## Introduction

Always consistent with its innovation and the company quality targets, Pizzato Elettrica introduces three new prewired switches series provided with innovative and unique characteristics.
These products series are the result of four years research, development and test; they fulfil new solutions requested by the market and they include more than ten years company experience in the position switches sector. That's why we are proud to introduce the new NA, NB and NF in the Pizzato Elettrica production.

## Switches with connectors



The new fundamental characteristic of these prewired switches series is the separation between the switch body and the wired connector. The connector allows the user to change a product in the field without having to completely remove the wires.
Moreover this way it's easier to assemble products with different cable types and lengths.

## New actuators



New actuators have been created for the series NA-NB-NF, They are not available in the previous series of prewired switches.

## Adjustable cable output



The wired connector is provided with a notch to allow the cable bending up to $90^{\circ}$.
Therefore it's possible to install it by the wall and it's easier to adjust the cable to the supporting flange.

## Rotating heads

All the heads can rotate in $90^{\circ}$ steps. The new head for revolving lever has been designed with dimensions contained inside the switch profile. This way it's possible to install switches by the wall.


## Overturning levers



The lever on switches can be fasten in straight or reverse side, maintaining the positive coupling. This way it's possible to obtain two different work plans of the lever.


## Increased or reduced actuating force

Based on the chosen actuator, many product variations are available. For actuators with revolving levers, versions with increased or reduced actuating force are available on request. This feature allows selection of a switch perfectly tailored for the application. For further information contact the Technical Department.

$90^{\circ}$ transmission block for actuators


This component largely increases the new products application possibilities.
Actuators that can be attached directly to the switch body can also be fitted via the Transmission Block, increasing the positioning options and therefore the application possibilities.
The transmission block can be used also with revolving lever heads. Even though it is possible with some actuators, it is not advisable to connect more than one Transmission Block to the same switch.


## Reversible housing

The fixing holes and switch body shapes, added to the possibility of rotating the head, make this switch perfectly symmetrical.
If it's necessary to have the switch with cable output from left (the connector cannot be rotated), then it's possible to rotate completely the device maintaining the final actuator position unchanged.


$-40^{\circ} \mathrm{C}$
This range of switches is also available in a special version with an ambient operating temperature range of $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$. This is particularly useful for applications in cold stores, sterilisers and other low temperature environments. The materials used in the production of these switches maintain the standard operating parameters even over this temperature range, further increasing application possibilities.

## 2D and 3D drawings

On our website, www.pizzato.com, you can freely download 2D drawings in (DXF format) and 3D drawings (STEP format) for all parts in this series.


## Adjustable levers with anti-vibration washer

Some applications present a problem due to fixing variations and carpentry laps. In other cases small final adjustments are needed owing to the application. The majority of revolving levers for NA, NB, NF series can be adjusted for extension at 1 mm intervals.


This feature, in conjunction with the radial adjusting actuator provides unique flexibility of alignment whilst still maintaining the geometrical coupling between the lever and the revolving shaft as prescribed for safety applications.

## Switch components available separately

This product series is designed in a modular format, so that its single pieces can be purchased separately. This is advantageous to distributors of electrical material for stock flexibility and final customers for spare parts or new combinations.

NA B110BB-DN2
NA B11000 VN AAOBB VN CM11DN2


## 4-5 poles M12 safety connectors $\Theta$

The long experience of Pizzato Elettrica has lead to the realization of the first 4-5 poles connector integrated in a safety switch complying with the requirements of standard EN 60947-5-1. Its high insulation voltage Ui 250 Vac allows to mark it as suitable for safety applications $\Theta$.



## Selection diagram for articles NA-NB series sold assembled





## Main data

- Metal housing, cable output from right or from bottom
- 3 integrated cable types available
- Versions with M12 connector from right or from bottom suitable for safety applications $\Theta$
- Protection degree IP67
- 14 contact blocks available
- 36 actuators available


## Markings and quality marks:



Approval UL:


E131787

## Technical data

## Housing

Metal housing, coated with baked UV resistant powder.
Version with cable integrated with $5 \times 0,75 \mathrm{~mm}^{2}$ wires, $7 \times 0,5 \mathrm{~mm}^{2}$ wires or $9 \times 0,34$
$\mathrm{mm}^{2}$ wires, standard length 2 m . Other lengths on request.
Versions with 5 or 8 poles M12 integrated connector
Protection degree: IP67 according to EN 60529
Saline smoke resistance: $\quad \geq 300$ hours in NSS according to ISO 9227

## General data

Utilization temperatures: See table on page 2/104
Max operating frequency: 3600 operations cycles ${ }^{1} /$ hour
Mechanical endurance: 20 million operations cycles ${ }^{1}$

Assembling position:
Driving torque for installation:
any
see pages 6/1-6/10
(1) One operation cycle means two movements, one to close and one to open contacts, as foreseen by EN 60947-

5-1 standard.

## In conformity with standards:

IEC 60947-5-1, EN 60947-5-1, IEC 60204-1, EN 60204-1, EN 1088, EN ISO 12100-1, EN ISO 12100-2, IEC 529, EN 60529, NFC 63-140, VDE 0660-200, VDE 0113

## In conformity with requirements requested by:

Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC and
Electromagnetic Compatibility 2004/108/EC.
Positive contact opening in conformity with standards:
IEC 60947-5-1, EN 60947-5-1, VDE 0660-206.


#### Abstract

\ Installation for persons protection applications: Use only switches marked with the symbol $\Theta$. The safety circuit must always be connected with the contacts NC (normally closed contacts: see "internal connections" on page 2/104) as stated in the standard EN 60947-5-1, encl. K, par. 2. The switch must be actuated with at least up to the positive opening travel indicated in the travel diagrams at page $6 / 10$. The switch must be actuated at least with the positive opening force, shown in brackets, underneath each article, near the value of the min. force. All enforceable standards must be respected.


\ If not expressly indicated in this chapter, for the right installation and the correct utilization of all articles see requirements indicated from page $\mathbf{6 / 1}$ to page $\mathbf{6 / 1 0}$.
$₫$ Attention: switch off the circuit voltage before disconnecting the connector from the switch. The connector is not suitable for sectioning of electrical loads. According to EN 60204-1, versions with 8 poles M12 connector can be used only in circuits PELV.

## Data type approved by UL

Utilization categories: R300 pilot duty ( $28 \mathrm{VA}, 125-250 \mathrm{Vdc}$ )
B300 pilot duty ( $360 \mathrm{VA}, 120-240 \mathrm{Vac}$ )
Data of the housing type $1,4 \mathrm{X}$ "indoor use only", 12

In conformity with standard: UL 508

[^0]Utilization temperatures and electrical data


| Contacts type: <br> $\mathbf{R}$ = snap action <br> L = slow action |  |  |  | With external rubber gasket |
| :---: | :---: | :---: | :---: | :---: |
| Contact blocks |  |  |  |  |
| B11 R | NA B110AA-DN2 $\Theta$ 1NO+1NC | NA B110AB-DN2 $\Theta 1$ NO+1NC | NA B110AC-DN2 $\quad$ 1NO+1NC | NA B110AE-DN2 $\quad$ 1NO+1NC |
| B02 R | NA B020AA-DN2 $\Theta 2$ NC | NA B020AB-DN2 $\Theta 2 N C$ | NA B020AC-DN2 $\Theta 2 N C$ | NA B020AE-DN2 $\Theta 2 N C$ |
| B12 R | NA B120AA-DN2 $\Theta 1$ NO+2NC | NA B120AB-DN2 $\Theta 1$ NO+2NC | NA B120AC-DN2 $\Theta 1$ NO+2NC | NA B120AE-DN2 $\Theta 1$ OO+2NC |
| B22 $\quad$ R | NA B220AA-DN2 $\Theta 2 N O+2 N C$ | NA B220AB-DN2 $\Theta 2 N O+2 N C$ | NA B220AC-DN2 $\Theta 2 N O+2 N C$ | NA B220AE-DN2 $\Theta 2 N O+2 N C$ |
| G11 L | NA G110AA-DN2 $\Theta 1$ NO+1NC | NA G110AB-DN2 $\Theta 1$ NO+1NC | NA G110AC-DN2 $\Theta 1$ NO+1NC | NA G110AE-DN2 $\Theta 1$ OO+1NC |
| G02 L | NA G020AA-DN2 $\Theta 2$ NC | NA G020AB-DN2 $\Theta 2 N C$ | NA G020AC-DN2 $\Theta 2$ 2NC | NA G020AE-DN2 $\Theta 2 N C$ |
| G12 L | NA G120AA-DN2 $\Theta 1$ NO+2NC | NA G120AB-DN2 $\Theta 1$ NO+2NC | NA G120AC-DN2 $\Theta 1$ NO+2NC | NA G120AE-DN2 $\Theta 1$ NO+2NC |
| G22 L | NA G220AA-DN2 $\Theta 2 N O+2 N C$ | NA G220AB-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA G220AC-DN2 $\Theta 2 N O+2 N C$ | NA G220AE-DN2 $\Theta 2 N O+2 N C$ |
| Max speed | page 6/9 - type 4 | page 6/9 - type 4 | page 6/9 - type 4 | page 6/9 - type 4 |
| Min. force | $7 \mathrm{~N}(25 \mathrm{~N}$ - | $7 \mathrm{~N}(25 \mathrm{~N}$ - $)$ | $7 \mathrm{~N}(25 \mathrm{~N}$ - $)$ | $7 \mathrm{~N}(25 \mathrm{~N} \Theta)$ |
| Travel diagrams | page 6/10-group 1 | page 6/10-group 1 | page 6/10-group 1 | page 6/10-group 1 |


| Contact blocks |  | With external rubber gasket | With stainless steel roller on request | With stainless steel roller on request |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| B11 R | NA B110BB-DN2 $\Theta 1$ NO+1NC | NA B110BE-DN2 $\Theta 1$ NO+1NC | NA B110CB-DN2 $\Theta 1$ NO+1NC | NA B110CH-DN2 $\Theta 1 \mathrm{NO}+1 \mathrm{NC}$ |
| B02 R | NA B020BB-DN2 $\Theta 2 N C$ | NA B020BE-DN2 $\Theta 2 N C$ | NA B020CB-DN2 $\Theta 2 N C$ | NA B020CH-DN2 $\Theta 2$ NC |
| B12 R | NA B120BB-DN2 $\Theta 1$ NO+2NC | NA B120BE-DN2 $\Theta 1$ NO+2NC | NA B120CB-DN2 $\Theta 1$ NO+2NC | NA B120CH-DN2 $\Theta 1 \mathrm{NO}+2 \mathrm{NC}$ |
| B22 R | NA B220BB-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA B220BE-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA B220CB-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA B220CH-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ |
| G11 L | NA G110BB-DN2 $\Theta 1$ NO+1NC | NA G110BE-DN2 $\Theta 1$ NO+1NC | NA G110CB-DN2 $\Theta 1$ NO+1NC | NA G110CH-DN2 $\Theta 1$ NO+1NC |
| G02 L | NA G020BB-DN2 $\Theta 2$ 2NC | NA G020BE-DN2 $\Theta 2 N C$ | NA G020CB-DN2 $\Theta 2 N C$ | NA G020CH-DN2 $\Theta 2 \mathrm{NC}$ |
| G12 L | NA G120BB-DN2 $\Theta 1$ NO+2NC | NA G120BE-DN2 $\Theta 1$ NO+2NC | NA G120CB-DN2 $\Theta 1$ NO+2NC | NA G120CH-DN2 $\Theta 1$ NO+2NC |
| G22 L | NA G220BB-DN2 $\Theta 2 N \mathrm{O}+2 \mathrm{NC}$ | NA G220BE-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA G220CB-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA G220CH-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ |
| Max speed | page 6/9 - type 2 | page 6/9 - type 5 | page 6/9 - type 3 | page 6/9 - type 3 |
| Min. force | $7 \mathrm{~N}(25 \mathrm{~N} \Theta)$ | $7 \mathrm{~N}(25 \mathrm{~N} \Theta)$ | $5 \mathrm{~N}(25 \mathrm{~N} \Theta)$ | $5 \mathrm{~N}(25 \mathrm{~N} \Theta)$ |
| Travel diagrams | page 6/10-group 1 | page 6/10-group 1 | page 6/10-group 2 | page 6/10-group 2 |
| Housing NB series |  | M12 connector output from right |  | ector output from bottom |



In order to buy a NB series product:
substitute on above mentioned codes NA with NB. Example:
NA B110AA-DN2 $\rightarrow$ NB B110AA-DN2
All measures in the drawings are in mm


In order to buy a product with M12 connector output from right substitute on above mentioned codes DN2 with DMK. Example: NA B110AA-DN2 $\rightarrow$ NA B110AA-DMK

n order to buy a product with M12 connector output from bottom substitute on above mentioned codes DN2 with SMK. Example: NA B110AA-DN2 $\rightarrow$ NA B110AA-SMK

| Contacts type: |
| :--- |
| $\mathbf{R}$ = snap action |
| $\mathbf{L}$ = slow a ction |

## General data:

## - Self locking ring nut

- High flexibility wire suitable for dynamic laying applications (copper class 6)
- Gold plated contact (resistance $<5 \mathrm{~m} \Omega$ )
- Connector body in polyurethane

See page $5 / 2$

| Contacts type: |
| :--- |
| $\mathbf{R}=$ snap action |
| $\mathbf{L}=$ slow action |


| Contact blocks | With stainless steel roller on request | With stainless steel roller on request | With stainless steel roller on request | With stainless steel roller on request |
| :---: | :---: | :---: | :---: | :---: |
| B11 R | NA B112KD-DN2 $\Theta$ 1NO+1NC | NA B112KE-DN2 $\Theta 1 \mathrm{NO}+1 \mathrm{NC}$ | NA B112KF-DN2 $\Theta 1 \mathrm{NO}+1 \mathrm{NC}$ | NA B112KG-DN2 $\Theta 1$ NO+1NC |
| B02 R | NA B022KD-DN2 $\Theta 2 N C$ | NA B022KE-DN2 $\Theta 2 N C$ | NA B022KF-DN2 $\Theta 2 N C$ | NA B022KG-DN2 $\Theta 2 N C$ |
| B12 $\quad$ R | NA B122KD-DN2 $\Theta 1$ NO+2NC | NA B122KE-DN2 $\Theta 1 \mathrm{NO}+2 \mathrm{NC}$ | NA B122KF-DN2 $\Theta 1 \mathrm{NO}+2 \mathrm{NC}$ | NA B122KG-DN2 $\Theta 1$ NO+2NC |
| B22 R | NA B222KD-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA B222KE-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA B222KF-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA B222KG-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ |
| G11 L | NA G112KD-DN2 $\Theta$ 1NO+1NC | NA G112KE-DN2 $\quad \rightarrow$ 1NO+1NC | NA G112KF-DN2 $\quad \rightarrow$ 1NO+1NC | NA G112KG-DN2 $\Theta 1$ NO+1NC |
| G02 L | NA G022KD-DN2 $\Theta$ 2NC | NA G022KE-DN2 $\Theta 2 N C$ | NA G022KF-DN2 $\Theta 2 N C$ | NA G022KG-DN2 $\Theta 2 N C$ |
| G12 L | NA G122KD-DN2 $\Theta 1$ NO+2NC | NA G122KE-DN2 $\Theta 1$ NO+2NC | NA G122KF-DN2 $\Theta 1$ NO+2NC | NA G122KG-DN2 $\Theta 1$ NO+2NC |
| G22 L | NA G222KD-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA G222KE-DN2 $\Theta 2 N \mathrm{O}+2 \mathrm{NC}$ | NA G222KF-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ | NA G222KG-DN2 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ |
| Max speed | page 6/9 - type 1 | page 6/9 - type 1 | page 6/9 - type 1 | page 6/9 - type 1 |
| Min. force | $0,07 \mathrm{Nm}(0,25 \mathrm{Nm} \Theta)$ | $0,07 \mathrm{Nm}(0,25 \mathrm{Nm} \Theta)$ | $0,07 \mathrm{Nm}(0,25 \mathrm{Nm} \Theta)$ | $0,07 \mathrm{Nm}(0,25 \mathrm{Nm} \Theta)$ |
| Travel diagrams | page 6/10-group 5 | page 6/10 - group 5 | page 6/10 - group 5 | page 6/10-group 5 |

Housing NB series
M12 connector output from right


In order to buy a product with M12 connector output from right substitute on above mentioned codes DN2 with DMK. Example: NA B110AA-DN2 $\rightarrow$ NA B110AA-DMK

M12 connector output from bottom


In order to buy a NB series product:
substitute on above mentioned codes NA with NB. Example:
NA B110AA-DN2 $\rightarrow$ NB B110AA-DN2

n order to buy a product with M12 connector output from bottom substitute on above mentioned codes DN2 with SMK. Example: NA B110AA-DN2 $\rightarrow$ NA B110AA-SMK

| Contacts type: |
| :--- |
| $\mathbf{R}=$ snap action |
| $\mathbf{L}=$ slow action |



## Accessories

| Article | Description |
| :--- | :--- |
| VN DT1F | Spacers for NA-NF series |
| Sp D16B | By interposing spacers <br> between the switches, it <br> is possible to join two or <br> more prewired switches, <br> preventing them from <br> moving one against the other. <br> $\mathbf{1 0 ~ p e s ~ p a c k s ~}$ |


| Contacts type: |
| :--- |
| $\mathbf{R}=$ s sna action |
| $\mathbf{L}=$ slow action |




In order to buy a NB series product:
substitute on above mentioned codes NA with NB. Example:
NA B110AA-DN2 $\rightarrow$ NB B110AA-DN2


In order to buy a product with M12 connector output from right substitute on above mentioned codes DN2 with DMK. Example: NA B110AA-DN2 $\rightarrow$ NA B110AA-DMK

n order to buy a product with M12 connector output from bottom substitute on above mentioned codes DN2 with SMK. Example: NA B110AA-DN2 $\rightarrow$ NA B110AA-SMK

Notes


## Selection diagram for serie NA - NB - NF articles sold separately




## Housings

| metal housing NA | metal housing NB |
| :---: | :---: |
| NA B11000 $\odot 1$ (NO+1NC | NB B11000 $\odot 1 \mathrm{NO}+1 \mathrm{NC} \times \mathbf{R}$ |
| NA G11000 $\odot 1$ NO +1 NC L | NB G11000 $\odot 1 \mathrm{NO}+1 \mathrm{NC}$ L |
| NA B12000 $\odot 1$ NO+2NC[R | NB B12000 $\odot 1 \mathrm{NO}+2 \mathrm{NC} \times$ - |
| NA G12000 © $1 \mathrm{NO}+2 \mathrm{NC}$ L | NB G12000 © $1 \mathrm{NO}+2 \mathrm{NC}$ L |
| NA L12000 © 1NO+2NC LA | NB L12000 ¢ 1NO+2NC LA |
| NA B22000 © 2NO+2NC | NB B22000 $\odot 2 \mathrm{NO}+2 \mathrm{NC} \times \mathbf{R}$ |
| NA G22000 $\odot 2 \mathrm{NO}+2 \mathrm{NC}$ L | NB G22000 $\odot 2 N \mathrm{~N}+2 \mathrm{NC}$ L |
| NA L22000 $\Theta$ 2NO+2NC LA | NB L22000 $\Theta$ 2NO+2NC LA |
| NA H22000 $\Theta$ 2NO+2NCLO | NB H22000 $\Theta 2 \mathrm{NO}+2 \mathrm{NC}$ LO |

Contacts type:
$\mathbf{R}$ = snap action
L = slow action
LO = slow action overlapped
LA = slow action closer

| polymer housing NF |
| :---: |
| NF B11000 $\odot 1$ NO+1NC $\mathbf{R}$ |
| NF G11000 $\odot 1$ NO +1 NC L |
| NF B12000 $\odot 1$ NO+2NC $\boldsymbol{R}$ |
| NF G12000 © 1NO+2NCL |
| NF L12000 © 1NO+2NC LA |
| NF B22000 $\odot 2 \mathrm{NO}+2 \mathrm{NC}$ R |
| NF G22000 $\odot 2 \mathrm{NO}+2 \mathrm{NC}$ L |
| NF L22000 $\Theta$ 2NO+2NC LA |
| NF H22000 $\Theta$ 2NO+2NCLO |

## Connector with cable

| metal connectors for NA and NB housing |  |  |
| :---: | :---: | :---: |
|  |  |  |
| VN CM11DN2 1NO+1NC | 2 |  |
| VN CM11DN5 1NO+1NC | 5 |  |
| VN CM12DN2 1NO+2NC | 2 | N |
| VN CM12DN5 1NO+2NC | 5 | N |
| VN CM22DN2 2NO+2NC | 2 |  |
| VN CM22DN5 2NO+2NC | 5 |  |
| VN CM11DH2 1NO+1NC | 2 |  |
| VN CM11DH5 1NO+1NC | 5 |  |
| VN CM12DH2 1NO+2NC | 2 |  |
| VN CM12DH5 1NO+2NC | 5 |  |

## M12 or AMP connector

| M 12 connector from right |  |  |  |  |  |  |  |  | M12 connector from bottom |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |

other cable lengths on request

| polymer connectors for NF housing |  |  |
| :---: | :---: | :---: |
|  | $\bar{\xi}$ <br> $\stackrel{5}{5}$ <br> 0 <br> $\frac{\sigma}{0}$ <br> 0 <br> 0 <br> 0 |  |
| VN CP11DN2 1NO+1NC | 2 |  |
| VN CP11DN5 1NO+1NC | 5 |  |
| VN CP12DN2 1NO+2NC | 2 |  |
| VN CP12DN5 1NO+2NC | 5 | N |
| VN CP22DN2 2NO+2NC | 2 |  |
| VN CP22DN5 2NO+2NC | 5 |  |



## Actuators

| $\infty \quad \frac{0}{\infty}$ | $\stackrel{\square}{\square}$ |  |  | $\cdots \underbrace{\left(a^{2}\right.}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VN AAOAA $\Theta$ | VN AAOAB $\Theta$ | VN AAOAC $\Theta$ | VN AA0AE $\Theta$ | VN AAOBB $\Theta$ | VN AAOBE $\Theta$ |
|  |  |  |  |  |  |
| VN AAOCB $\Theta$ | VN AAOCH $\Theta$ | VN AAOCP $\Theta$ | VN AA0CV $\Theta$ | VN AA0EB $\Theta$ | VN AAOEE $\Theta$ |
|  |  |  |  |  |  |
| VN AAOFB $\Theta$ | VN AAOHB | VN AAOHE | VN AAOHH |  |  |

Revolving levers
ATTENTION: These loose actuators can be used with products of series NA, NB and NF only

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VN A00KA $\Theta$ | VN A00KB $\Theta$ | VN A00KC $\Theta$ | VN A00KD $\Theta$ | VN A00KE $\Theta$ | VN A00KF $\Theta$ |
|  |  |  |  |  |  |
| VN A00KG $\Theta$ | VN A00KH $\Theta$ | VN A00KP $\Theta$ | VN A00LB | VN A00LE | VN A00LH |
|  |  |  |  |  |  |
| VN A00LL |  |  |  |  |  |

## Head



Transmission block



[^0]:    Please contact our technical service for the list of approved products.

