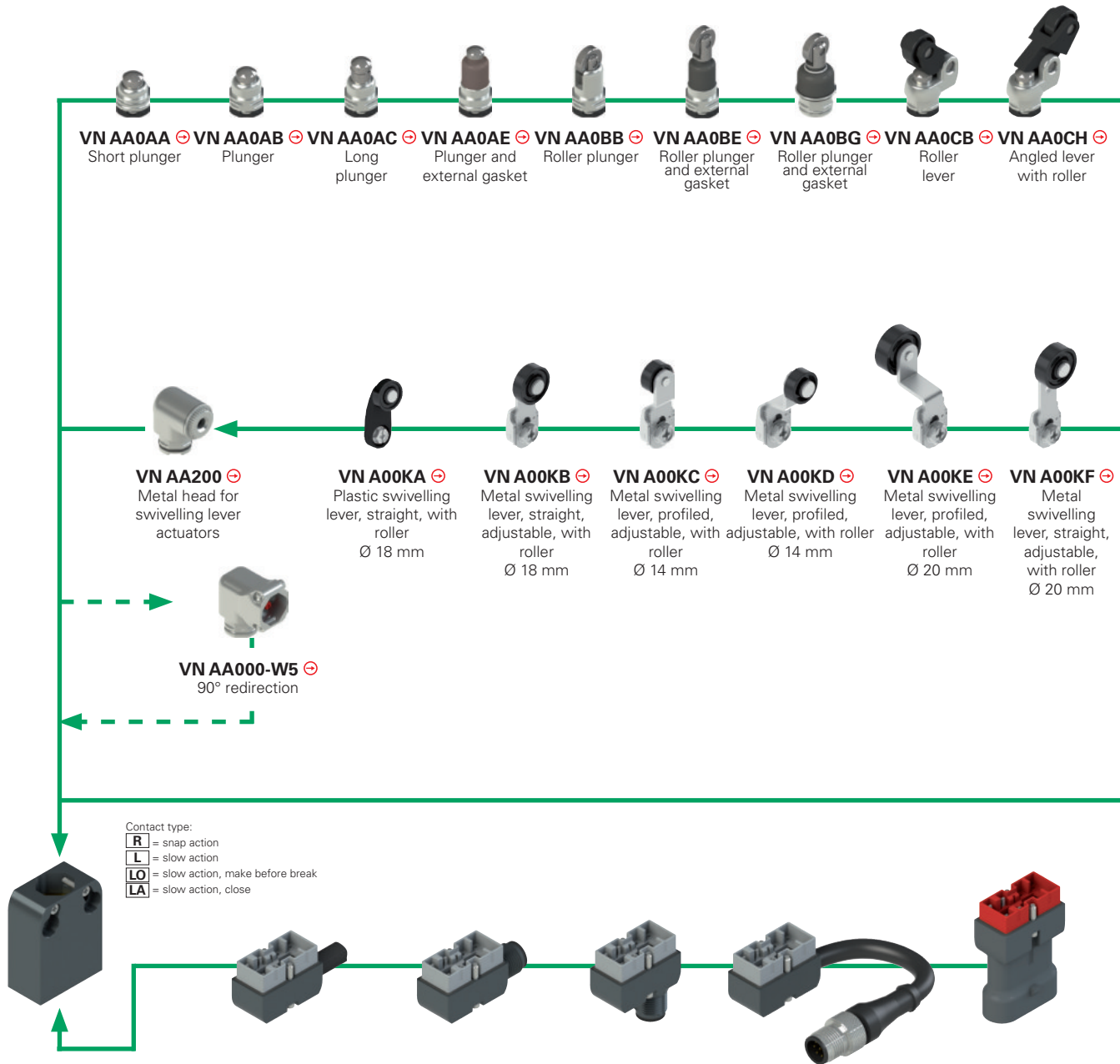
**Field wireable M12 female connectors**

**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 mm<sup>2</sup> (24 AWG) ... 0.5 mm<sup>2</sup> (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            |

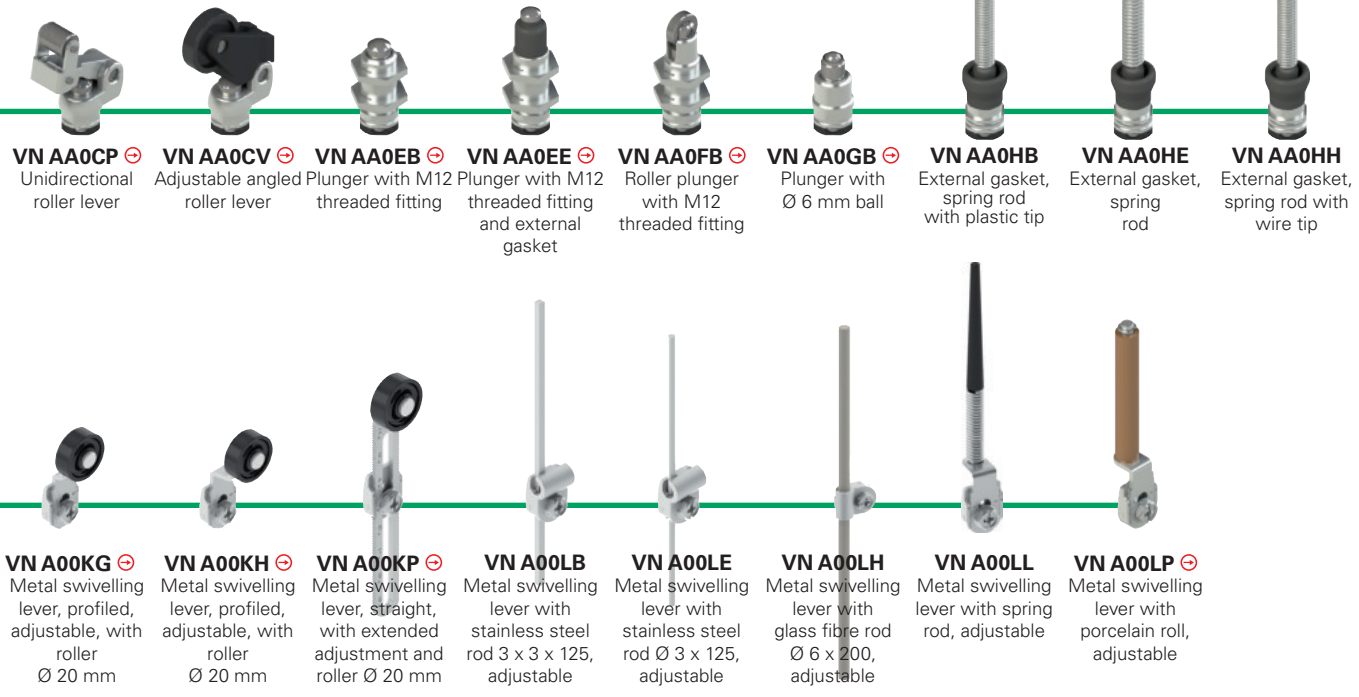
Selection diagram for item combinations of the NA - NB - NF series



| METAL housing, NA hole spacing 20 mm | Metal connector with cable | Cable length (m) | M12 metal connector, right | M12 metal connector, bottom | Metal connector with cable and M12 connector | Cable length (m) | AMP technopolymer connector, bottom |
|--------------------------------------|----------------------------|------------------|----------------------------|-----------------------------|--|------------------|-------------------------------------|
| NA B11000 ⊕ 1NO+1NC <b>R</b>         | VN CM11DN2                 | 2                | VN CM11DMK                 | VN CM11SMK                  | VN CM11DM0.2                                 | 0.2              | VN CM11SAK                          |
| NA G11000 ⊕ 1NO+1NC <b>L</b>         |                            | 5                |                            |                             |  |                  |                                     |
| NA L11000 ⊕ 1NO+1NC <b>LA</b>        | VN CM11DN5                 | 2                | VN CM11DMK                 | VN CM11SMK                  | VN CM11DM0.2                                 | 0.2              | VN CM11SAK                          |
| NA H11000 ⊕ 1NO+1NC <b>LO</b>        |                            | 5                |                            |                             |  |                  |                                     |
| NA B02000 ⊕ 2NC <b>R</b>             | VN CM02DN2                 | 2                | VN CM02DMK                 | VN CM02SMK                  | VN CM02DM0.2                                 | 0.2              | VN CM02SAK                          |
| NA G02000 ⊕ 2NC <b>L</b>             |                            | 5                |                            |                             |  |                  |                                     |
| NA B20000 ⊕ 2NO <b>R</b>             | VN CM20DN2                 | 2                | VN CM20DMK                 | VN CM20SMK                  | VN CM20DM0.2                                 | 0.2              | VN CM20SAK                          |
| NA G20000 ⊕ 2NO <b>L</b>             |                            | 5                |                            |                             |  |                  |                                     |
| NA B12000 ⊕ 1NO+2NC <b>R</b>         | VN CM12DN2                 | 2                | VN CM12DMK                 | VN CM12SMK                  | VN CM12DM0.2                                 | 0.2              | VN CM12SAK                          |
| NA G12000 ⊕ 1NO+2NC <b>L</b>         |                            | 5                |                            |                             |  |                  |                                     |
| NA L12000 ⊕ 1NO+2NC <b>LA</b>        | VN CM12DN5                 | 2                | VN CM12DMK                 | VN CM12SMK                  | VN CM12DM0.2                                 | 0.2              | VN CM12SAK                          |
| NA H12000 ⊕ 1NO+2NC <b>LO</b>        |                            | 5                |                            |                             |  |                  |                                     |
| NA B22000 ⊕ 2NO+2NC <b>R</b>         | VN CM22DN2                 | 2                | VN CM22DMK                 | VN CM22SMK                  | VN CM22DM0.2                                 | 0.2              | VN CM22SAK                          |
| NA G22000 ⊕ 2NO+2NC <b>L</b>         |                            | 5                |                            |                             |  |                  |                                     |
| NA L22000 ⊕ 2NO+2NC <b>LA</b>        | VN CM22DN5                 | 2                | VN CM22DMK                 | VN CM22SMK                  | VN CM22DM0.2                                 | 0.2              | VN CM22SAK                          |
| NA H22000 ⊕ 2NO+2NC <b>LO</b>        |                            | 5                |                            |                             |  |                  |                                     |

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

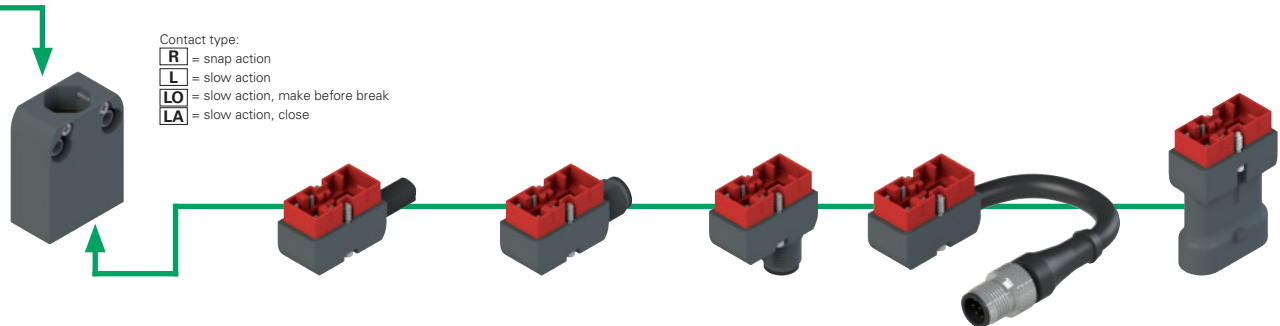
⚠ It is not allowed to install VN CM\*\*\*\*\* connectors on technopolymer housings



**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

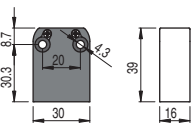
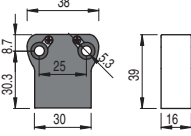
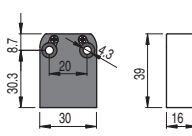
Contact type:  
**R** = snap action  
**L** = slow action  
**LO** = slow action, make before break  
**LA** = slow action, close



| NFTECHNOPOLYMER 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 <b>R</b>                | VN CP11DN2                         | 2                | VN CP11DMK                         | VN CP11SMK                          | VN CP11DM0.2   | 0.2              | VN CP11SAK                          |
| NF G11000 ⊕ 1NO+1NC <b>L</b>                | VN CP11DN5                         | 5                |                                    |                                     |  |                  |                                     |
| NF L11000 ⊕ 1NO+1NC <b>LA</b>               | VN CP02DN2                         | 2                | VN CP02DMK                         | VN CP02SMK                          | VN CP02DM0.2   | 0.2              | VN CP02SAK                          |
| NF H11000 ⊕ 1NO+1NC <b>LO</b>               | VN CP02DN5                         | 5                |                                    |                                     |  |                  |                                     |
| NF B02000 ⊕ 2NC <b>R</b>                    | VN CP20DN2                         | 2                | VN CP20DMK                         | VN CP20SMK                          | VN CP20DM0.2   | 0.2              | VN CP20SAK                          |
| NF G02000 ⊕ 2NC <b>L</b>                    | VN CP20DN5                         | 5                |                                    |                                     |  |                  |                                     |
| NF B20000 ⊕ 2NO <b>R</b>                    | VN CP12DN2                         | 2                | VN CP12DMK                         | VN CP12SMK                          | VN CP12DM0.2   | 0.2              |                                     |
| NF G20000 ⊕ 2NO <b>L</b>                    | VN CP12DN5                         | 5                |                                    |                                     |  |                  |                                     |
| NF B12000 ⊕ 1NO+2NC <b>R</b>                | VN CP22DN2                         | 2                | VN CP22DMK                         | VN CP22SMK                          | VN CP22DM0.2   | 0.2              |                                     |
| NF G22000 ⊕ 2NO+2NC <b>L</b>                | VN CP22DN5                         | 5                |                                    |                                     |  |                  |                                     |
| NF L22000 ⊕ 2NO+2NC <b>LA</b>               |                                    |                  |                                    |                                     |  |                  |                                     |
| NF H22000 ⊕ 2NO+2NC <b>LO</b>               |                                    |                  |                                    |                                     |  |                  |                                     |

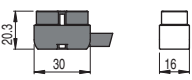
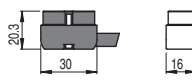
⚠ It is not allowed to install VN CP\*\*\*\*\* connectors on metal housings

## Housings

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

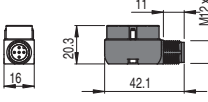
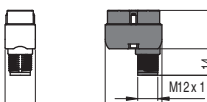
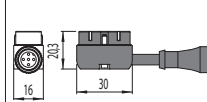
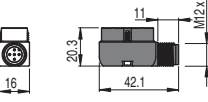
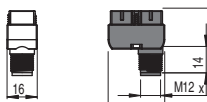
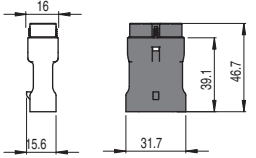
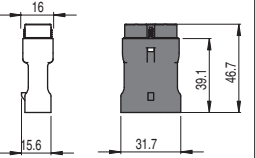
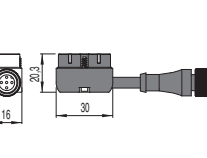


## Connectors with cable

| metal connectors for NA and NB housings   |                  |   | Other cable lengths on request | technopolymer connectors for NF housings   |                  |   |
|---|------------------|---|--------------------------------|--|------------------|---|
|  | Cable length (m) | Cable type<br>N = PVC<br>H = PUR HALOGEN FREE |                                |  | Cable length (m) | Cable type<br>N = PVC<br>H = PUR HALOGEN FREE |
| VN CM11DN2 1NO+1NC  | 2                | N   | VN CP11DN2 1NO+1NC             | 2  | N                |   |
| VN CM11DN5 1NO+1NC  | 5                |   | VN CP11DN5 1NO+1NC             | 5  |                  |   |
| VN CM12DN2 1NO+2NC  | 2                |   | 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  | H                |   |
| VN CM11DH5 1NO+1NC  | 5                |   | VN CP11DH5 1NO+1NC             | 5  |                  |   |
| VN CM12DH2 1NO+2NC  | 2                |   | VN CP12DH2 1NO+2NC             | 2  |                  |   |
| VN CM12DH5 1NO+2NC  | 5                |   | VN CP12DH5 1NO+2NC             | 5  |                  |   |
| VN CM22DH2 2NO+2NC  | 2                |   | VN CP22DH2 2NO+2NC             | 2  |                  |   |
| VN CM22DH5 2NO+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 CM11DM0.2 1NO+1NC  | VN CP11DMK 1NO+1NC   | VN CP11SMK 1NO+1NC  |
| VN CM02DMK 2NC  | VN CM02SMK 2NC  | VN CM02DM0.2 2NC  | VN CP02DMK 2NC   | VN CP02SMK 2NC  |
| VN CM22DMK 2NO+2NC  | VN CM22SMK 2NO+2NC  | VN CM22DM0.2 2NO+2NC  | VN CP22DMK 2NO+2NC   | VN CP22SMK 2NO+2NC  |
| technopolymer connectors for NA and NB housings                                     |   |   | technopolymer connectors for NF housings   |   |
| AMP superseal 1.5   |   |   | AMP superseal 1.5  | with cable and M12 connector  |
|   |   |   |  |  |
| VN CM11SAK 1NO+1NC  |   |   | VN CP11SAK 1NO+1NC   | VN CP11DM0.2 1NO+1NC  |
| VN CM02SAK 2NC  |   |   | VN CP02SAK 2NC   | VN CP02DM0.2 2NC  |
| VN CM20SAK 2NO  |   |   | VN CP20SAK 2NO   | 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

|          |             |
|----------|-------------|
|          |             |
| VN AA200 | VN AA000-W5 |

All values in the drawings are in mm. Accessories See page 207. The 2D and 3D files are available at [www.pizzato.com](http://www.pizzato.com)