



PROFOX

auma[®]
Solutions for a world in motion

EXCELLENCE FOR ACTUATORS

for valve automation
for today and tomorrow



More than 50 years experience in development, production and distribution of electric actuators. This is an excellent background for redesigning automation of valves to tomorrow's standards. Considering current developments and the future in digitisation.

AUMA has broken new ground.

The result:

Compact, flexible and cunning,
the FOX is the perfect namesake.

PROFOX



18.05.20



Economic

- > Low standby consumption
- > High efficiency with self-locking
- > High availability



Smart

- > Actuator/valve diagnostics via internal torque monitoring and control
- > Predictive maintenance
- > Adaptive operating speed
- > Precise positioning



Easy

- > Simple installation
- > Intuitive commissioning
- > Clearly visible status indication
- > Clone function facilitates device replacement



PROFOX – BENEFITS



Modular

- > Automation platform for all valve types
- > Homogeneous operation scheme
- > Wide performance range with just a few sizes



Resistant

- > Engineered & Made in Germany
- > Robust metallic housing in high enclosure protection
- > Wide temperature range
- > Premium corrosion protection



ONE SOLUTION FOR GATE, BUTTERFLY, BALL, PLUG AND GLOBE VALVES

Compact actuators – intelligent functions – a platform concept

for tailored automation solutions at three levels:

> **Valve:**

PROFOX is available as multi-turn, part-turn or linear actuator. Wide performance range with just a few sizes.

> **DCS:**

PROFOX masters a large variety of communication technologies and supports easy integration.

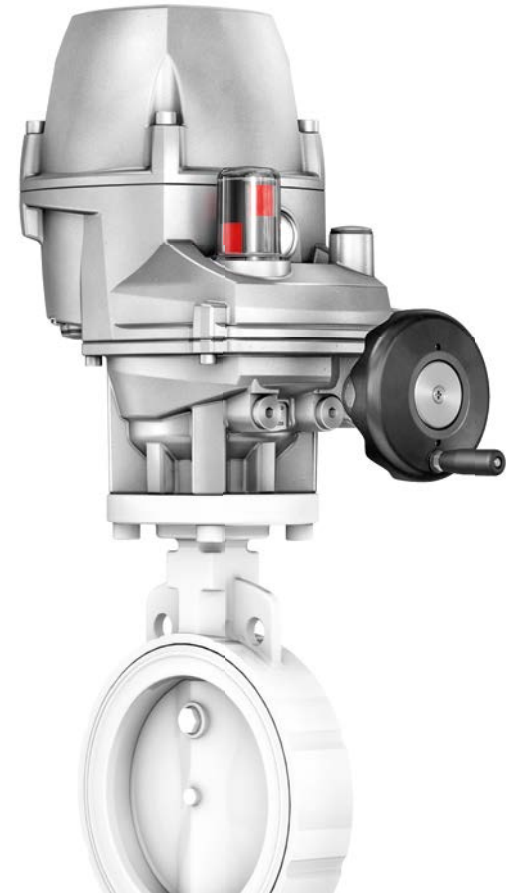
> **Future-proof:**

PROFOX is optimally prepared to face the challenges of the Industrial Internet of Things (**IIoT**). Firmware upgrades allow adaptations to future requirements.

PROFOX-Q part-turn actuators

Torques between 32 Nm and 600 Nm

Range enhancement under development
between 8 Nm and 1,000 Nm



PROFOX – ONE FOR ALL TYPES

PROFOX-M multi-turn actuators

Torques between 10 Nm and 100 Nm

Range enhancement under development
between 4 Nm and 100 Nm

PROFOX-L linear actuators

Under development

Operating forces between
6 kN and 15 kN

Harmonised:

- > Automation
 - > Installation
 - > Device integration
 - > Commissioning
 - > Operation
 - > Documentation
 - > Service schemes
 - > Spare parts management
- for all valves at one site.**

Short delivery times.

FOX-EYE



Each PROFOX is equipped with a centrally located LED: The FOX-EYE.

Providing clearly visible information about both actuator and valve status.

Blinking or continuously illuminated, the FOX-EYE provides unambiguous signals thanks to different colours. Example:

- > White permanent light: Actuator in standard operation
- > Blue permanent light: Bluetooth connection active

The FOX-EYE indication scheme can be configured by the user via App as required

The optional position indication allows clear display of the current valve position.

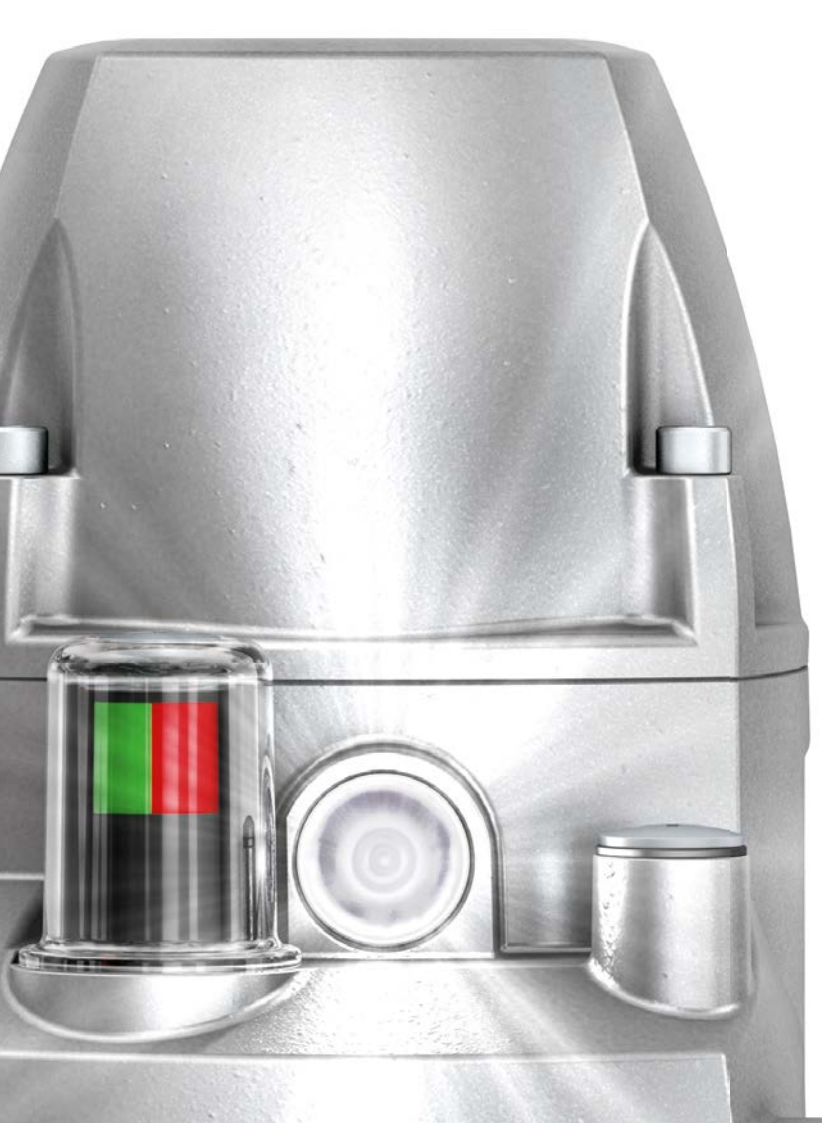
PROFOX-Q
Part-turn actuator



PROFOX-M
Multi-turn actuator



PROFOX – CLEAR EXCHANGE



FOX-EYE and
status indication

- > Clearly visible
- > Unambiguous symbols
- > Clear display scheme

AUTOMATION MADE EASY THANKS TO PROFOX

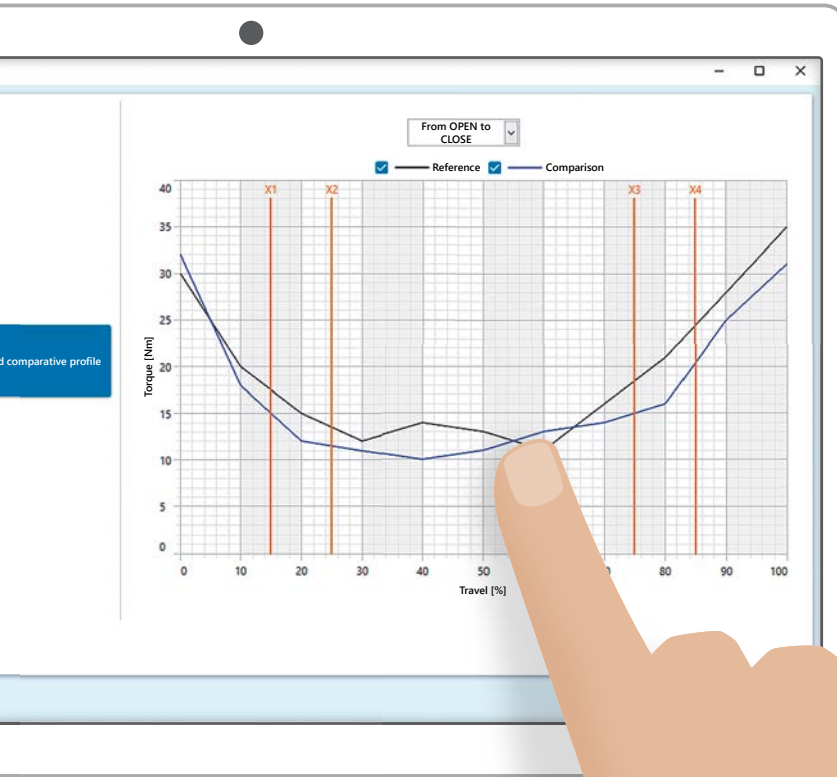
Installation – Commissioning – Lifetime operation: Basic design and well-engineered functions ensure long, safe and economic PROFOX operation without incidents.

In case of faults, PROFOX diagnostic functions lead to fast fault analysis and remedy.

Fault avoidance with PROFOX: Regular control of operating parameters shows deviating and taxing operating conditions which could be avoided. The timely fault remedy avoids failures and additionally extends the PROFOX life.



PROFOX – A PARTNER FOR LIFE



Torque requirement control

You may record a torque profile at any time. This is compared with a reference profile recorded in PROFOX.

Increased loads are easy to detect. The profile allows drawing conclusions on the valve status.



Digital encapsulation or integration into AUMA Cloud

Both is possible with PROFOX – and any other schemes

Commissioning:

- > via push buttons or
- > via App by means of the Bluetooth interface.

Transmission of operation commands and feedback signals:

- > via 24 V or 4 – 20 mA signal or
- > as digital data via fieldbus or Industrial Ethernet

Maintenance:

- > In fixed intervals or
- > Condition-based with AUMA Cloud integration.

Optimum adaptation to the current general conditions of your site.

And if your requirements change, on a small or large scale, PROFOX actuators follow this path.



Commissioning, analysis,
service support via AUMA
Assistant App.



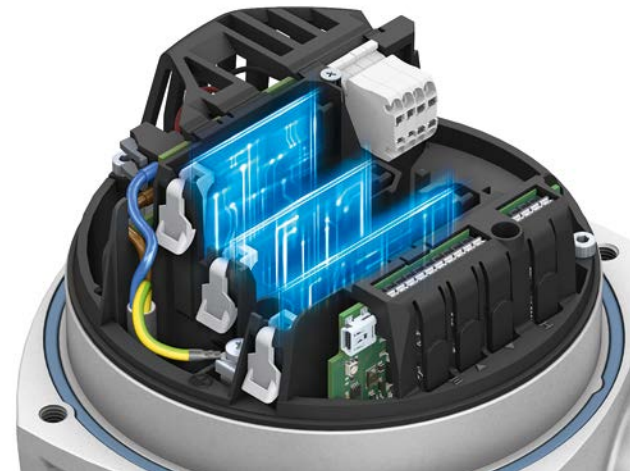
The Commissioning and
Diagnostic Tool is a variant
for laptops.

Connection to PROFOX actua-
tors via secured Bluetooth
connection.

PROFOX – DIGITAL SCALING

Expansion slots

e.g. for including interface boards
for transmitting additional signals or
for
redundant communication structures.



FLEXIBLE AND RESISTANT

Foxes are adaptable animals.

PROFOX is an adaptable actuator.

This applies in particular to the application conditions.

Supply voltage virtually as desired

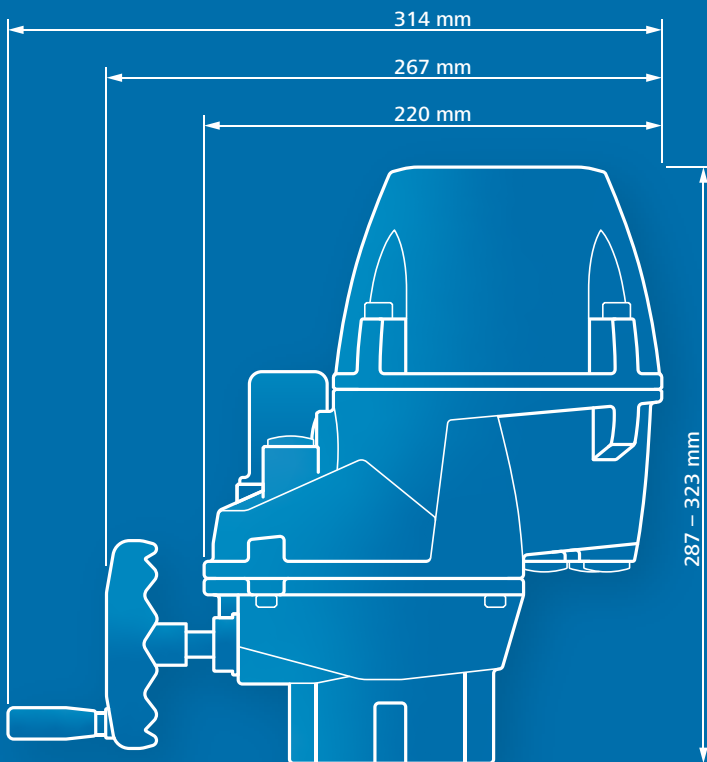
PROFOX actuators are equipped with a wide range power supply unit,

which automatically adapts to the supply voltage Within a range of 100 V and 240 V, the actuator is tolerant to voltage fluctuations maintaining speed and torque at a constant level.

Whether 50 Hz or 60 Hz mains frequency – it is all the same.

Compact

Premium performance with compact design allowing any desired mounting position. Allows wide tolerances for planning and installation.



Wide
temperature range



+70

–30



Highest enclosure
protection

IP67

IP68

Premium
corrosion protection

C5-M/C5-I

According to EN ISO 12944-2

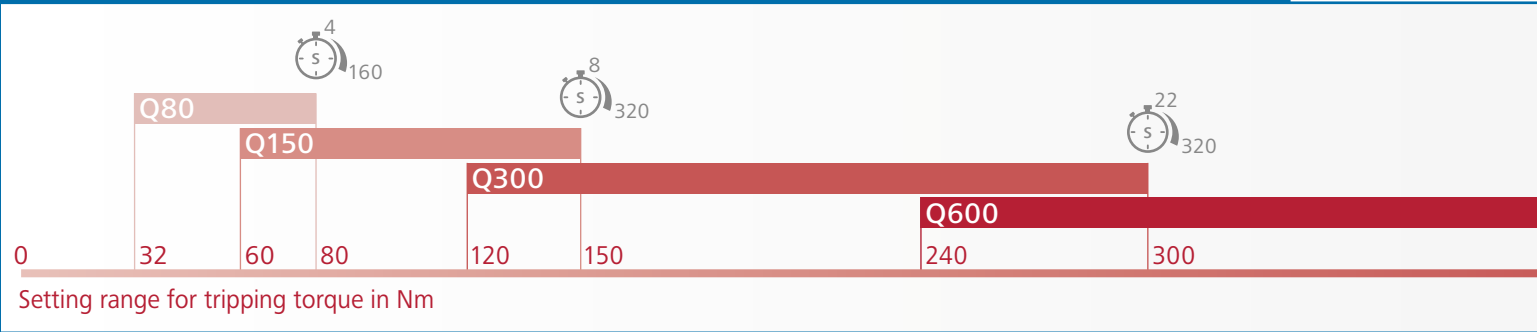
PROFOX – PERFECTLY ADAPTABLE



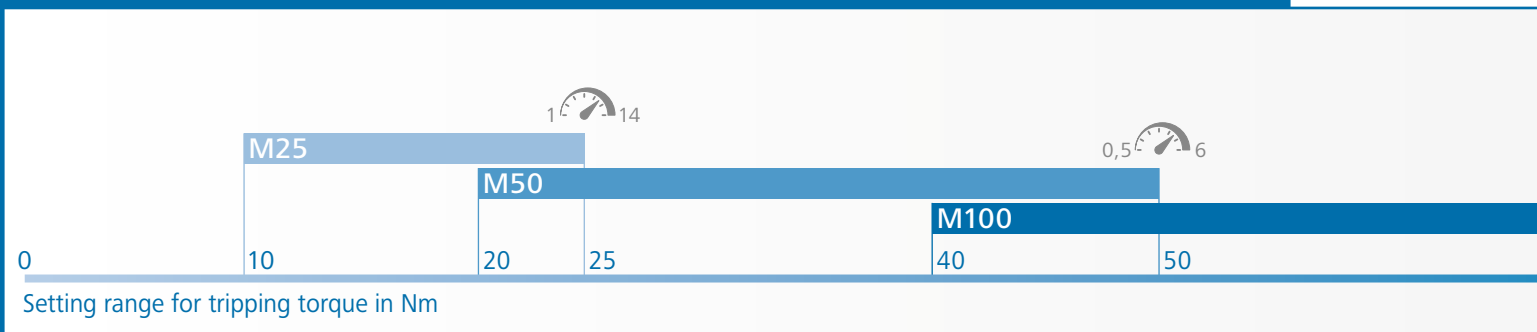
Engineered & Made
in Germany

Robust metal housing in
high enclosure protection

PROFOX-Q PART-TURN ACTUATOR – torques and operating times



PROFOX-M MULTI-TURN ACTUATOR – torques and positioning speeds



PROFOX – KEY FIGURES

Operating time in seconds



600

Operating speed range
in turns per minute



100

Open-Close or modulating
duty, from one unit

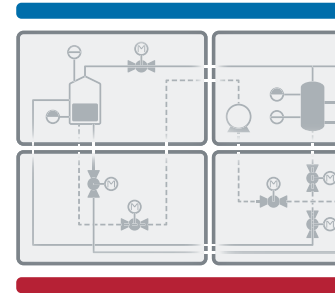
Limit and torque seating can be
configured

Operating time/operating speed
fine-tuning possible

Standardised valve attachments

PROFOX FACTS

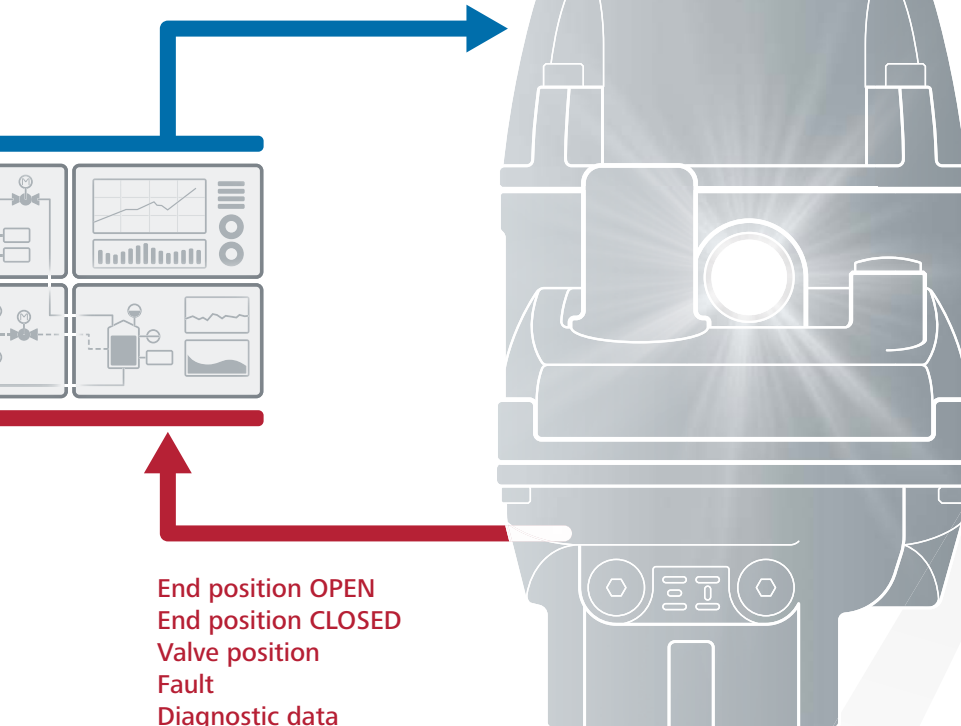
- ✎ ✎ Positioning of valves depending on DCS operating commands and setting specifications.
- ✎ ✎ Signals the valve position to the DCS.
- ✎ ✎ Receives and sends commands or signals via selection communication technology either parallel or serial (fieldbus/Ethernet).
- ✎ ✎ Equipped with two independent automatic seating facilities:
 - > Limit seating: Tripping once the end position is reached.
 - > Torque seating: Tripping once the torque limit value within the valve is reached – permanent overload protection. Can also be used for conventional end position tripping.
- ✎ ✎ Ready for both duties: OPEN - CLOSE duty and modulating duty.
 - > OPEN - CLOSE valves: Approaching the end positions.
 - > Modulating valves: Flow control for valve position.
- ✎ ✎ Comprises functions based on flexible speed, ensuring premium positioning accuracy and sympathetic valve operation.
- ✎ ✎ Safety functions ensure predictable valve behaviour in case of functional deviations, e.g. for signal loss.
- ✎ ✎ Handwheel in particular for emergency operation in case of power failure. Easier device setting during commissioning.



DCS

PROFOX – BASICS

Running OPEN
Running CLOSE
STOP
Position setpoint
Emergency operation command



Standardised

AUMA devices are designed to satisfy international standards.

This includes the interfaces to the valve as well as the integration into any DCS. AUMA exclusively uses open data protocols. AUMA actuators, and this includes PROFOX, are compatible in terms of communication to all other field devices.

KNOWING WHAT IS NEEDED!

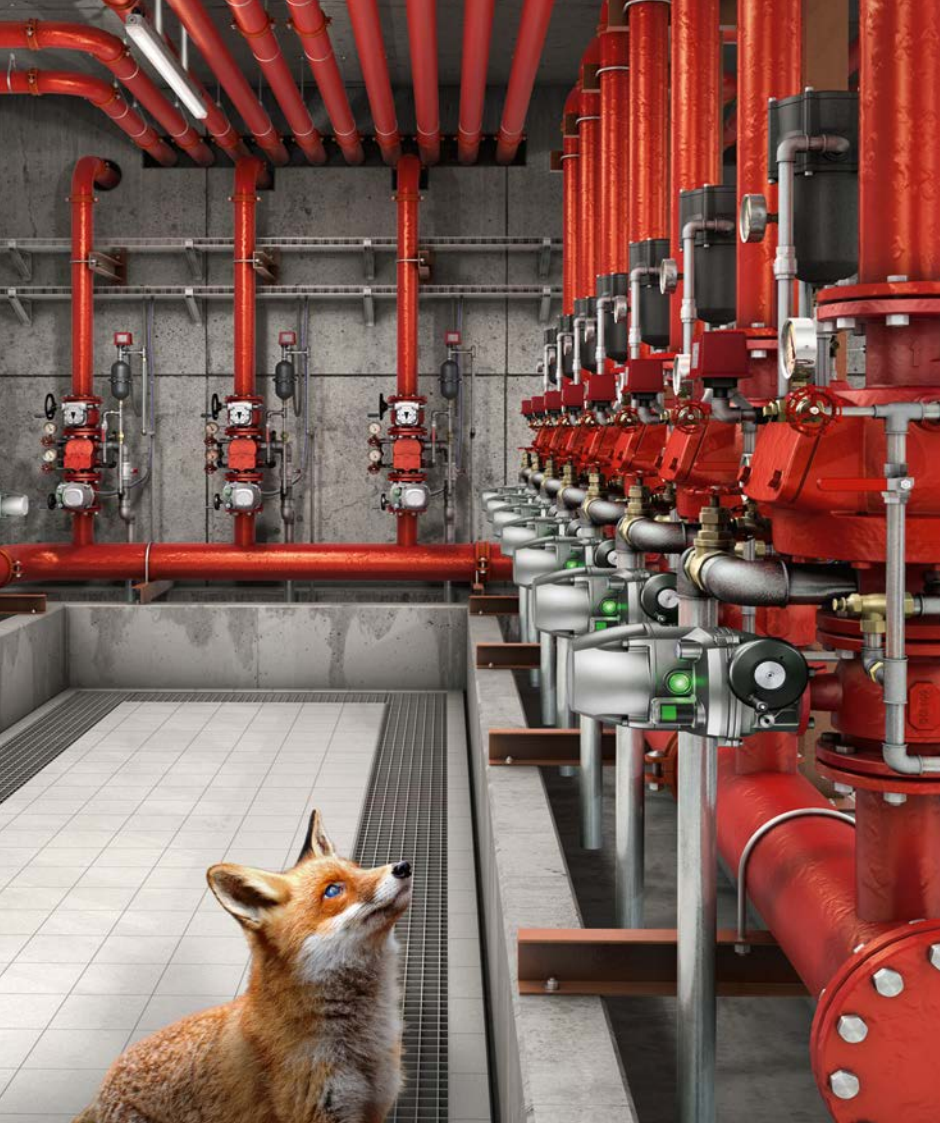
The key element of our long-standing experience:

We have identified your exact requirements!

PROFOX actuators among other are optimised for the following applications:

- > In installations of the water industry, in particular small units for water supply.
- > In installations of the energy sectors like CHP or for district heating.
- > In ventilation systems in the traffic sector like tunnels.
- > In generation and distribution of heating or cooling energy in industrial processes.
- > On vessels for bilge systems, fire protection, ballast or fuel.
- > For pumping adjustment
or,
- > as shown, in sprinkler systems.





PROFOX – ON MISSION



All documents
for detailed
product selection are
available on our
website:

www.auma.com



auma®

Solutions for a world in motion

AUMA Riester GmbH & Co. KG

Aumastr. 1

79379 Muellheim, Germany

Tel +49 7631-809-0

Fax +49 7631-809-1250

info@auma.com

Available in more
than 70 countries

www.auma.com



www.profox.auma.com