



AOITEC INTERNATIONAL PTE. LTD.
Your smart and reliable automation partner



Electric Rotary Valve Actuator

—ulli, digicon, highspeed & explosion proof series

Email: annaxiao@aoitec.ltd

WhatsApp: +65 86160872

WeChat: 18675525088

aoitecglobal.com

Introduction

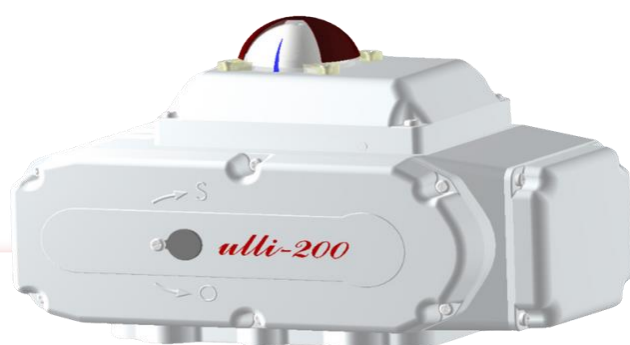
Under the Rotary Actuators, we proudly offer three specialized series designed to meet diverse operational requirements with precision and reliability:

- Ulli Series: Switch actuators designed for robustness and reliability.
- Digicon Series: Modulating actuators tailored for precise adjustments and control.
- Highspeed Series: Cutting-edge high-speed actuators that deliver unparalleled speed and performance, redefining industry standards.

Among these, the Ulli Series Valve Electric Actuators stand out with their patented, distinctive design that combines external elegance with internal robustness. Refined through years of meticulous development and optimization, they offer exceptional reliability and durability, making them a trusted choice for a wide range of applications. Our products are certified to CE international quality standards and compliant with JB/T8219-1999, ensuring consistent quality and regulatory compliance. A key innovation is our bracket-free models, exclusively developed to provide a compact, lightweight, stable, and precise design. These models deliver a superior solution for modern industrial needs, offering seamless performance across a variety of applications.

Switch/ Modulating:

ulli®



- The **ulli® series** represents the company's **switch actuators**
- Prefix meaning:
"U" stands for "unique," highlighting patented designs.
"L" for "light" (lightweight) and "long life" (durability).
"I" for "intelligentize," emphasizing smart features.
- 20NM-6000NM

digicon®



- The **digicon® series** represents the company's **modulating actuators**
- Prefix meaning:
"Digi" stands for "digital", "Con" for "control."
"Digicon" symbolizes control technology centered around digital technology.
- 20NM-6000NM

Features and Functionalities

1

Powerful Functionality: Available in various types, including regulating, on/off, explosion-proof, emergency shut-off, and brushless DC models.

2

Compact and Lightweight: Only 35% of the size and weight of traditional products.
Wide Environmental Compatibility: Operates within a broad temperature range (-20 ° C to +60 ° C); an external protective cover is required for outdoor use.

3

Reliable Performance: Critical components like bearings and electrical elements use imported premium brands.

4

Elegant and Practical: Die-cast aluminum housing with a refined, smooth finish that also minimizes electromagnetic interference.

5

Precision and Durability: Integrated worm gear output shaft made of specially forged copper alloy, providing high strength and excellent wear resistance.

6

High-Speed Advantage: Proprietary patented product with significantly increased speed and minimal heat generation.

7

Safety Assurance: Tested with 1500V withstand voltage, F-class insulated motors, and CE international certification for guaranteed safety.

8

Versatile Power Options: In addition to standard models (AC220V, AC110V), options include DC24V, AC24V, and AC380V.

9

Ease of Use: No lubrication or inspections required, waterproof, rustproof, and can be installed at any angle.

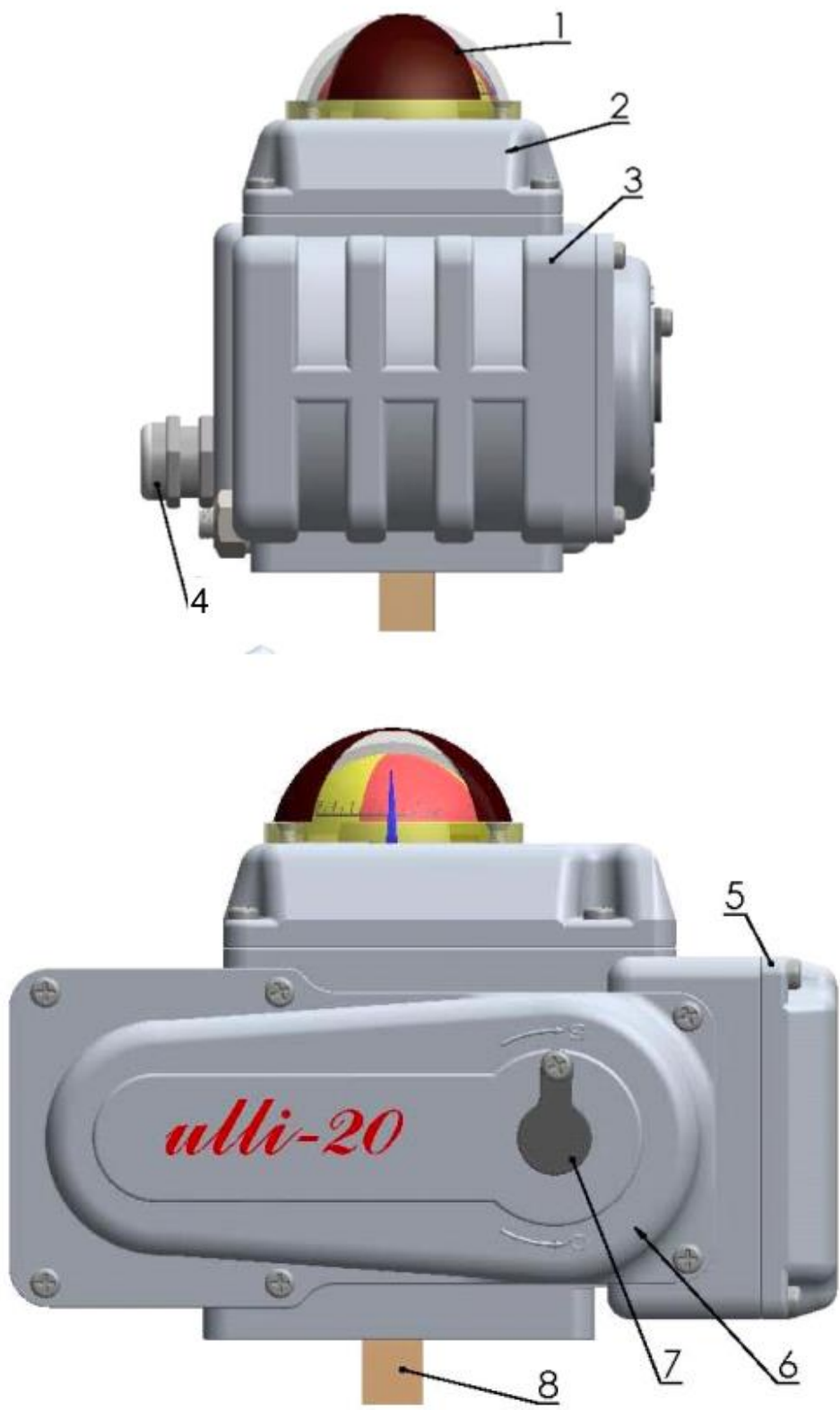
10

Variable Speeds: Full travel times available in 5 seconds, 10 seconds, 15 seconds, 30 seconds, or 60 seconds (specify when ordering).

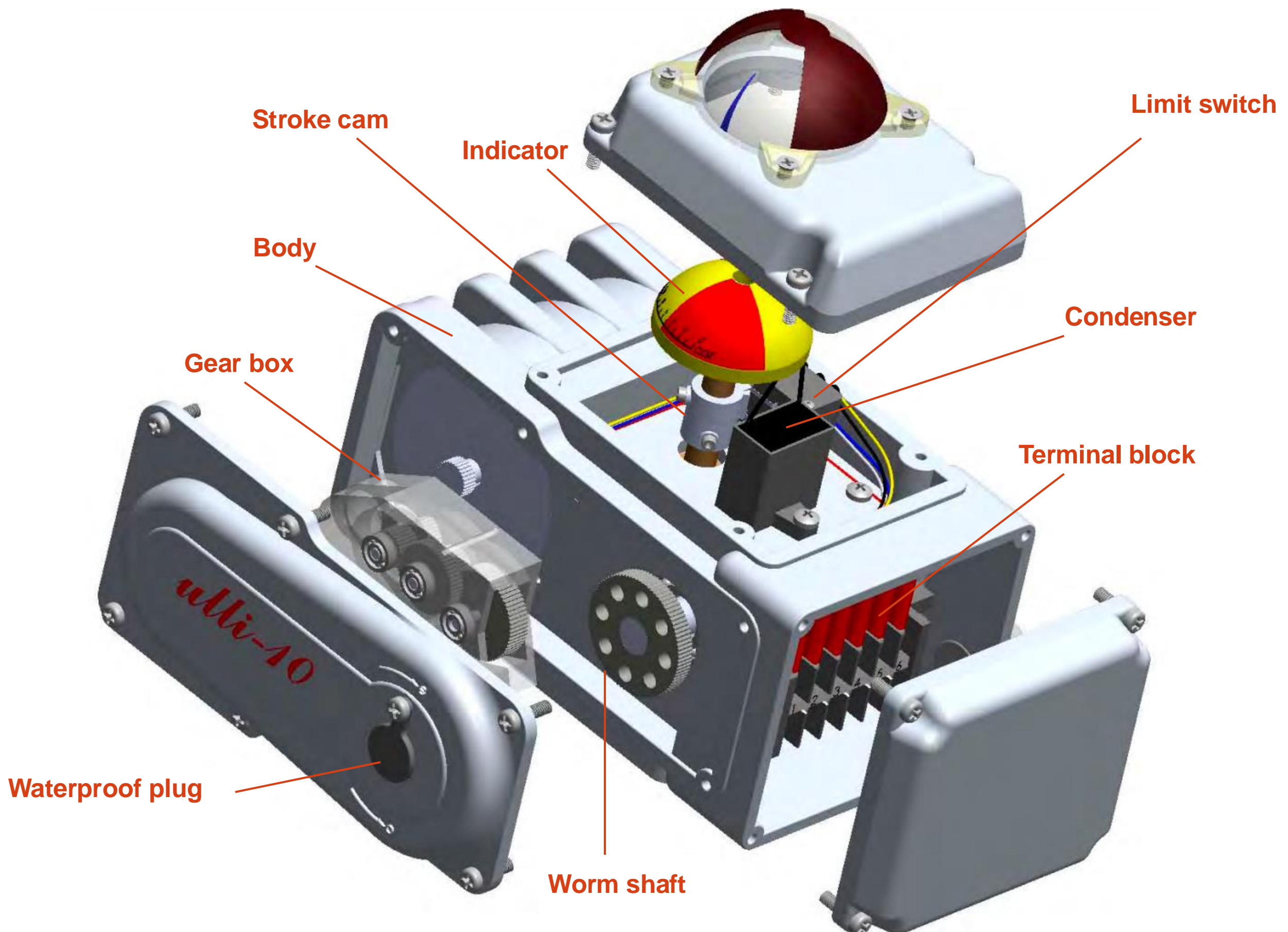
11

Integrated Design: Highly integrated smart control module embedded within the actuator body, eliminating the need for external positioners.

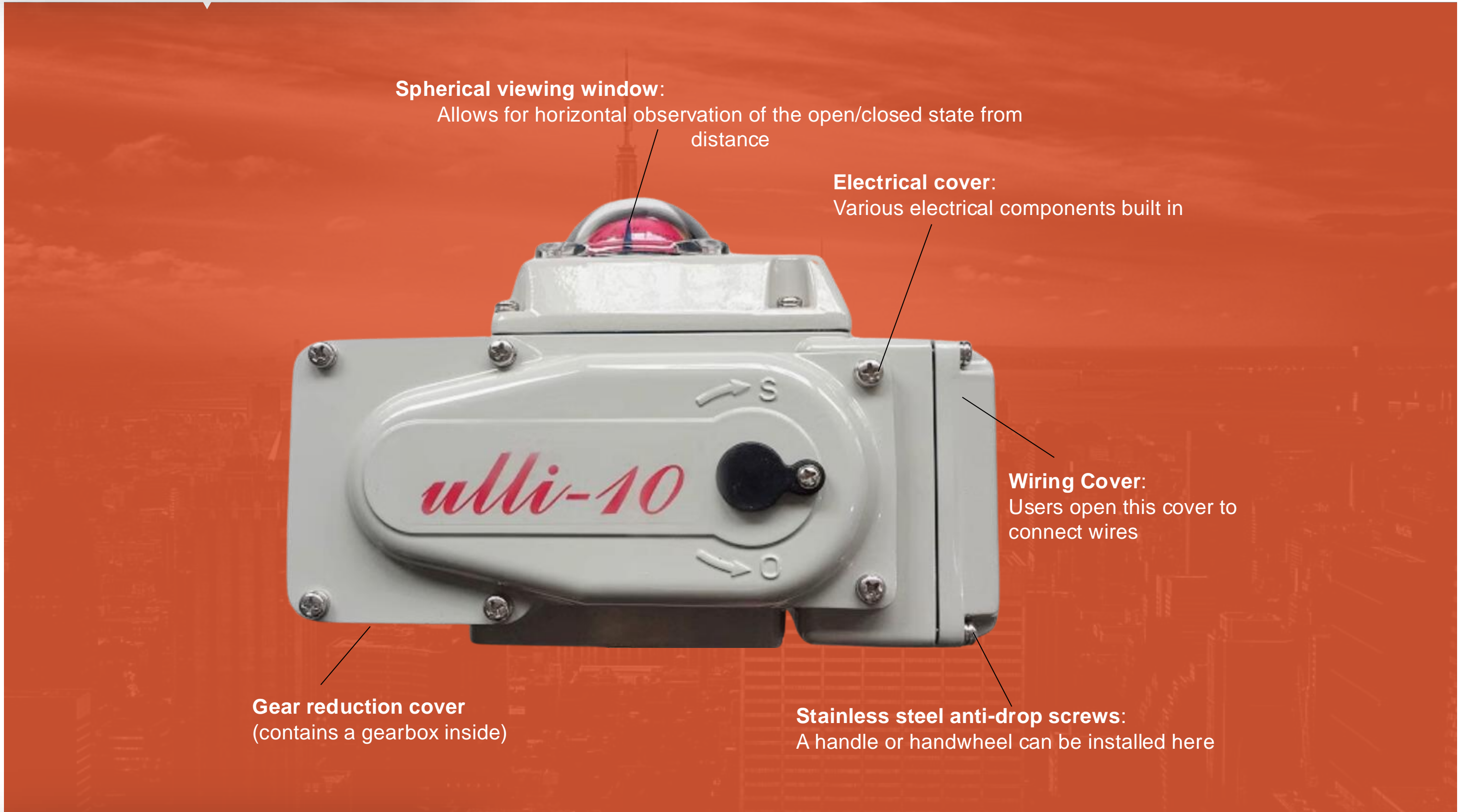
Structure diagram for ulli® series



No	Descriptions
1	Spherical Viewing Window
2	Electrical Cover
3	Housing/Body
4	Cable Fixing Head
5	Wiring Cover
6	Gear Reduction Cover
7	Handle or Handwheel Opening Plug
8	Output Shaft or Output Hole



Front View



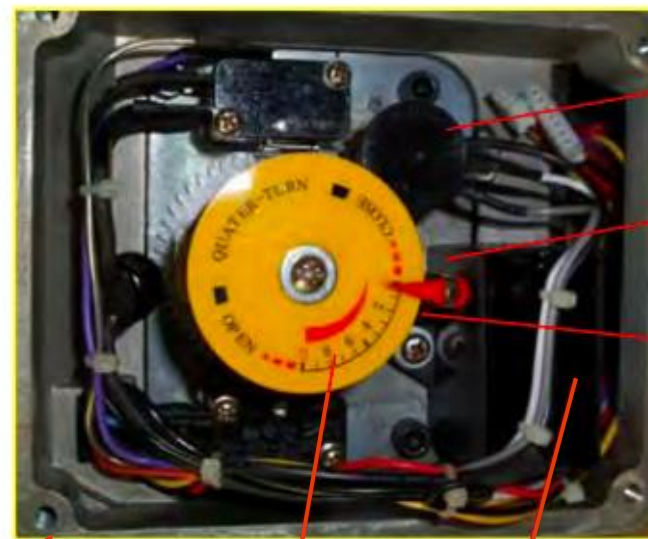
Detailed diagrams



Motor cover
(contains an F-class high-temperature-resistant motor))

Fully rolling bearings
(Designed for Permanent Durability)

Manual Operation Port:
Standardized dimensions for compatibility



Japanese Potentiometer:
High precision and wear resistance

Internal Wiring:
High-temperature resistant and anti-aging wiring for durability

Electrical Limit Cam:
Located below the indicator dial; adjustable for open/close angles or signal output points.

OMRON Micro Switch:
Electrical limit position switch for precision control

Indicator Dial (Opening Plate):
Ball/flat

Capacitor :
Long lifespan with high-temperature resistance

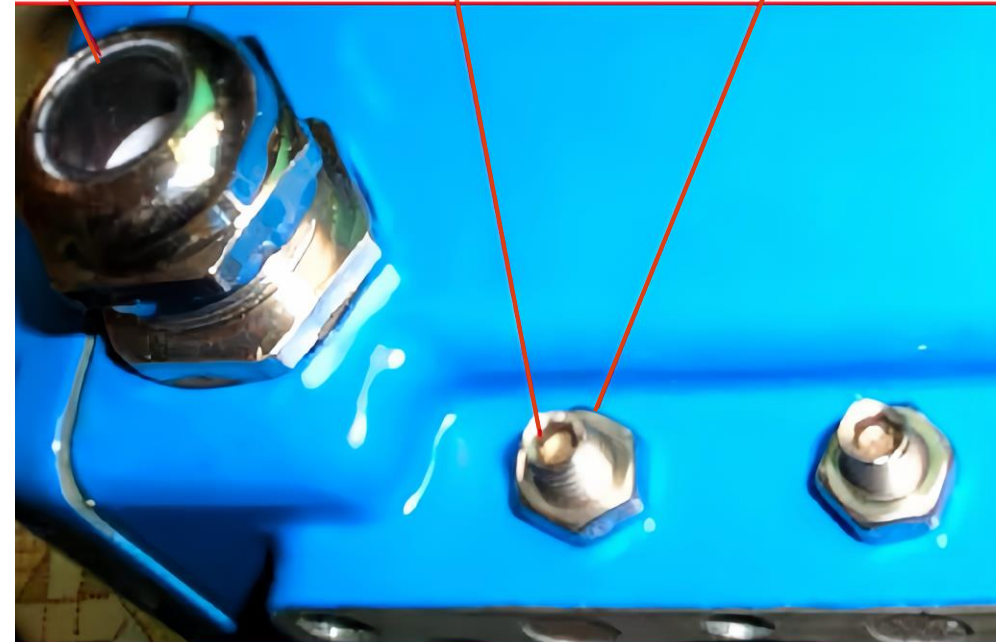
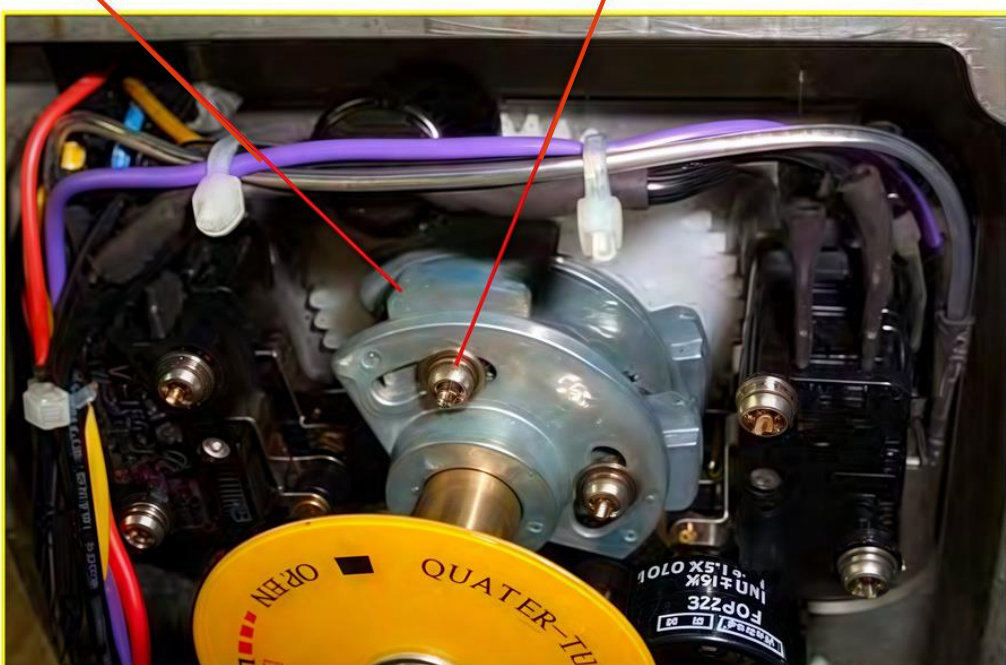
Electrical Limit Cam:
Located below the indicator dial; adjustable for open/close angles or signal output points

Electrical Limit Cam Fixing Screw :
Loosen to adjust cam angles for fine-tuning

Copper Electrical Cable Clamp:
High-strength, fully sealed, and anti-aging for reliable cable management.

Limit Screw:
For mechanical limit position adjustment

Lock Nut :
Secures the mechanical limit adjustment screw



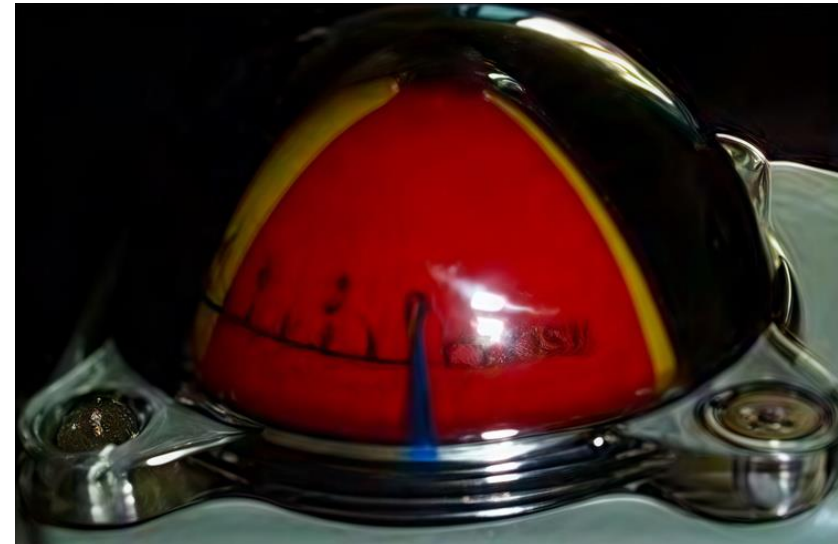
Specially Designed Integrated Output Shaft :

integrates five positions into one, providing greater reliability and reducing gaps



Dome Position Indicator with Color Coding:

- Displays open/close status from a distance without needing to climb up
- Complies with IP68 protection standards



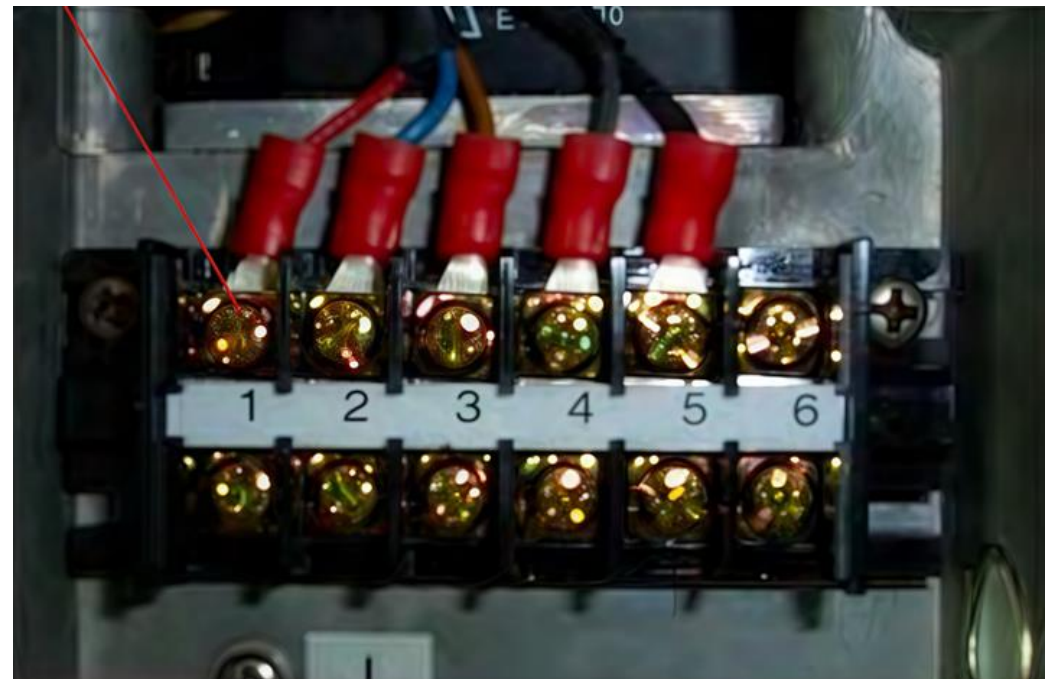
Bidirectional Overload Protection Module (Optional)

On-Site/Remote Control Switch (Optional)



Internationally Certified Terminal Block:

Features high capacity and strength; screws are impossible to break, ensuring reliable connection safety



Conductive Plastic Position Indicator:

Japanese brand, precision-made, and highly durable

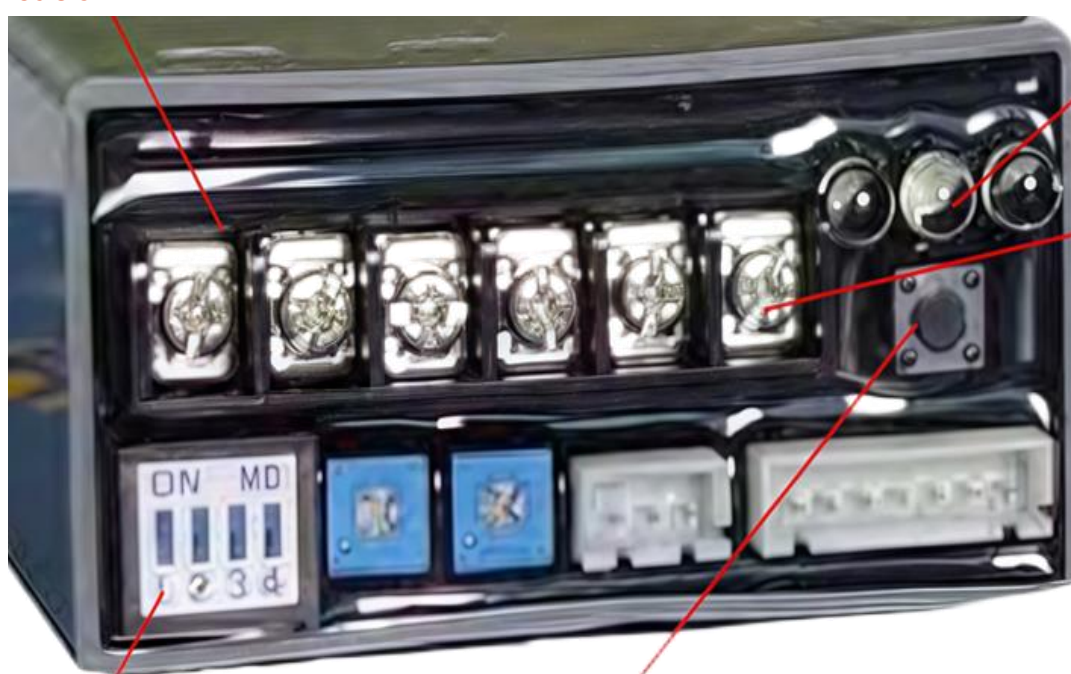


Waterproof Design (IP68)



Intelligent Control Module (Optional):

High reliability, supports large currents, and offers high precision.



Status or Fault Indicator:

Clear status feedback for system monitoring

Reinforced Stainless Steel Terminals:

Durable and corrosion-resistant terminal connectors

Handwheel with Clutch (Optional) :

unique design with a standardized size, compatible with the entire actuator series



Mode Selection Switch:

Allows easy switching between operation modes

Automatic Calibration Button:

Simplifies configuration and system calibration

Data sheet (ulli series) :

Ulli Series (On-Off Rotary)

Model	Power Supply	Torque (NM)	Stroke Time for 50Hz (Sec)	Motor F Class In/Out	220VAC Start Current	220VAC Rated Current	Weight (kg)	IP CLASS
ulli-2	AC24V AC220V AC110V	20	30	15W/5W	0.12A	0.12A	1.8	IP68
ulli-5	AC380V AC/DC24V AC220V AC110V	50	30	30W/10W	0.25A	0.25A	2.6	IP68
ulli-10	AC380V AC/DC24V AC220V AC110V	100	30	80W/23W	0.58A	0.5A	3.7	IP68
ulli-20	AC380V AC/DC24V AC220V AC110V	200	45	100W/30W	0.72A	0.68A	3.7	IP68
ulli-50	AC380V AC/DC24V AC220V AC110V	500	30	300W/90W	1.38A	1.2A	8	IP68
ulli-60	AC380V AC/DC24V AC220V AC110V	600	30	300W/90W	1.38A	1.2A	8	IP68
ulli-100	AC380V AC/DC24V AC220V AC110V	1000	50	300W/90W	1.38A	1.2A	12	IP68
ulli-200	AC380V AC220V AC110V	2000	100	300W/90W	1.38A	1.2A	12	IP68
ulli-400	AC380V AC220V AC110V	4000	150	500W/150W	2.3A	2.0A	31	IP68
ulli-600	AC380V AC220V AC110V	6000	150	500W/150W	2.3A	2.0A	31	IP68

Data sheet (digicon series) :

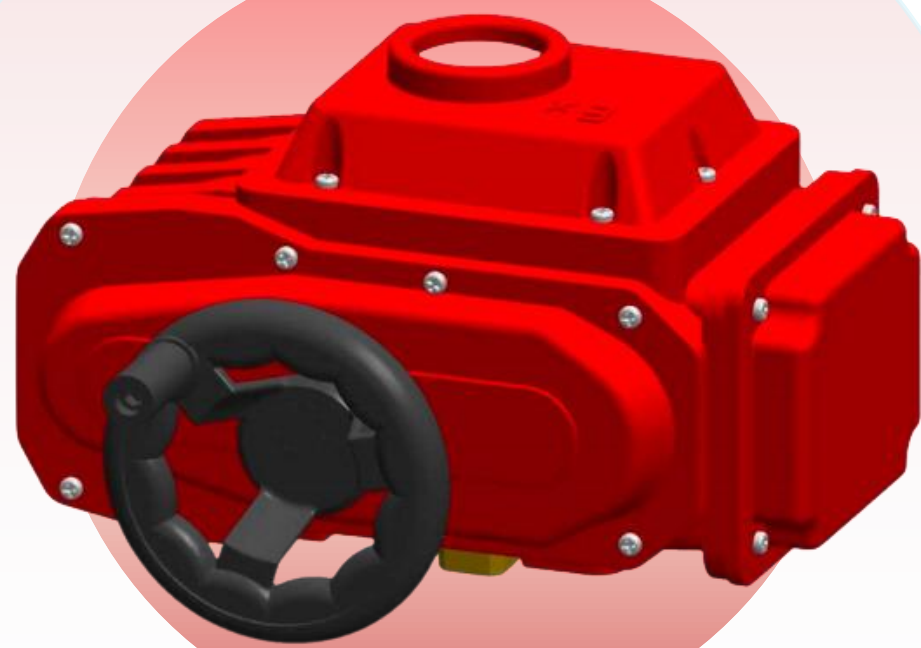
Rotary actuator – Digicon (Modulating)

Model	Power Supply	Torque (NM)	Stroke Time for 50Hz (Sec)	Motor F Class In/Out	220VAC Start Current	220VAC Rated Current	Weight (g)	IP CLASS
digicon-5	DC24V AC24V AC220V AC110V	50	30	30W/10W	Input signal 4-20mA 0-10V	Output signal 4-20mA	3	IP68
digicon-10	DC24V AC24V AC220V AC110V	100	30	80W/23W	Input signal 4-20mA 0-10V	Output signal 4-20mA	4.5	IP68
digicon-25	DC24V AC24V AC220V AC110V	250	30	150W/45W	Input signal 4-20mA 0-10V	Output signal 4-20mA	7.5	IP68
digicon-50	DC24V AC24V AC220V AC110V	500	30	300W/90W	Input signal 4-20mA 0-10V	Output signal 4-20mA	8.7	IP68
digicon-100	DC24V AC24V AC220V AC110V	1000	50	300W/90W	Input signal 4-20mA 0-10V	Output signal 4-20mA	12.8	IP68
digicon-200	AC220V AC110V	2000	100	300W/90W	Input signal 4-20mA 0-10V	Output signal 4-20mA	12.8	IP68
digicon-400	AC220V AC110V	4000	150	500W/150W	Input signal 4-20mA 0-10V	Output signal 4-20mA	32	IP68
digicon-600	AC220V AC110V	6000	150	500W/150W	Input signal 4-20mA 0-10V	Output signal 4-20mA	32	IP68

Note:

All parameters are not limited to the datasheet. Parameters such as torque, stroke time, inner bore dimensions, and other key metrics can be customized to meet specific application requirements.

Explosion Proof Series



- Certified as explosion-proof with a conformity certificate accredited by CNAS
- Withstood extensive testing experience in harsh environments
- Internationally certified electronic control module

Explosion-proof Certification: EXD

Specifications :

Explosion Proof Type Actuator EXB II actuator

Model	Power Supply	Torque (NM)	Stroke Time 50Hz (SEC)	Motor F Class in/out	220V Start Current	220V Rated Current	Weight	IP class
ulli-10EX	AC380V 24V AC220V AC110V	100	30	80W/23W	0.58A	0.5A	10	IP68
ulli-16EX	AC380V 24V AC220V AC110V	160	30	110W/30W	0.72A	0.68A	10	IP68
ulli-25EX	AC380V 24V AC220V AC110V	250	30	150W/45W	0.86A	0.8A	10	IP68
ulli-50EX	AC380V 24V AC220V AC110V	500	30	300W/90W	1.38A	1.2A	10	IP68
ulli-60EX	AC380V 24V AC220V AC110V	600	30	300W/90W	1.38A	1.2A	10	IP68
digicon-10EX	DC24V AC24V AC220V AC110V	100	30	80W/23W	Input signal 4-20mA 0-10V	Output signal 4-2 OmA	11	IP68
digicon-16EX	DC24V AC24V AC220V AC110V	160	30	80W/23W	Input signal 4-20mA 0-10V	Output signal 4-2OmA	11	IP68
digicon-25EX	DC24V AC24V AC220V AC110V	250	30	150W/45W	Input signal 4-2OmA 0-10V	Output signal 4-2OmA	11	IP68
digicon-50EX	DC24V AC24V AC220V AC110V	500	30	300W/90W	Input signal 4-2OmA 0-10V	Output signal 4-2OmA	11	IP68
digicon-60EX	DC24V AC24V AC220V AC110V	600	30	300W/90W	Input signal 4-2OmA 0-10V	Output signal 4-2 OmA	11	IP68

Highspd Series

Patented Technology
High-speed, Soft-start, Stall Protection



- Travel time ranges from **2 to 5 seconds**, achieving speeds **5 to 20 times faster** than traditional actuators, earning it the title of an ultra-fast actuator
- Suitable for scenarios where solenoid valves are used but **offers greater reliability**, a wider range of applications, and compatibility with **larger calibres**.
- Surpasses pneumatic actuators in speed while eliminating the need for an air supply, providing a solution that is more convenient, lightweight, and cost-effective.
- The wiring method is identical to that of a single-phase AC actuator, ensuring full compatibility and easy replacement.
- This technology significantly reduces the travel time of high-torque actuators. For instance, the Highspd-200 model accelerates from 100 seconds to just 15 seconds, greatly enhancing operational efficiency.

Model	Power Supply	Torque (Nm)	Stroke Time (Sec)	Motor (In/Out)	Weight (kg)	Compatible Valve (DN Reference)
highspd-5	AC220V / AC110V	50	2.5	450 W / 150 W	2.5	25–100
highspd-10	AC220V / AC110V	100	5	450 W / 150 W	3.5	80–150
highspd-25	AC220V / AC110V	250	5	500 W / 200 W	7.3	150–200
highspd-50	AC220V / AC110V	500	9	500 W / 200 W	7.3	200–250
highspd-100	AC220V / AC110V	1000	20	600 W / 300 W	11.5	300–400
highspd-200	AC220V / AC110V	2000	30	600 W / 300 W	11.5	400–500
highspd-500	AC220V / AC110V	5000	20	1500 W / 500 W	30	500–800
highspd-1000	AC220V / AC110V	10000	30	1500 W / 500 W	30	800–1000

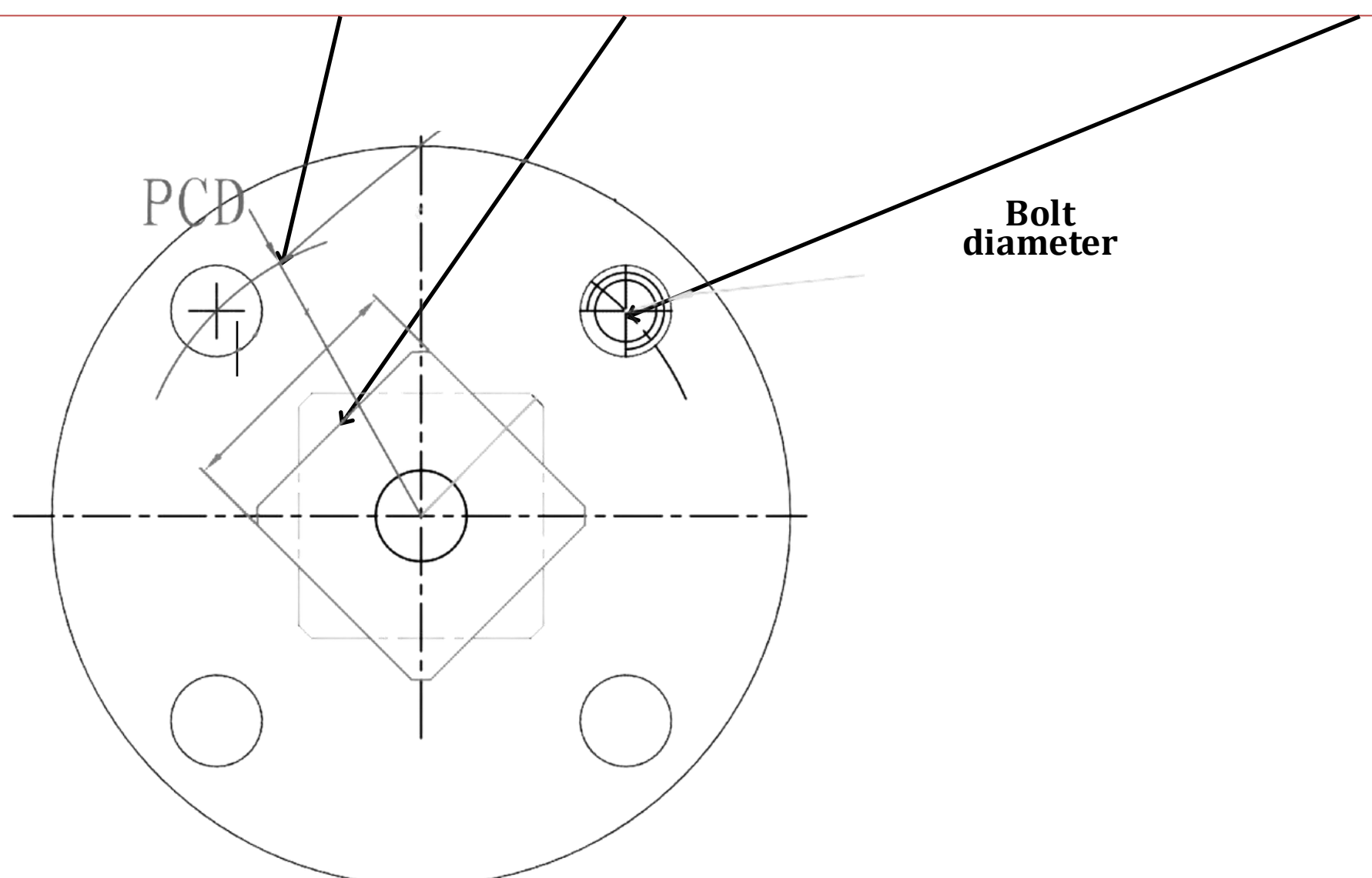
Integrating patented high-speed actuator technology

-Achieves high speed and stability, combining precision and efficiency,
with 100% duty cycle and zero downtime

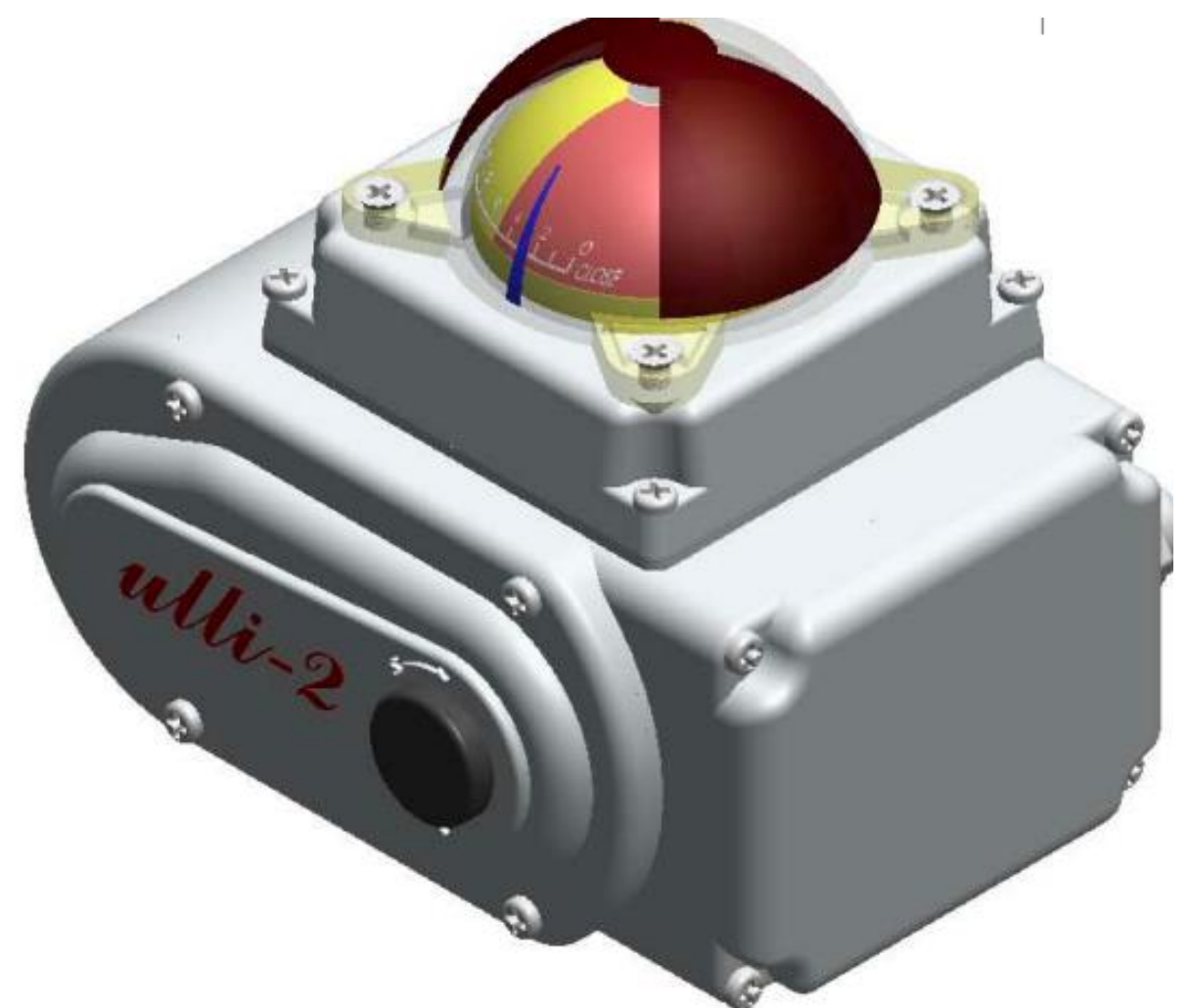
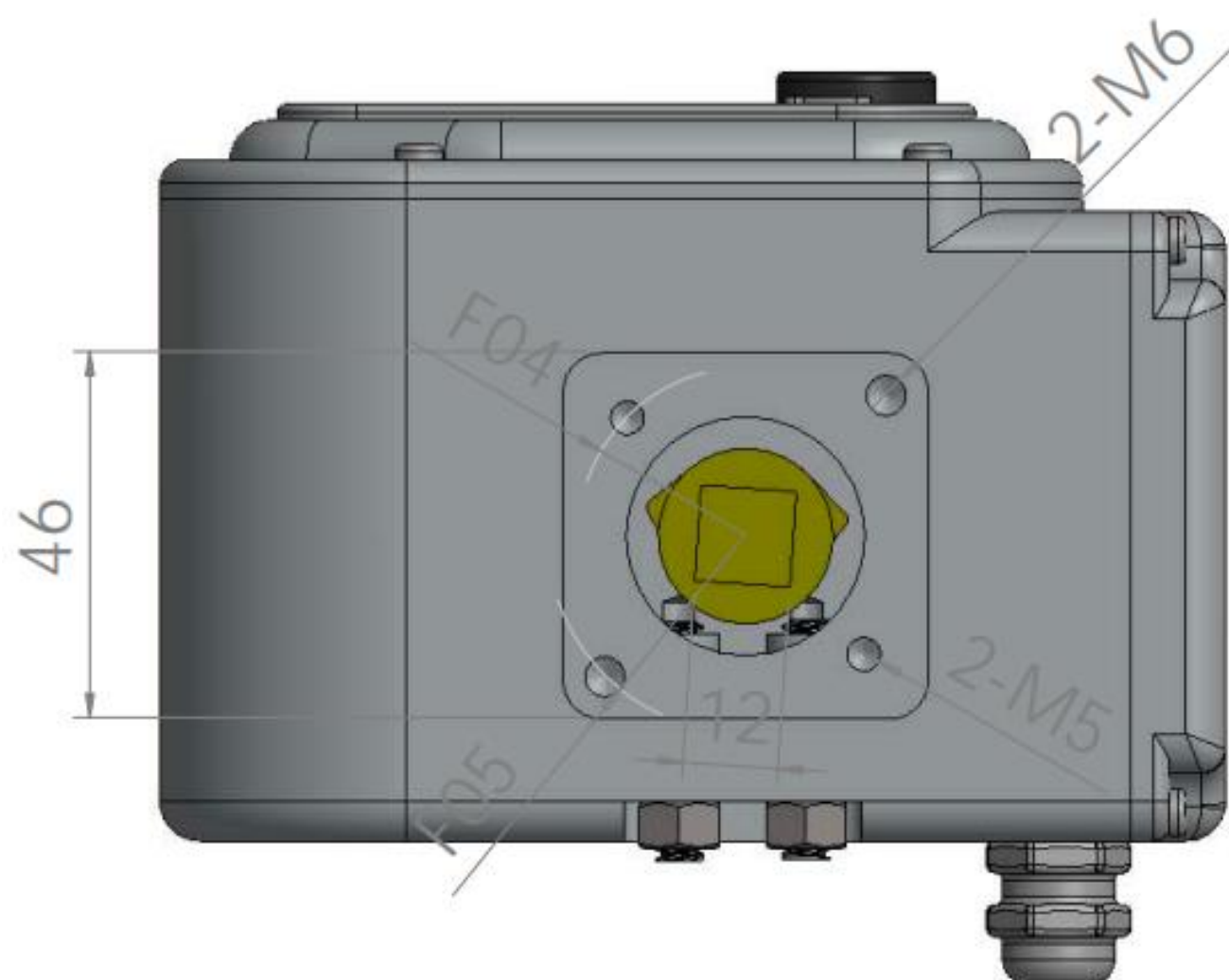
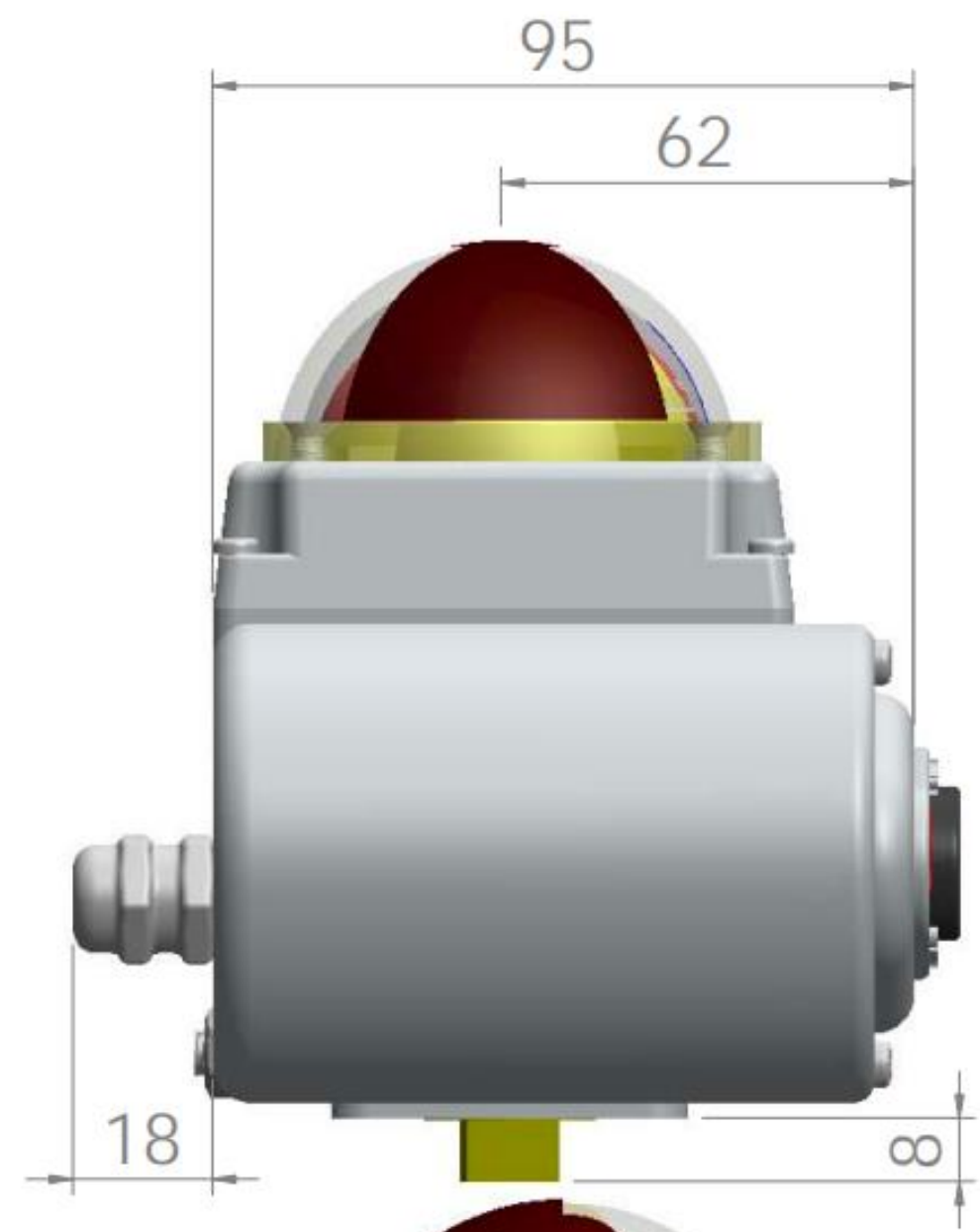
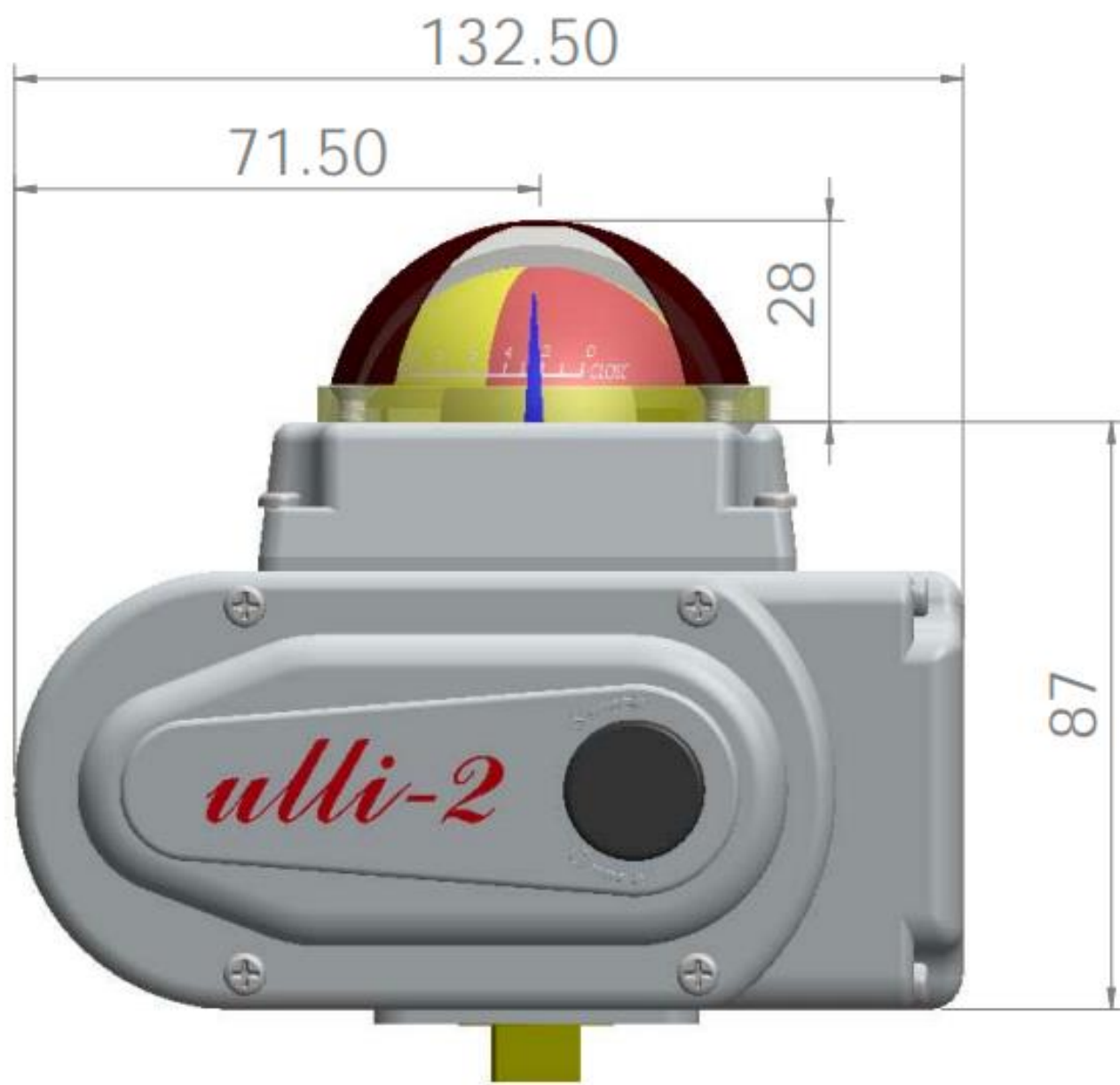
Model	Power Supply	Torque (Nm)	Stroke Time (sec)	Motor (In/Out)	Weight (kg)	Compatible Valve (DN Reference)
highspd-5	AC220V / AC110V	50	5	450 W / 150 W	2.5	25–100
highspd-10	AC220V / AC110V	100	10	450 W / 150 W	3.5	80–150
highspd-25	AC220V / AC110V	250	9	500 W / 200 W	7.3	150–200
highspd-50	AC220V / AC110V	500	15	500 W / 200 W	7.3	200–300
highspd-100	AC220V / AC110V	1000	35	600 W / 300 W	11.5	300–400
highspd-200	AC220V / AC110V	2000	50	600 W / 300 W	11.5	400–500
highspd-400	AC220V / AC110V	5000	20	800 W / 500 W	30	600–700
highspd-600	AC220V / AC110V	10000	30	800 W / 500 W	30	800–1000
hidigi-5	AC220V / AC110V	50	5	450 W / 150 W	2.5	25–100
hidigi-10	AC220V / AC110V	100	10	450 W / 150 W	3.5	80–150
hidigi-25	AC220V / AC110V	250	9	500 W / 200 W	7.3	150–200
hidigi-50	AC220V / AC110V	500	15	500 W / 200 W	7.3	200–300
hidigi-100	AC220V / AC110V	1000	35	600 W / 300 W	11.5	300–400
hidigi-200	AC220V / AC110V	2000	50	600 W / 300 W	11.5	400–500
hidigi-500	AC220V / AC110V	5000	20	800 W / 500 W	30	600–700
hidigi-1000	AC220V / AC110V	10000	30	800 W / 500 W	30	800–1000

Recommended butterfly valve mounting dimensions for direct (bracket-free) installation

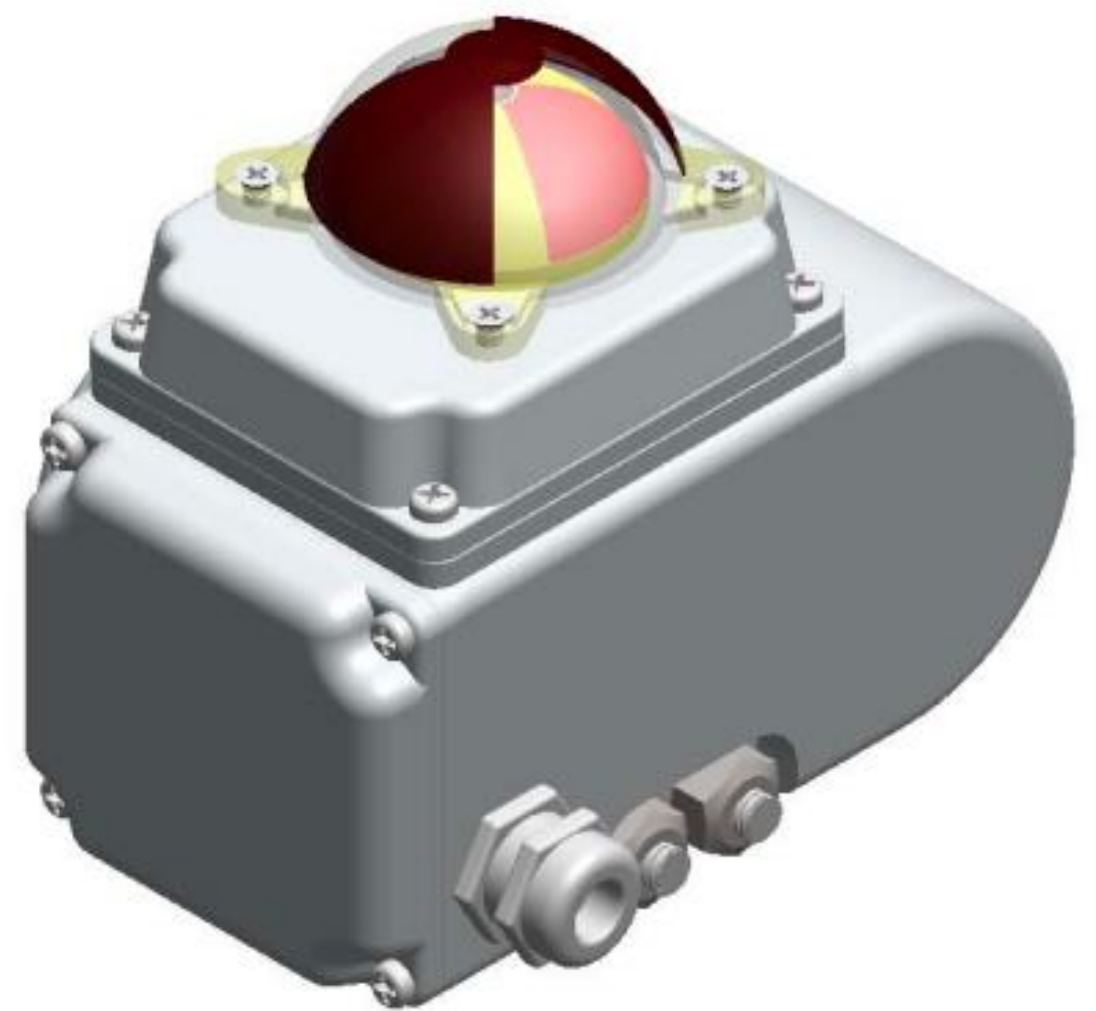
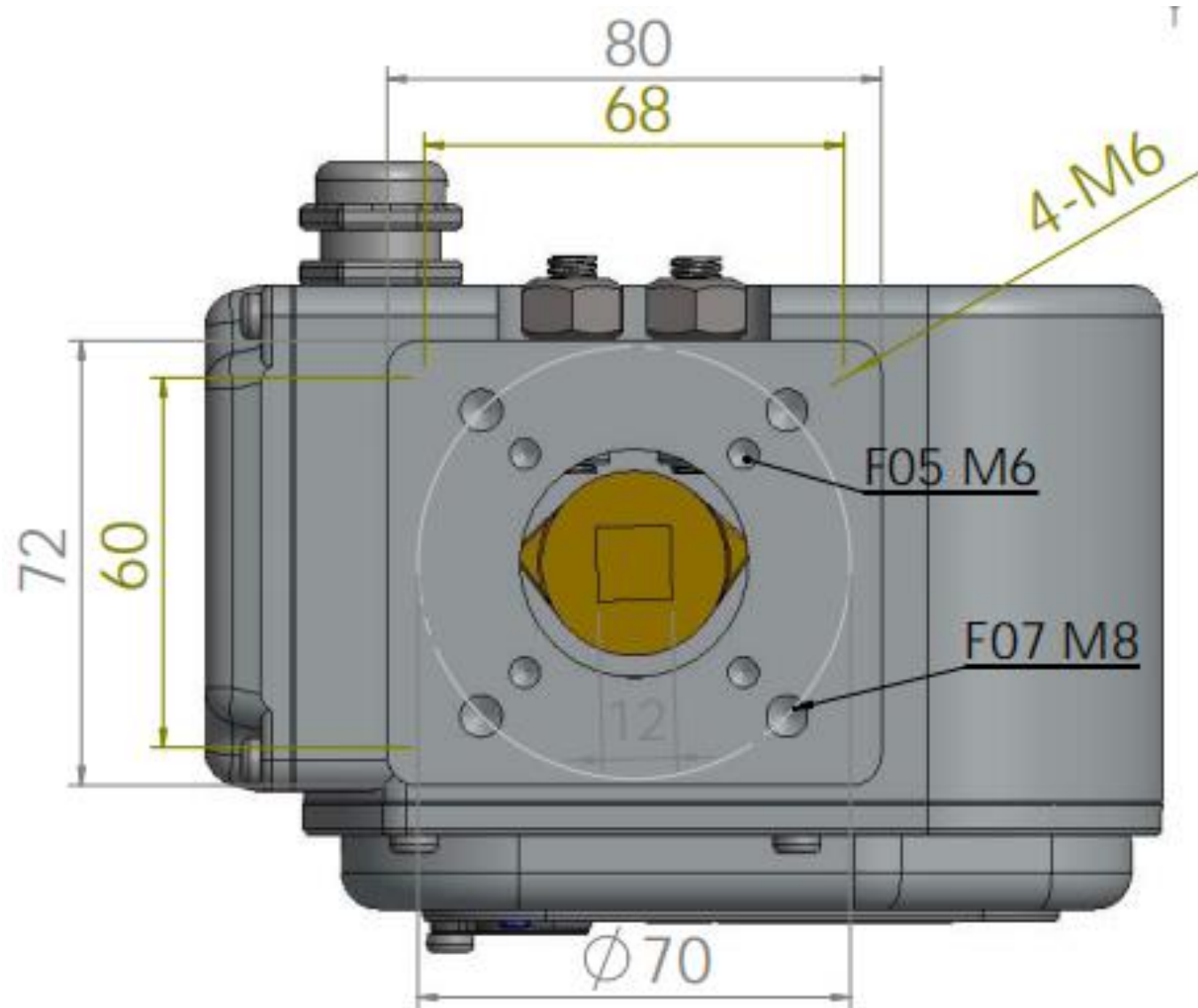
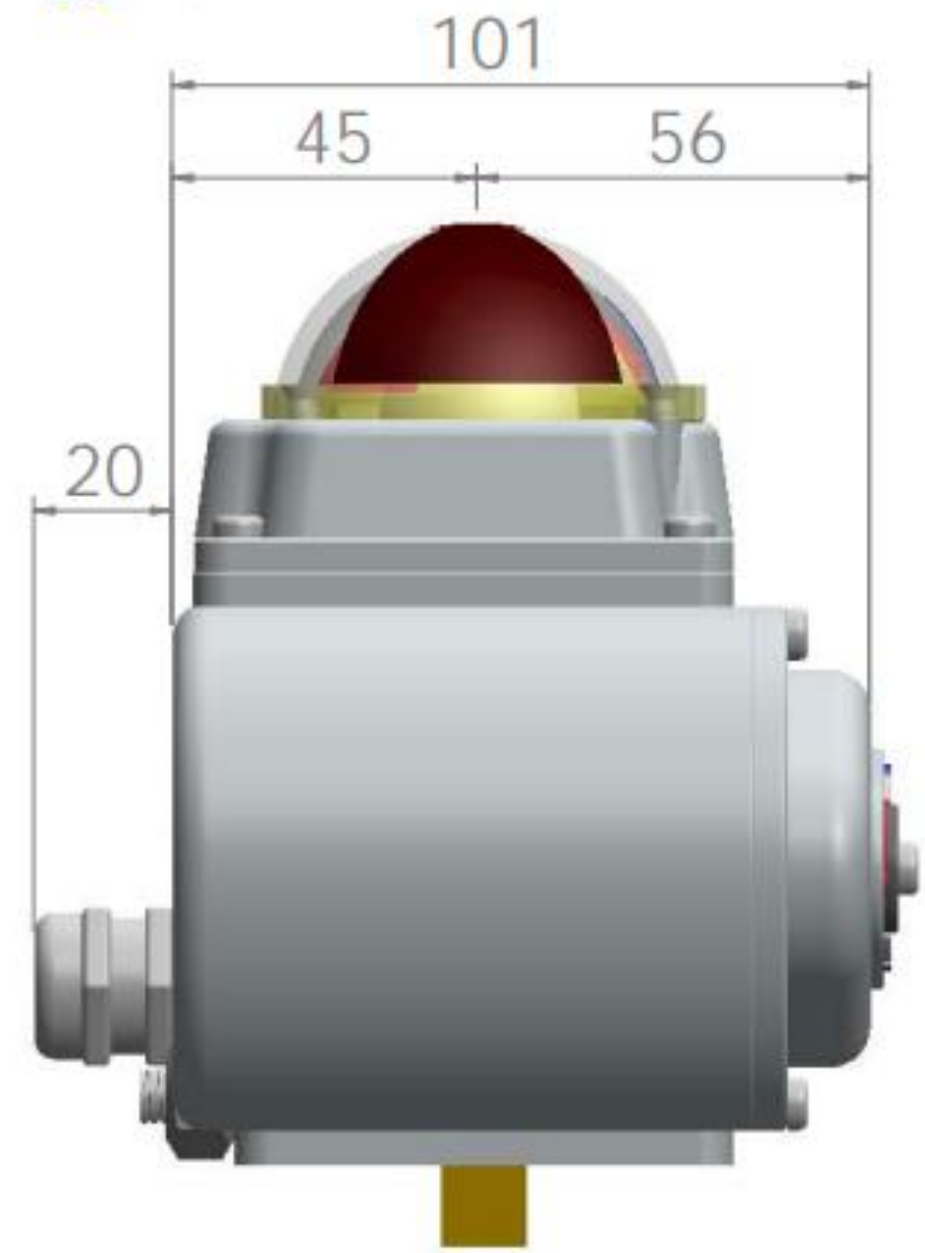
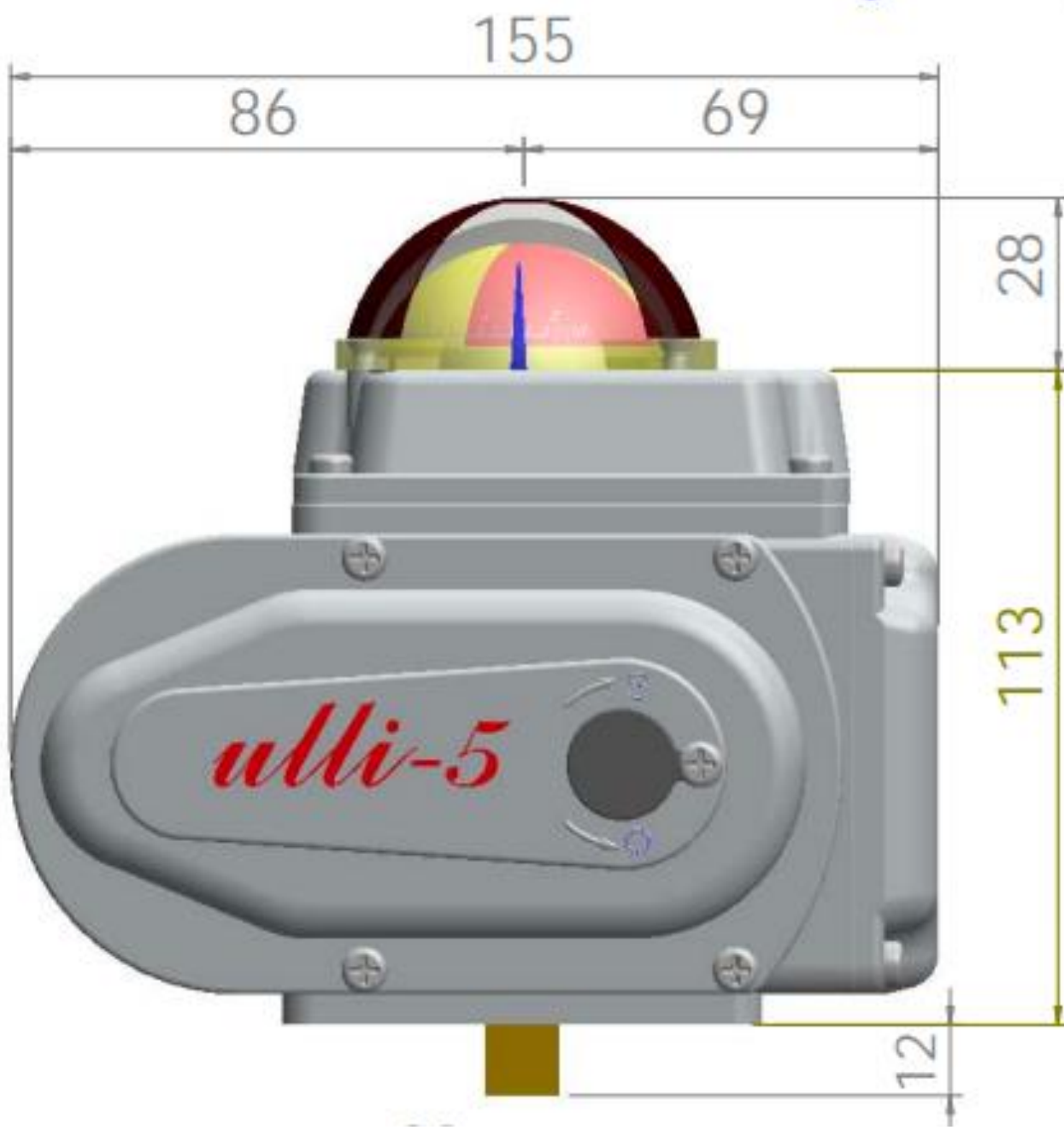
Electric Actuator Model	Compatible Butterfly Valves (For Reference Only)	Referenced Flange Standard	Flange Hole Pattern Diameter PCD (Any One)	Recommended Valve Stem Square Dimensions and Extension Length	Recommended Chamfered Circular Diameter	Screw Thread Diameter
ulli-2	25-50	F05/F03	D50/D36	9*9 Height:10-15	No restrictions	M6/M5
ulli-5	50-80	F07/F05	D70	11*11 Height:10-20	No restrictions	M8/M6
ulli-10	100	F07	D70	14*14 Height: 15-25	No restrictions	M8
ulli-16	125-150	F07	D70	17*17 Height:15-25	≤ Φ22	M8
ulli-25	200	F12/F10	D125/D102	22*22 Height:20-30	≤ Φ30	M12/M10
ulli-50	250	F12/F10	D125/D102	27*27 Height:25-40	≤ Φ36	M12/M10
ulli-100	300-400	F14	D140	27*27 Height:25-40	≤ Φ37.6	M12
ulli-200	400-500	F14	D140	36*36 Height:30-40	≤ Φ48	M12
ulli-400	600-700	F25	D254	38*38 Height:35-50	≤ Φ75	M20
ulli-600	800	F25	D254	46*46 Height:35-50	≤ Φ75	M20
ulli-600	900-1000	F25	D254	55*55 Height:35-50	≤ Φ75	M20



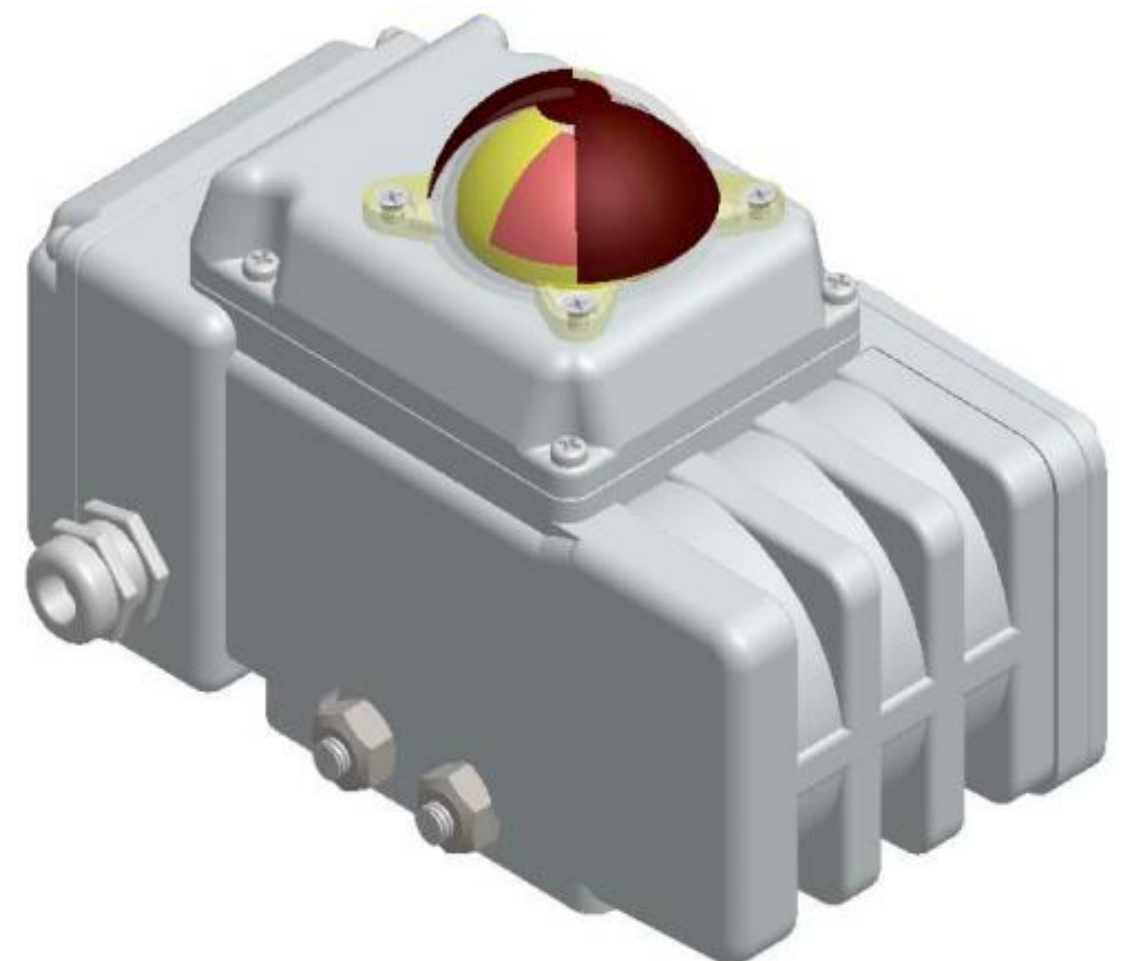
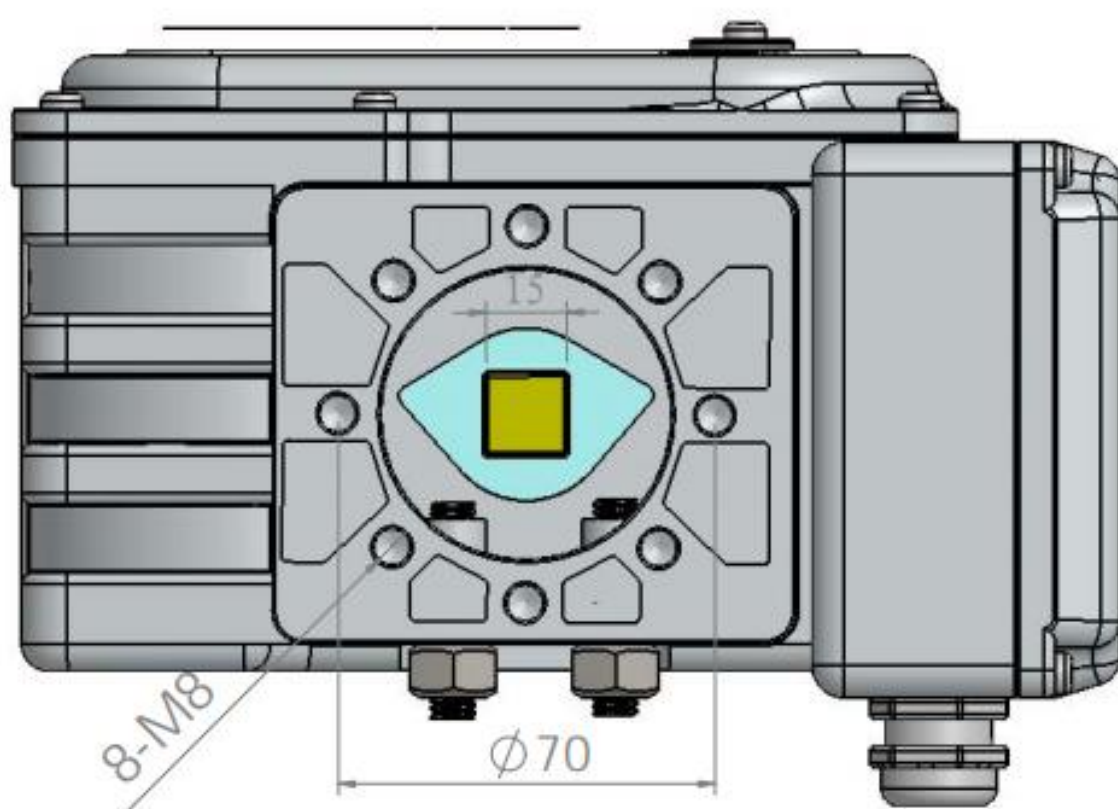
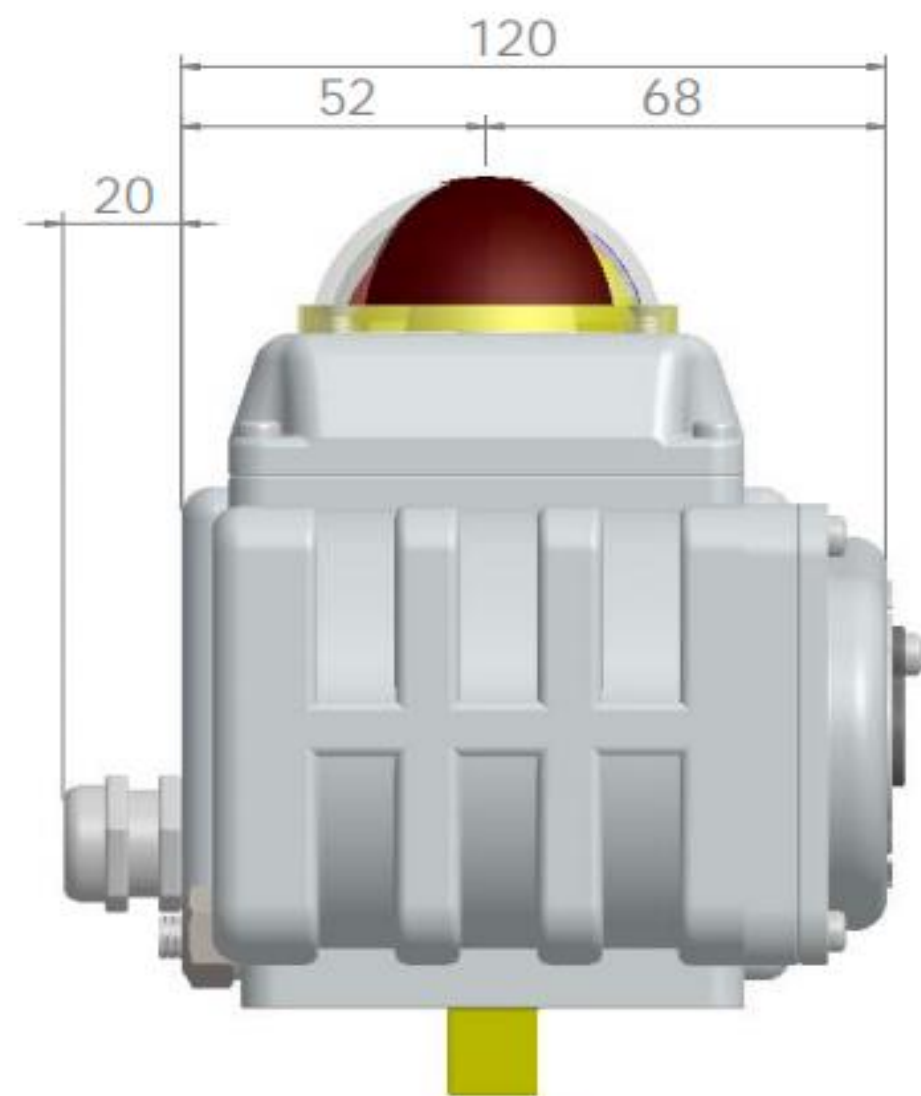
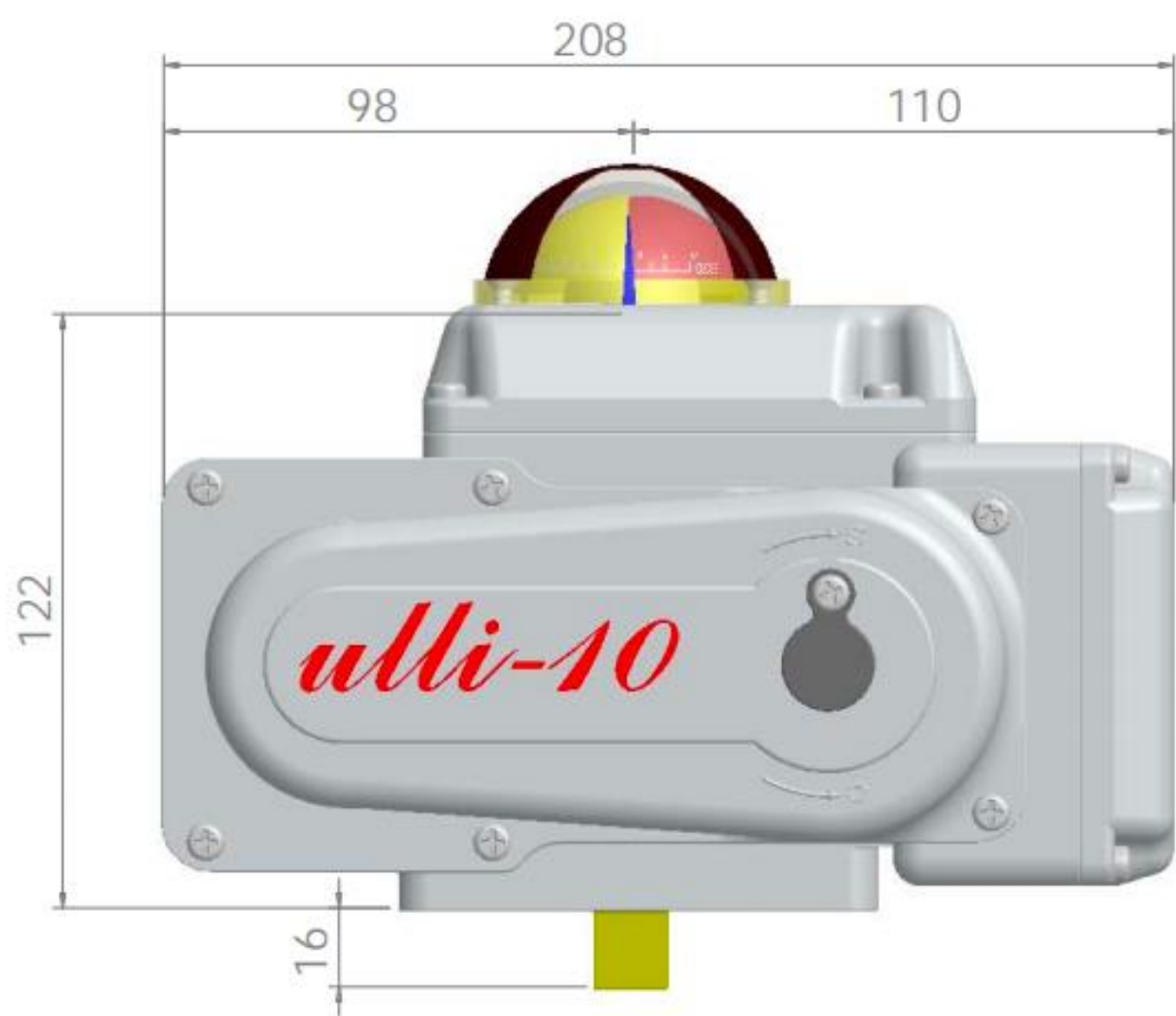
**Dimensioned drawings:
ulli-2 (male type)**



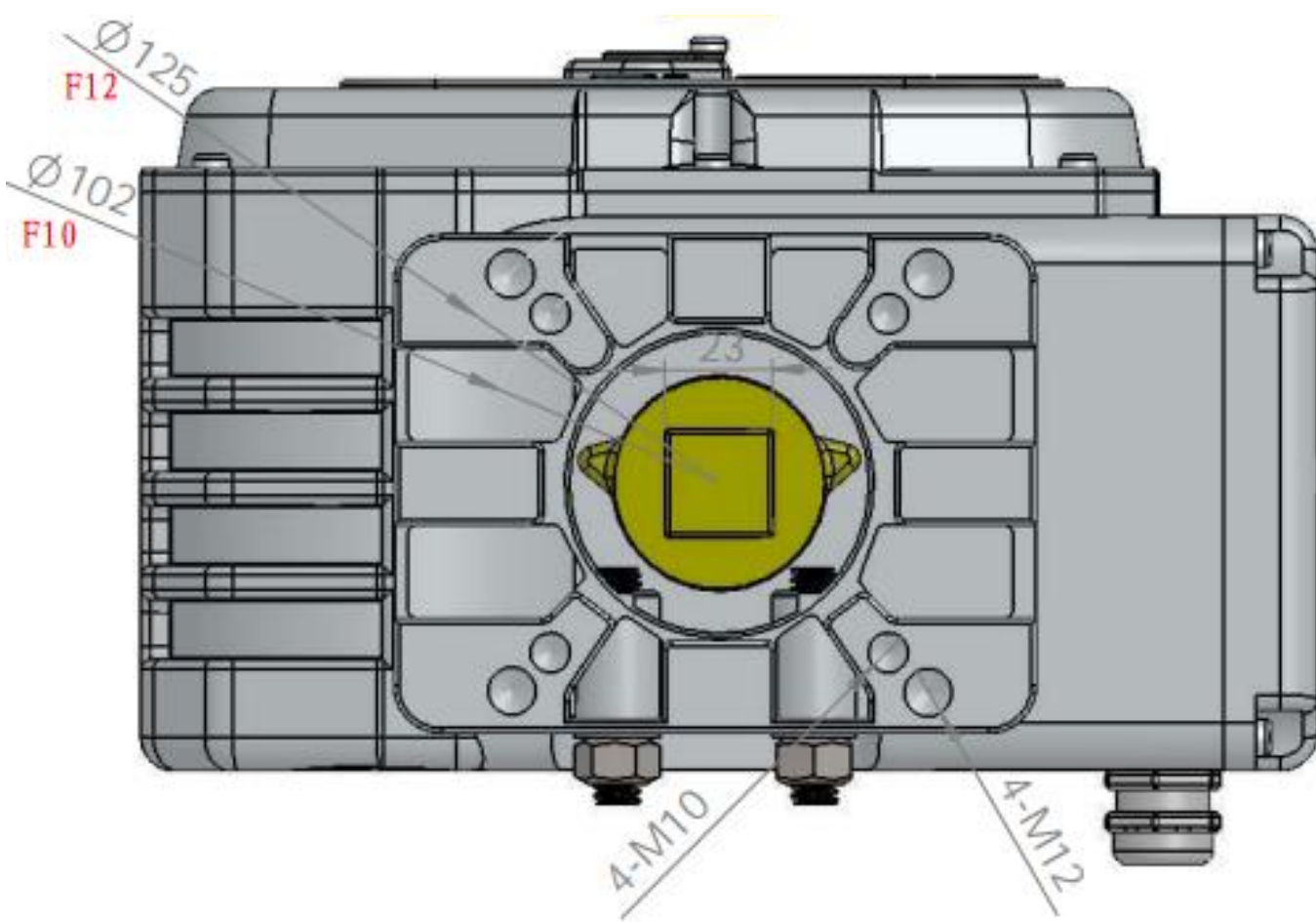
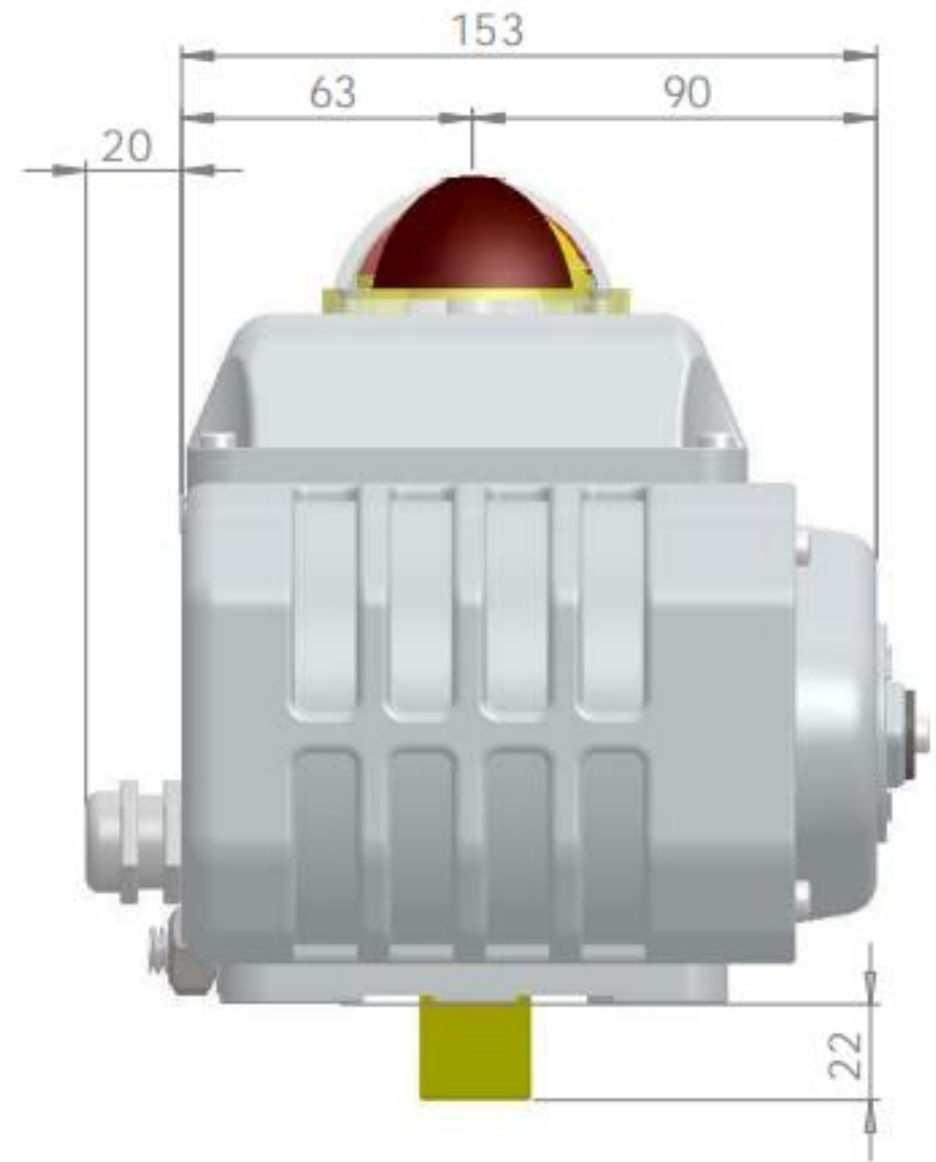
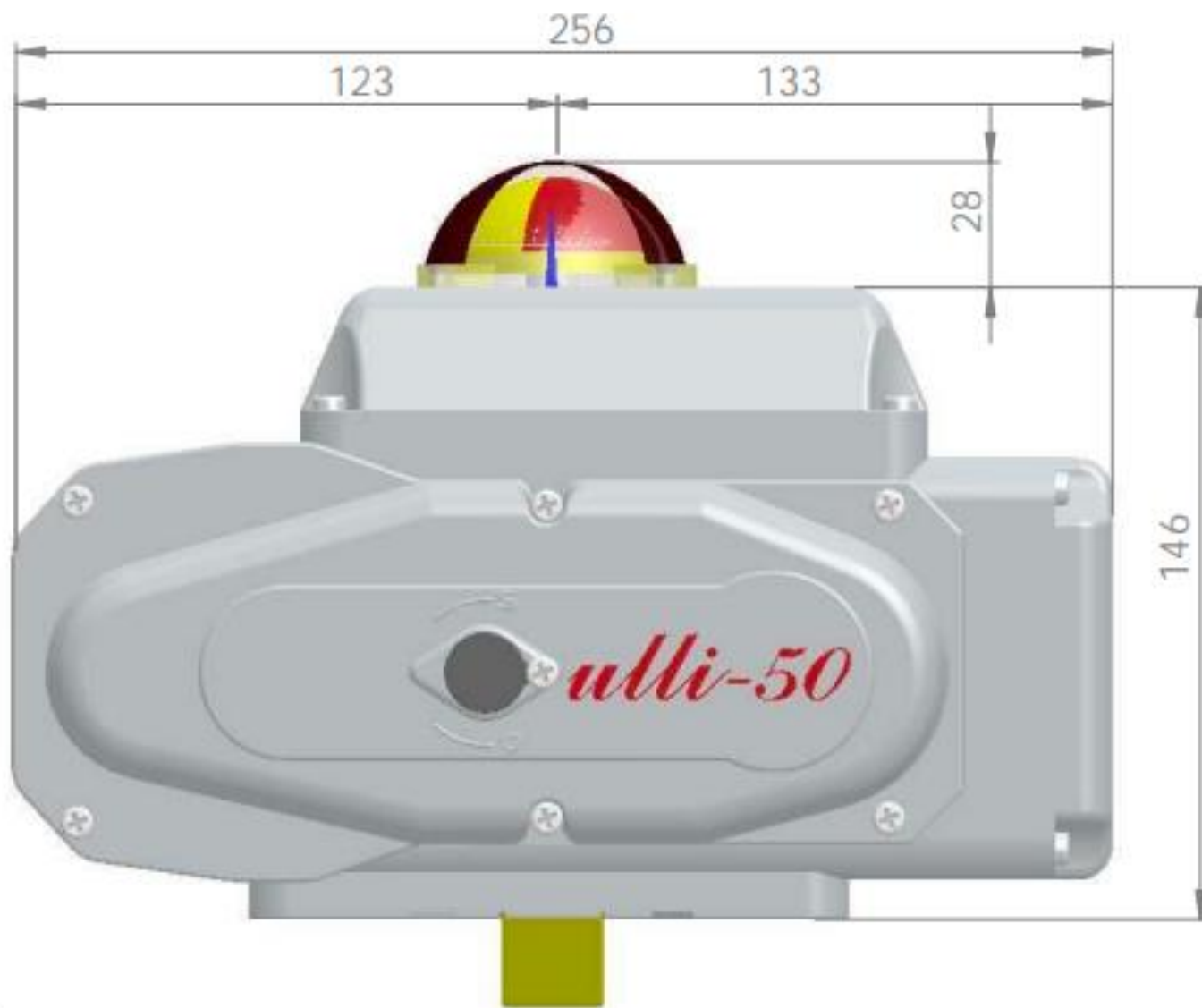
ulli-5 & digicon-5 (male type)



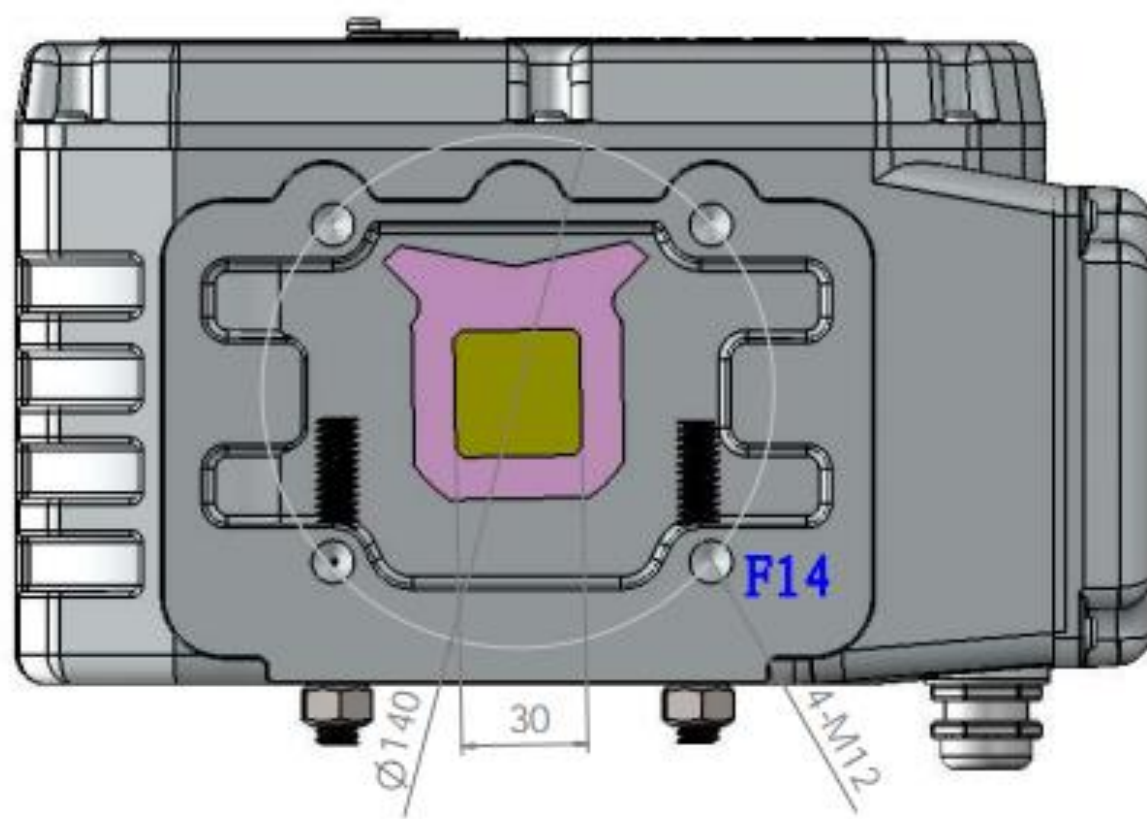
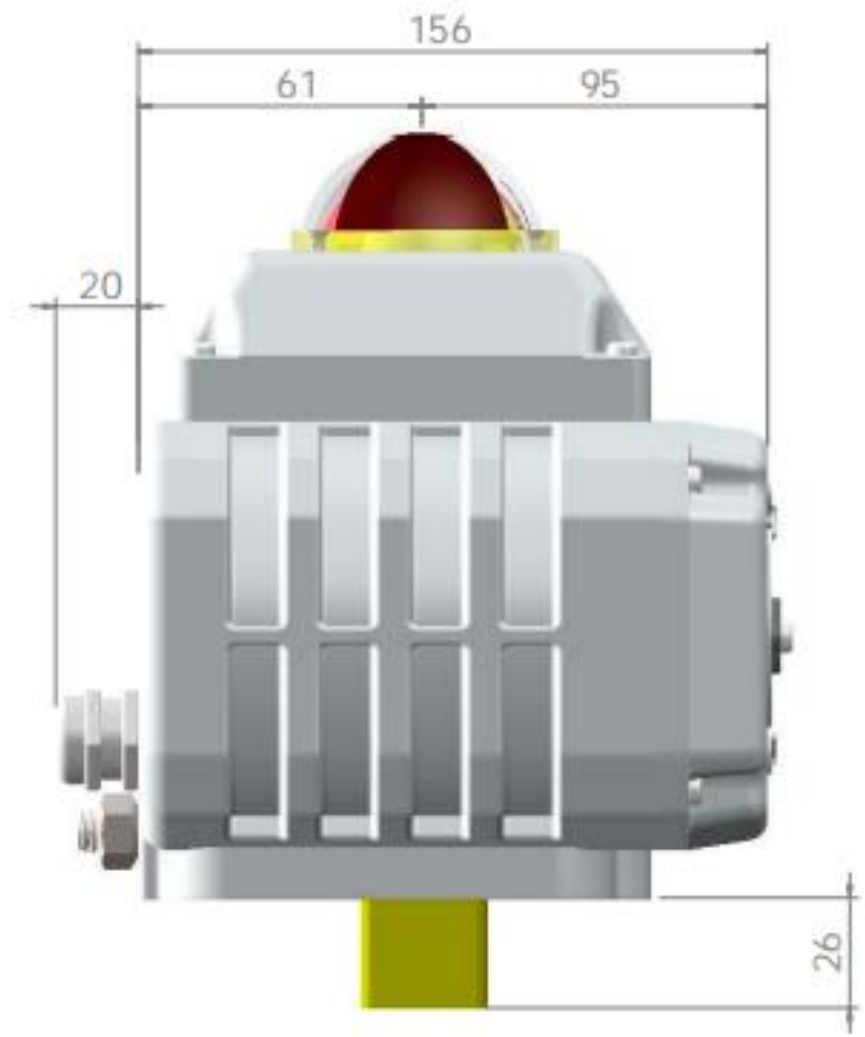
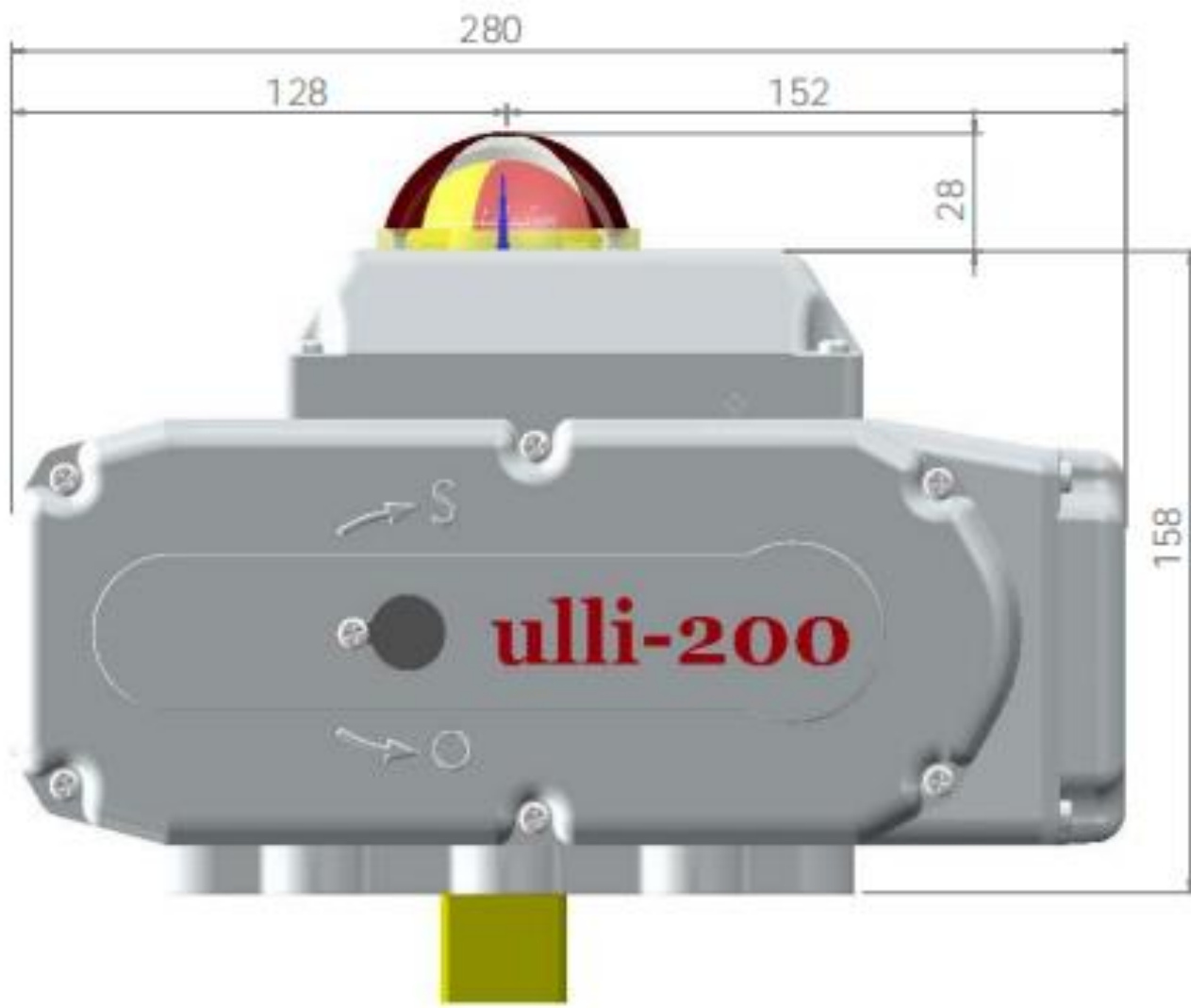
ulli-10 & digicon-10 (male type)



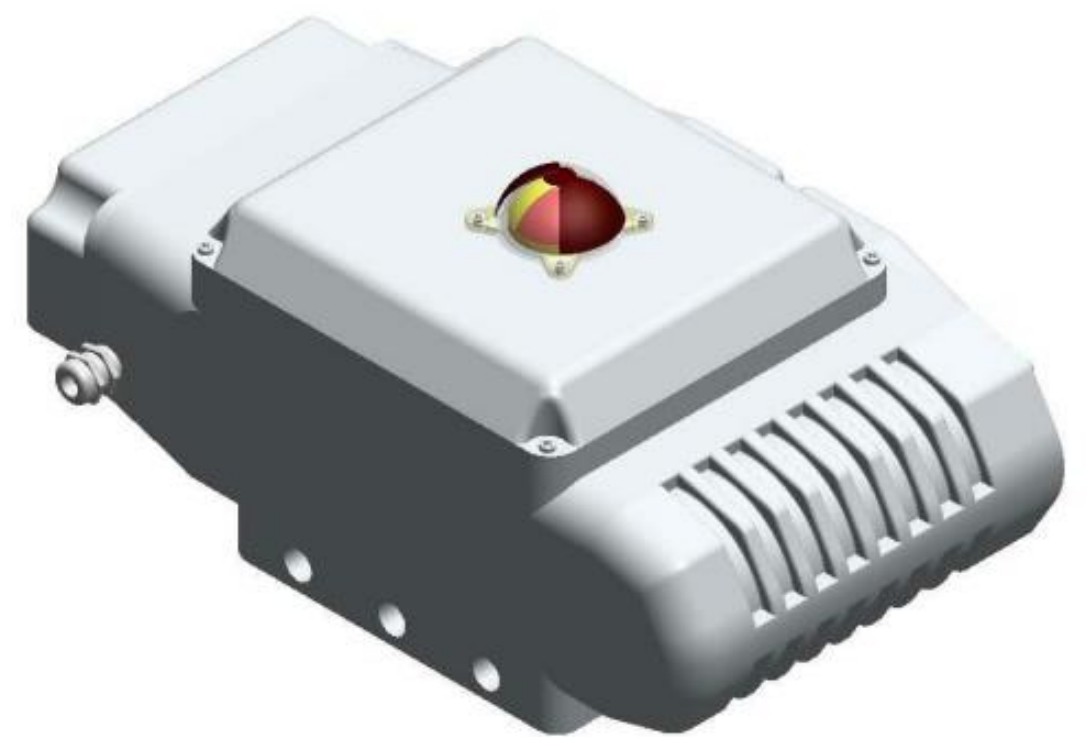
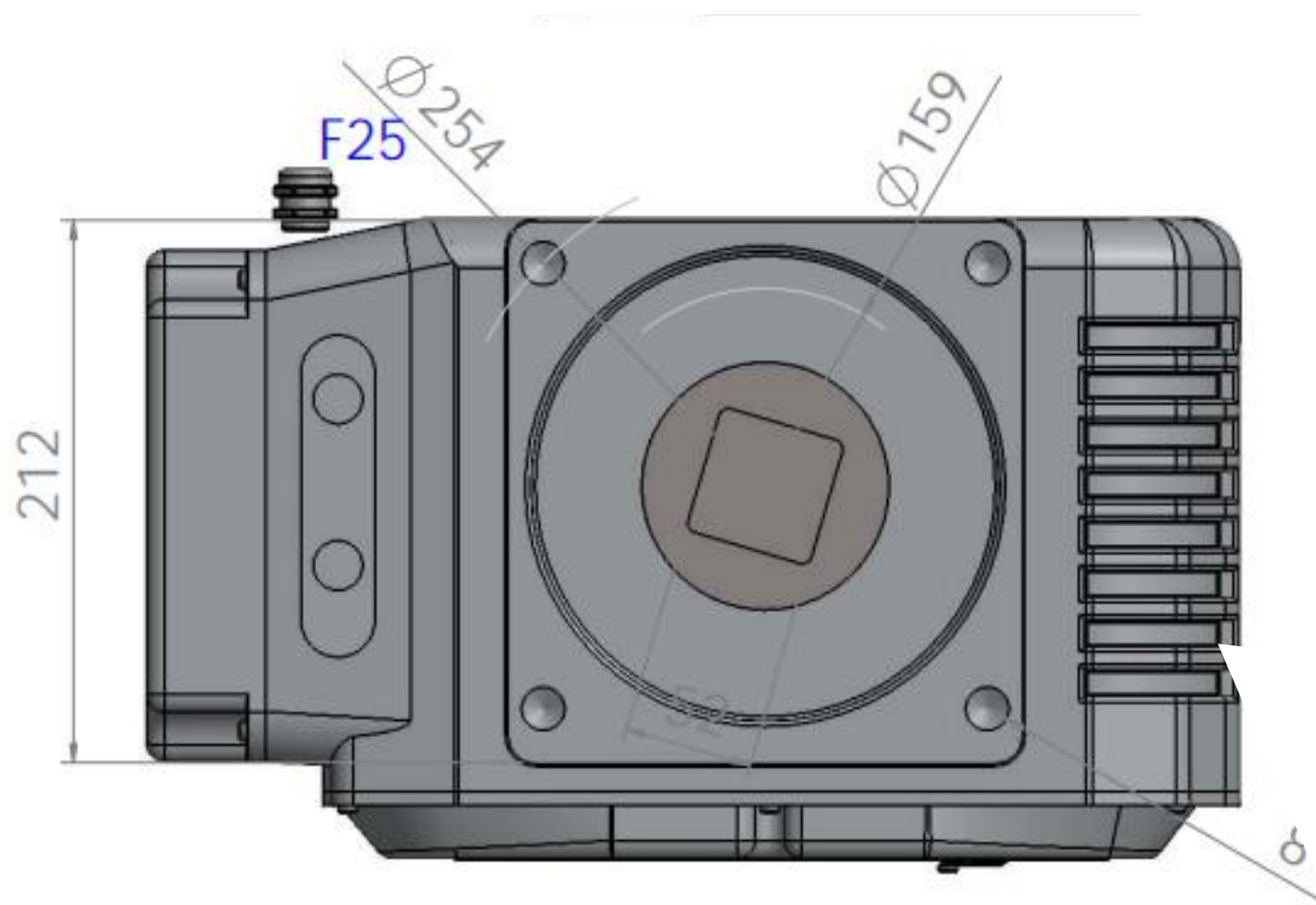
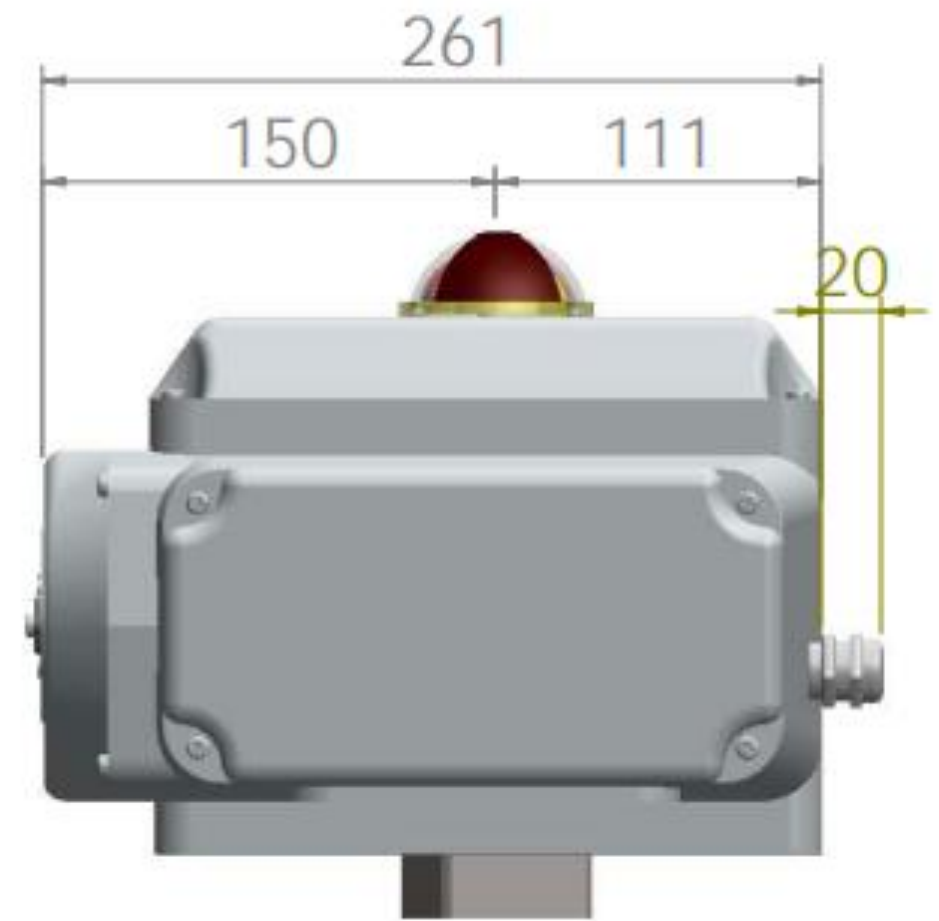
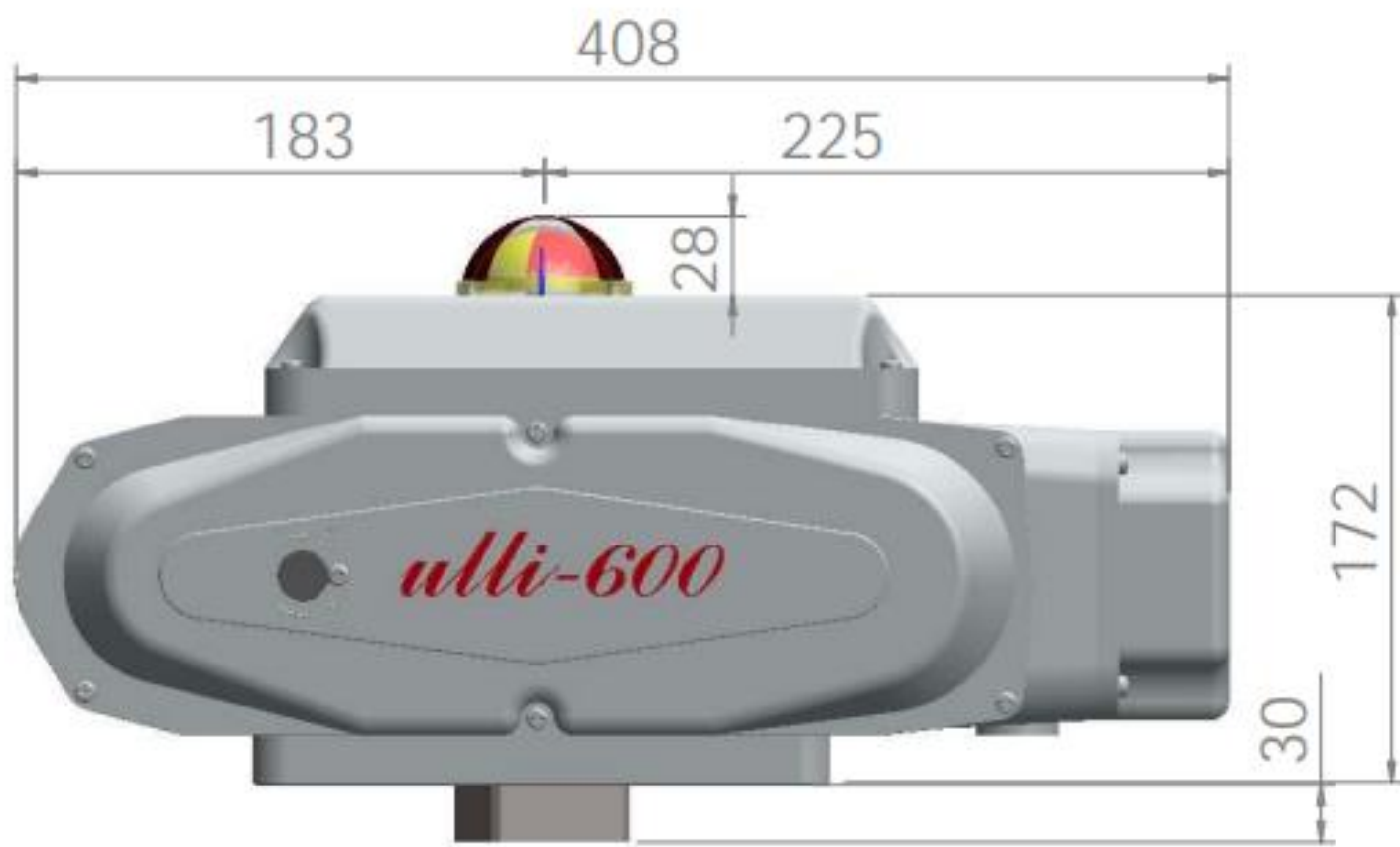
ulli-25/50 & digicon-25/50 (male type)



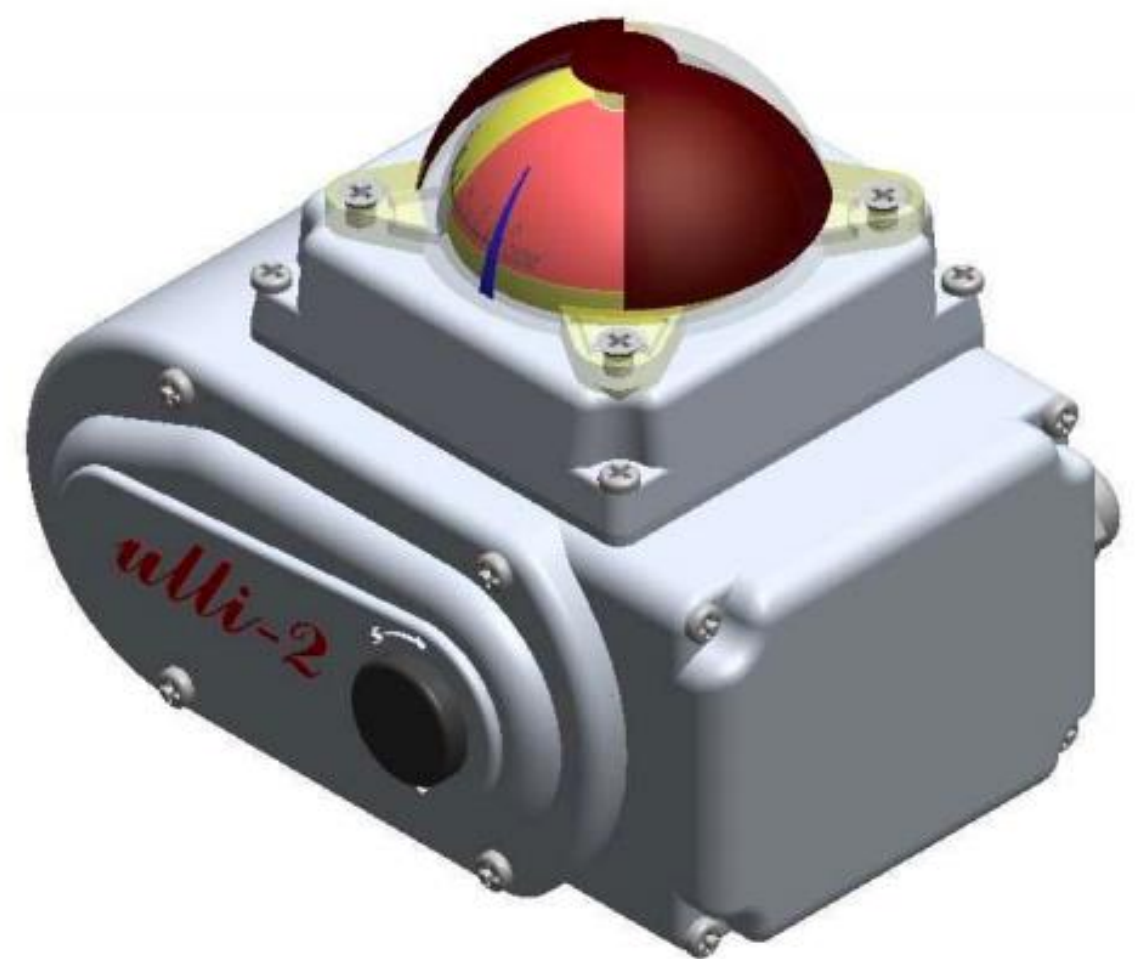
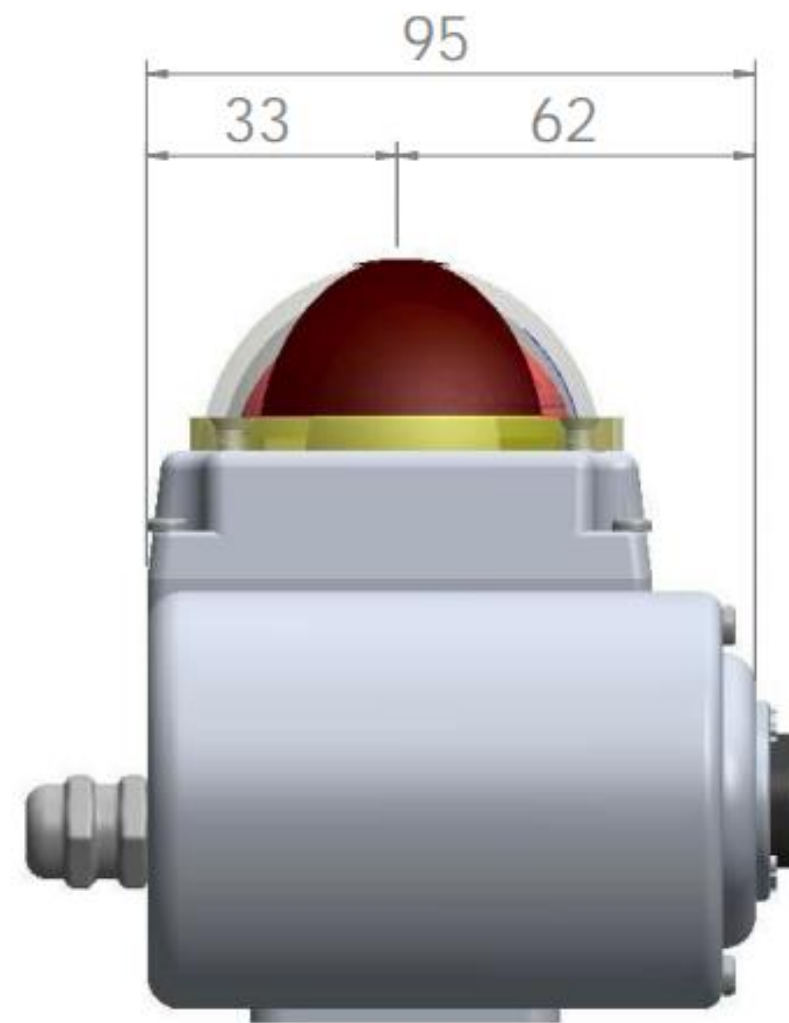
ulli-100/200 & digicon-100/200 (male type)



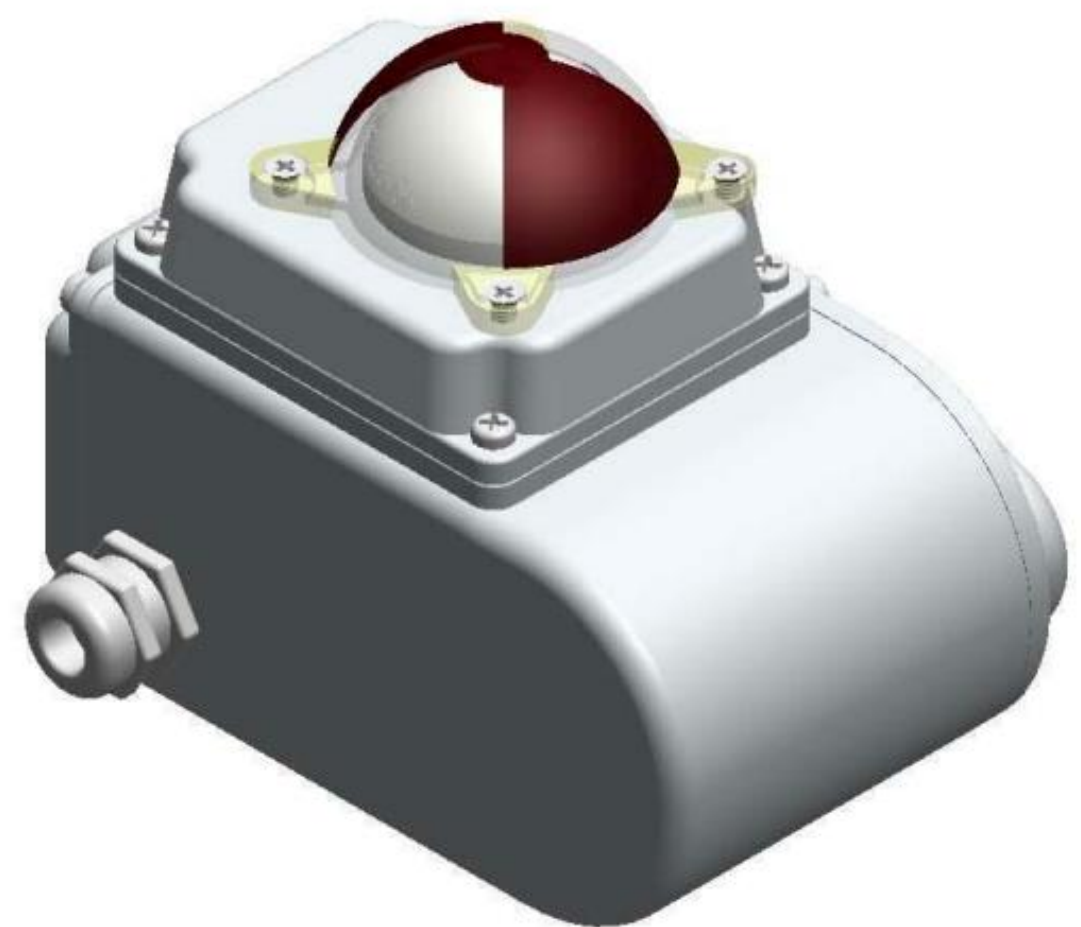
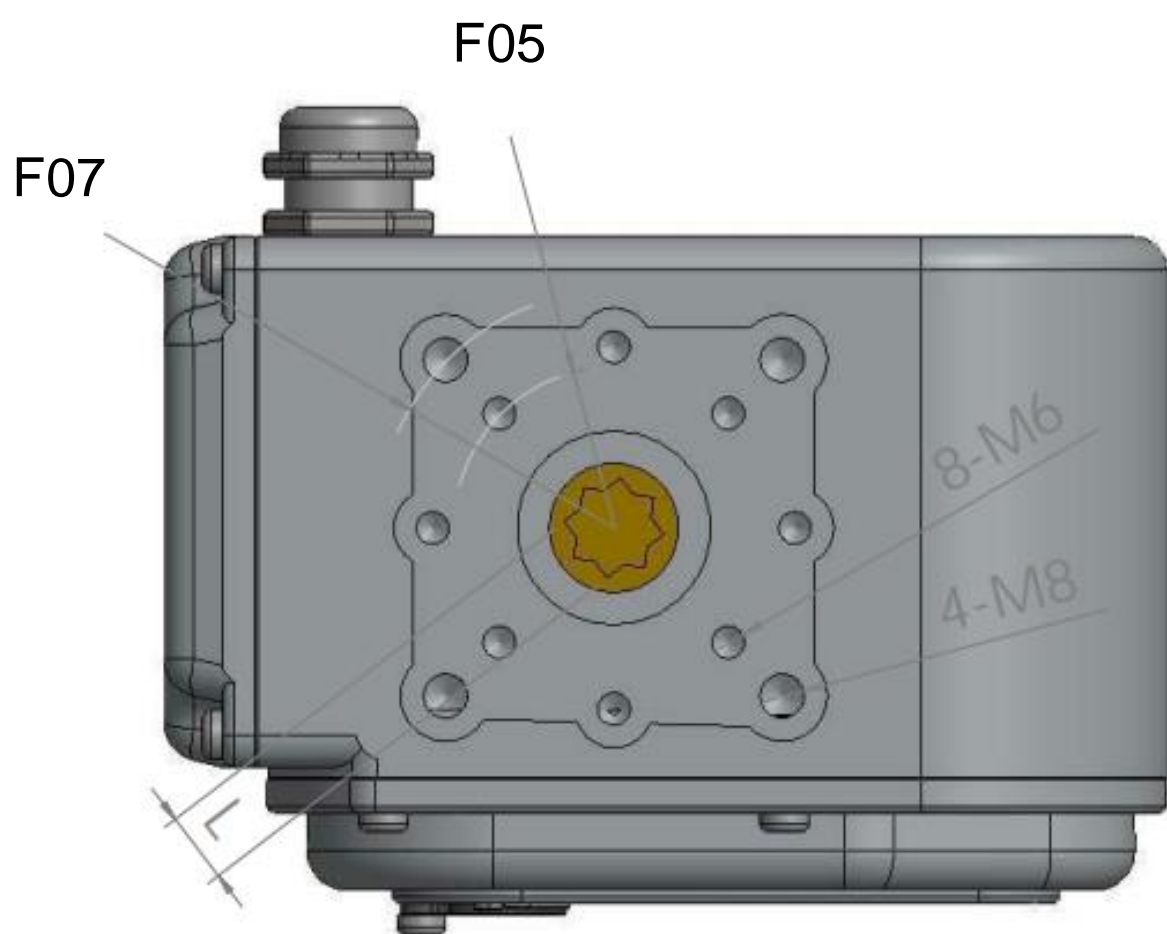
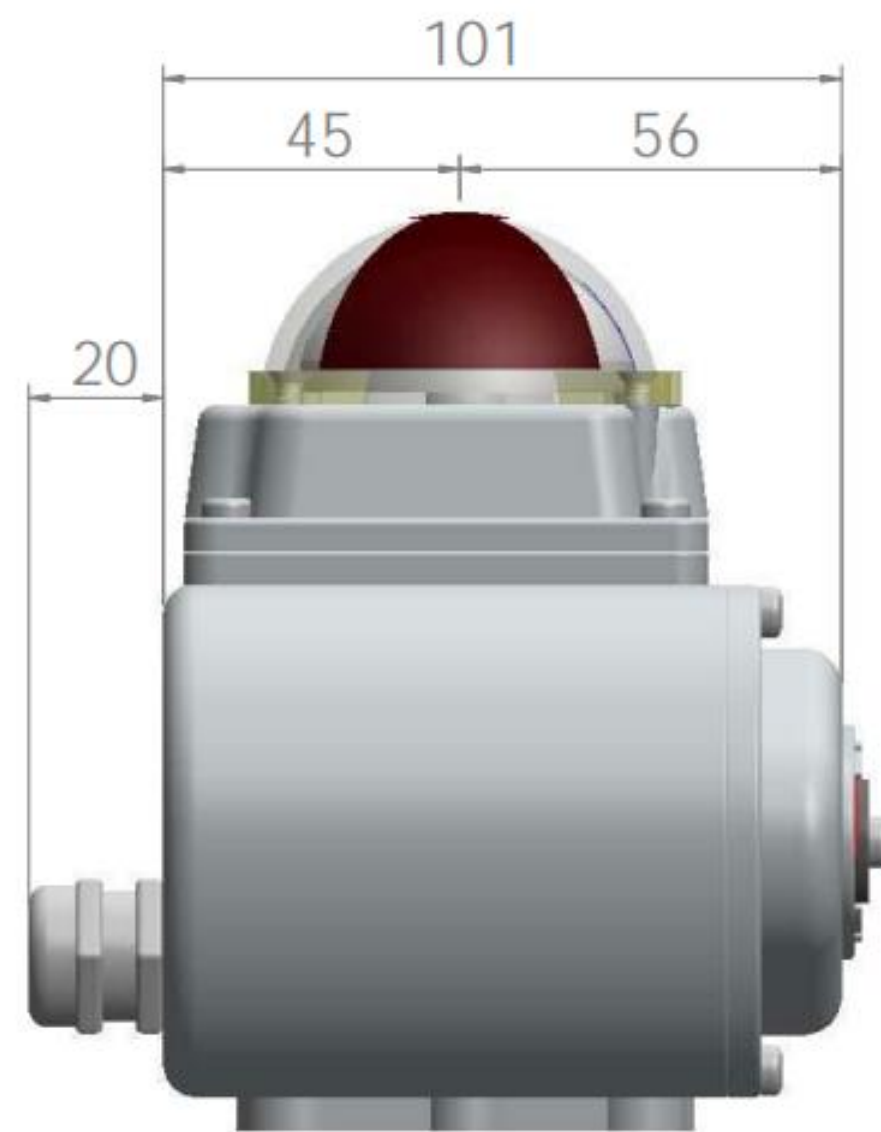
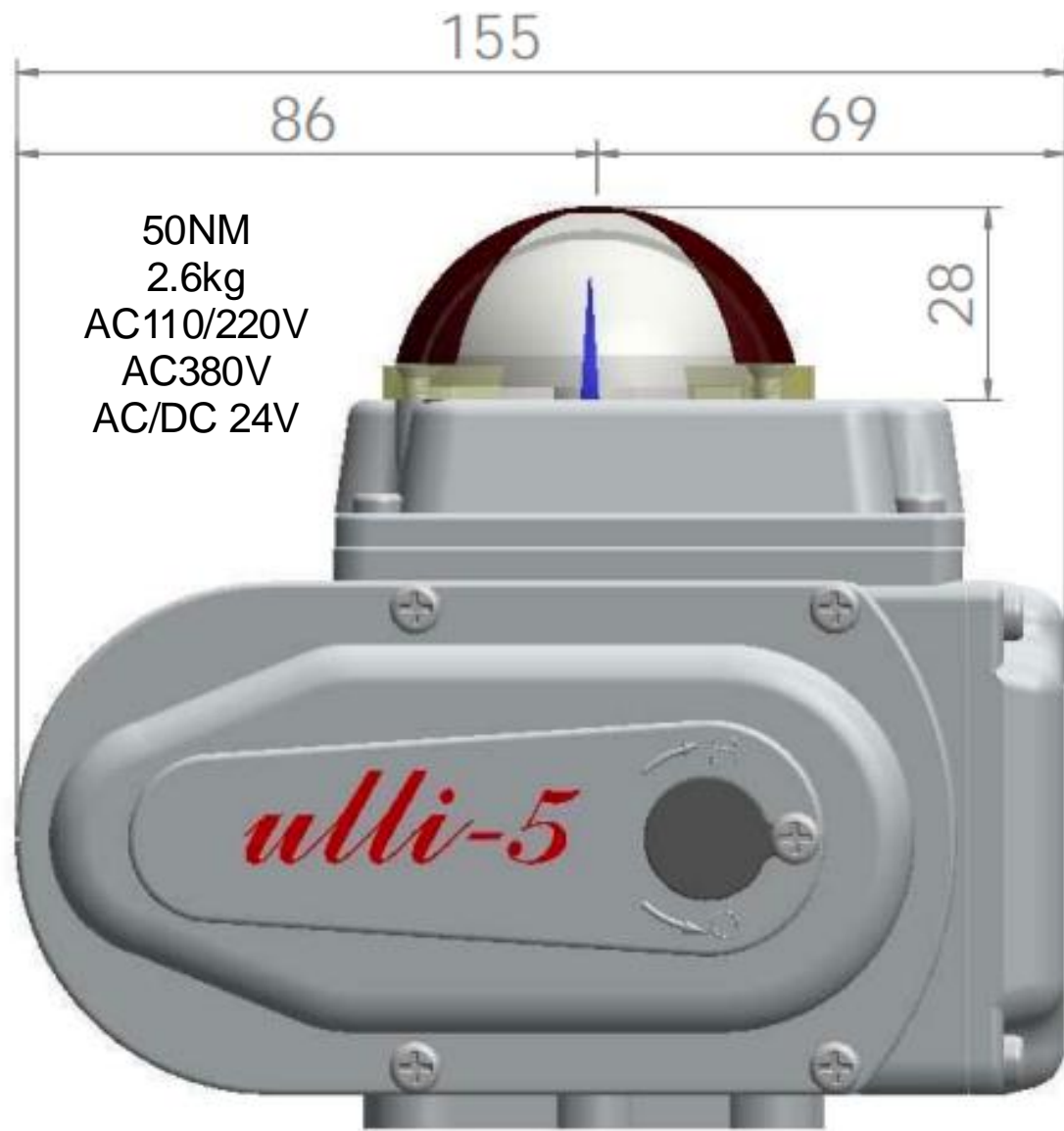
ulli-400/600 & digicon-400/600 (male type)



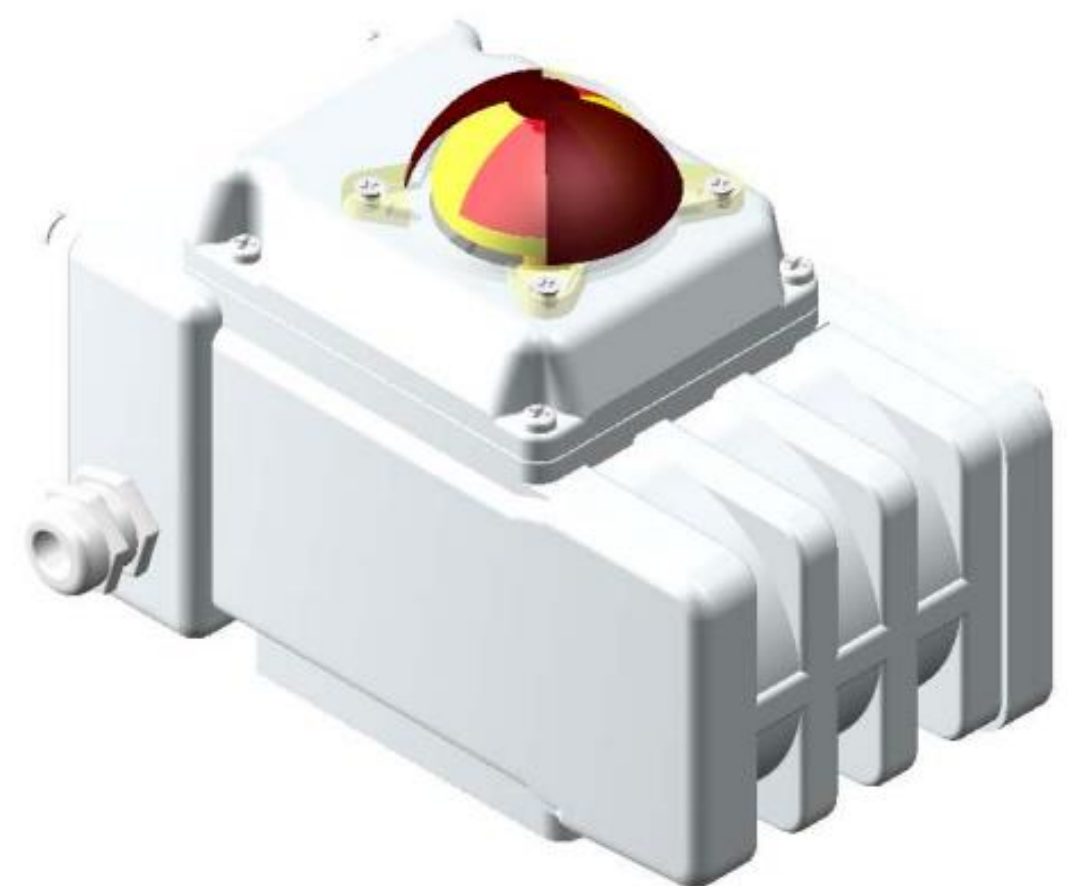
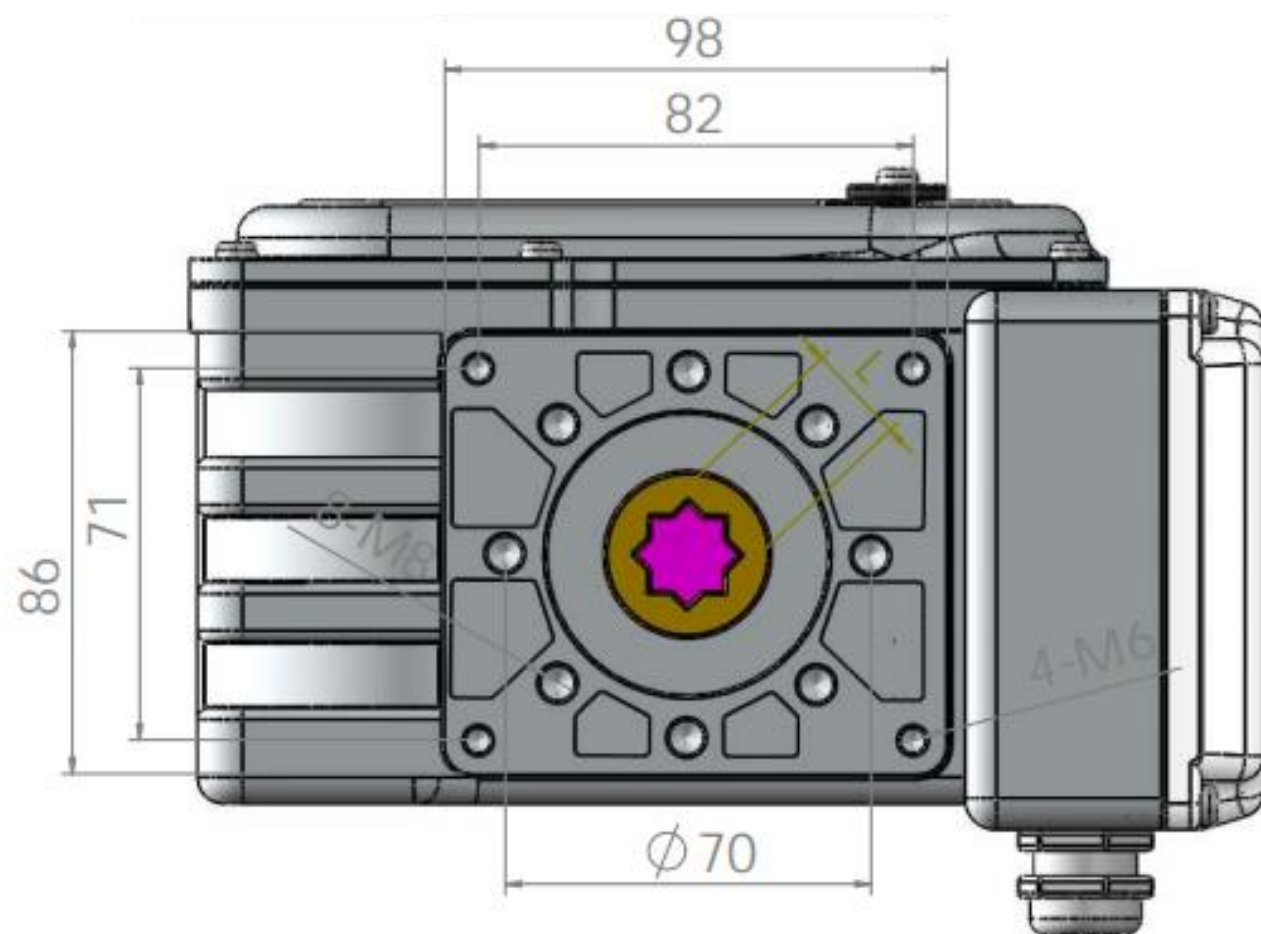
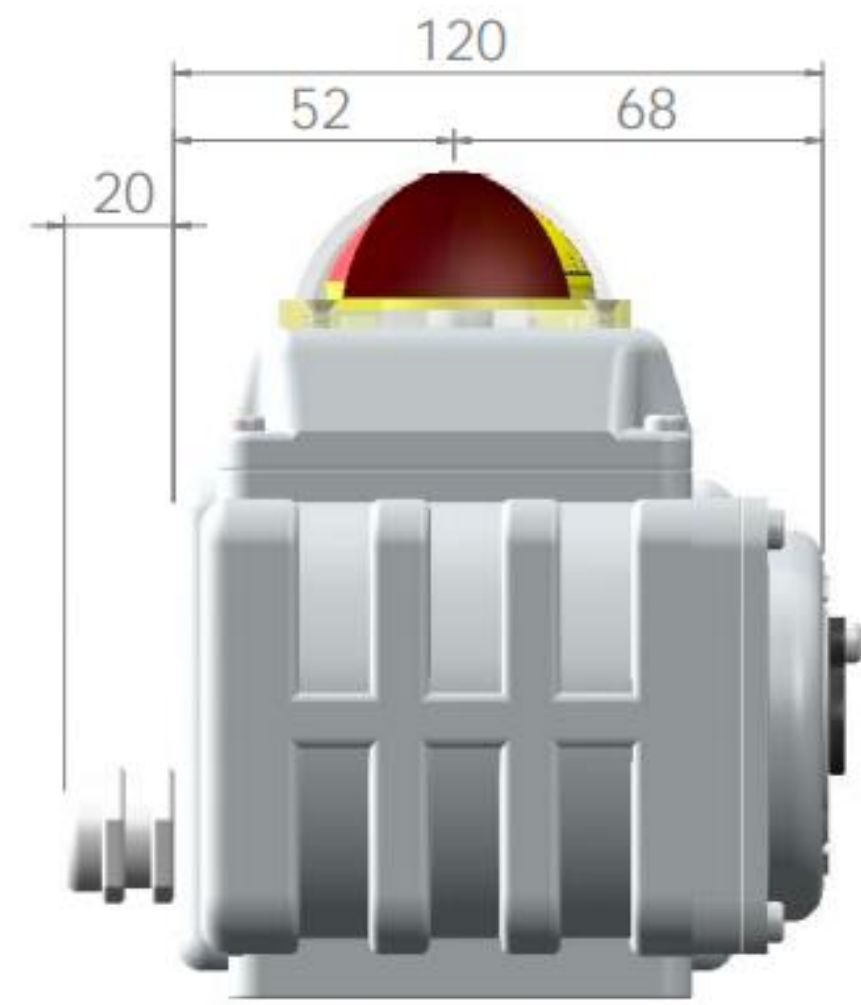
ulli-2 (female type)



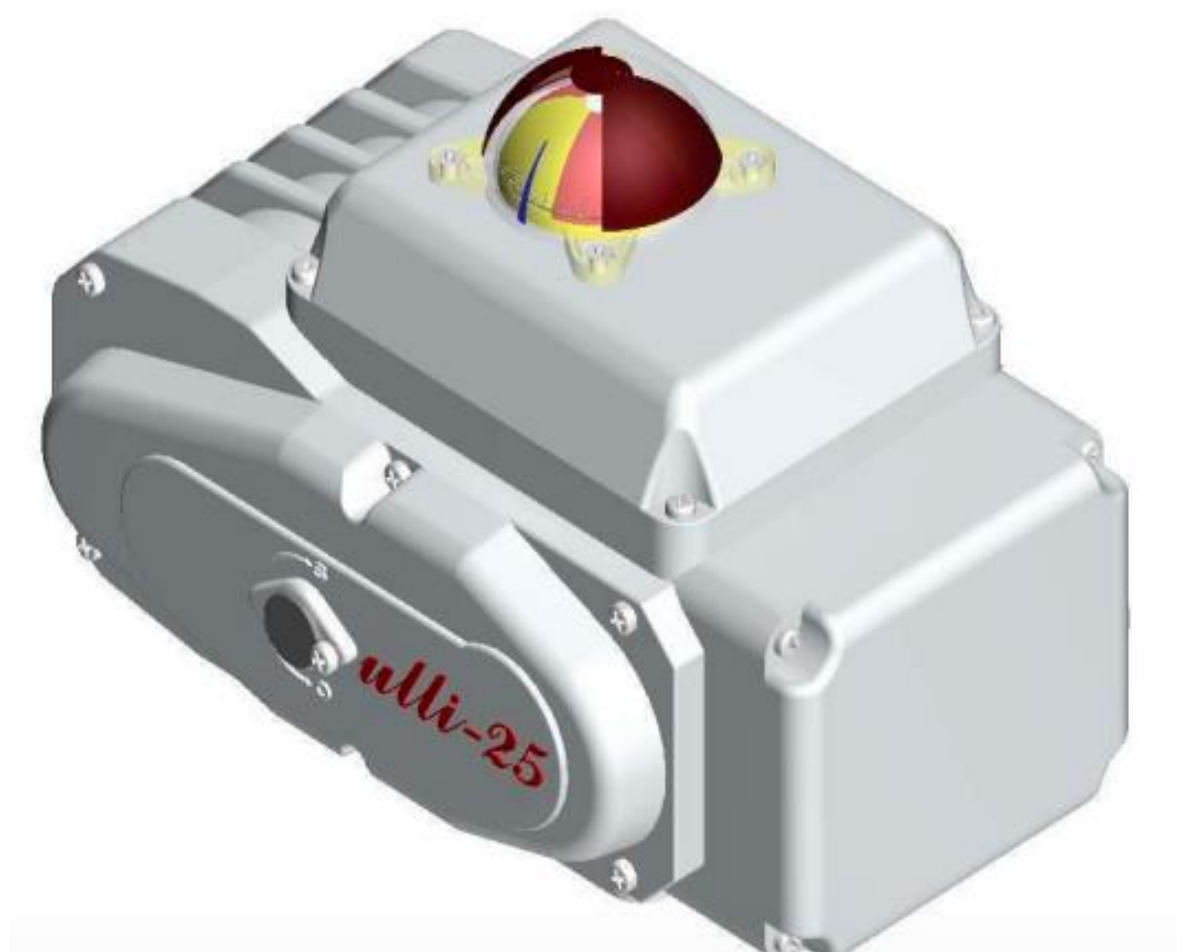
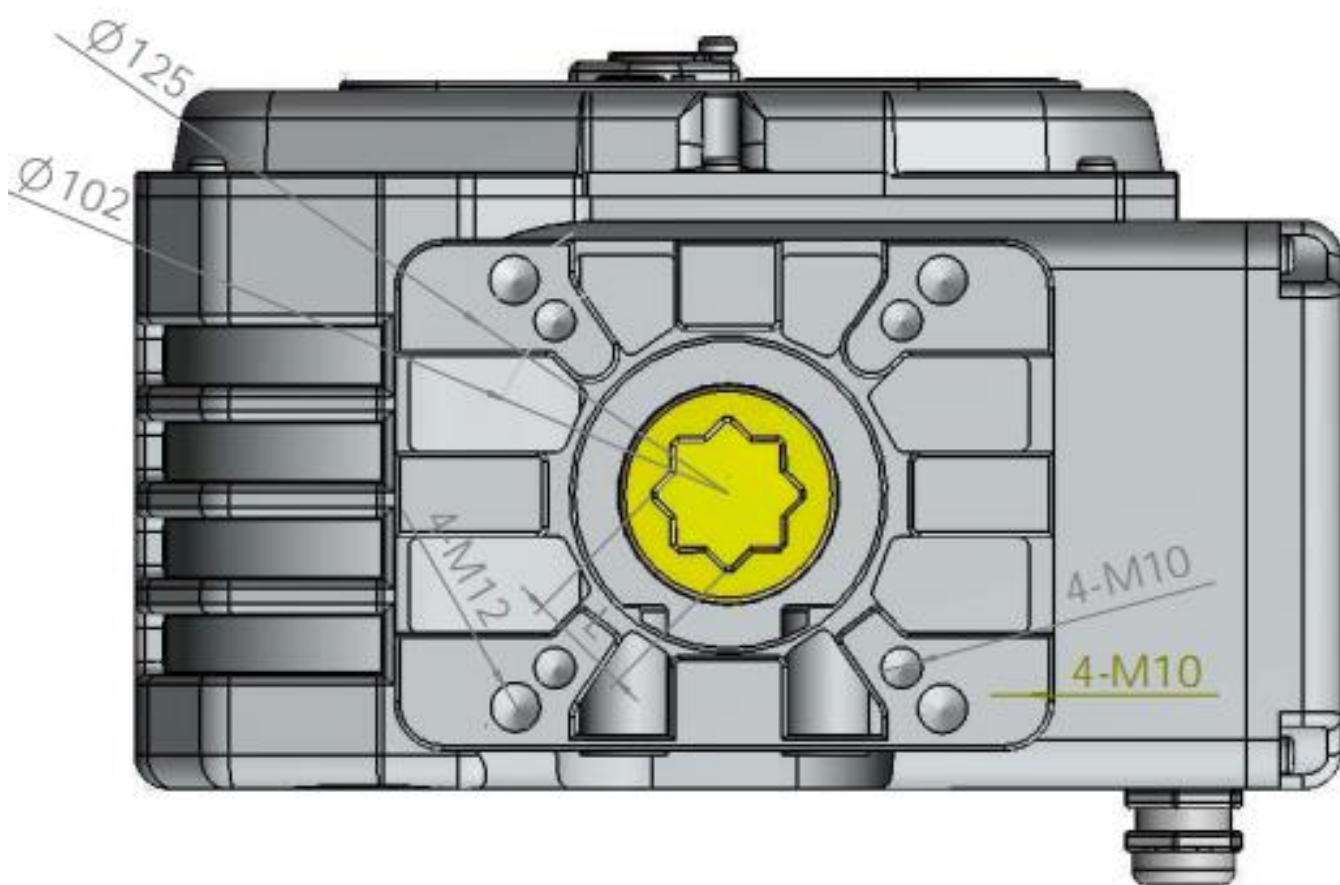
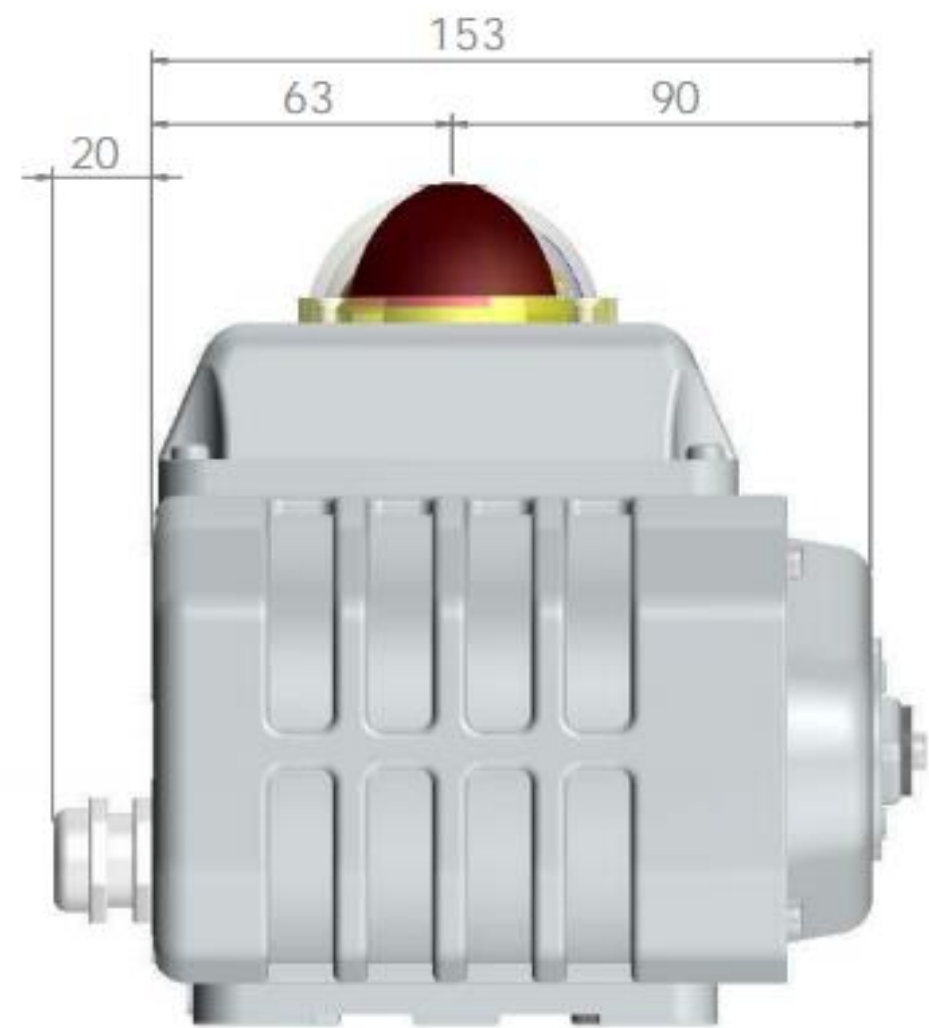
ulli-5 (female type)



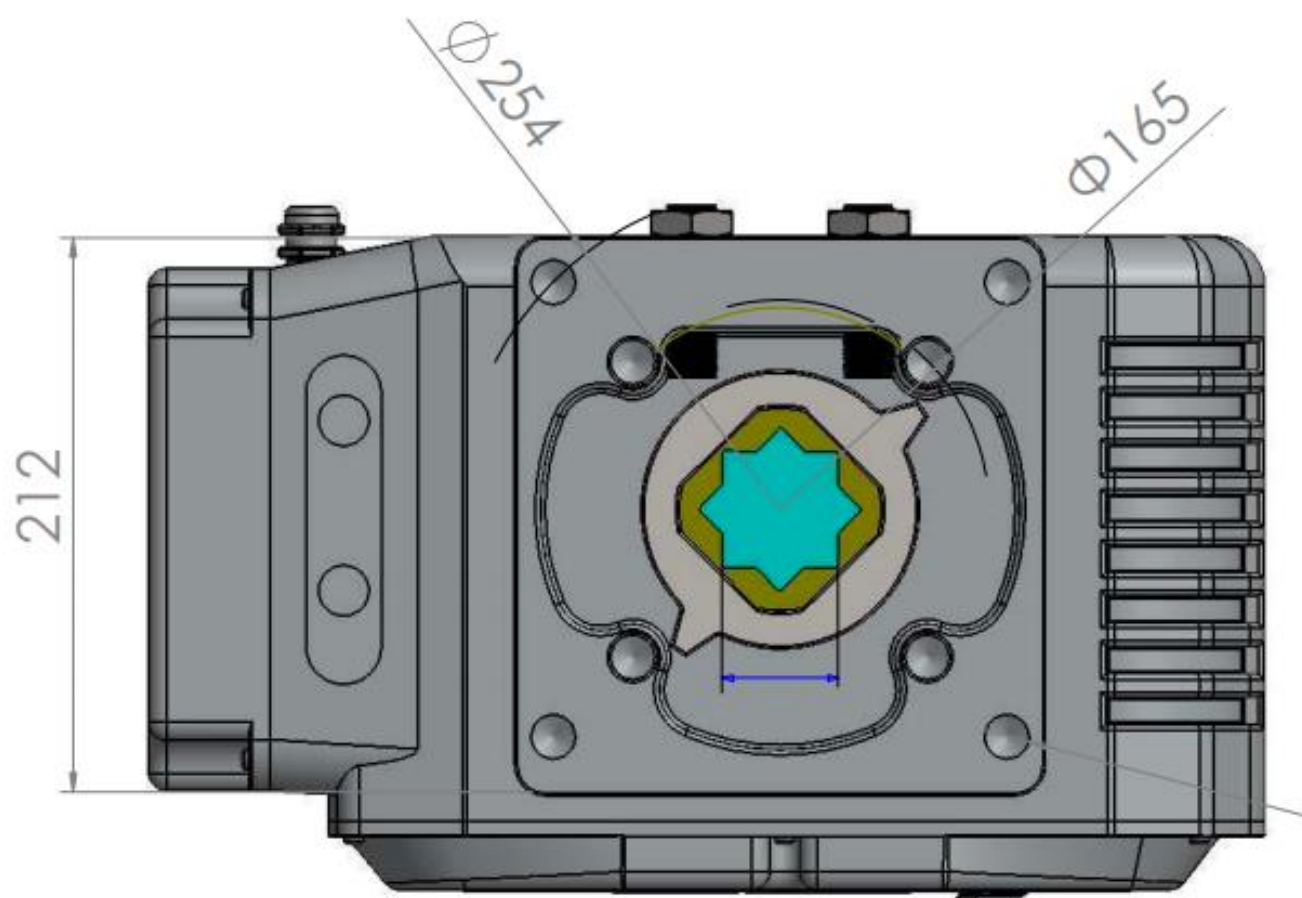
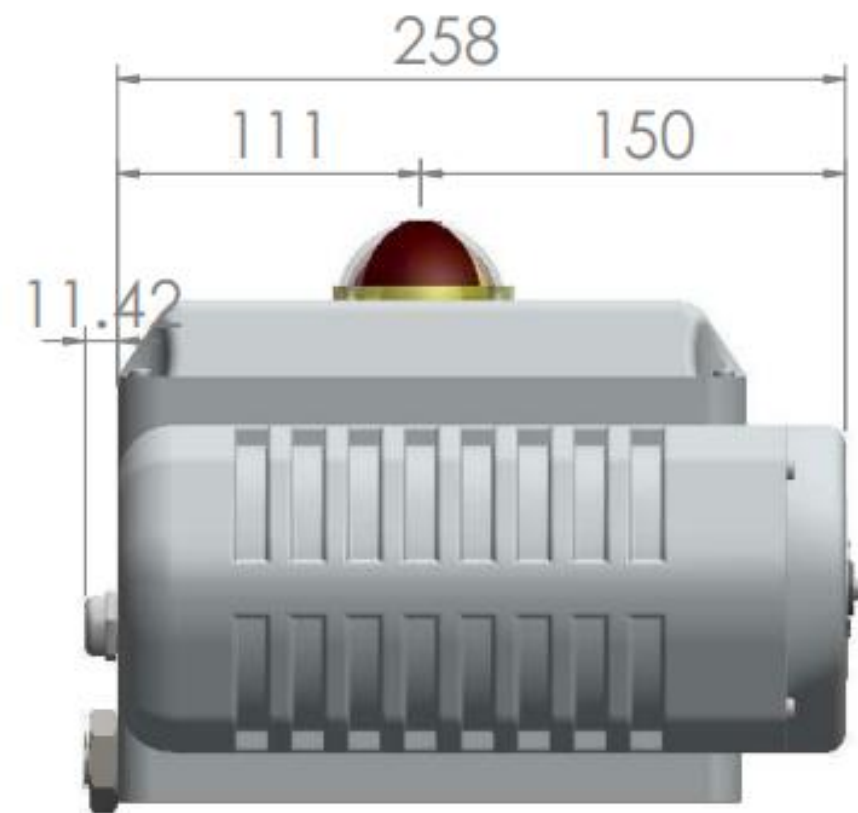
ulli-10 digicon-10 (female type)



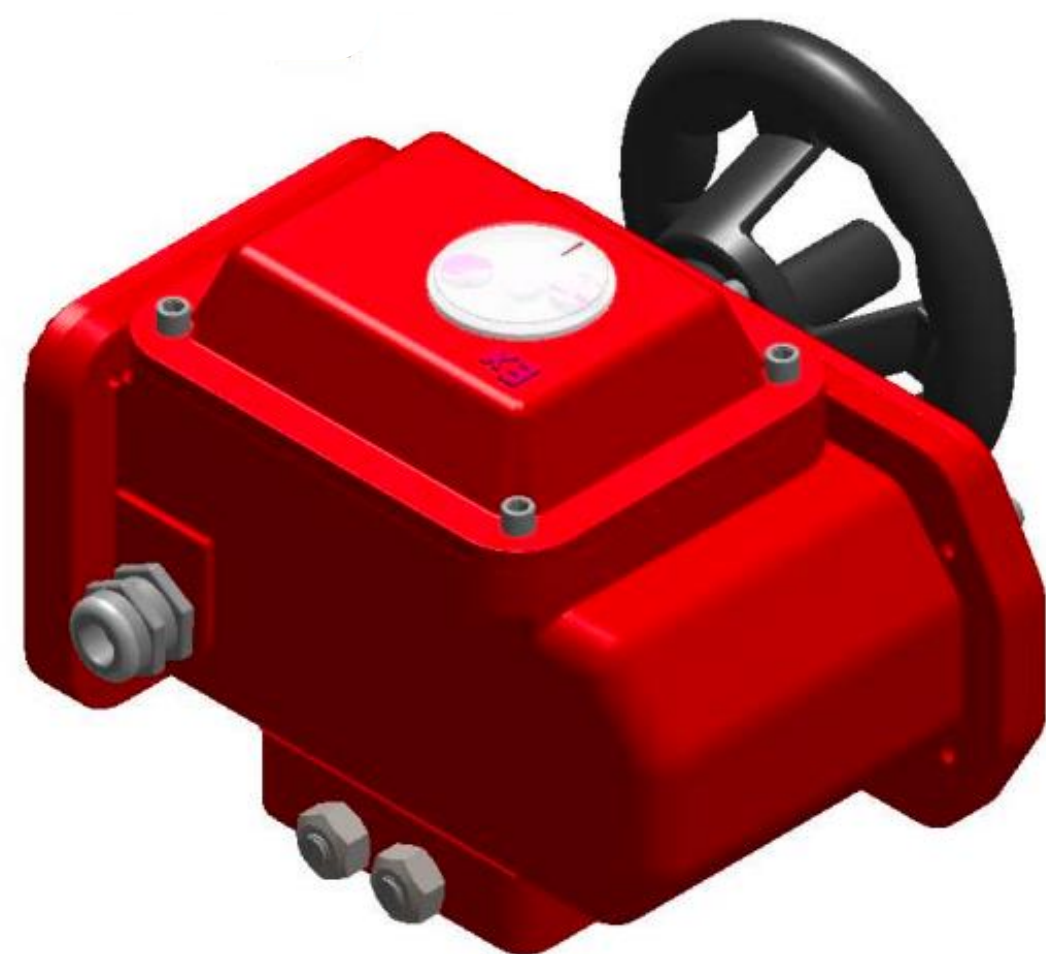
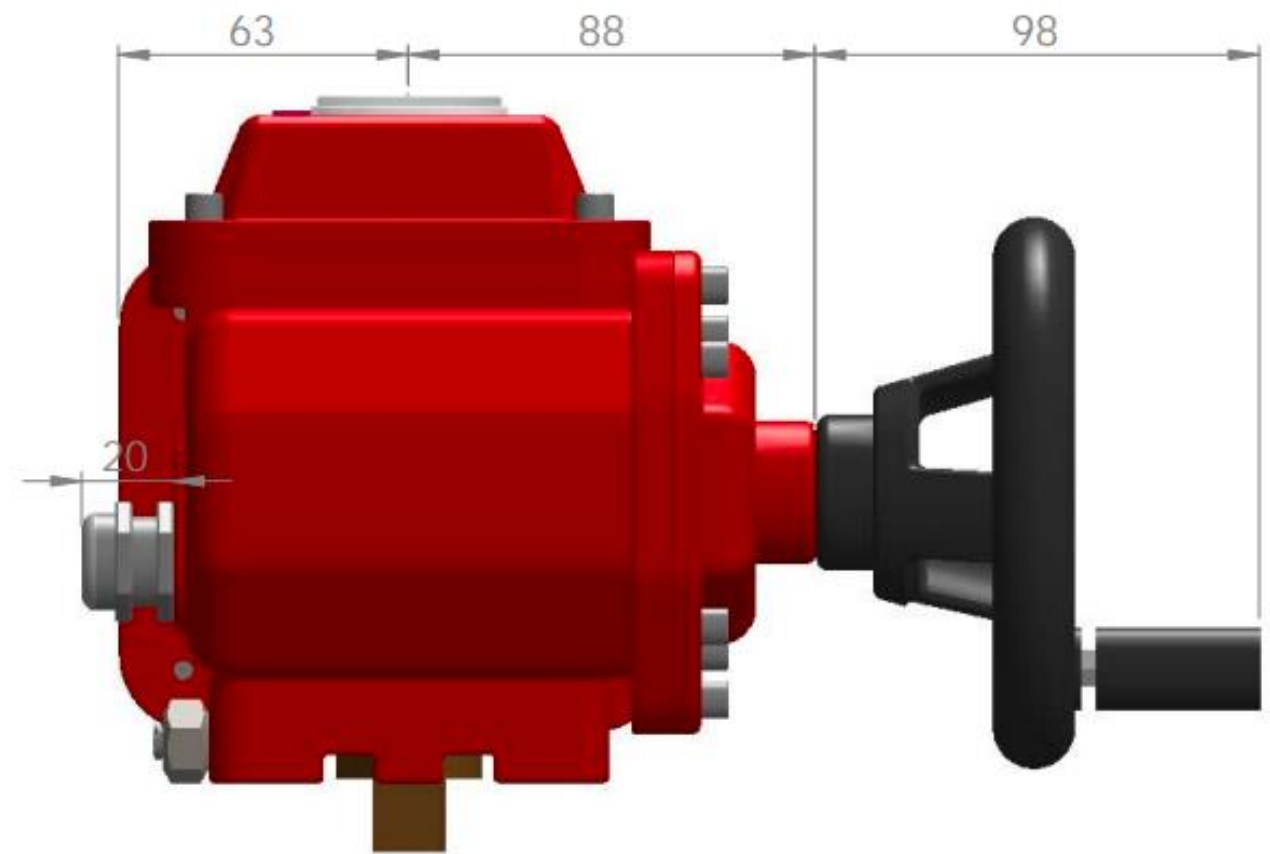
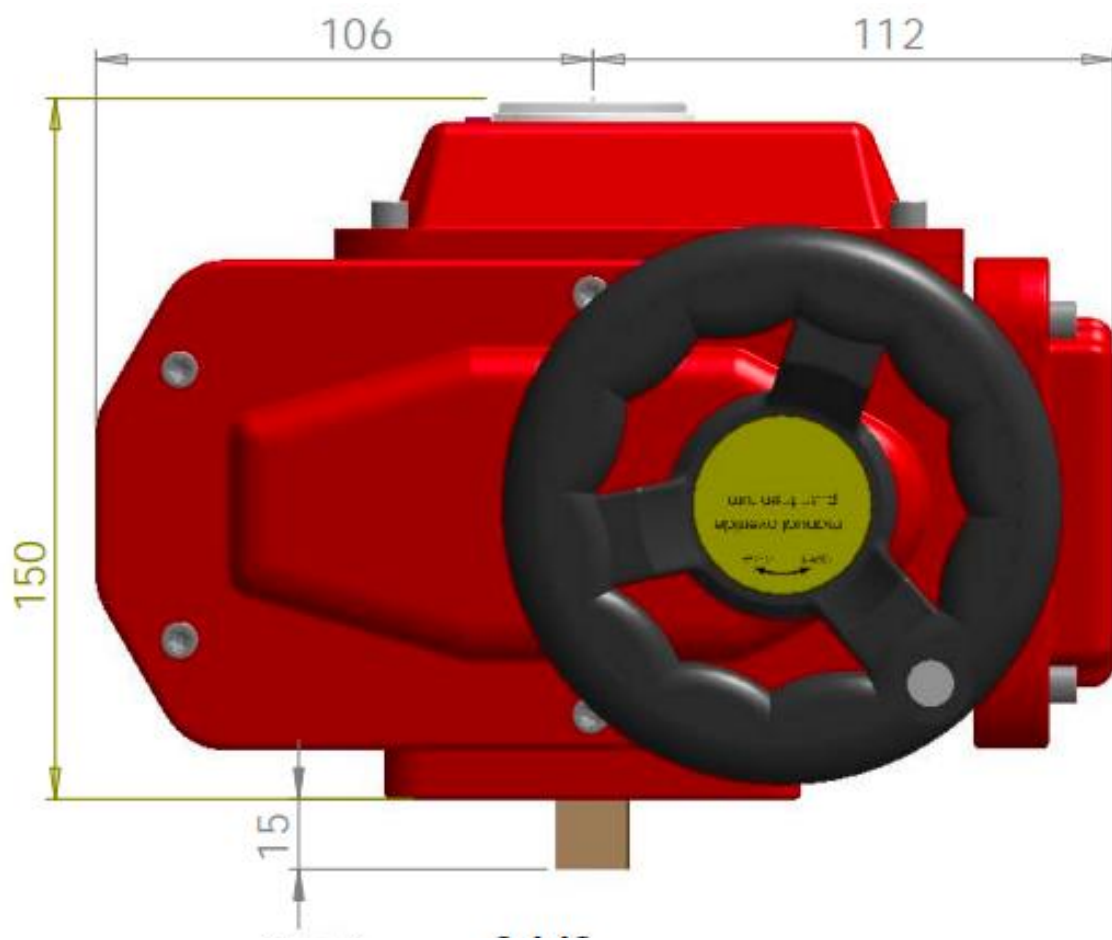
ulli-25/50 digicon-25/50 (female type)



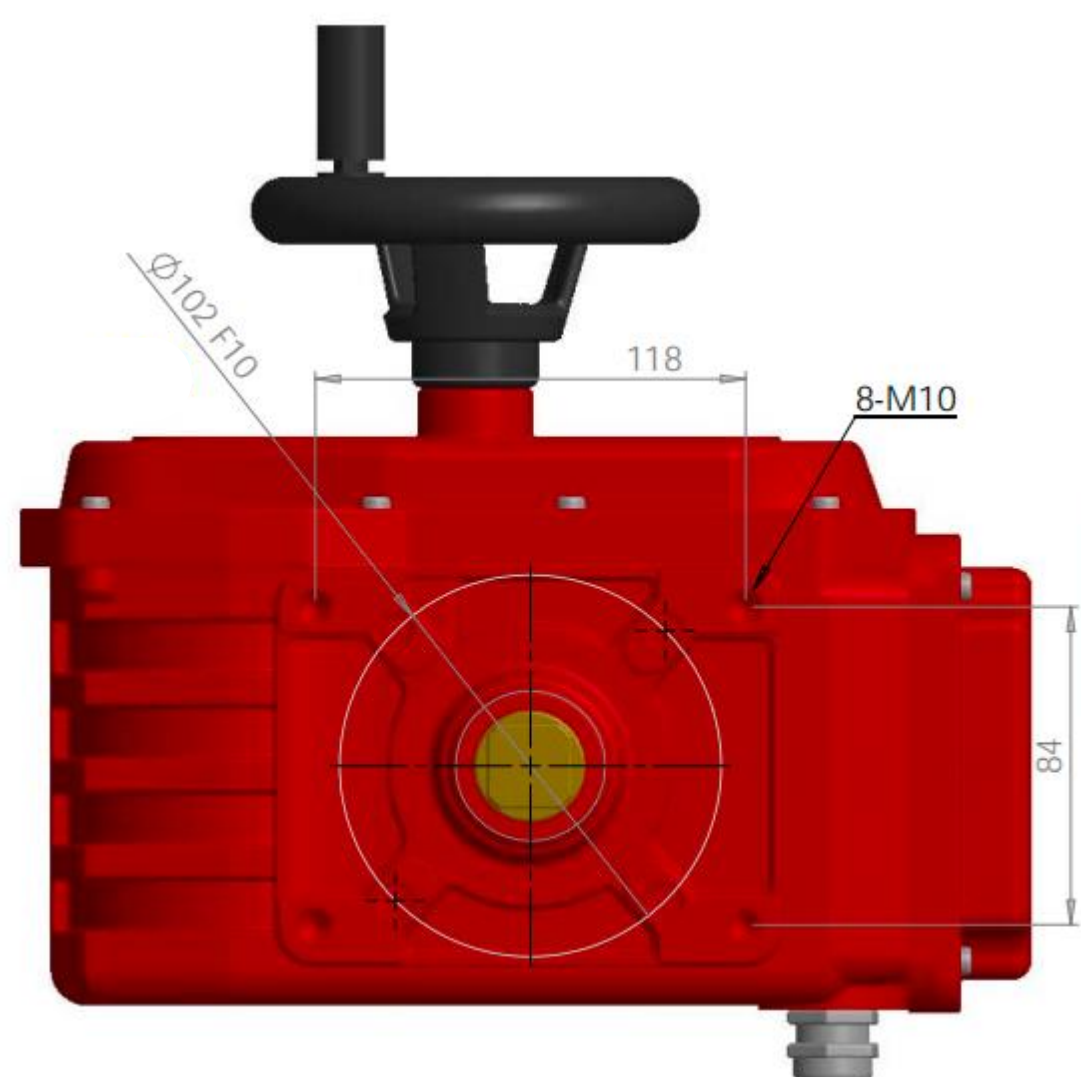
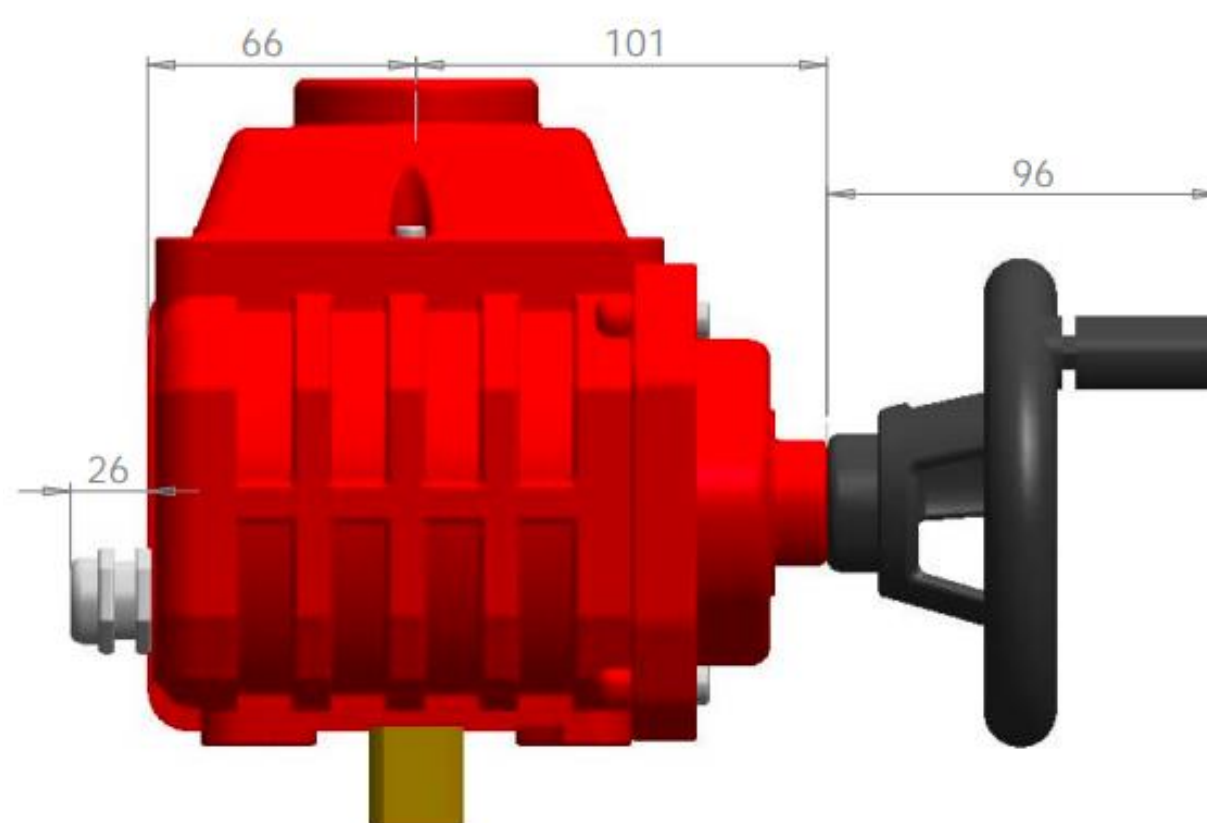
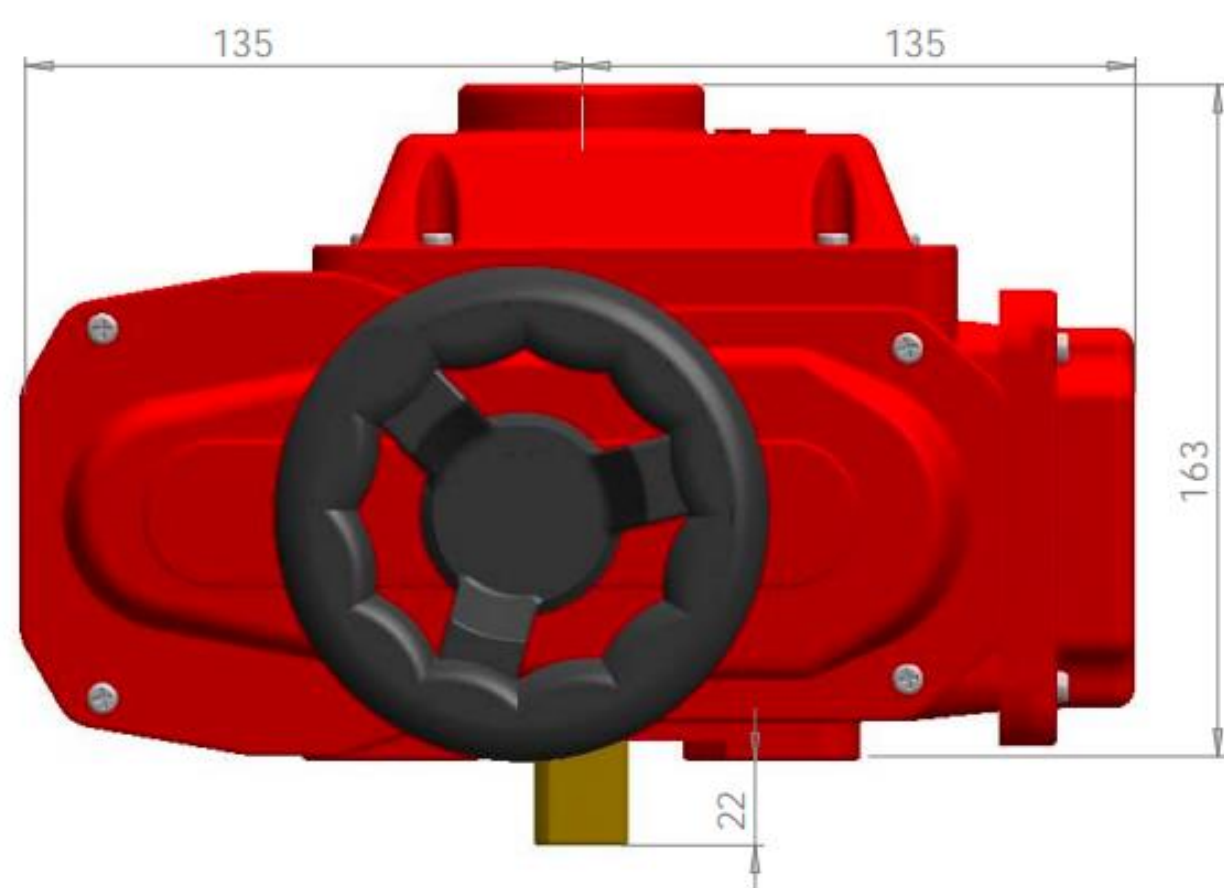
ulli-400/600 digicon-400/600 (female type)



ulli-06/16EX digicon-06/16EX



ulli-25/50EX digicon-25/50EX



Customise your products:

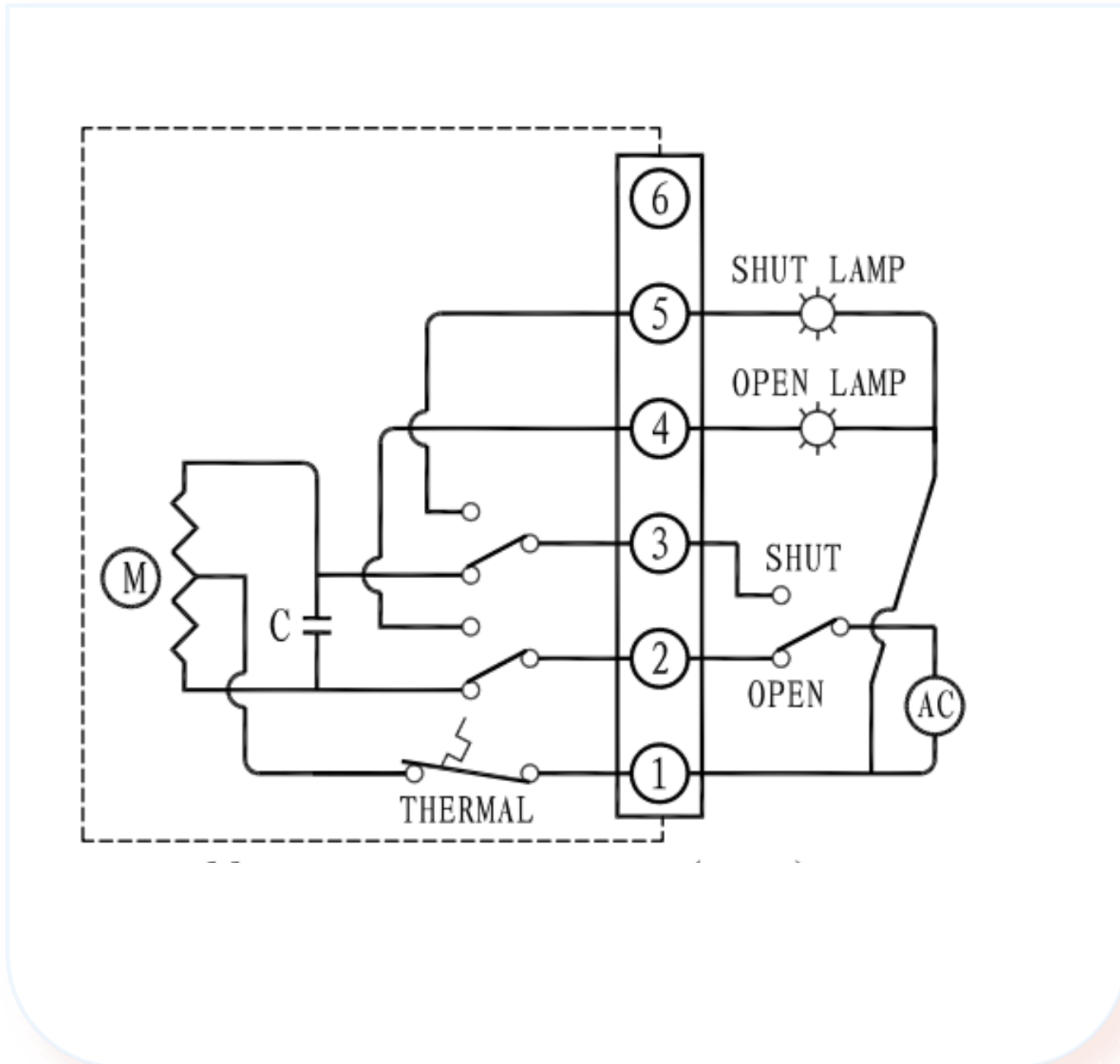
1	Viewing Window Type	  <p>Flat Viewing Window Spherical Viewing Window</p>	Free
2	Female OR Male Type	<ul style="list-style-type: none"> • Female(recessed connection) <ul style="list-style-type: none"> - more compact, smaller diameter, high precision • Male (protruding connection) <ul style="list-style-type: none"> - Taller height, larger diameter, more flexible installation 	Free
3	Outer Cover Colour	 <p>Black Blue Gray</p>	Free
4	Output Shaft Types	<ul style="list-style-type: none"> • Four-Square Output Shaft • Round-Hole Output Shaft • Double-D Output Shaft • Keyed Output Shaft 	Free
5	Voltage Options	<ul style="list-style-type: none"> • AC220V Single-Phase • AC380V Three-Phase • AC110V Single-Phase • AC24V Single-Phase • DC24V 220V etc. 	Free
6	Handwheel	 <ul style="list-style-type: none"> • Disengagement functionality. • Shared across multiple models 	Chargeable
7	Power Outage Return	In case of power failure, follow preset instructions to open or close the valve to ensure safety and property protection.	Chargeable
8	Electronic Overload Protection	<ul style="list-style-type: none"> • Protection against bidirectional overload • Overload output terminals • Multiple voltage options 	Chargeable
9	Brushless DC Motor Drive	<ul style="list-style-type: none"> • High efficiency. • Low heat output. • High configuration and long lifespan. 	Chargeable
10	Current Position Feedback (Current Position Transducer)	<ul style="list-style-type: none"> • Protection against bidirectional overload • Overload output terminals • Multiple voltage options 	Chargeable
11	Advanced H-Class Configuration	<ul style="list-style-type: none"> • Includes advanced protective labels with high standards. • For details, please refer to the H-Class configuration page 	Chargeable

Note:

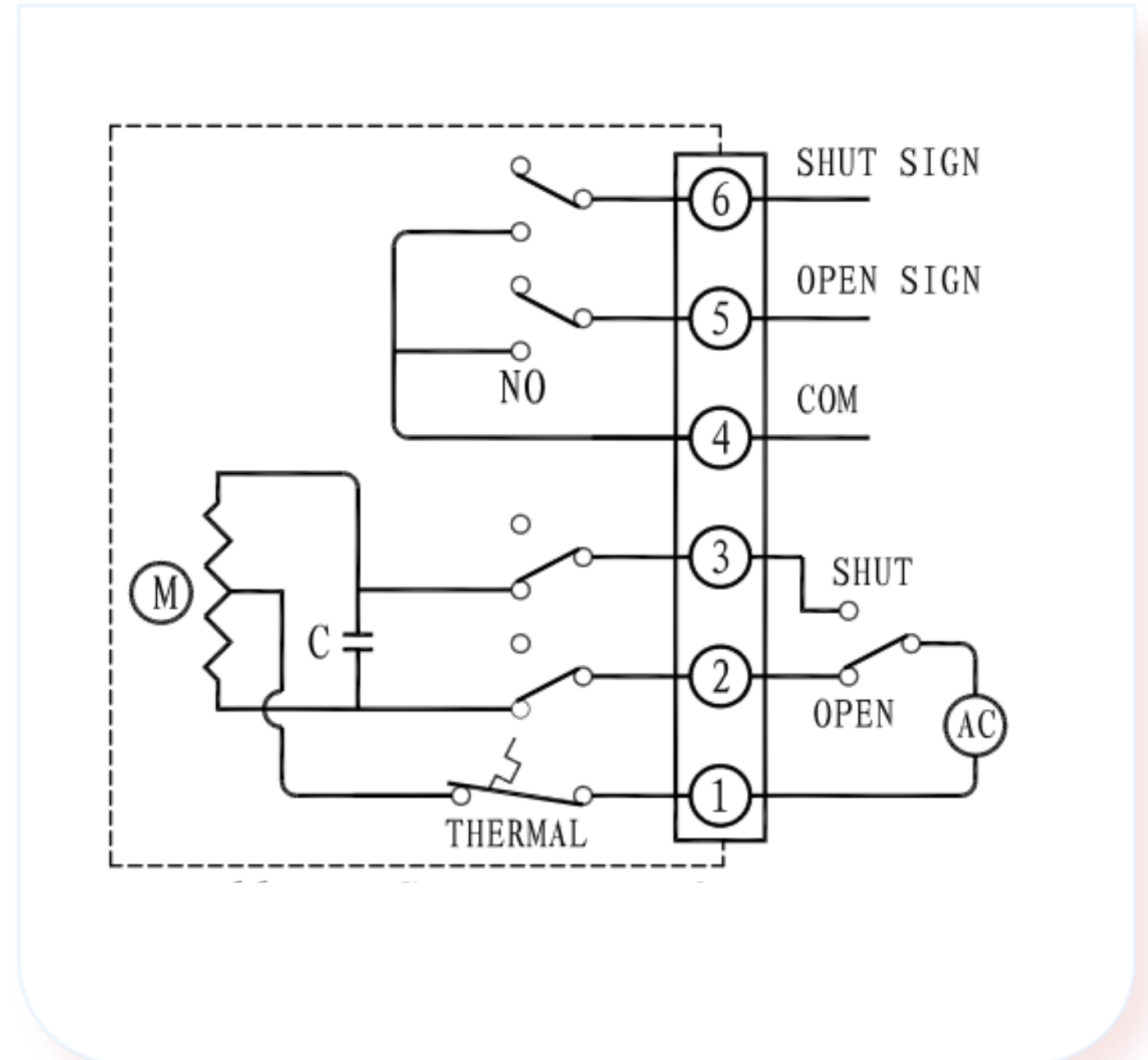
All features and functionalities listed above can be mixed and matched to suit your specific requirements. We are continuously upgrading and adding new options to our offerings. For tailored solutions and further customization needs, please contact us directly.

Wiring:

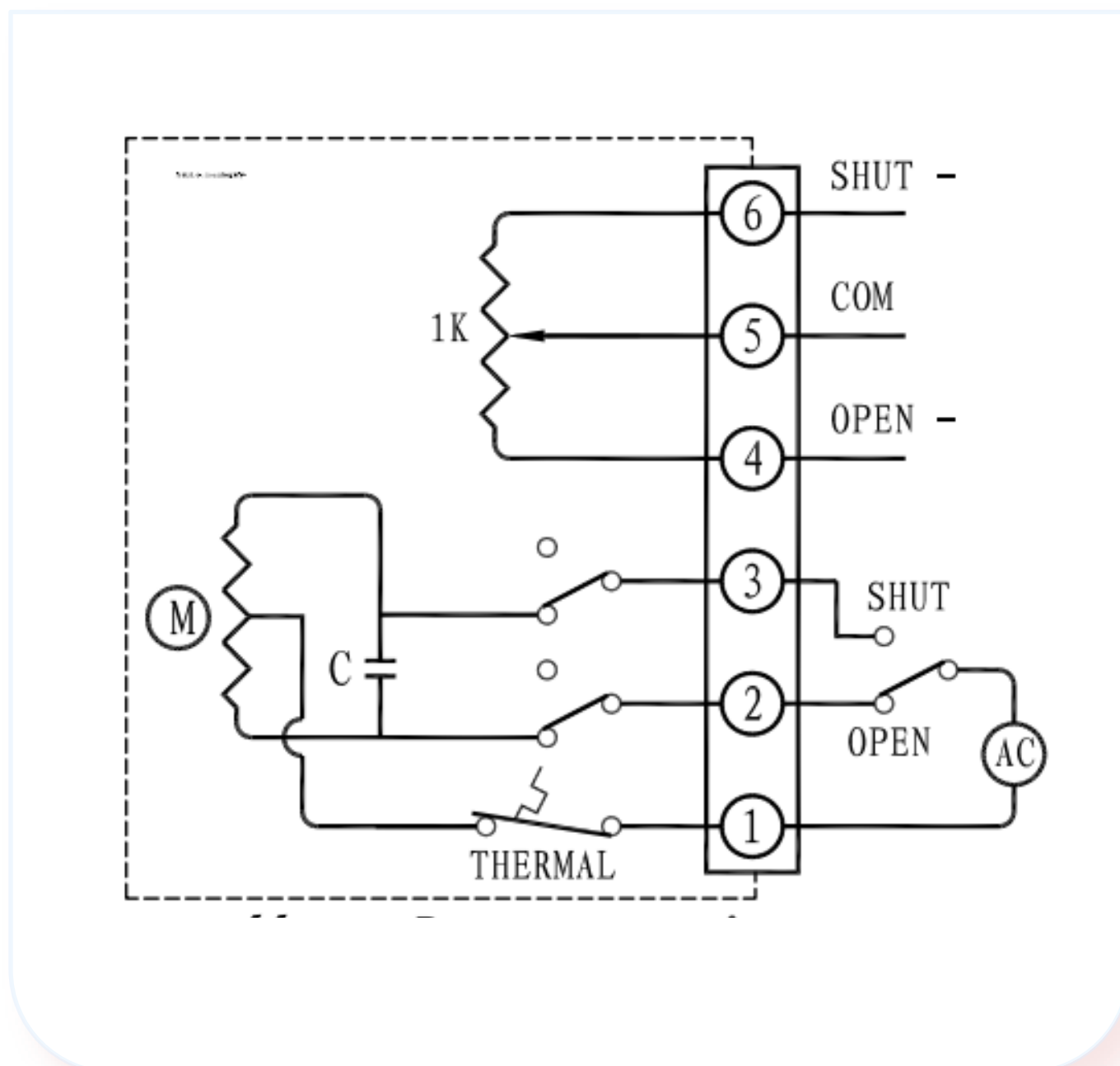
ulli-xx connection(std)



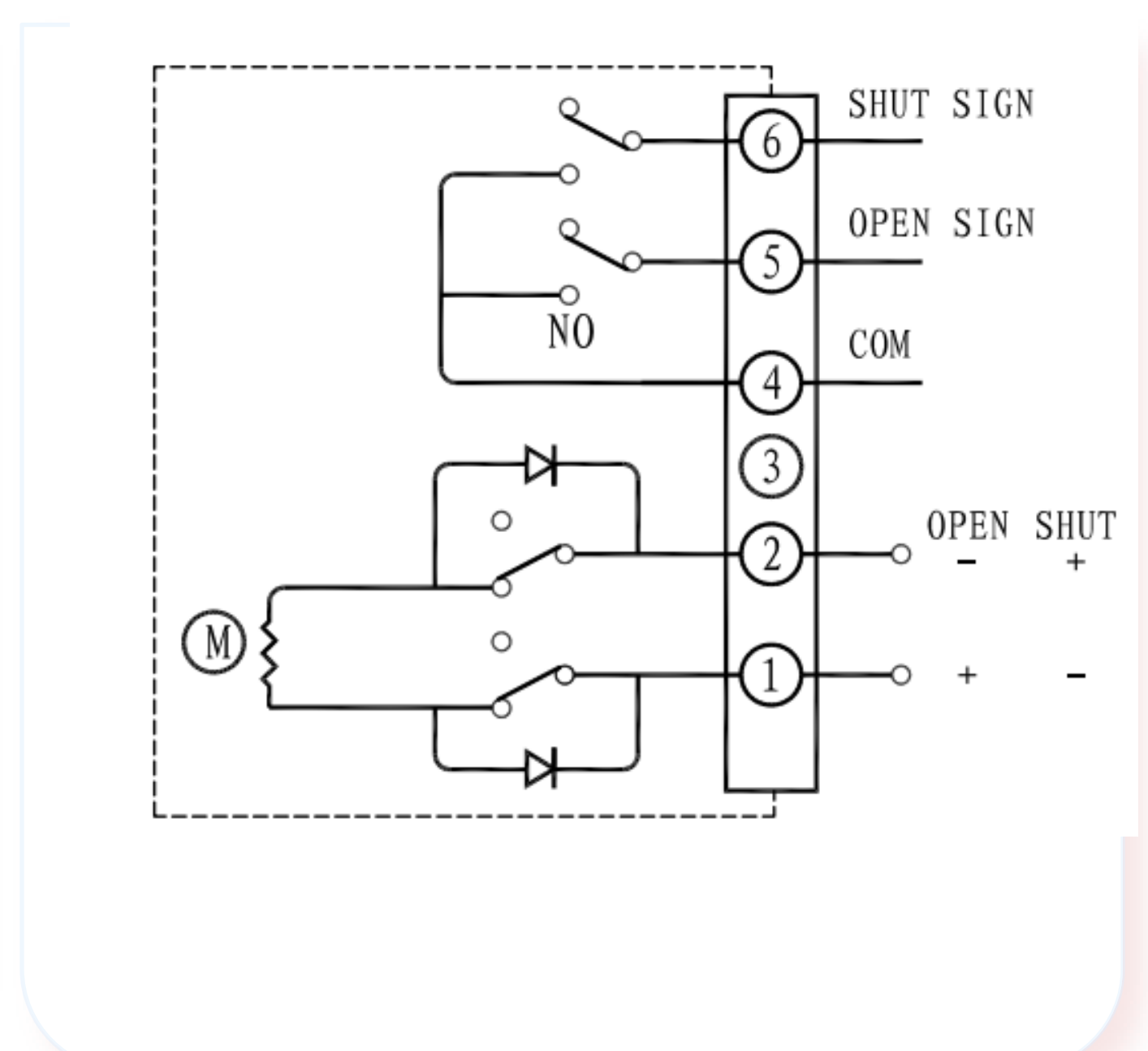
ulli-xx S connection



ulli-xx R connection)



DC power connection



SINCE 2004, AOITEC HAS PROVIDED AUTOMATION SOLUTIONS FOR A VARIETY OF INDUSTRIES AROUND THE WORLD

VISIT AOITECGLOBAL.COM TO LEARN MORE ABOUT OTHER AOITEC PRODUCTS AND LOCATIONS NEAR YOU

Headquarter

AOITEC (GD) Co., LTD.
Floor 11, Building 18 and Building 5, Xinghe Artificial Intelligence Industrial Park,
Zhongkai Tech Zone, Huizhou

Offices

China
Taiwan
Singapore

Email: annaxiao@aoitec.ltd

WhatsApp: +65 86160872

WeChat: 18675525088

Website: www.aoitecglobal.com

All statements, technical details, and recommendations provided in this bulletin are intended for general informational purposes only. For specific requirements and material selection tailored to your application, please consult a Aoitec representative or the factory. Patents have been issued and applied worldwide.

