



Manufacturer of shut-off and control valves

TECHNICAL DATA SHEET

**Electric quarter-turn actuator
ELEPHANT QT-N-003EM-O1-x-U1 blue**



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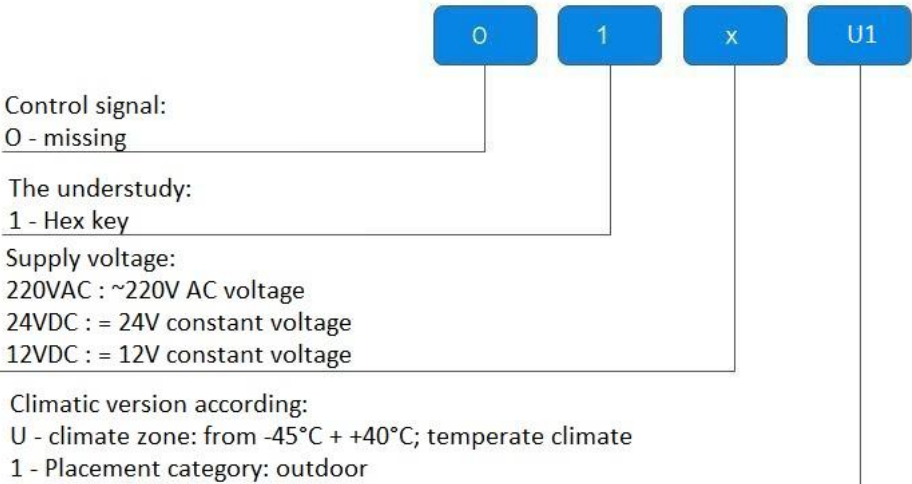
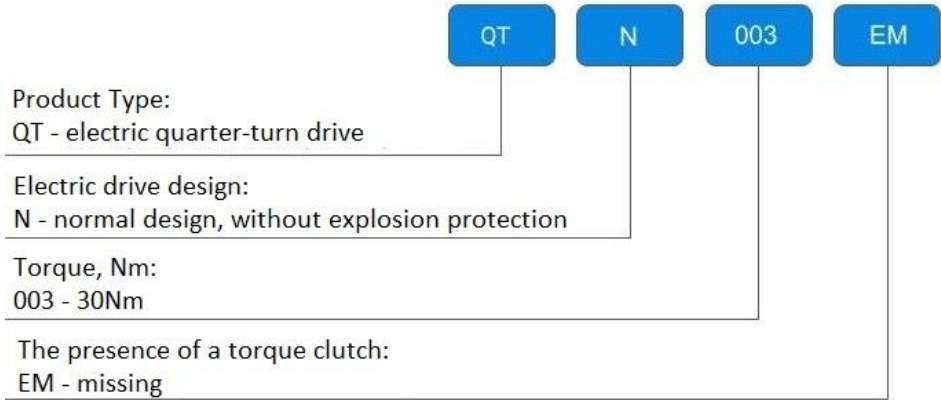
1. GENERAL PRODUCT INFORMATION

1.1. Product name: Electric quarter-turn actuator ELEPHANT QT-N-003EM-O1-x-U1 blue.

1.2. Designation: Electric quarter-turn actuators are designed for remote and local control of shut-off pipeline valves having a quarter-turn shut-off valve. They are used in various branches of national economy: in gas, oil, metallurgical, food industry, in housing and communal services, etc.



1.3. Deciphering of the designation:



2. BASIC TECHNICAL DATA AND CHARACTERISTICS

Table 1

Electric drive type	quarter-turn
Motor type	asynchronous
Swivel angle, °	90 (±2)
Time of full rotation, sec	25
Torque, Nm	30
Connection size (ISO5211)	F03/F05
Supply voltage	220V/AC, 24V/DC, 12V/DC
Rated current consumption, A	0,10
Cable gland	waterproof G1/2
Power, W	25
Limit switches	correspond to the fully open and closed states of the actuator
Overheating protection	have
Self-locking device	self-locking worm worm and worm gear
Manual override	hexagon
Visual indicator	scale
Auto shut-off in extreme positions	yes
Housing material	aluminum alloy
Enclosure protection class	IP65
Power cord length, mm	200
Ambient temperature, ° C	-30 to +60
Weight, kg	1,200



3. OVERALL AND CONNECTION DIMENSIONS

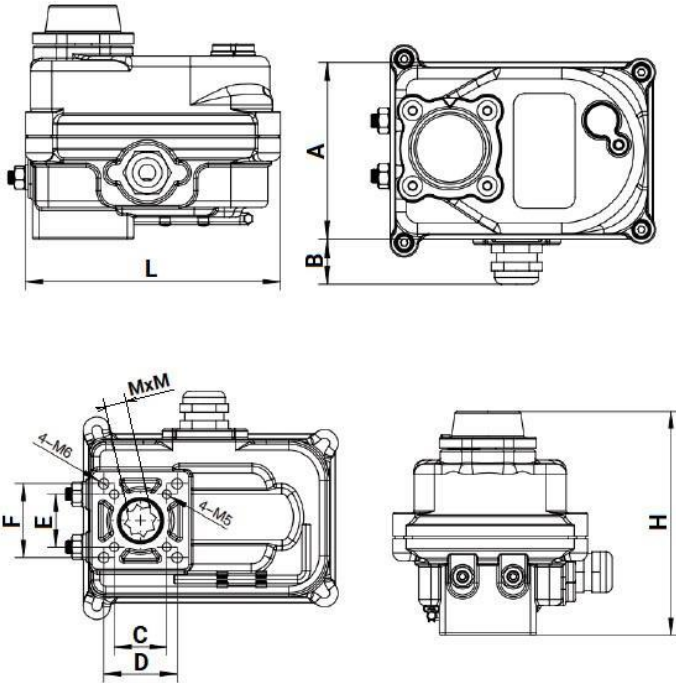
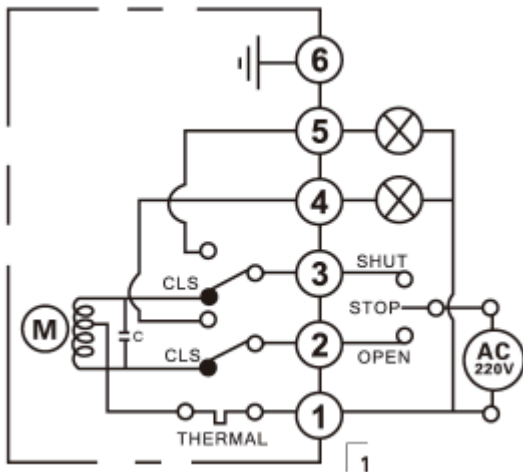


Table 2

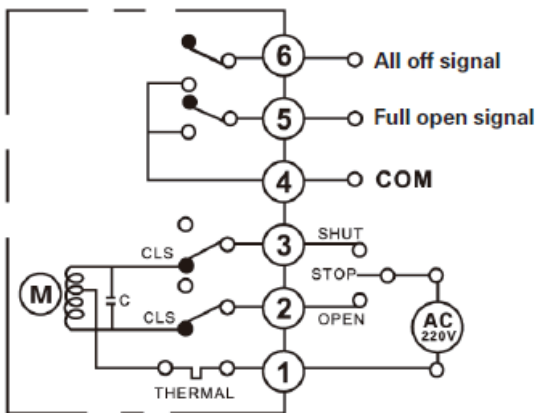
L	A	B	C	D	E	F	H	MxM
mm								
121	79,93	20,16	25	35	25	35	110,2	11x11



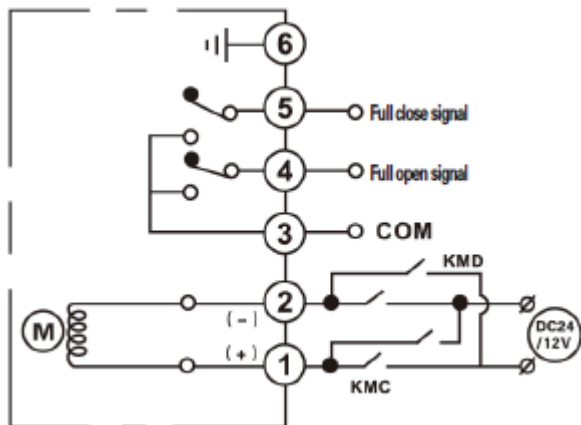
4. 220V wiring diagram version 1 (position switch, standard type)



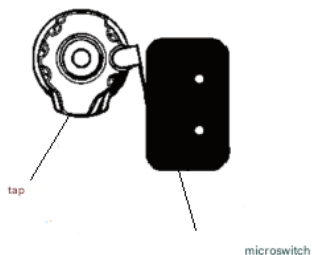
5. 220V wiring diagram version 2 (two intermediate position switches with a signal output indicating full closing or opening of the valve)



6. 24V/12V WIRING DIAGRAM



7. STOP POSITION ADJUSTMENT



7.1. Manually turn the valve to the fully open position and check whether the stroke limiter presses the two microswitches at the bottom. If not, loosen the stroke limiter locking screw and move the stroke limiter to the correct position. Similarly, check whether the stroke limiter operates in the fully open position of the valve.



8. POSSIBLE MALFUNCTIONS AND REMEDIES

Fault	Possible cause	Remedial action
The drive doesn't work	No power supply	Check the connection to the power supply
	Damaged wire, weak terminal fastening	Replace wire, tighten terminal fastening
	Power supply voltage does not match the required drive voltage	Adjust the supply voltage to the drive specifications
	Overheating protection tripped	Eliminate the cause of the protection trip
	Limit switch not working correctly	Replace limit switch
	Start capacitor destroyed	Replace start capacitor and check operating temperature of actuator
Open/close indicator does not light up	Indicator failure	Replace the indicator light
	Signal switch not working properly	Replace the signal switch
	Improper adjustment of the stroke limiter	Adjust the stroke limiter
Drive does not stop	Low supply voltage	Check and adjust the applied voltage to match the drive specifications
	Low noise immunity of the signal source	Check if the input signal is received correctly
	Intelligent module malfunction	Replace the intelligent module
	Loose potentiometer fastening	Check and tighten potentiometer screws
Intelligent module malfunction	No power supply	Check the connection to the power supply and that the current is within the required specifications
	Module is not receiving a signal	Check that the input signal is received correctly
	Module readings are changing, but no change in the drive scale	Check the connection between actuator and module. Check the manual operation of the actuator.



9. INSTALLATION AND OPERATION

9.1. When installing the actuator it is necessary to provide space for cable repair, manual work.

9.2 Before starting the actuator operation it is necessary to make sure that the manual mode is switched off (the socket of the manual doubler is fully depressed).

9.3 The limit switches should be checked or adjusted before connecting the actuator.

9.4 The actuator must have its own supports if it is mounted on a valve in a position other than horizontal.

9.5 Before starting the actuator, several cycles of test opening-closing of the gate valve should be performed using the actuator's handwheel. If the valve opens and closes normally when opened by the handwheel, connect it to the power and control networks and perform several test opening-closing cycles with the actuator.

9.6 **WARNING** The use of the handwheel with the supply voltage applied is strictly prohibited. Violation of this rule may result in personal injury as well as damage to parts.

9.7 The actuator must be serviced in accordance with the “Rules of technical operation of electrical installations of consumers” .

10. TRANSPORTATION AND STORAGE

10.1. The actuators can be transported by any type of transportation in a way that prevents damage to the actuator.

10.2 The actuators are stored in the manufacturer's packaging in the warehouses ensuring safety and serviceability of the actuators.

11. UTILIZATION

11.1. The product is disposed of in accordance with the procedure established at the enterprise (remelting, burial, resale).



12. WARRANTY OBLIGATIONS

12.1. Warranty period - 12 months from the date of commissioning, but not more than 18 months from the date of sale.

12.2. The warranty applies to equipment installed and used in accordance with the installation instructions and product specifications described in this data sheet.

12.3. The manufacturer guarantees compliance of the product with safety requirements, provided that the consumer complies with the rules of transport, storage, installation and operation.

12.4. The warranty covers all defects caused by the fault of the manufacturer.

12.5. The warranty does not apply:

- parts and materials of the product subject to wear and tear;
- for cases of damage caused by:
 - modifications to the original design of the product;
 - violation of general installation recommendations;
 - faults caused by improper maintenance and storage; improper operation and use of the equipment.

13. WARRANTY TERMS

13.1. Claims to the quality of the goods may be made during the warranty period.

13.2. Defective products are repaired or exchanged for new ones free of charge during the warranty period. ELEPHANT decides whether to replace or repair the product. The replaced product or its parts resulting from the repair shall become the property of 'ELEPHANT'.

13.3. Costs related to dismantling, installation and transport of the defective product during the warranty period shall not be reimbursed to the Buyer.

13.4. If the claim is unfounded, the Buyer shall pay the costs of diagnostics and expertise of the product.

13.5. Products are accepted for warranty repair (as well as for return) fully assembled.



WARRANTY CARD № _____

№	Product Name	Packs

Name and address of the trading organisation _____

Date of sale _____ Seller's signature _____

Stamp or seal of the trading organisation _____ Acceptance stamp _____

I agree with the terms and conditions of the warranty:

Buyer _____ (signature)

Warranty period - 12 months from the date of commissioning, but not more than 18 months from the date of sale.

For warranty repairs, complaints and product quality claims, please contact ELEPHANT at: Carrer d'Aragó,264,3-1,08007 Barcelona, Spain. E-mail address: sales@valveelephant.com.

When making a complaint about the quality of goods, the buyer shall present the following documents:

1. A free-form application, which shall specify:
 - name of the organisation or full name of the buyer, actual address, contact telephone numbers;
 - name and address of the organisation that carried out the installation;
 - basic parameters of the system in which the product was used;
 - a brief description of the defect.
2. Document confirming the purchase of the product (delivery note, receipt)..
3. Act of hydraulic test of the system in which the product was installed.
4. This completed warranty card.

A note on the return or exchange of goods _____

Date: « ___ » _____ 202__yr. Caption _____

