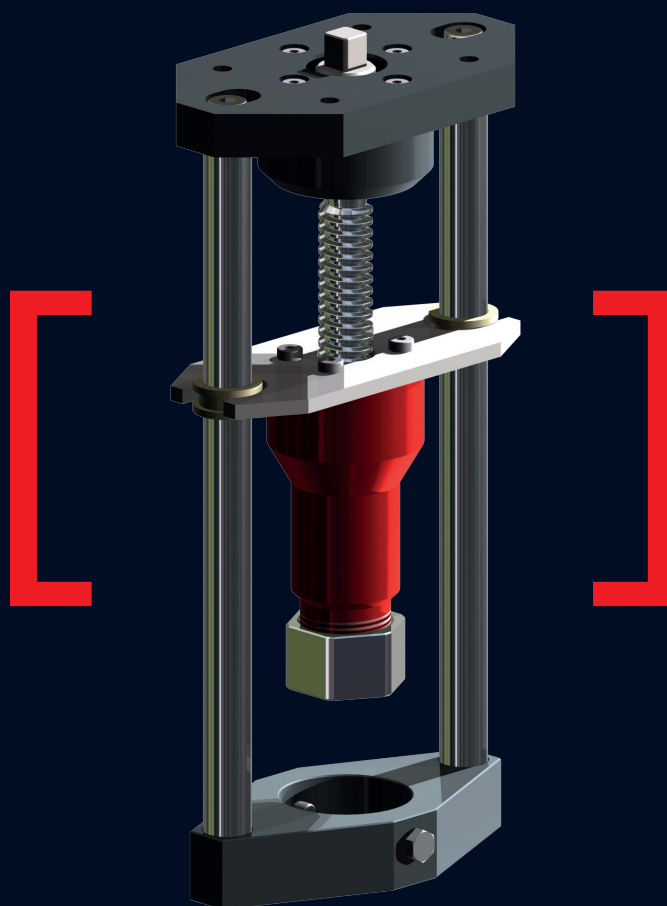


# ***VENTARIS***

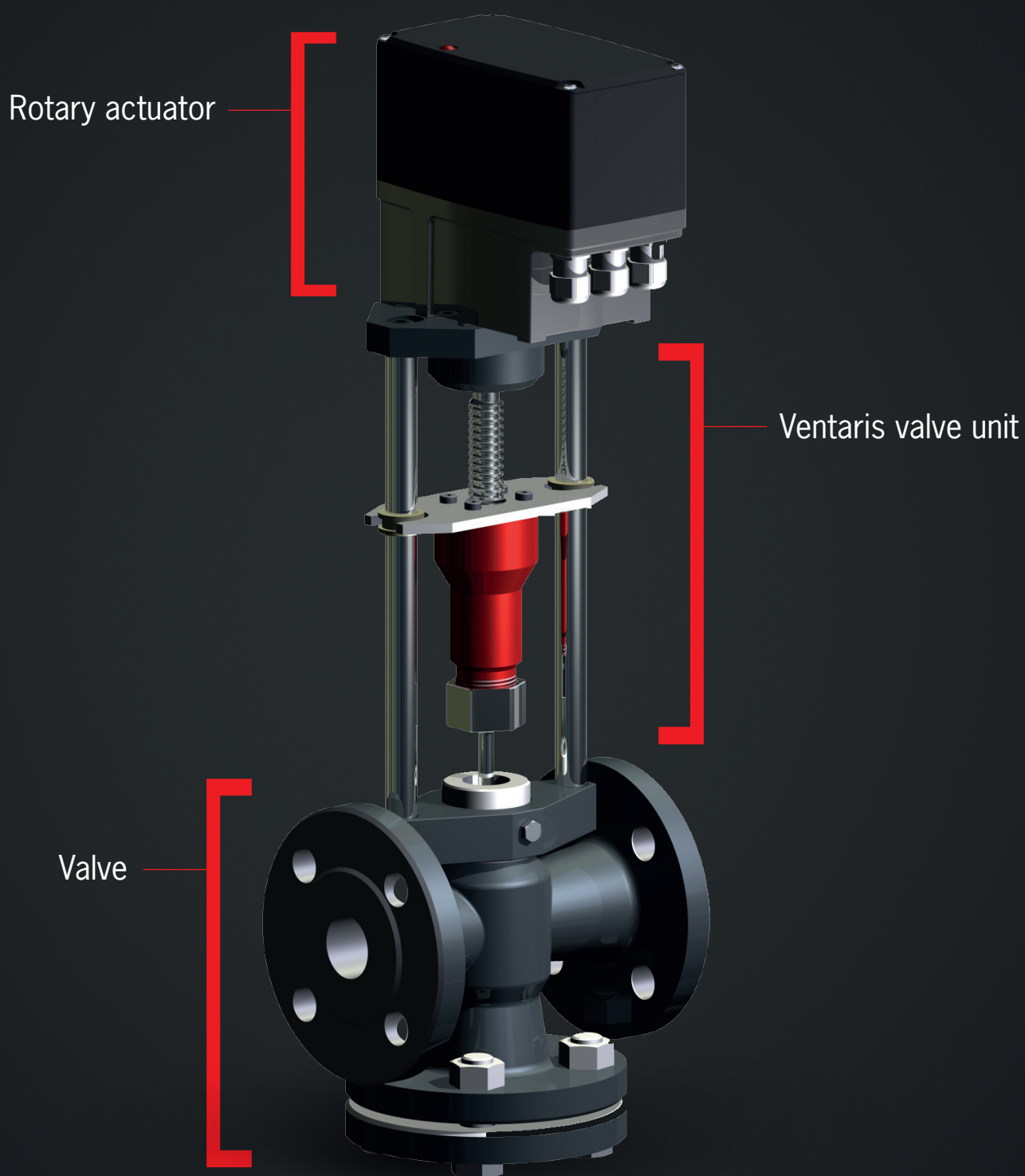
precision stroke unit  
for valve adjustment



**VENTARIS**

Product catalogue

[www.stellantriebe.de](http://www.stellantriebe.de)



#### NOTE

Despite very careful review of all data provided in the catalogue we assume no liability for any incorrect or incomplete information. Technical details subject to change. Dissemination and reproduction of this document, utilisation and communication of its content are prohibited, unless expressly approved. Illustrations can differ from the actual scope of delivery.

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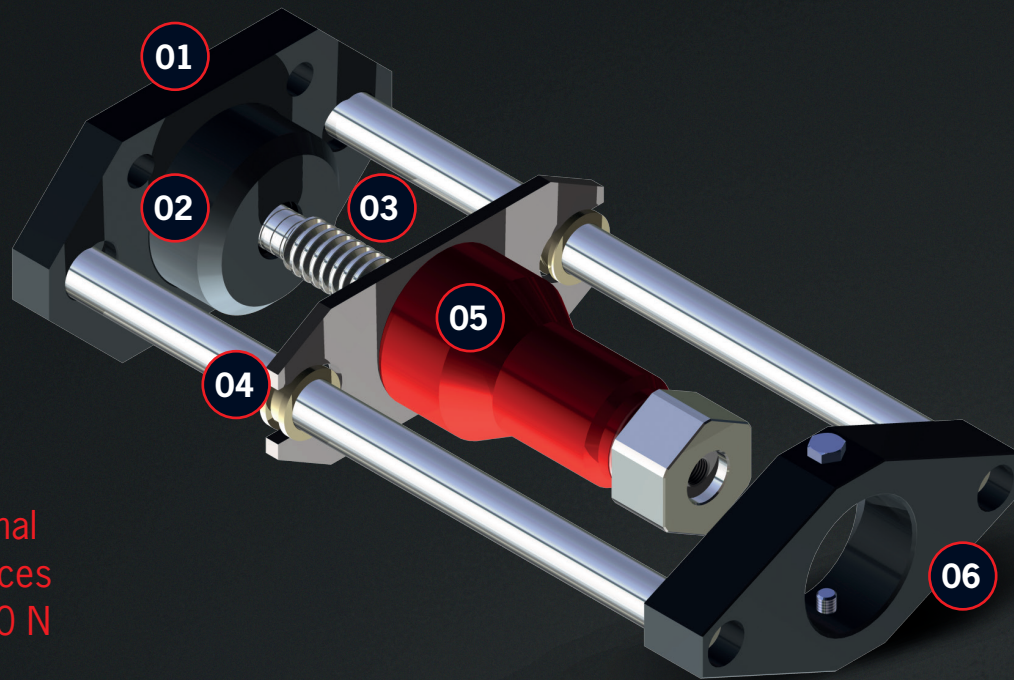
## **Ventaris**

The system unit solution from ARIS	14
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## VENTARIS

Robust, corrosion-protected  
industrial design



Bi-directional  
driving forces  
up to 6000 N

Stroke length  
up to 50 mm

**01**  
**Exchangeable**  
**actuator heads** –  
optionally with  
position- or force-  
dependent switch-off

**02**  
**Precision axial**  
**needle bearing**

**03**  
**Self-locking stainless**  
**steel acme thread**  
**spindle**

**04**  
**Anti-rotation element**  
**with maintenance-**  
**free Iglidur® special**  
**bearings**

**05**  
**Spindle nut of high-**  
**performance polymer;**  
**lube-free due to Iglus-**  
**Drylin® technology**

**06**  
**Adapter for connection**  
**to all standard valve**  
**types**



# MODULAR DESIGN

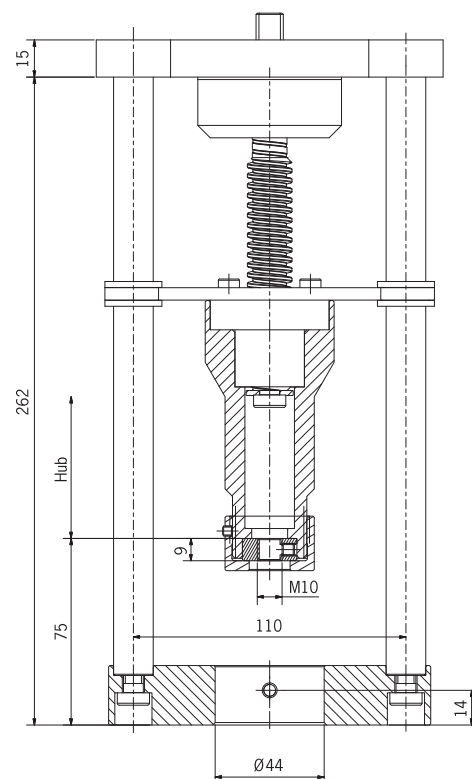
## You have the choice



### The **Ventaris** offers a variable concept

Due to diverse requirements in the automation of valves, the Ventaris features a design in which the valve unit is connected to the actuator head by means of a standard interface. This allows you to choose an actuator head that is adapted to your requirements. You can decide either for the electronically controlled precision actuator Tensor (Ventaris TE) with freely programmable position- or force-dependent switch-off and convenient programming via buttons, or for the classic Nano+ (Ventaris N+) with position dependent switch-off, synchronous motor and micro switches with adjustable cams.

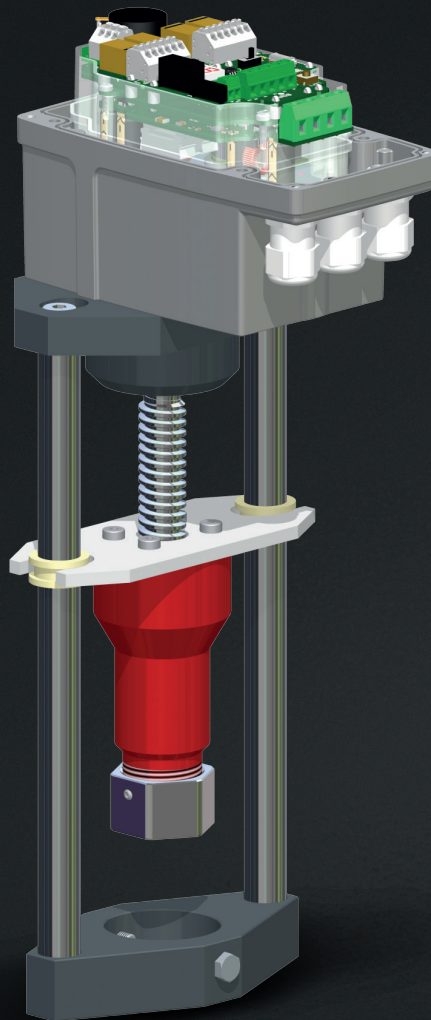
All available options for the Tensor and Nano+ series can, of course, also be used in the Ventaris. The separation of the actuator and the valve unit allows you to retrofit a conventional solution with path shut-off to a fully electronic version with position- or force-dependent switch-off. This means you will be equipped for the future, without having to replace the valve unit.





## **VENTARIS TE**

The combination of  
Tensor and Ventaris



### **Tensor actuator head**

- > Fully electronically controlled precision actuator
- > BLDC brushless DC motor
- > position- or force- dependent switch-off
- > Wear-free, non-contact position detection via Hall sensors
- > Multiple voltage power supply unit 85 ... 265 VAC or 24 VDC
- > Electronic end position setting
- > Programmable additional auxiliary switches (bi-stable relay)

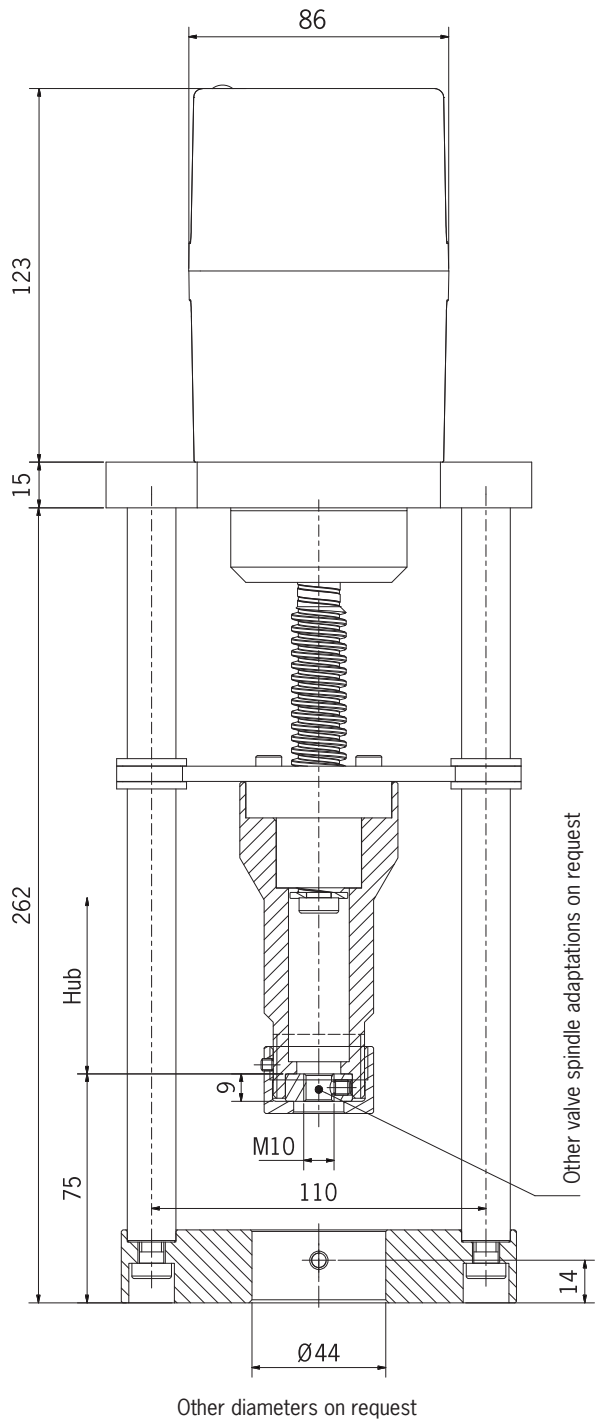


# TECHNICAL DATA

## Ventaris TE

### TECHNICAL DATA TENSOR

Protection type	IP 65 (optionally up to IP 67)
Ambient temperature	−15 °C...+60 °C (optionally −25 °C...+80 °C)
Housing	Powder-coated die-cast aluminium
Gear unit	Metal
Cover	Polycarbonate (alternatively aluminium)
Hand wheel	External (optional)
Position indicator	Electronic
Supply voltage	85–265 VAC (alternatively 24 VDC)
Additional switches	2 or 4 bi-stable relays (optional)
Potentiometer	Electronic (optional)
Duty cycle	100 %
Connection	3 cable entries M16x1.5
Switch off	Electronic (wear-free), position- or force- dependent
Maintenance	Maintenance-free permanent lubrication
Actuation	3-point step (optional positioner 12 bit, bus, ...)



### TYPE VENTARIS TE

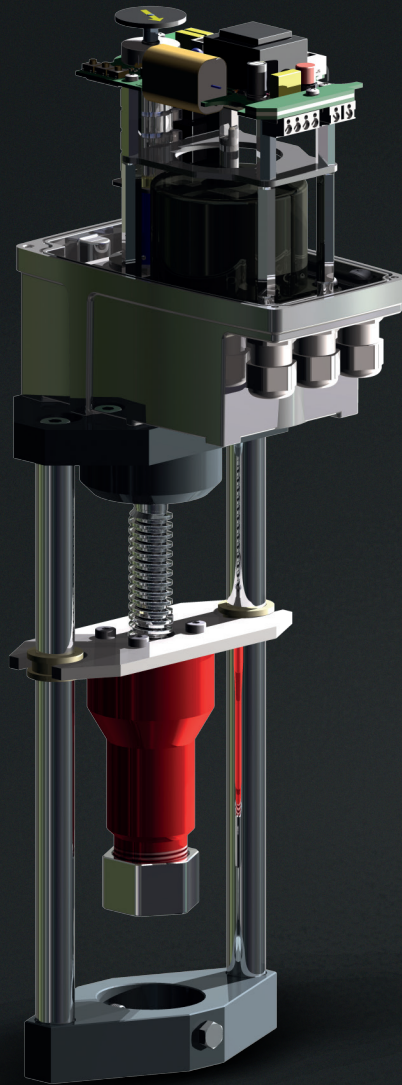
Actuating force (N)	1000	1000	1000	1000	2000	2000	2000	2000	3000	3000	3000	5000	5000	6000	6000
Actuating time (mm/s)	0.1	0.3	0.5	0.8	0.1	0.3	0.5	0.8	0.1	0.2	0.3	0.1	0.2	0.1	0.2

Other actuating times on request



## **VENTARIS N+**

The combination of  
Nano+ and Ventaris



### **Nano+ actuator head**

- > Synchronous motor (24 VAC, 115 VAC, 230 VAC), alternatively 24 VDC motor
- > Metal body/cover
- > Robust industrial design
- > Expandable functions through numerous options
- > Failsafe option – moves to a safe position in case of a power outage
- > Adjustment via fixable aluminium control cams

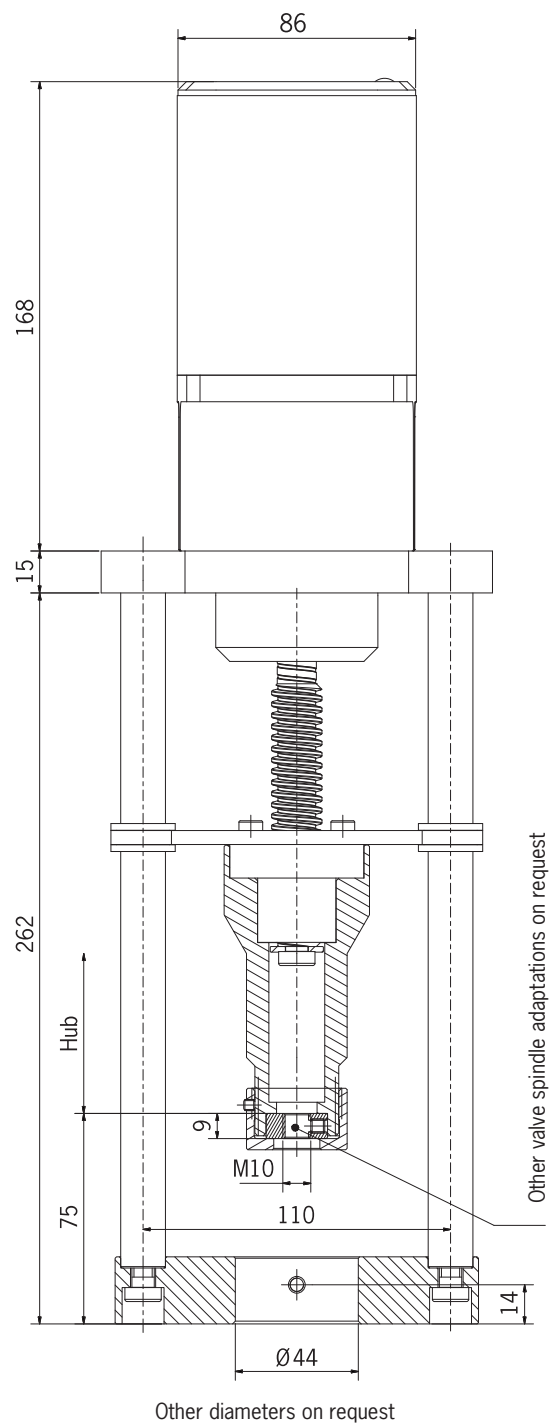


# TECHNICAL DATA

## Ventaris N+

### TECHNICAL DATA **NANO+**

<b>Protection type</b>	IP 65
<b>Ambient temperature</b>	– 15 °C...+60 °C (optionally – 40 °C...+80 °C)
<b>Housing</b>	Powder-coated die-cast aluminium
<b>Gear unit</b>	Metal
<b>Cover</b>	Aluminium
<b>Hand wheel</b>	External (optional)
<b>Position indicator</b>	Mechanical
<b>Supply voltage</b>	230 VAC; optionally 115 VAC, 24 VAC, 24 VDC
<b>Additional switches</b>	2 or 4, optional
<b>Potentiometer</b>	Optional
<b>Duty cycle</b>	100%
<b>Connection</b>	3 cable entries M16x1.5
<b>Switch off</b>	Aluminium control cam, micro-switch
<b>Maintenance</b>	Maintenance-free
<b>Actuation</b>	3-point step (optional positioner)



### TYPE **VENTARIS N+**

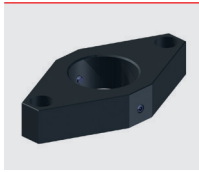
<b>Actuating force (N)</b>	1000	1000	1000	1000	1000	2000	2000	2000	2000	2000	3000	3000	3000	3000	3000
<b>Actuating time (mm/s)</b>	0.1	0.3	0.5	0.8	1.3	0.1	0.3	0.5	0.8	1.3	0.1	0.3	0.5	0.8	1.3

<b>Actuating force (N)</b>	4000	4000	4000	4000	4000	5000	5000	5000	5000	5000	5000	5000	6000	6000	6000	6000
<b>Actuating time (mm/s)</b>	0.1	0.3	0.5	0.8	1.3	0.1	0.3	0.5	0.7	0.3	0.5	0.7	0.1	0.3	0.5	0.7

Other actuating times on request

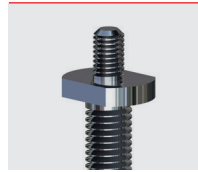
# VENTARIS

## Options



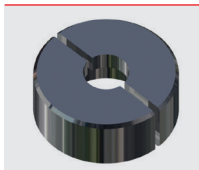
### Adapter flange for valve connection

- > Ø 44 mm – other versions on request
- > High-strength aluminium design
- > Anodised



### Thread adapter

- > M12 – other versions on request
- > With key compartments
- > For connection to valve flange



### Spindle adaptation

- > For all standard valve spindles

## MATERIALS

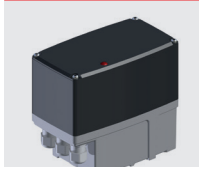
### VENTARIS LIFT UNIT

Bearing block	High-strength anodised aluminium
Axial bearing mount	High-strength anodised aluminium
Bearing	Axial needle bearing, steel
Spindle	Stainless steel, 1.4301
Spindle nut	High-performance polymer, Iglidur® J
Anti-rotation element	Stainless steel
Stud bolt	Stainless steel
Spindle nut support	Stainless steel
Union nut	Stainless steel
Sliding bearing	High-performance polymer, Iglidur® J
Adapter flange	High-strength anodised aluminium



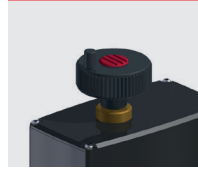
# VENTARIS TE

## Options



### Metal cover

- > Robust and impact-resistant industrial design, aluminium
- > Powder coated



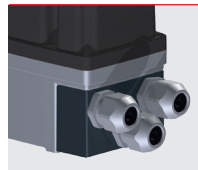
### Hand wheel

- > Automatic disconnect
- > Not co-rotating



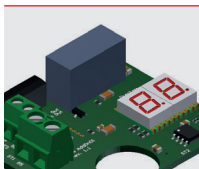
### position indicator

- > Visualisation of the outward 7-segment display



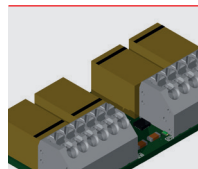
### Cable entry adapter

- > For cable gland 3xM20 (instead of 3xM16)
- > Cable entry from front
- > Anodised aluminium



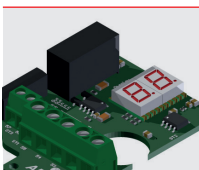
### Current output

- > Add-on board
- > Integrated in internal system bus
- > Position feedback 4–20 mA
- > Alarm output for signalling readiness
- > With two-digit 7-segment display for easier programming and position display



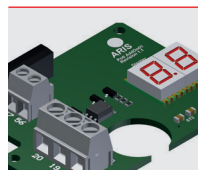
### Auxiliary switches

- > Additional auxiliary switches with freely selectable switching points
- > Convenient adjustment via on-board keypad
- > Bi-stable design (switching position is retained even when operated without voltage)
- > Version with 2 or 4 additional switches



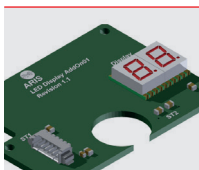
### PCB I-ACT (Add-on)

- > Electronic potentiometer
- > Controller card
- > Position indicator
- > Current output
- > Special functions



### Potentiometer PCB

- > Add-on board
- > Integrated in internal system bus
- > Electronic potentiometer
- > Impedance 1 kOhm
- > Automatic adjustment to the configured control path of the actuator
- > 100 % utilisation of the potentiometer range
- > Manual adjustment via on-board keypad if necessary
- > Can be used as a voltage divider
- > Alarm output for signalling readiness
- > Two-digit 7-segment display for easier programming and position display

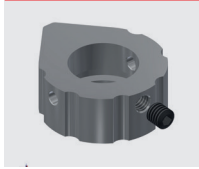


### PCB plain text display (7-segment)

- > Double 7-segment display
- > Position displayed in percentage
- > Rotary direction indicator
- > Menu navigation in programming process
- > Standard with optional potentiometer, I-ACT and current output

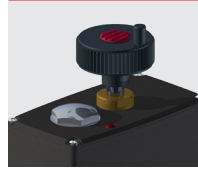
# VENTARIS N+

## Options



### Cam profiles

- > 330°/180°
- > With set screw for securing position

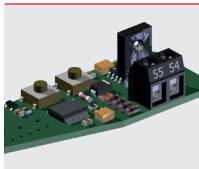


### Hand wheel

- > Automatic disconnect
- > Not co-rotating

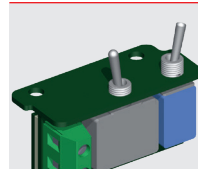
### Mechanical position indicator

- > Freely adjustable



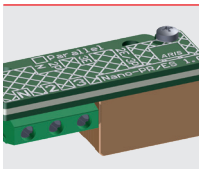
### Current output (additional PCB)

- > Position feedback 4–20 mA



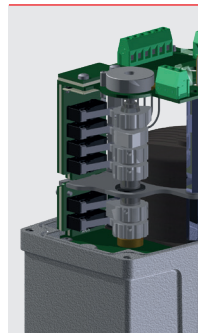
### Service switch (standard with DC)

- > Manual/automatic operation (switch)
- > Left hand/right hand rotation (button)
- > Integrated in actuator



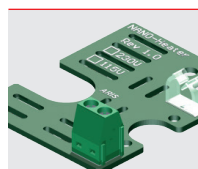
### Parallel relay / single-wire control (AC)

- > AC-relay
- > Completely wired
- > Operating voltage = motor voltage
- > Parallel connection of multiple actuators



### Two or four additional auxiliary switches

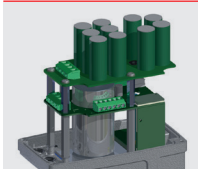
- > Adjustment via control cams that can be adjusted without tools
- > Different control cam forms enable different functions of the auxiliary switches
- > High switching reliability due to spacer between the PCB and the control cam shaft



### Heating

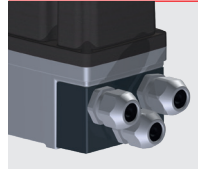
- > For heating the interior of the actuator to prevent condensation of water





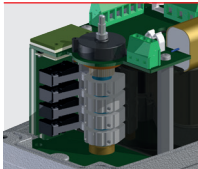
### Fail-safe

- > Energy storage
- > Moves to pre-defined position in case of power outage
- > Charge time <3 minutes
- > Integrated in the actuator
- > Moves at control speed or high speed
- > 24 VDC



### Cable entry adapter

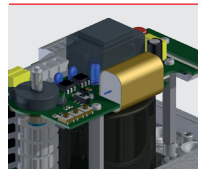
- > For cable gland 3xM20 (instead of 3xM16)
- > Cable entry from front
- > Anodised aluminium



### Potentiometer

Standard

- > 1 k $\Omega$ /10 k $\Omega$
- > Position feedback

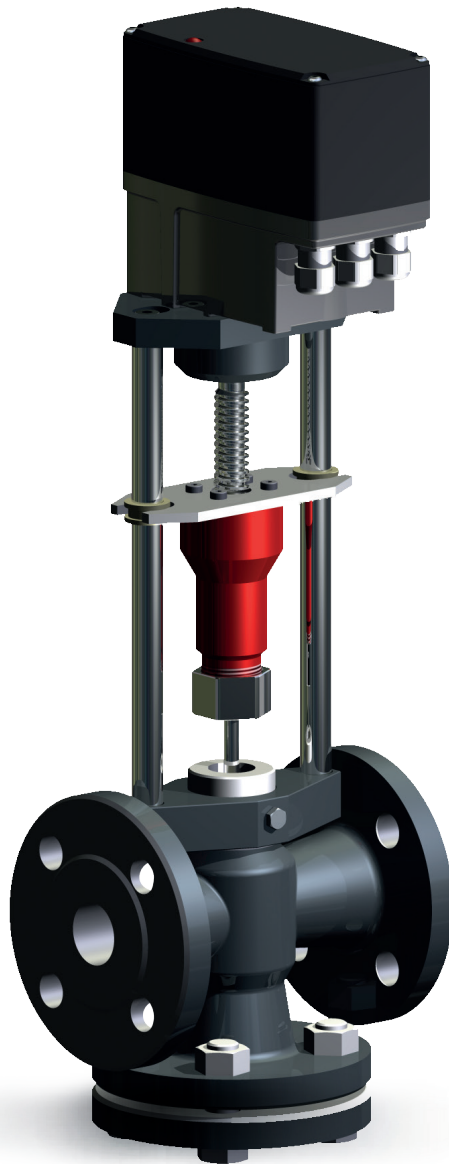


### PMR Nano (AC)

- > Power supply:
  - 230 V  $\pm$ 10%, 50/60 Hz
  - Special voltages/frequencies on request
- > Reference input:
  - 0 (4) to 20 mA (DC), optionally 0 (2) to 10 V
  - Load 250  $\Omega$ , overload protection 25 mA
  - Reverse voltage protection up to – 25 mA
  - Resolution 10 bit
- > Actual output:
  - Fixed limits: 0 or 4–20 mA
  - (Optionally 0 or 2–10 V)
  - Current sink, max. load 500  $\Omega$
  - Resolution 10 bit

## **Ventaris**

The system unit solution  
from ARIS




**ARIS** is your competent partner for innovative and durable drive technology. Our team will be glad to help you with the design and dimensioning of your drive solution.

Our technicians will calculate your entire unit consisting of the actuator head, valve actuator, valve, fitting and add-on modules. The system components are completely assembled, pre-configured and tested prior to delivery.

Come to ARIS – **Your specialist for modern drive technology “Made in Germany”**







**Your specialist for modern drive technology**  
for more than 40 years

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