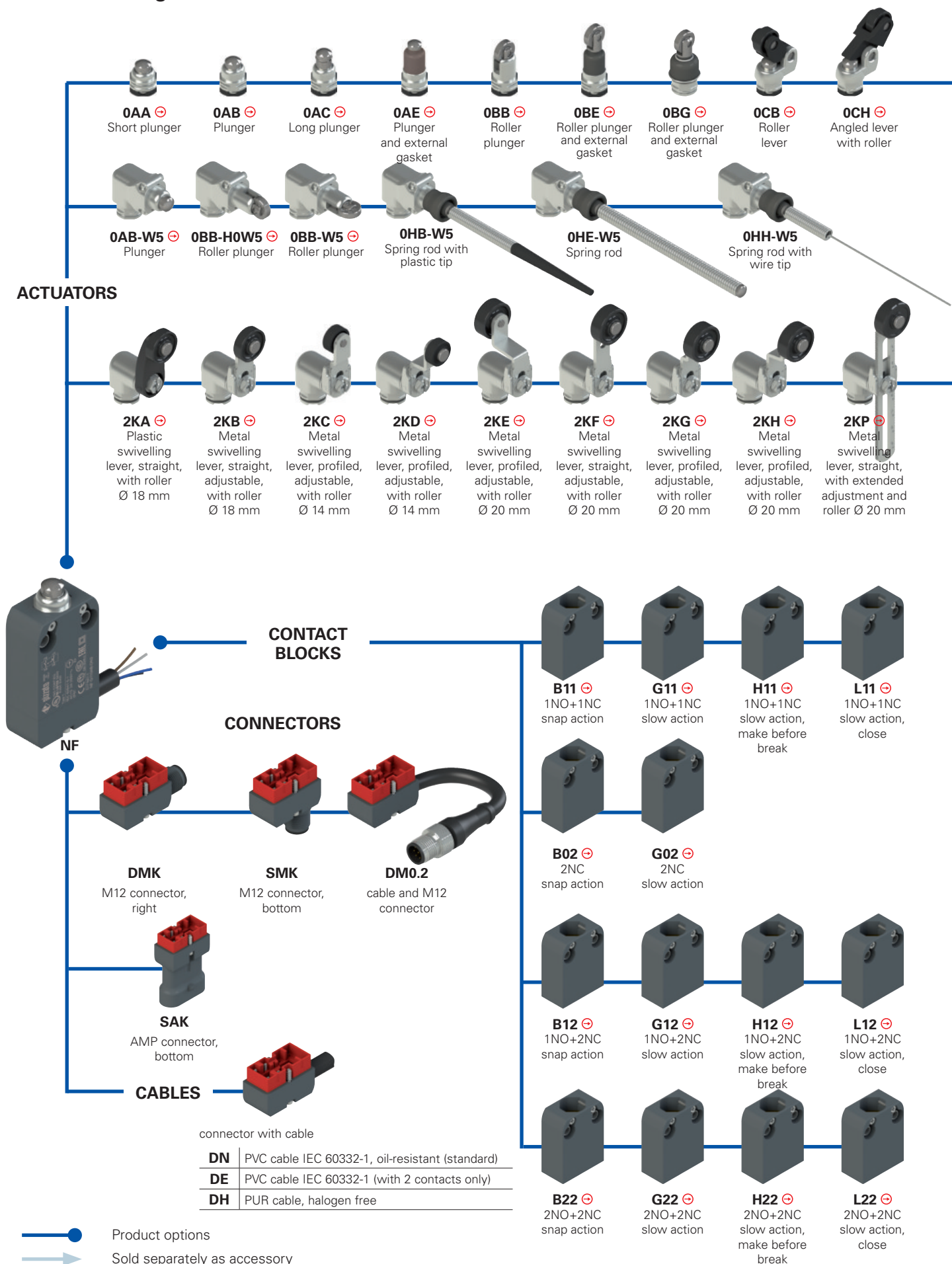
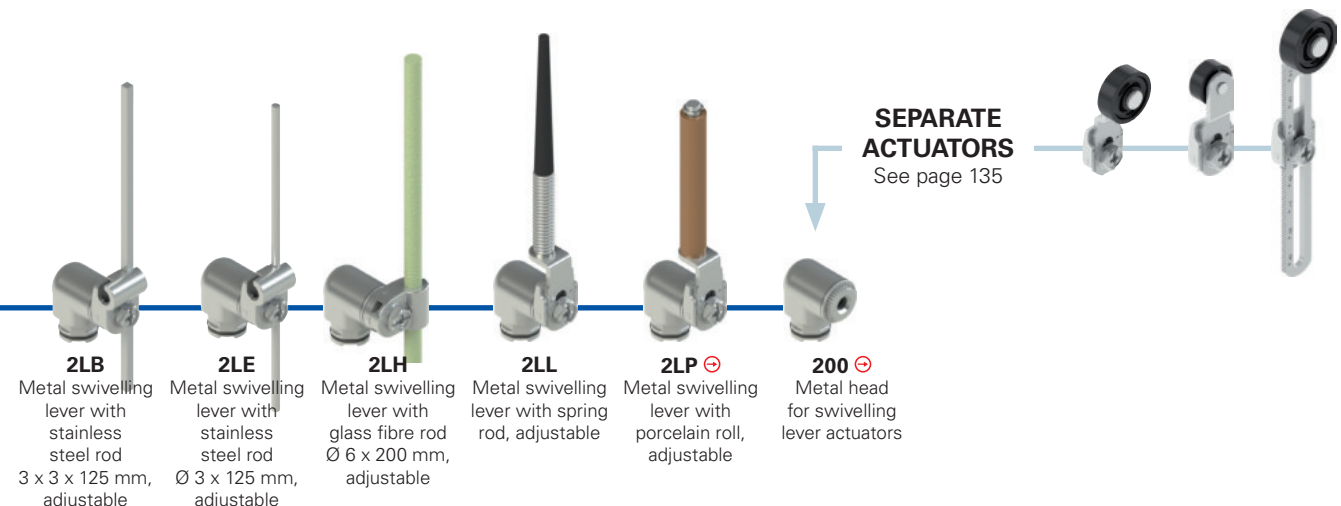
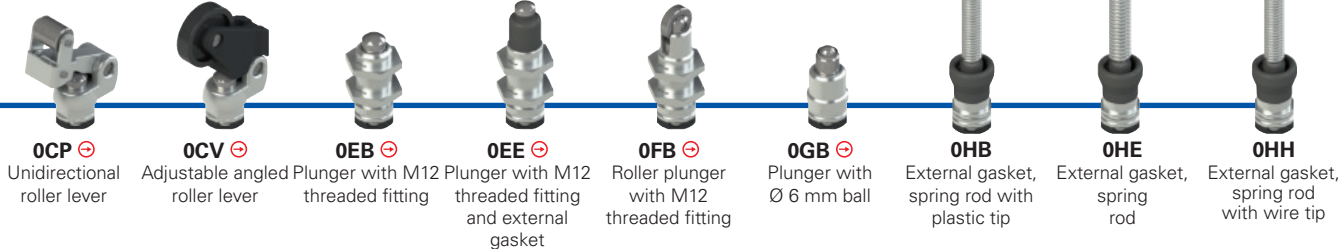


Selection diagram for item combinations of the NF series





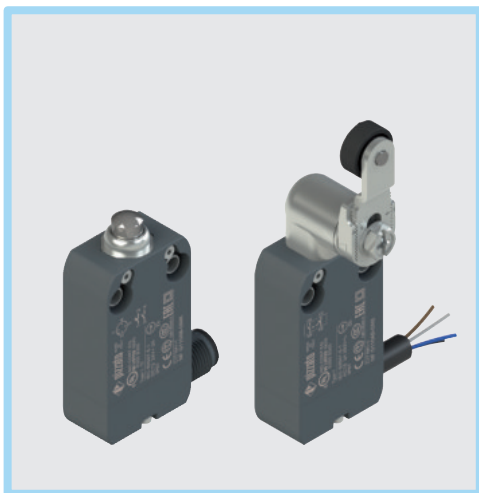
**SEPARATE ACTUATORS**  
See page 135

**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**

<b>Housing</b>	<b>NF</b> technopolymer, hole spacing 20 mm	<b>Redirection</b>	without redirection <b>W5</b> 90° redirection
<b>Contact block</b>	<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	<b>Ambient temperature</b>	-25°C ... +80°C (standard) <b>T6</b> -40 °C ... +80 °C
Other contact blocks on request.		<b>Rollers</b>	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
<b>Actuator heads</b>	<b>0</b> without head <b>2</b> head for swivelling lever actuators	<b>Contact type</b>	silver contacts (standard) <b>G</b> silver contacts, 1 µm gold coating
<b>Actuators</b>	<b>AA</b> short plunger <b>AB</b> plunger ...	<b>Connection type</b>	<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
<b>Output direction</b>	<b>D</b> cable or connector, right <b>S</b> connector, bottom	<b>Cable or connector type</b>	<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>M</b> M12 connector <b>A</b> 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

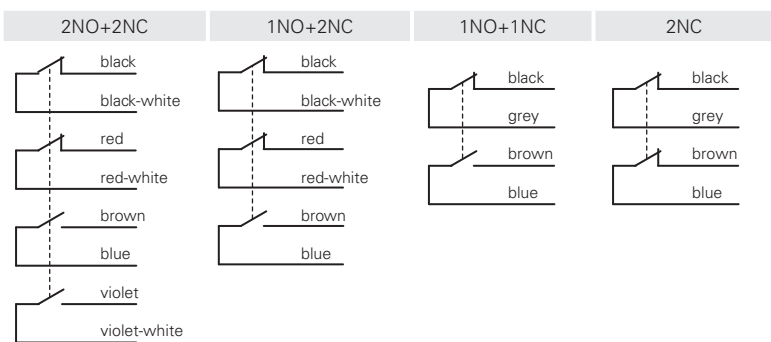
Electrical Ratings:	R300 pilot duty (28 VA, 125 250 Vdc) B300 pilot duty (360 VA, 120 240 Vac) (1 cont.) B300 pilot duty (360 VA, 120 240 Vac) (2 - 3 cont. without connector) C300 pilot duty (180 VA, 120 240 Vac) (2 - 3 cont. with connector) C300 pilot duty (180 VA, 120 240 Vac) (4 cont.)
Environmental 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.	
<b>Please contact our technical department for the list of approved products.</b>	



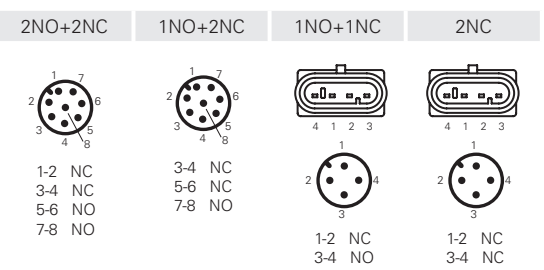
## Ambient temperatures for switches with cable and electrical data

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
<b>Cable features</b>									
Conductors	4x0.75 mm <sup>2</sup>	4x0.75 mm <sup>2</sup>	4x0.75 mm <sup>2</sup>	6x0.5 mm <sup>2</sup>	8x0.34 mm <sup>2</sup>	8x0.34 mm <sup>2</sup>	4x0.34 mm <sup>2</sup>	8x0.25mm <sup>2</sup>	
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	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 <sup>2</sup>	/	/	30 m/s <sup>2</sup>	5 m/s <sup>2</sup>	5 m/s <sup>2</sup>	/
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	/
<b>Ambient temperature with cable extended (T<sub>6</sub>) standard</b>									
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	/	/	/
<b>Electrical data</b>									
Thermal current I <sub>th</sub>	10 A	10 A	10 A	6 A	3 A	3 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 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
	125 V	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
Utilization category AC15	24 V	4 A	4 A	4 A	4 A	3 A	3 A	2 A	4 A
	120 V	4 A	4 A	4 A	4 A	3 A	3 A	/	4 A
	250 V	4 A	4 A	4 A	4 A	3 A	3 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 IMQ EAC CCC	CE cULus EAC	CE cULus EAC CCC

### Internal cable wiring



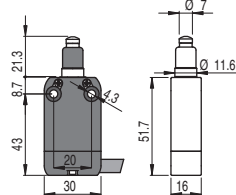
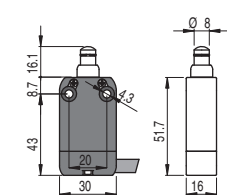
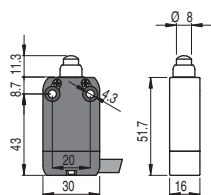
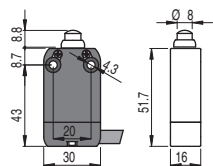
### Connector pin assignment



Female connectors see page 208

Contact type:

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

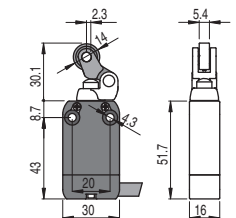
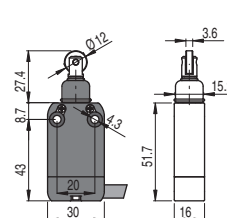
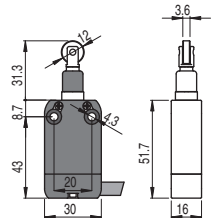
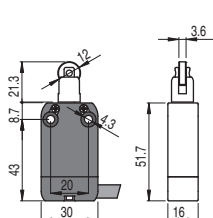


Contact block

B11	<b>R</b>	NF B110AA-DN2	⊕	1NO+1NC	NF B110AB-DN2	⊕	1NO+1NC	NF B110AC-DN2	⊕	1NO+1NC	NF B110AE-DN2	⊕	1NO+1NC
B02	<b>R</b>	NF B020AA-DN2	⊕	2NC	NF B020AB-DN2	⊕	2NC	NF B020AC-DN2	⊕	2NC	NF B020AE-DN2	⊕	2NC
B12	<b>R</b>	NF B120AA-DN2	⊕	1NO+2NC	NF B120AB-DN2	⊕	1NO+2NC	NF B120AC-DN2	⊕	1NO+2NC	NF B120AE-DN2	⊕	1NO+2NC
B22	<b>R</b>	NF B220AA-DN2	⊕	2NO+2NC	NF B220AB-DN2	⊕	2NO+2NC	NF B220AC-DN2	⊕	2NO+2NC	NF B220AE-DN2	⊕	2NO+2NC
G11	<b>L</b>	NF G110AA-DN2	⊕	1NO+1NC	NF G110AB-DN2	⊕	1NO+1NC	NF G110AC-DN2	⊕	1NO+1NC	NF G110AE-DN2	⊕	1NO+1NC
G02	<b>L</b>	NF G020AA-DN2	⊕	2NC	NF G020AB-DN2	⊕	2NC	NF G020AC-DN2	⊕	2NC	NF G020AE-DN2	⊕	2NC
G12	<b>L</b>	NF G120AA-DN2	⊕	1NO+2NC	NF G120AB-DN2	⊕	1NO+2NC	NF G120AC-DN2	⊕	1NO+2NC	NF G120AE-DN2	⊕	1NO+2NC
G22	<b>L</b>	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:

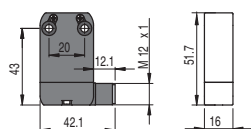
**R** = snap action  
**L** = slow action



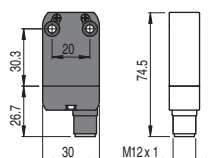
Contact block

B11	<b>R</b>	NF B110BB-DN2	⊕	1NO+1NC	NF B110BE-DN2	⊕	1NO+1NC	NF B110BG-DN2	⊕	1NO+1NC	NF B110CB-DN2	⊕	1NO+1NC
B02	<b>R</b>	NF B020BB-DN2	⊕	2NC	NF B020BE-DN2	⊕	2NC	NF B020BG-DN2	⊕	2NC	NF B020CB-DN2	⊕	2NC
B12	<b>R</b>	NF B120BB-DN2	⊕	1NO+2NC	NF B120BE-DN2	⊕	1NO+2NC	NF B120BG-DN2	⊕	1NO+2NC	NF B120CB-DN2	⊕	1NO+2NC
B22	<b>R</b>	NF B220BB-DN2	⊕	2NO+2NC	NF B220BE-DN2	⊕	2NO+2NC	NF B220BG-DN2	⊕	2NO+2NC	NF B220CB-DN2	⊕	2NO+2NC
G11	<b>L</b>	NF G110BB-DN2	⊕	1NO+1NC	NF G110BE-DN2	⊕	1NO+1NC	NF G110BG-DN2	⊕	1NO+1NC	NF G110CB-DN2	⊕	1NO+1NC
G02	<b>L</b>	NF G020BB-DN2	⊕	2NC	NF G020BE-DN2	⊕	2NC	NF G020BG-DN2	⊕	2NC	NF G020CB-DN2	⊕	2NC
G12	<b>L</b>	NF G120BB-DN2	⊕	1NO+2NC	NF G120BE-DN2	⊕	1NO+2NC	NF G120BG-DN2	⊕	1NO+2NC	NF G120CB-DN2	⊕	1NO+2NC
G22	<b>L</b>	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	

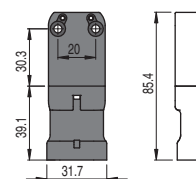
M12 connector, right



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:

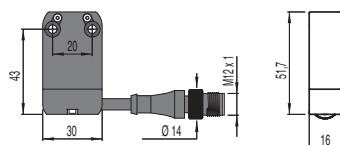
NF B110AA-DN2 → NF B110AA-SAK



Contact type:	With stainless steel roller on request		Unidirectional operation		Secured only by means of threaded head	
<b>R</b> = snap action <b>L</b> = slow action						
Contact block						
B11 <b>R</b>	NF B110CH-DN2	1NO+1NC	NF B110CP-DN2	1NO+1NC	NF B110CV-DN2	1NO+1NC
B02 <b>R</b>	NF B020CH-DN2	2NC	NF B020CP-DN2	2NC	NF B020CV-DN2	2NC
B12 <b>R</b>	NF B120CH-DN2	1NO+2NC	NF B120CP-DN2	1NO+2NC	NF B120CV-DN2	1NO+2NC
B22 <b>R</b>	NF B220CH-DN2	2NO+2NC	NF B220CP-DN2	2NO+2NC	NF B220CV-DN2	2NO+2NC
G11 <b>L</b>	NF G110CH-DN2	1NO+1NC	NF G110CP-DN2	1NO+1NC	NF G110CV-DN2	1NO+1NC
G02 <b>L</b>	NF G020CH-DN2	2NC	NF G020CP-DN2	2NC	NF G020CV-DN2	2NC
G12 <b>L</b>	NF G120CH-DN2	1NO+2NC	NF G120CP-DN2	1NO+2NC	NF G120CV-DN2	1NO+2NC
G22 <b>L</b>	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	

Contact type:	Secured only by means of threaded head		Secured only by means of threaded head		Plunger with Ø 6 mm ball		External gasket	
<b>R</b> = snap action <b>L</b> = slow action								
Contact block								
B11 <b>R</b>	NF B110EE-DN2	1NO+1NC	NF B110FB-DN2	1NO+1NC	NF B110GB-DN2	1NO+1NC	NF B110HB-DN2	1NO+1NC
B02 <b>R</b>	NF B020EE-DN2	2NC	NF B020FB-DN2	2NC	NF B020GB-DN2	2NC	NF B020HB-DN2	2NC
B12 <b>R</b>	NF B120EE-DN2	1NO+2NC	NF B120FB-DN2	1NO+2NC	NF B120GB-DN2	1NO+2NC	NF B120HB-DN2	1NO+2NC
B22 <b>R</b>	NF B220EE-DN2	2NO+2NC	NF B220FB-DN2	2NO+2NC	NF B220GB-DN2	2NO+2NC	NF B220HB-DN2	2NO+2NC
G11 <b>L</b>	NF G110EE-DN2	1NO+1NC	NF G110FB-DN2	1NO+1NC	NF G110GB-DN2	1NO+1NC	/	/
G02 <b>L</b>	NF G020EE-DN2	2NC	NF G020FB-DN2	2NC	NF G020GB-DN2	2NC	NF G020HB-DN2	2NC
G12 <b>L</b>	NF G120EE-DN2	1NO+2NC	NF G120FB-DN2	1NO+2NC	NF G120GB-DN2	1NO+2NC	/	/
G22 <b>L</b>	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

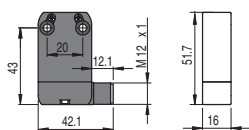


To order a product with cable and M12 connector:  
replace DN2 with DM0.2 in the codes shown above. Example:  
NF B110AA-DN2 → NF B110AA-DM0.2

Contact type:		External gasket		External gasket		With stainless steel roller on request		With stainless steel roller on request	
<b>R</b> = snap action <b>L</b> = slow action									
Contact block									
B11	<b>R</b>	NF B110HE-DN2	1NO+1NC	NF B110HH-DN2	1NO+1NC	NF B112KA-DN2	1NO+1NC	NF B112KB-DN2	1NO+1NC
B02	<b>R</b>	NF B020HE-DN2	2NC	NF B020HH-DN2	2NC	NF B022KA-DN2	2NC	NF B022KB-DN2	2NC
B12	<b>R</b>	NF B120HE-DN2	1NO+2NC	NF B120HH-DN2	1NO+2NC	NF B122KA-DN2	1NO+2NC	NF B122KB-DN2	1NO+2NC
B22	<b>R</b>	NF B220HE-DN2	2NO+2NC	NF B220HH-DN2	2NO+2NC	NF B222KA-DN2	2NO+2NC	NF B222KB-DN2	2NO+2NC
G11	<b>L</b>	/	/	/	/	NF G112KA-DN2	1NO+1NC	NF G112KB-DN2	1NO+1NC
G02	<b>L</b>	NF G020HE-DN2	2NC	NF G020HH-DN2	2NC	NF G022KA-DN2	2NC	NF G022KB-DN2	2NC
G12	<b>L</b>	/	/	/	/	NF G122KA-DN2	1NO+2NC	NF G122KB-DN2	1NO+2NC
G22	<b>L</b>	/	/	/	/	NF G222KA-DN2	2NO+2NC	NF G222KB-DN2	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)		0.07 Nm (0.25 Nm)	
Travel diagrams		page 232 - group 4		page 232 - group 4		page 232 - group 5		page 232 - group 5	

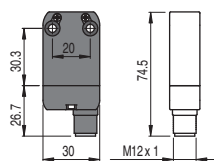
Contact type:		With stainless steel roller on request		With stainless steel roller on request		With stainless steel roller on request		With stainless steel roller on request	
<b>R</b> = snap action <b>L</b> = slow action									
Contact block									
B11	<b>R</b>	NF B112KC-DN2	1NO+1NC	NF B112KD-DN2	1NO+1NC	NF B112KE-DN2	1NO+1NC	NF B112KF-DN2	1NO+1NC
B02	<b>R</b>	NF B022KC-DN2	2NC	NF B022KD-DN2	2NC	NF B022KE-DN2	2NC	NF B022KF-DN2	2NC
B12	<b>R</b>	NF B122KC-DN2	1NO+2NC	NF B122KD-DN2	1NO+2NC	NF B122KE-DN2	1NO+2NC	NF B122KF-DN2	1NO+2NC
B22	<b>R</b>	NF B222KC-DN2	2NO+2NC	NF B222KD-DN2	2NO+2NC	NF B222KE-DN2	2NO+2NC	NF B222KF-DN2	2NO+2NC
G11	<b>L</b>	NF G112KC-DN2	1NO+1NC	NF G112KD-DN2	1NO+1NC	NF G112KE-DN2	1NO+1NC	NF G112KF-DN2	1NO+1NC
G02	<b>L</b>	NF G022KC-DN2	2NC	NF G022KD-DN2	2NC	NF G022KE-DN2	2NC	NF G022KF-DN2	2NC
G12	<b>L</b>	NF G122KC-DN2	1NO+2NC	NF G122KD-DN2	1NO+2NC	NF G122KE-DN2	1NO+2NC	NF G122KF-DN2	1NO+2NC
G22	<b>L</b>	NF G222KC-DN2	2NO+2NC	NF G222KD-DN2	2NO+2NC	NF G222KE-DN2	2NO+2NC	NF G222KF-DN2	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)		0.07 Nm (0.25 Nm)		0.07 Nm (0.25 Nm)		0.07 Nm (0.25 Nm)	
Travel diagrams		page 232 - group 5		page 232 - group 5		page 232 - group 5		page 232 - group 5	

M12 connector, right



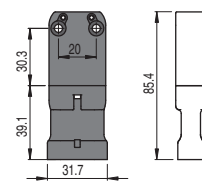
To order a product with M12 right connector, replace DN2 with DMK in the codes shown above.  
 Example:  
 NF B110AA-DN2 → NF B110AA-DMK

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



Contact type:

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

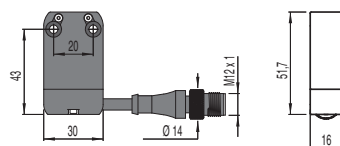
	With stainless steel roller on request	With stainless steel roller on request	With stainless steel roller on request	Square rod, 3x3 mm, stainless steel
Contact block				
B11	<b>R</b> NF B112KG-DN2 $\oplus$ 1NO+1NC	NF B112KH-DN2 $\oplus$ 1NO+1NC	NF B112KP-DN2 $\oplus$ 1NO+1NC	NF B112LB-DN2 1NO+1NC
B02	<b>R</b> NF B022KG-DN2 $\oplus$ 2NC	NF B022KH-DN2 $\oplus$ 2NC	NF B022KP-DN2 $\oplus$ 2NC	NF B022LB-DN2 2NC
B12	<b>R</b> NF B122KG-DN2 $\oplus$ 1NO+2NC	NF B122KH-DN2 $\oplus$ 1NO+2NC	NF B122KP-DN2 $\oplus$ 1NO+2NC	NF B122LB-DN2 1NO+2NC
B22	<b>R</b> NF B222KG-DN2 $\oplus$ 2NO+2NC	NF B222KH-DN2 $\oplus$ 2NO+2NC	NF B222KP-DN2 $\oplus$ 2NO+2NC	NF B222LB-DN2 2NO+2NC
G11	<b>L</b> NF G112KG-DN2 $\oplus$ 1NO+1NC	NF G112KH-DN2 $\oplus$ 1NO+1NC	NF G112KP-DN2 $\oplus$ 1NO+1NC	NF G112LB-DN2 1NO+1NC
G02	<b>L</b> NF G022KG-DN2 $\oplus$ 2NC	NF G022KH-DN2 $\oplus$ 2NC	NF G022KP-DN2 $\oplus$ 2NC	NF G022LB-DN2 2NC
G12	<b>L</b> NF G122KG-DN2 $\oplus$ 1NO+2NC	NF G122KH-DN2 $\oplus$ 1NO+2NC	NF G122KP-DN2 $\oplus$ 1NO+2NC	NF G122LB-DN2 1NO+2NC
G22	<b>L</b> 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	<b>R</b> NF B112LE-DN2 1NO+1NC	NF B112LH-DN2 1NO+1NC	NF B112LL-DN2 1NO+1NC	NF B112LP-DN2E24 $\oplus$ 1NO+1NC
B02	<b>R</b> NF B022LE-DN2 2NC	NF B022LH-DN2 2NC	NF B022LL-DN2 2NC	NF B022LP-DN2E24 $\oplus$ 2NC
B12	<b>R</b> NF B122LE-DN2 1NO+2NC	NF B122LH-DN2 1NO+2NC	NF B122LL-DN2 1NO+2NC	NF B122LP-DN2E24 $\oplus$ 1NO+2NC
B22	<b>R</b> NF B222LE-DN2 2NO+2NC	NF B222LH-DN2 2NO+2NC	NF B222LL-DN2 2NO+2NC	NF B222LP-DN2E24 $\oplus$ 2NO+2NC
G11	<b>L</b> NF G112LE-DN2 1NO+1NC	NF G112LH-DN2 1NO+1NC	NF G112LL-DN2 1NO+1NC	NF G112LP-DN2E24 $\oplus$ 1NO+1NC
G02	<b>L</b> NF G022LE-DN2 2NC	NF G022LH-DN2 2NC	NF G022LL-DN2 2NC	NF G022LP-DN2E24 $\oplus$ 2NC
G12	<b>L</b> NF G122LE-DN2 1NO+2NC	NF G122LH-DN2 1NO+2NC	NF G122LL-DN2 1NO+2NC	NF G122LP-DN2E24 $\oplus$ 1NO+2NC
G22	<b>L</b> 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

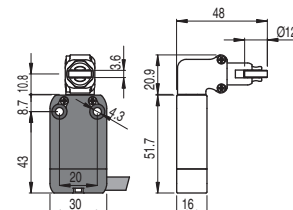
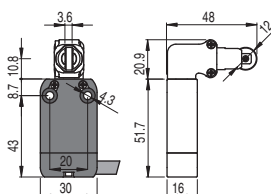
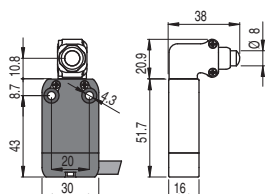


To order a product with cable and M12 connector:  
replace DN2 with DM0.2 in the codes shown above. Example:  
NF B110AA-DN2 → NF B110AA-DM0.2



Contact type:

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

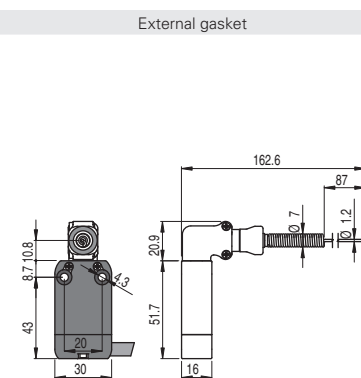
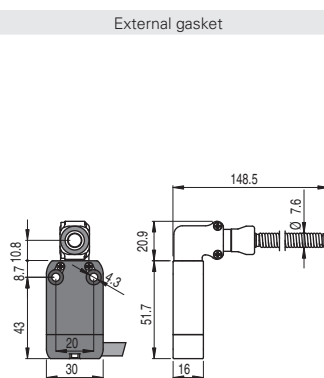
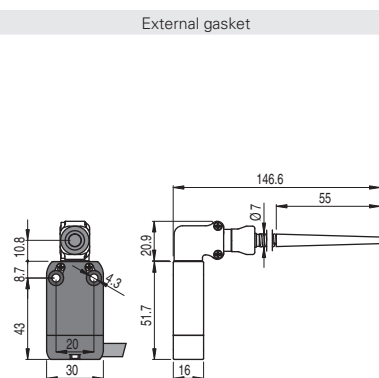


Contact block

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

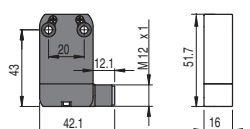
**R** = snap action  
**L** = slow action



Contact block

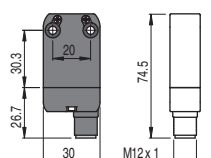
B11	<b>R</b>	NF B110HB-DN2W5		1NO+1NC	NF B110HE-DN2W5		1NO+1NC	NF B110HH-DN2W5		1NO+1NC		
B02	<b>R</b>	NF B020HB-DN2W5		2NC	NF B020HE-DN2W5		2NC	NF B020HH-DN2W5		2NC		
B12	<b>R</b>	NF B120HB-DN2W5		1NO+2NC	NF B120HE-DN2W5		1NO+2NC	NF B120HH-DN2W5		1NO+2NC		
B22	<b>R</b>	NF B220HB-DN2W5		2NO+2NC	NF B220HE-DN2W5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

M12 connector, right



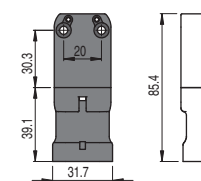
To order a product with M12 right connector, replace DN2 with DMK in the codes shown above.  
 Example:  
 NF B110AA-DN2 → NF B110AA-DMK

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](http://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	
<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

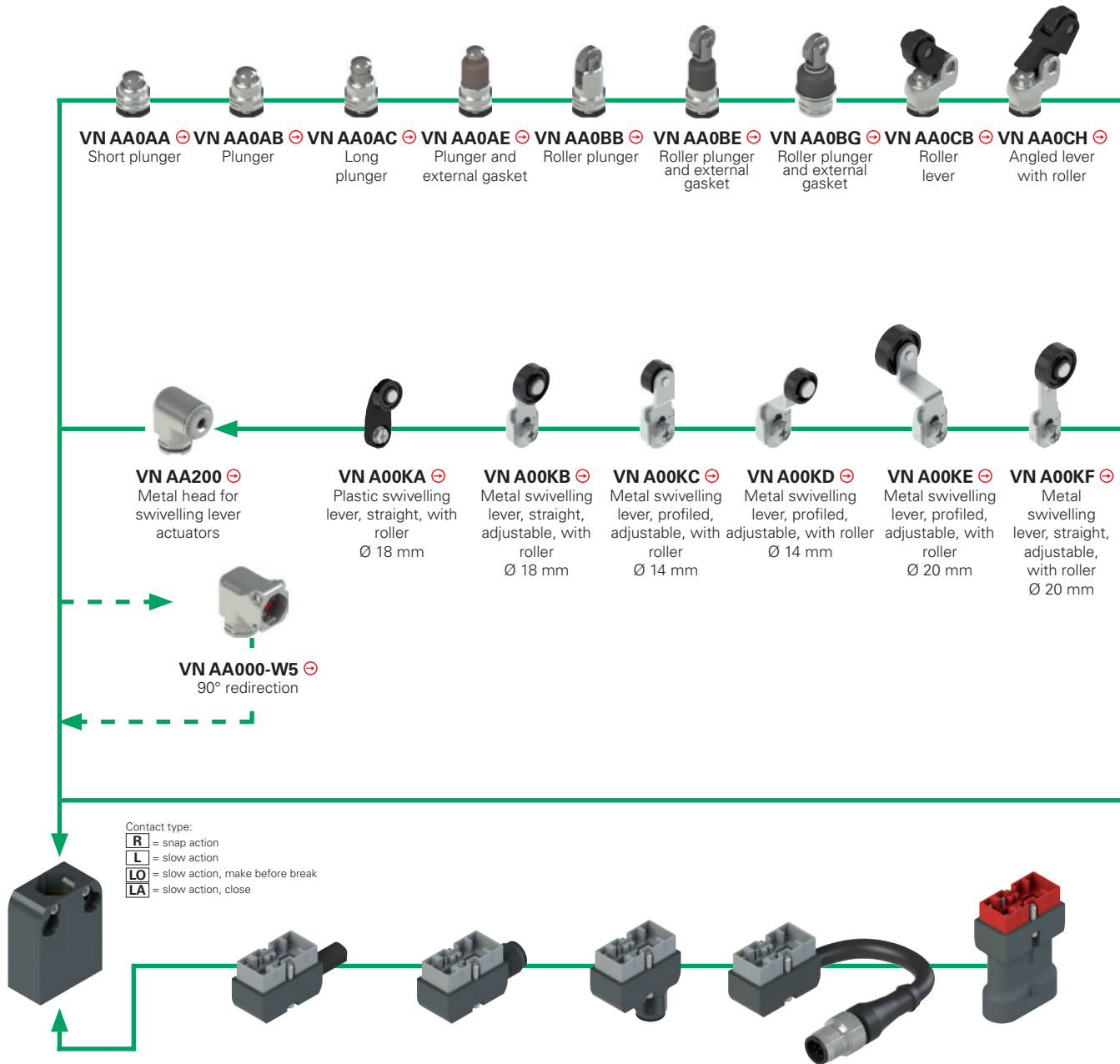
**Attention!** For items not in stock the minimum order quantity is 100 pcs.

**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
NA B11000 ⊕ 1NO+1NC <b>R</b>
NA G11000 ⊕ 1NO+1NC <b>L</b>
NA L11000 ⊕ 1NO+1NC <b>LA</b>
NA H11000 ⊕ 1NO+1NC <b>LO</b>
NA B02000 ⊕ 2NC <b>R</b>
NA G02000 ⊕ 2NC <b>L</b>
NA B20000 ⊕ 2NO <b>R</b>
NA G20000 ⊕ 2NO <b>L</b>
NA B12000 ⊕ 1NO+2NC <b>R</b>
NA G12000 ⊕ 1NO+2NC <b>L</b>
NA L12000 ⊕ 1NO+2NC <b>LA</b>
NA H12000 ⊕ 1NO+2NC <b>LO</b>
NA B22000 ⊕ 2NO+2NC <b>R</b>
NA G22000 ⊕ 2NO+2NC <b>L</b>
NA L22000 ⊕ 2NO+2NC <b>LA</b>
NA H22000 ⊕ 2NO+2NC <b>LO</b>

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

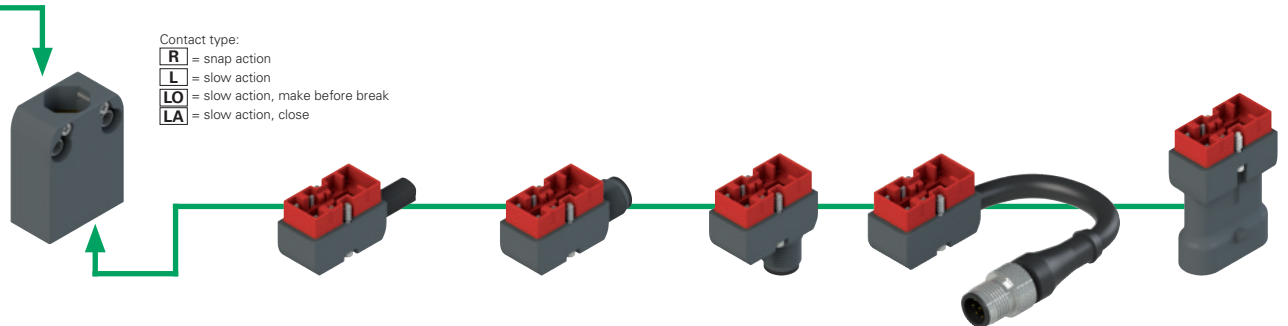
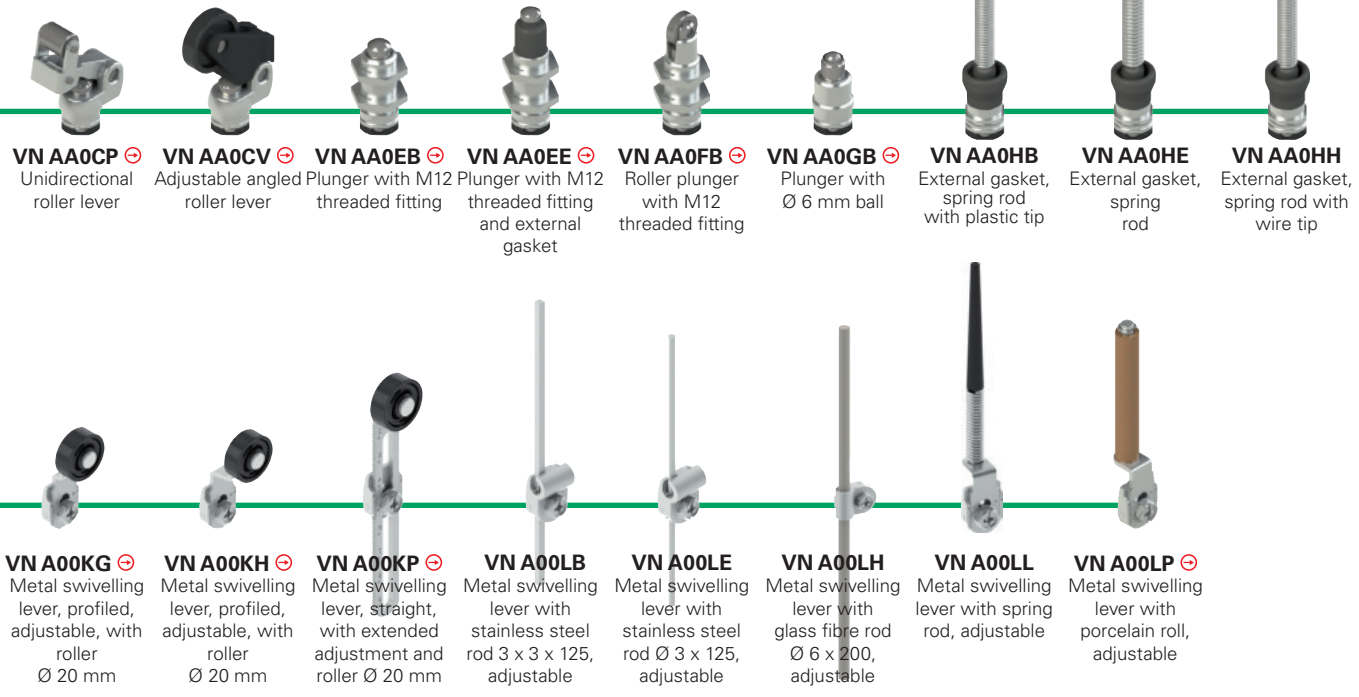
M12 metal connector, bottom
VN CM11SMK
VN CM02SMK
VN CM20SMK
VN CM12SMK
VN CM22SMK

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

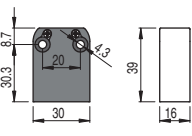
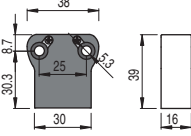
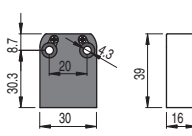
⚠ It is not allowed to install VN CM\*\*\*\*\* connectors on technopolymer housings



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 G12000 ⊕ 1NO+2NC <b>L</b>	VN CP22DN5	5					
NF L20000 ⊕ 2NO+2NC <b>LA</b>							
NF H20000 ⊕ 2NO+2NC <b>LO</b>							

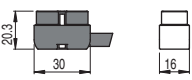
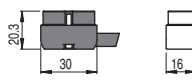
⚠ It is not allowed to install VN CP\*\*\*\*\* connectors on metal housings

## Housings

NA metal housings		NB metal housings		Contact type: <b>R</b> = snap action <b>L</b> = slow action <b>LO</b> = slow action, make before break <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>				

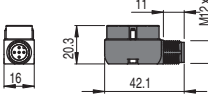
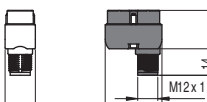
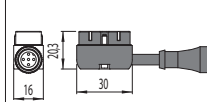
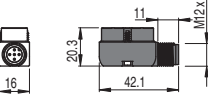
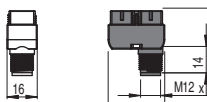
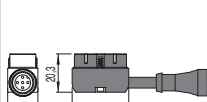


## Connectors with cable

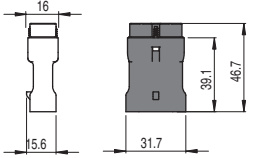

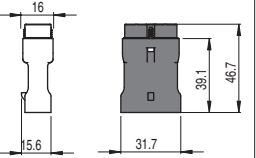
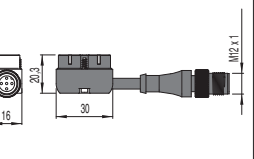
metal connectors for NA and NB housings			Other cable lengths on request	technopolymer connectors for NF housings		
	Cable length (m)	Cable type N = PVC H = PUR HALOGEN FREE			Cable length (m)	Cable type N = PVC H = PUR HALOGEN FREE
VN CM11DN2 1NO+1NC	2	N	VN CP11DN2 1NO+1NC	2	N	
VN CM11DN5 1NO+1NC	5		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 1NO+2NC	2		VN CP22DH2 1NO+2NC	2		
VN CM22DH5 1NO+2NC	5		VN CP22DH5 1NO+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	with cable and M12 connector
					
VN CM11DMK 1NO+1NC	VN CM11SMK 1NO+1NC	VN CM11DM0.2 1NO+1NC	VN CP11DMK 1NO+1NC	VN CP11SMK 1NO+1NC	VN CP11DM0.2 1NO+1NC
VN CM02DMK 2NC	VN CM02SMK 2NC	VN CM02DM0.2 2NC	VN CP02DMK 2NC	VN CP02SMK 2NC	VN CP02DM0.2 2NC
VN CM22DMK 2NO+2NC	VN CM22SMK 2NO+2NC	VN CM22DM0.2 2NO+2NC	VN CP22DMK 2NO+2NC	VN CP22SMK 2NO+2NC	VN CP22DM0.2 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 CM22SAK 2NO+2NC	VN CP22SAK 2NO+2NC



### Actuators

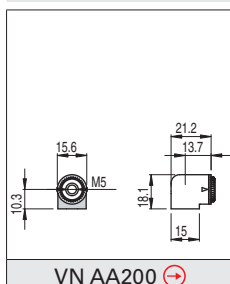
VN AA0AA (↻)	VN AA0AB (↻)	VN AA0AC (↻)	VN AA0AE (↻)	VN AA0BB (↻)	VN AA0BE (↻)
VN AA0CB (↻)	VN AA0CH (↻)	VN AA0CP (↻)	VN AA0CV (↻)	VN AA0EB (↻)	VN AA0EE (↻)
VN AA0FB (↻)	VN AA0GB (↻)	VN AA0HB	VN AA0HE	VN AA0HH	

### Levers

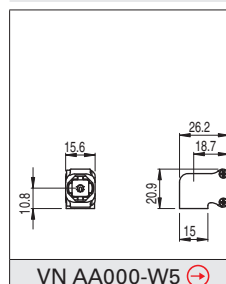
ATTENTION: These separate actuators can be used only with items of the NA, NB and NF series.

VN A00KA (↻)	VN A00KB (↻)	VN A00KC (↻)	VN A00KD (↻)	VN A00KE (↻)	VN A00KF (↻)
VN A00KG (↻)	VN A00KH (↻)	VN A00KP (↻)	VN A00LB	VN A00LE	VN A00LH
		<b>Levers with external metallic parts in stainless steel</b>			
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](http://www.pizzato.com)