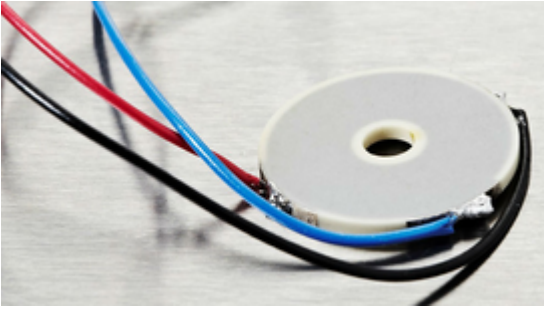


## Wires

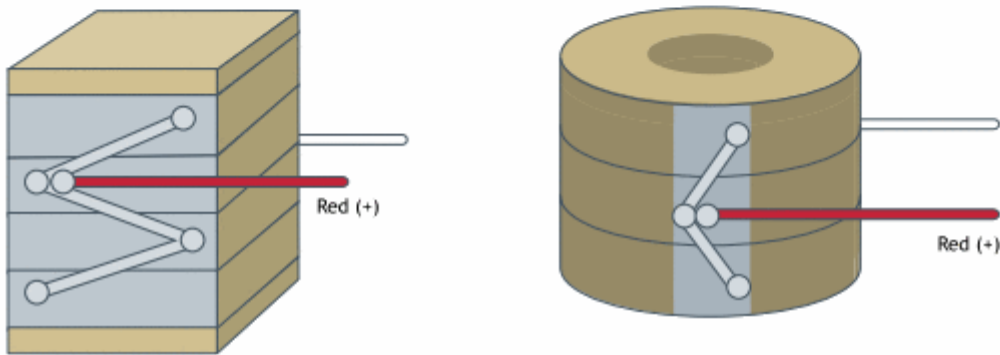


When you order actuators from Noliac, you can have wires fitted to save time and money. There are different wiring options for the specific product type.

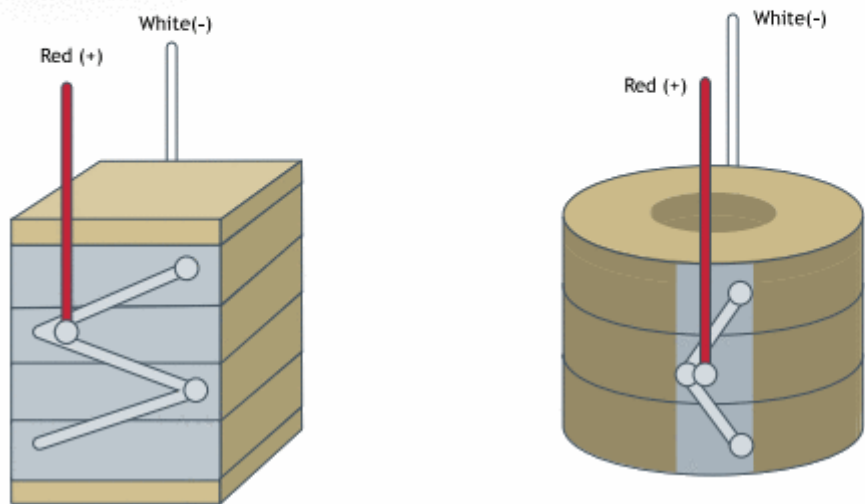
**PLATES, RINGS, PLATE STACKS AND RING STACKS**

	Option A01	Option A02	Option C
Type	MIL-W-16878/4, 28AWG, 7 strands		Custom
Length	200 +/-10mm		To be defined
Position	Middle of the actuator		To be defined
Direction	Perpendicular to the height	Toward top	To be defined

## Option A01



## Option A02



When you order actuators from Noliac, you can have wires fitted to save time and money. However, you should consider these parameters, when you select a wire for connection:

- Operation voltage
- Intensity of current
- Operating temperature
- Environment for example vacuum

**We recommend wires with PTFE insulation**

PTFE wires can stand temperatures above 200 °C, whereas PVC wires only resist temperatures up to 80 °C. In tough operating conditions or in vacuum, it is recommended always to use PTFE isolated wire to guarantee the proper performance of piezoceramic elements.

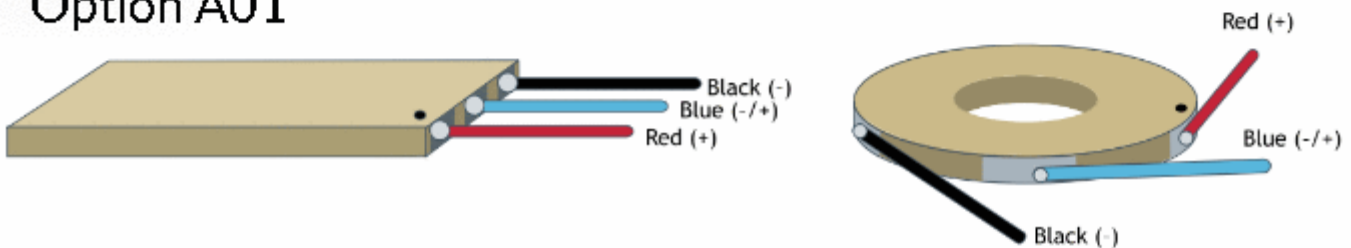
**Wire thickness (AWG)**

The wire thickness (AWG) is determined by the current that has to be transmitted to and from the piezoceramic element. The required current is determined by the capacitance of the piezoceramic element, the maximum driving frequency and the maximum voltage  $U_{p-p}$ .

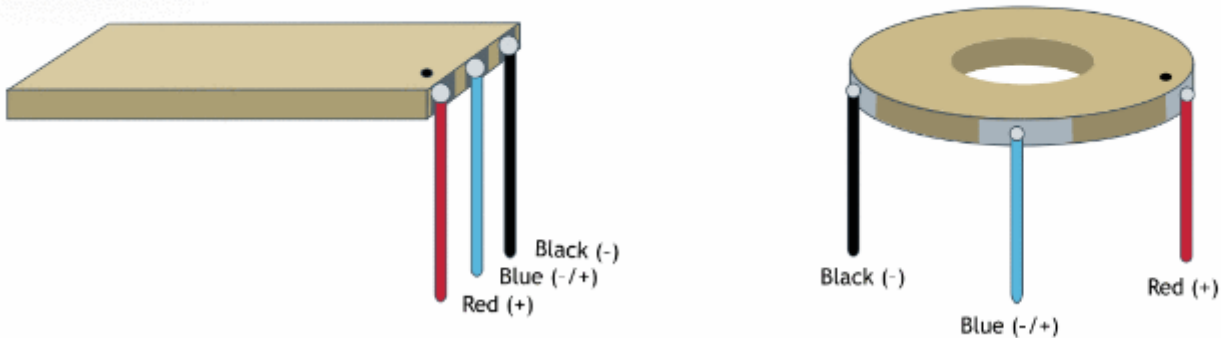
## PLATE AND RING BENDERS

	Option A01	Option A02	Option C
Type	28 or 32AWG, see text		Custom
Length	200 +/-10mm		To be defined
Position	Middle of the actuator		To be defined
Direction	Perpendicular to the height	Toward bottom	To be defined

### Option A01



### Option A02



Noliac attaches these wires as standard to our plate and ring benders:

- 28 AWG MIL-W-16878/4, 7 strands wires to products with a thickness equal to or thicker than 1.2 mm.
- 32 AWG MIL-W-16878/6, 7 strands wire wrap to products thinner than 1.2 mm and thicker than 0.5 mm.

On products thinner than 0.5 mm we recommend the customer to glue the wire onto the terminals using conductive glue e.g. EPO-TEK® H27D.

We solder red wires to the positive electrode, black to the negative and blue to the control terminal on benders.

## 2D BENDERS

	Option A01	Option A02	Option C
Type	28 or 32AWG, see text		Custom
Length	200 +/-10mm		To be defined
Position	Middle of the actuator		To be defined
Direction	Perpendicular to the height	Toward bottom	To be defined

### Option A01



### Option A02



## NAC27XX

Noliac attaches these wires as standard to our NAC27XX benders:

- 28 AWG MIL-W-16878/4, 7 strands wires to products with a thickness equal to or thicker than 1.2 mm.
- 32 AWG MIL-W-16878/6, 7 strands wire wrap to products thinner than 1.2 mm and thicker than 0.5 mm.

On products thinner than 0.5 mm we recommend the customer to glue the wire onto the terminals using

conductive glue e.g. EPO-TEK®H27D.

We solder red wires to the positive electrode, black to the negative and blue to the control terminal ("X" axis in the case of 2D benders) on benders. For NAC27XX, we solder a white wire to the second control terminal ("Y" axis).

### **NAC2810 and NAC2910**

NAC2810 and NAC2910 are delivered in the following configuration:

- NAC2810: 3xRRW-A-105 200 mm
- NAC2910: 4xRRW-A-105 200 mm

Please contact us for other wiring options for NAC2810 and NAC2910.

NB! The drawings of the wiring options only apply to NAC27XX.

## SHEAR PLATES

	Option A01	Option C
Type	MIL-W-16878/6, 32AWG, 7 strands	Custom
Length	200 +/-10mm	To be defined
Position	Corner of the component	To be defined
Direction	Perpendicular to the height	To be defined

Shear plates are typically delivered without wires, as the preferred connection method is a mechanical contact to the gold-plated electrodes. We currently have these options:

## **SHEAR STACKS**

As a standard the shear stacks are fitted with these wires:

- BS 3G 210 TYPE A, 28 AWG (red for X-motion and blue or yellow for Y-motion).

The types and colours of the wires can be changed on demand.