

ER PLUS

Electric actuators

Technical Data Sheet



Description



90° electric actuator, UL 94 V-0 PA6 enclosure with manual override for torques of 10, 20, 35, 60 and 100 Nm, in compliance with CE-ROHS-REACH directives.

Technical data	p.2
Actuator overview	p.3
Options overview	p.4
Dimensions	p.5
Wireless Bluetooth® communication via AXMART®	p.6
Modbus-RTU® fieldbus communication	p.7
BBPR function safety system for power failure.	p.8
POSI proportional control with analogue signal and Modbus-RTU protocol	p.9
3 position version	p.10
Ordering code	p.11
Options compatibility	p.14

Technical data

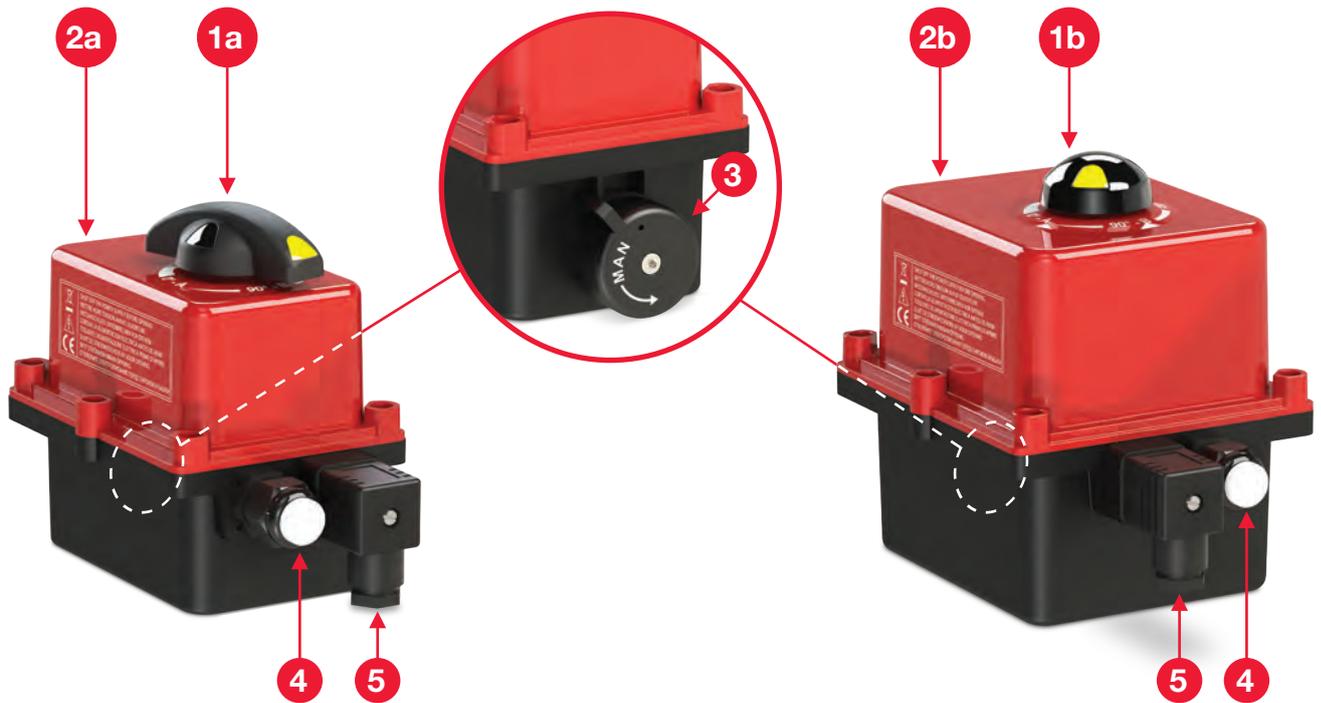
Visual position indicator	Modular with black and yellow marks (handle version for ER 10 & 20)
Actuator control	<ul style="list-style-type: none"> - Power supply control: on-off, 3 modulating points or pulsed (500 ms) - Field bus: Modbus-RTU® - Wireless: Bluetooth® control via AXMART® - Analogue signal: 0-10V or 4-20mA
Voltage	15V to 30V AC (50/60Hz) & 12V to 48V DC 100V to 240V AC (50/60Hz) & 100V to 350V DC
Power	15 W (ER 10/20/35) · 45 W (ER 35/60/100)
Materials	Carter: PA6 UL 94 V-0 + 25% GF Cover: PA6 UL 94 V-0 Other external parts: 304L Stainless Steel or Steel + Zn treatment
Duty cycle	Service S4 - 50 % (IEC34)
Torque limiter	Software
Serial link	RS485
Number of starts/hour ¹⁾	150
Feedback relay	Failure (overtorque, excessive temperature..) Battery status for GS6 models
End limit switches	2 adjustable NO or NC electrical feedback contacts 12 to 250 V AC and 4 to 24 V DC minimum 100 mA maximum 5 A (resistive), 0.5 A (motor), 0.125 A (capacitive loads)
Angular operating range	0° and 90° (180° and 270° on request)
Anticondensation resistor	10 W self-regulated
Drive	Star 14 (ER 10/20/35) · star 22 (ER 35/60/100)
Removable mounting plates -ISO5211 ¹⁾	F03/F05 & F04 (ER 10/20/35) F05/F07 (ER 35/60/100)
Manual override	Declutching system and outgoing shaft
Electrical connection	1x 3P+T DIN43650 connector + 1x ISO M20 cable gland 3 position actuators: 2x ISO M20
Operating and storage temperature	-10 °C to +55 °C (actuators with battery : -10 °C to +40 °C)
Ingress protection	IP68 1.2 metre 30 minutes
Weight	1 kg to 2,3 kg
Warranty ²⁾	3 year or 50 000 stroke warranty

¹⁾ See operating instructions for recommended use.

²⁾ Tested under the most unfavourable conditions (at maximum torque and duty cycle).

Actuator overview

ER10-20-35 small casing	ER35-60-100 big casing
-----------------------------------	----------------------------------



1a Position indicator (handle) for ER PLUS 10Nm and 20Nm with black and yellow markers to symbolise flow direction

1b Round position indicator for ER PLUS 35Nm, 60Nm and 100Nm with black and yellow markers to symbolise flow direction

2a Small UL 94 V-0 casing for ER PLUS 10Nm, 20Nm and 35Nm

2b Big UL 94 V-0 casing for ER PLUS 35Nm, 60Nm and 100Nm

3 Clutch release button for manual override

4 Cable gland for wiring feedback switches

5 3P+T DIN43650 connector for power supply wiring

Valve connection F03/F05 plate for ER10, 20 and 35



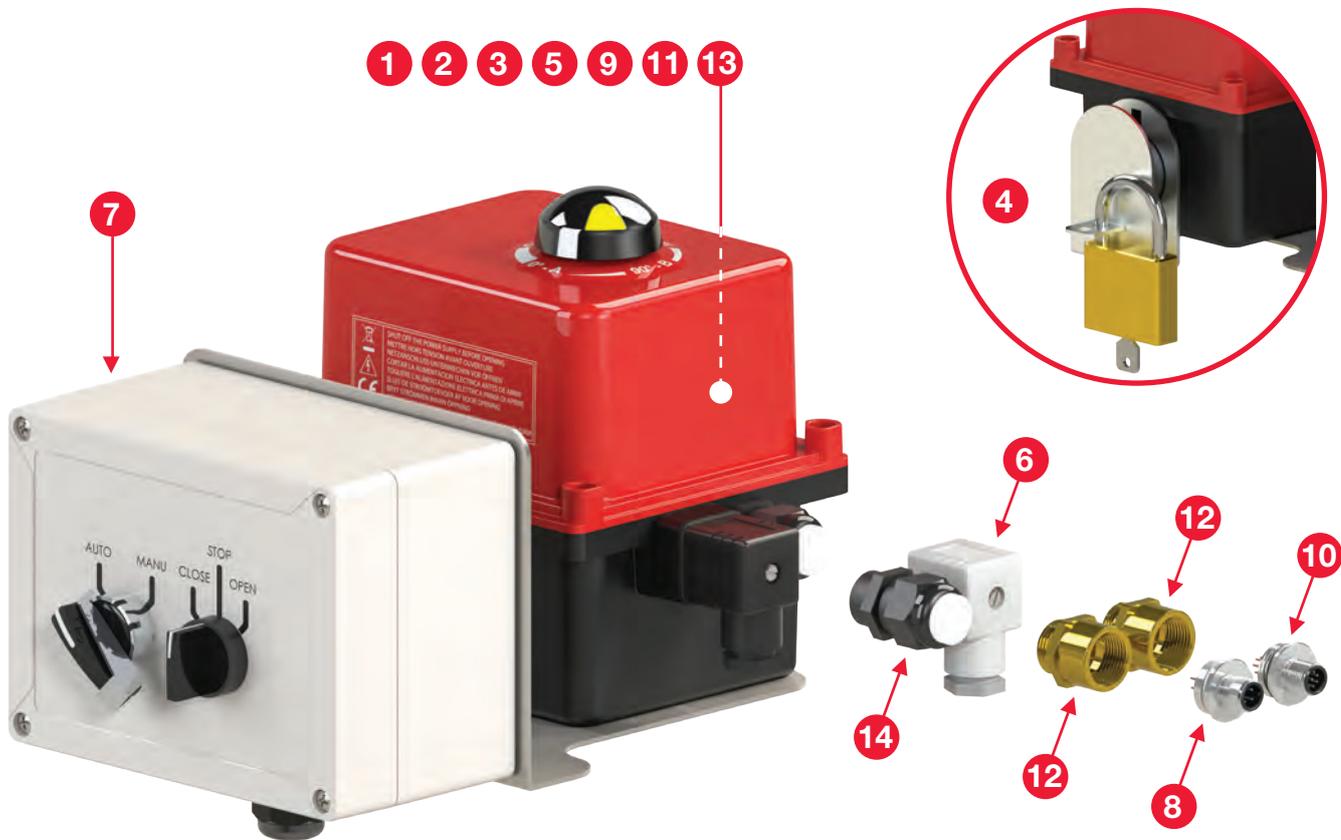
Valve connection F05/F07 plate for ER35, 60 and 100



Valve connection F04 plate for ER10, 20 and 35



Options overview



1 EPR.B
Feedback potentiometer for valve position feedback (100 / 1000 / 5000 / 10000 Ohms)

2 MODBUS
Compatibility with Modbus-RTU protocol (see page 7)

3 EPT.C
Signal transmitter for valve position feedback (4-20mA or 0-10 V)

4 LMO
Padlockable protection system for the clutch release button

5 EFC.2
2 additional switches for open and closed position extra feedback information

6 ECD.1A
Additional 3P+T DIN 43650 connector for position feedback and options connection (Also available with NPT thread/tapping)

7 LC
Local control box

8 ECM.4
4P M12 connector for power supply (24 V 50/60 Hz and 24 V DC maximum)

9 BLUETOOTH®
Wireless connection via Axmart (see page 6)

10 ECM.8
8P M12 connector for position feedback and options connection (24 V 1.5 A maximum)

11 VIB
Vibration proof with reinforced components

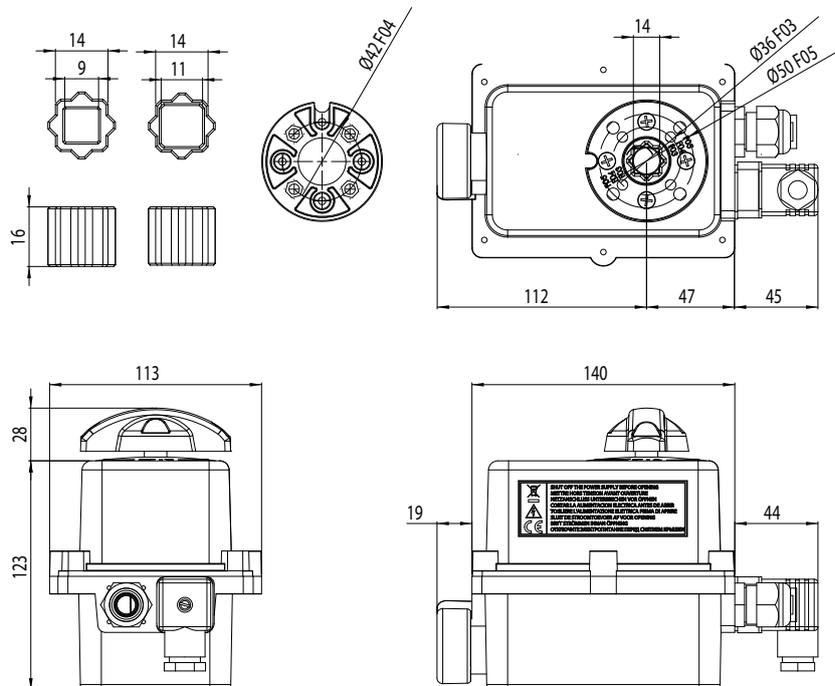
12 NPT
One or two ISO M20 to 1/2" NPT adapters

13 HUMPRO
Varnished power supply board to prevent humidity damages

14 2PE
Second cable gland instead of DIN 43650 connector

Dimensions

ER10/20/35



Drive

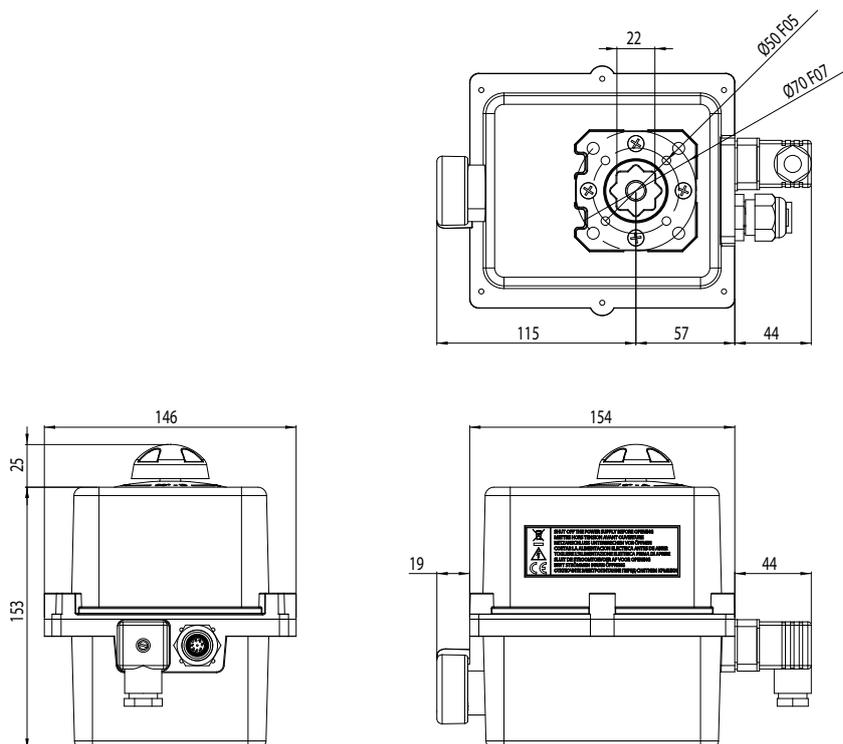
Star (mm)	14
Depth (mm)	16

Plate

	F03	F04	F05
Diameter (mm)	36	42	50
Threaded (mm)	M5	M5	M6
Depth (mm)	14.2	14.2	14.2
Number of screws	4	4	4

The Handle is available for ER10 and ER20 only.

ER35/60/100



Drive

Star (mm)	22
Depth (mm)	24

Plate

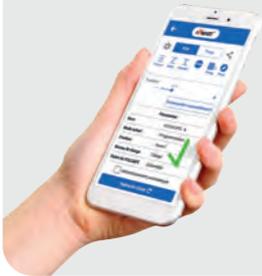
	F05	F07
Diameter (mm)	50	70
Threaded (mm)	M6	M8
Depth (mm)	16.4	16.4
Number of screws	4	4

Wireless Bluetooth® communication via AXMART®

Bluetooth® communication via AXMART® v3, the management and control interface for Valpes electric actuator.

Customer benefits

- Usable within a range of 15 meters in open field
- Available for free on Android and IOS
- As standard with BBPR safety system for power Failure (see page 8)
- Physical jumper to activate or deactivate the wireless connection



Monitoring & Status

AXMART® provides a real time actuator parameters check. Servicing an installation with actuators equipped with the Bluetooth® communication module becomes an easy task. It only requires a few seconds to achieve and validate function tests using your tablet or smartphone once the Valpes Application AXMART® has been downloaded. Maintenance operations will be much easier as you can read operation records from actuators. This is a good way to save time while minimizing risks.

Connect & Control

The Valpes Bluetooth® communication module offers a secured connection. It enables the communication with any actuator, whether visible or not and even when concealed (actuators located under floor, in a pit, above ceiling, at height). In all situations, this interface is perfect as a local control device.

Weekly Programming

The actuator becomes autonomous with the integrated timer, which allows a scheduling of twenty operations a week. Simple and cost effective! Neither programmable logic controller (PLC) - electric cabinet nor control operator is required.

Configuration

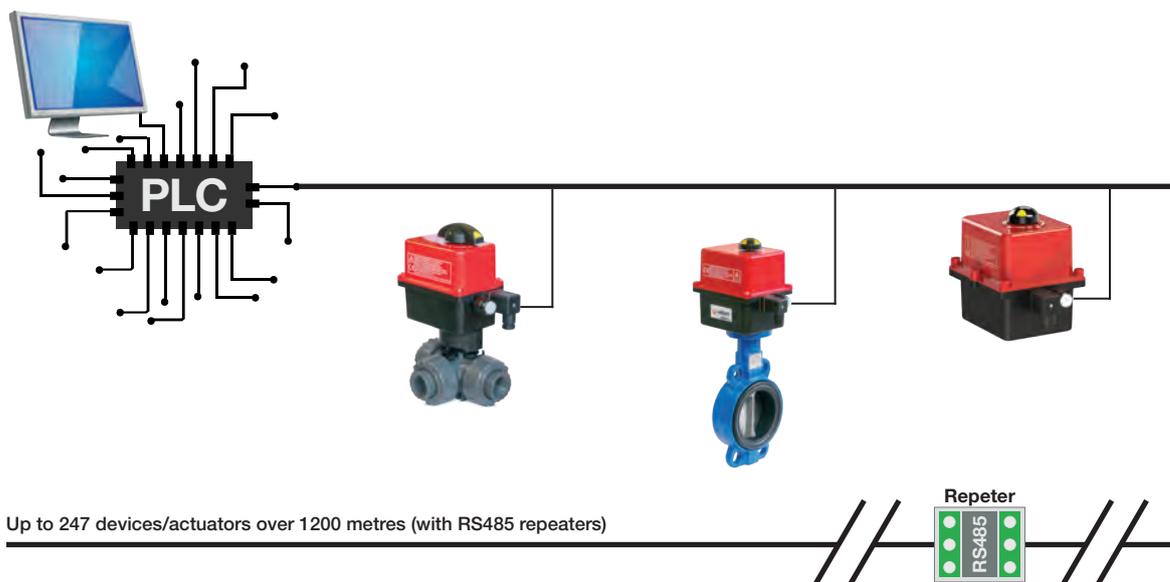
AXMART® allows advanced configuration of actuators. Among other things, it is possible to define the safety position of the BBPR system, the type of analogue signal for the setpoint and feedback of the positioning module, as well as the type of electrical wiring and the operating mode of the actuator.

Modbus-RTU® fieldbus communication

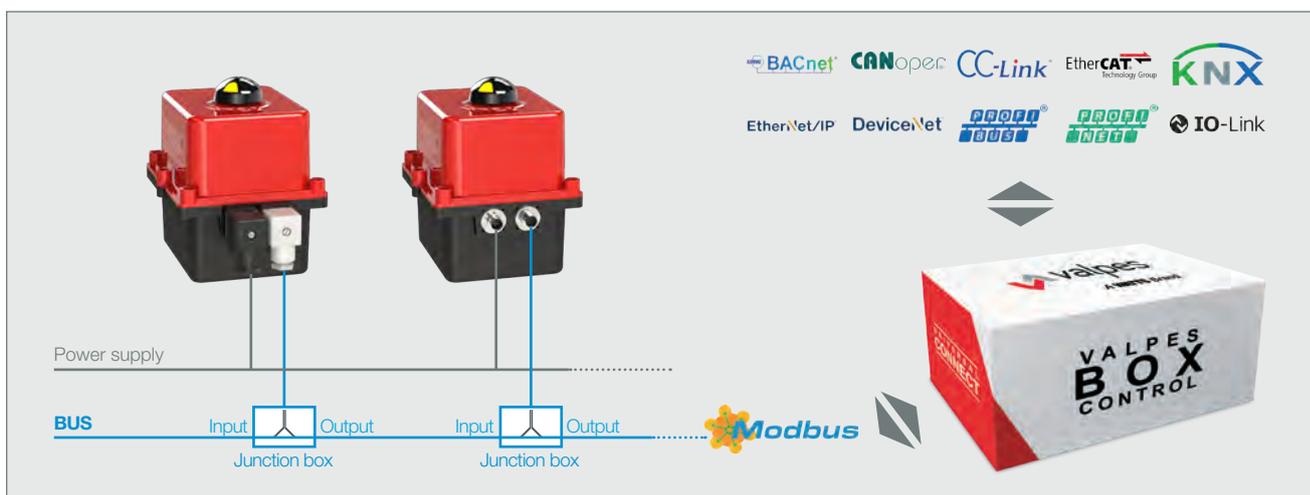
Industrial communication protocol via RS485 serial link.

Customer benefits

- Modbus-RTU approved by “Modbus organisation”
- Half-duplex serial link
- Up to 31 actuators over 1200 metres per line
- Up to 247 actuators with repeaters
- Can be integrated into most industrial networks using Valpes Box Control
- Removable termination resistor included



Our plug & play solutions with pre-wiring, compatible with other protocols via Valpes Box Control



BBPR function safety system for power failure

Actuators with battery pack for backup to safety position in case of power failure

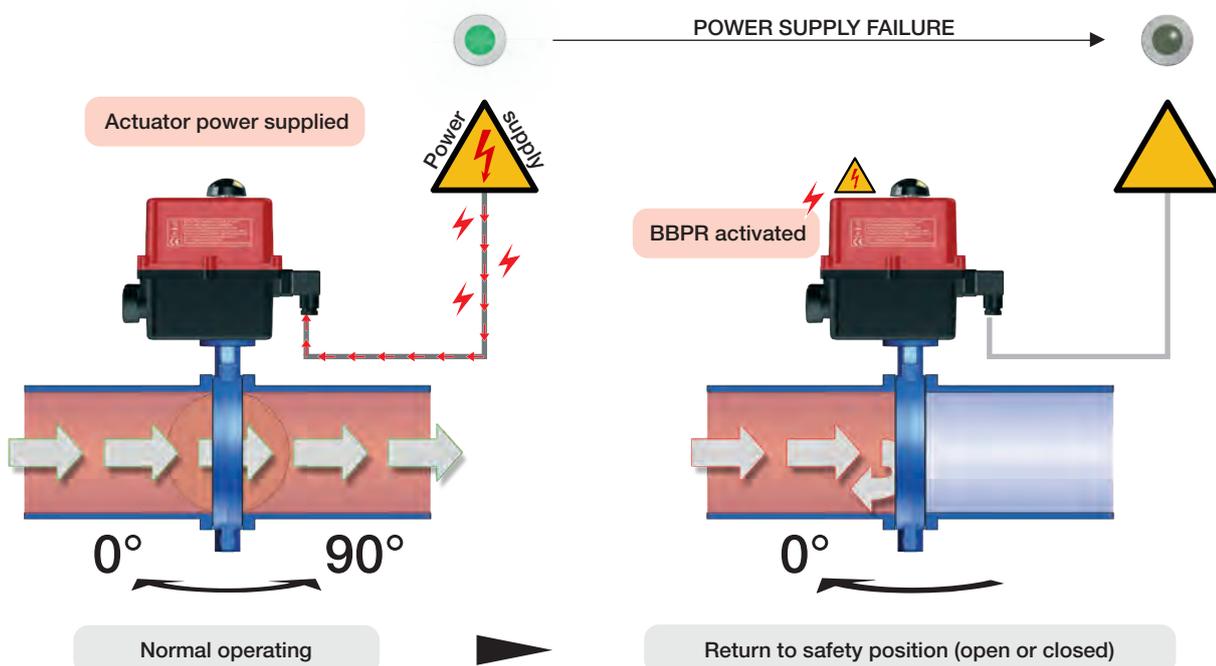
Customer benefits

- 18-month warranty from delivery date (see general sales conditions)
- All in one: no additional wiring required
- Integrates Bluetooth® communication and AXMART® functionalities
- “Fail to set” (closed, open) easily adjustable with the AXMART application
- Real-time battery charge and system status information
- Power shut off after 2 mn to avoid battery discharging
- Torque limiter extended to emergency operation
- Quick and easy replacement of the battery
- Failure report (overtorque, excessive temperature, non-functional battery)
- Wireless Bluetooth® communication via AXMART® as standard (more detail on page 6)
- Compatible with Modbus-RTU® protocol as option (more detail on page 7)

AXMART® application & via Bluetooth® connection (more detail on page 6)

- **Monitoring:** provides a real time status of the parameters of the actuator and the battery
- **Configuration** of the safety backup position (“fail to closed” or “fail to open”).
- **Local control** of the actuator in a 15-metre range
- **Weekly programming** of 20 tasks to automate the actuator without a PLC or operator
- **Physical jumper** to activate or deactivate the wireless connection

Functioning principle



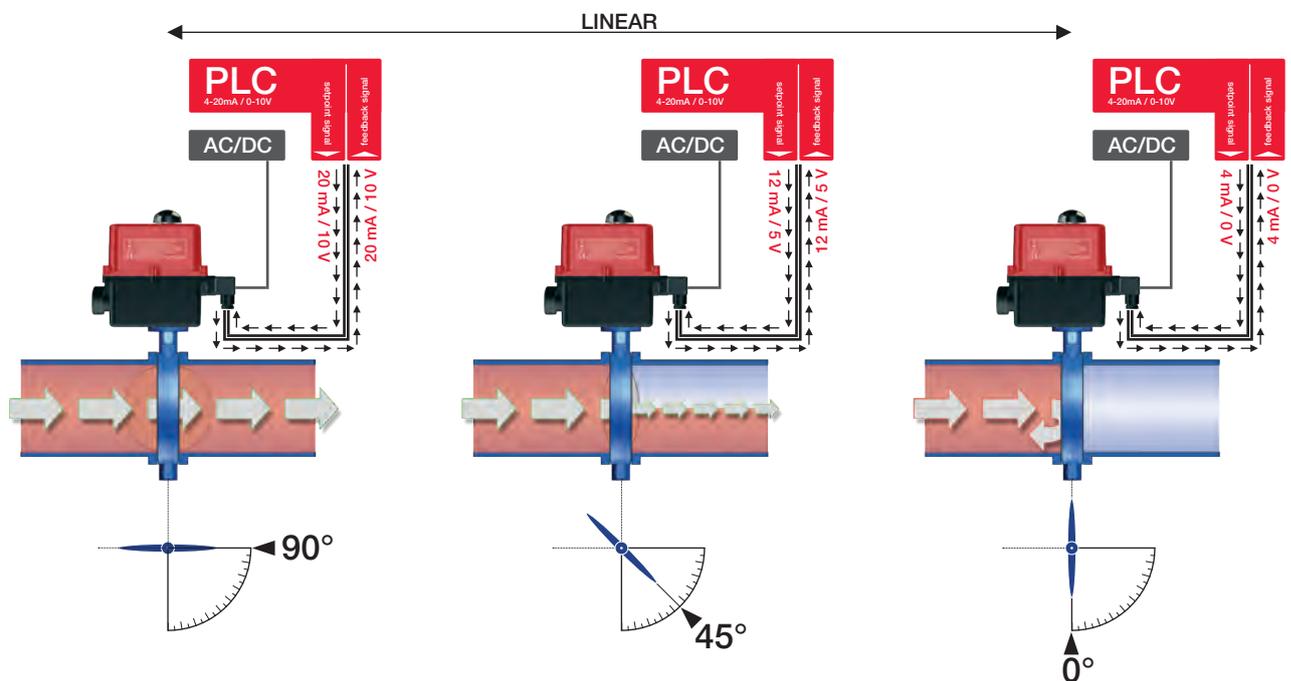
POSI proportional control with analogue signal

Actuators with proportional positioning according current (4-20 mA) or voltage (0-10 V) analogue setpoint signal.

Customer benefits

- All in one: no additional wiring required
- 4-20 mA and 0-10 V feedback signal
- Reversible setpoint and feedback signal
- Training mode to adapt the angular range
- Rotation up to 270° on request

Functioning principle



POSI-Modbus-RTU proportional control for fieldbus

Customer benefits

- Failure report (overtorque and overtemperature)
- Electronic torque limiter
- Analogue (4-20 mA or 0-10 V) and digital (Modbus-RTU or Bluetooth®) control
- Full compatibility with Modbus-RTU protocol (more detail on page 7)
- Wireless Bluetooth® communication via AXMART® as standard (more detail on page 6)

AXMART® application  &  via Bluetooth® connection (more detail on page 6)

- **Monitoring:** provides a real time status of the parameters of the actuator and its position
- **Configuration** of the type of setpoint and feedback signal for analogue mode
- **Local control** of the actuator in a 15-meter range
- **Weekly programming** of 20 tasks to automate the actuator without a PLC or operator
- **Physical jumper** to activate or deactivate the wireless connection

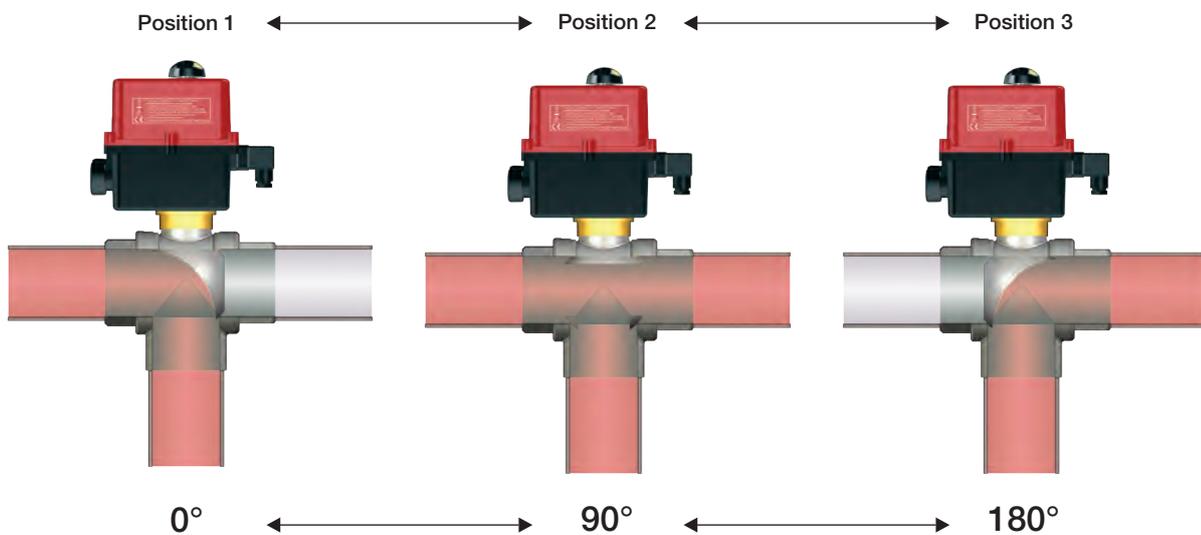
3 position version

Actuators with an intermediate position between 0° and 90°, 180° or 270° to automate L or T 3-way valves.

Customer benefits

- All in one: no additional wiring required
- Electronic torque limiter
- Feedback switches for each position
- Failure report
- Rotation up to 270°
- Compatible with Modbus-RTU® protocol as option (more detail on page 7)
- Wireless Bluetooth® communication via AXMART® as option (more detail on page 6)

Functioning principle



Ordering codes

Electric control «G00»

Code	Star drive nut / Connection	Torque	Voltages	Power	Operating time (90°)
ER10.X0A.G00 ¹⁾	14 / F03-F04-F05	10 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	11 s
ER10.X0B.G00 ¹⁾	14 / F03-F04-F05	10 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	15 W	11 s
ER20.X0A.G00 ¹⁾	14 / F03-F04-F05	20 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	12 s
ER20.X0B.G00 ¹⁾	14 / F03-F04-F05	20 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	15 W	12 s
ER35.X0A.G00 ¹⁾	14 / F03-F04-F05	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	26 s
ER35.X0B.G00 ¹⁾	14 / F03-F04-F05	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	15 W	24 s
ER35.90A.G00	22 / F05-F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
ER35.90B.G00	22 / F05-F07	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	7 s
ER60.90A.G00	22 / F05-F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	12 s
ER60.90B.G00	22 / F05-F07	60 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	12 s
ER100.90A.G00	22 / F05-F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	23 s
ER100.90B.G00	22 / F05-F07	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	22 s

¹⁾ Conversion sleeves star 14 mm x square 9 mm and 11 mm & removable plate F03/F05 and F04

Electric control «G00» (long operating time)

Code	Star drive nut / Connection	Torque	Voltages	Power	Operating time (90°)
ER35.90A.G00	22 / F05-F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	41 s
ER35.90B.G00	22 / F05-F07	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	41 s
ER60.90A.G00	22 / F05-F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	79 s
ER60.90B.G00	22 / F05-F07	60 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	79 s
ER100.90A.G00	22 / F05-F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	119 s
ER100.90B.G00	22 / F05-F07	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	119 s



When sizing the actuator, please consider x1.5 safety factor (2x for POSI models)

Electric control + emergency battery BBPR system «GS6»

Code	Star drive nut · Connection	Torque	Voltages	Power	Operating time (90°)
ER10.X0A.GS6 ¹⁾	14 / F03-F04-F05	10 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	11 s
ER10.X0B.GS6 ¹⁾	14 / F03-F04-F05	10 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	15 W	11 s
ER20.X0A.GS6 ¹⁾	14 / F03-F04-F05	20 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	12 s
ER20.X0B.GS6 ¹⁾	14 / F03-F04-F05	20 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	15 W	12 s
ER35.90A.GS6	22 / F05-F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
ER35.90B.GS6	22 / F05-F07	35 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	7 s
ER60.90A.GS6	22 / F05-F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	12 s
ER60.90B.GS6	22 / F05-F07	60 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	12 s
ER100.90A.GS6	22 / F05-F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	23 s
ER100.90B.GS6	22 / F05-F07	100 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	22 s

¹⁾ Conversion sleeves star 14 mm x square 9 mm and 11 mm & removable plate F03/F05 and F04

Electric control + emergency battery BBPR system «GS6» (long operating time)

Code	Star drive nut · Connection	Torque	Voltages	Power	Operating time (90°)
ER35.90A.GS6	22 / F05-F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
ER35.90B.GS6	22 / F05-F07	35 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	7 s
ER60.90A.GS6	22 / F05-F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	12 s
ER60.90B.GS6	22 / F05-F07	60 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	12 s
ER100.90A.GS6	22 / F05-F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	23 s
ER100.90B.GS6	22 / F05-F07	100 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	22 s

Analogue 4-20 mA or 0-10 V proportional control «GP6»

Code	Star drive nut · Connection	Torque	Voltages	Power	Operating time (90°)
ER20.X3A.GP6 ¹⁾	14 / F03-F04-F05	20 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	25 s
ER20.X3B.GP6 ¹⁾	14 / F03-F04-F05	20 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	15 W	25 s
ER35.93A.GP6	22 / F05-F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	40 s
ER35.93B.GP6	22 / F05-F07	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	40 s
ER60.93A.GP6	22 / F05-F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	79 s
ER60.93B.GP6	22 / F05-F07	60 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	79 s
ER100.93A.GP6	22 / F05-F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	119 s
ER100.93B.GP6	22 / F05-F07	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	119 s

¹⁾ Conversion sleeves star 14 mm x square 9 mm and 11 mm & removable plate F03/F05 or F04



When sizing the actuator, please consider x1.5 safety factor (2x for POSI models)

Proportional control for Modbus-RTU fieldbus «GP8»

Code	Star drive nut · Connection	Torque	Voltages	Power	Operating time (90°)
ER35.93A.GP8	22 / F05-F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	40 s
ER35.93B.GP8	22 / F05-F07	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	40 s
ER60.93A.GP8	22 / F05-F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	79 s
ER60.93B.GP8	22 / F05-F07	60 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	79 s
ER100.93A.GP8	22 / F05-F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	119 s
ER100.93B.GP8	22 / F05-F07	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	119 s

¹⁾ Conversion sleeves star 14 mm x square 9 mm and 11 mm & removable plate F03/F05 and F04

3 position electric control «GF3»

Code	Star drive nut / Connection	Torque	Voltages	Power	Operating time (90°)
ER10.X0A.GF3 ¹⁾	14 / F03-F04-F05	10 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	11 s
ER10.X0B.GF3 ¹⁾	14 / F03-F04-F05	10 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	15 W	11 s
ER20.X0A.GF3 ¹⁾	14 / F03-F04-F05	20 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	12 s
ER20.X0B.GF3 ¹⁾	14 / F03-F04-F05	20 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	15 W	12 s
ER35.X0A.GF3 ¹⁾	14 / F03-F04-F05	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	26 s
ER35.X0B.GF3 ¹⁾	14 / F03-F04-F05	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	15 W	24 s
ER35.90A.GF3	22 / F05-F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
ER35.90B.GF3	22 / F05-F07	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	7 s
ER60.90A.GF3	22 / F05-F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	12 s
ER60.90B.GF3	22 / F05-F07	60 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	12 s
ER100.90A.GF3	22 / F05-F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	23 s
ER100.90B.GF3	22 / F05-F07	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	22 s

¹⁾ Conversion sleeves star 14 mm x square 9 mm and 11 mm & removable plate F03/F05 and F04

3 position electric control «GF3» (long operating time)

Code	Star drive nut / Connection	Torque	Voltages	Power	Operating time (90°)
ER35.90A.GF3	22 / F05-F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	41 s
ER35.90B.GF3	22 / F05-F07	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	41 s
ER60.90A.GF3	22 / F05-F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	79 s
ER60.90B.GF3	22 / F05-F07	60 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	79 s
ER100.90A.GF3	22 / F05-F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	119 s
ER100.90B.GF3	22 / F05-F07	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	119 s



When sizing the actuator, please consider x1.5 safety factor (2x for POSI models)

Options compatibility

Code	Standard G00	Standard long operating time G00	BBPR GS6	BBPR long operating time GS6	POSI GP6	POSI-Modbus-RTU GP8	3 positions GF3	3 positions long op. time GF3
EPR...B Feedback potentiometer	•	•						
EPT.C Signal transmitter (operating time >10 s)	•	•						
EFC.2 2 additional switches	•	•						
LC Local control box	•	•						
BLUETOOTH® Wireless control via Axmart®	•	•	standard	standard		standard		
VIB Vibration proof	•	•	•	•	•	•	•	•
HUMPRO Varnished power supply boards	•	•	•	•	•	•	•	•
MODBUS Modbus-RTU® control	• (1)	• (1)	•	•		standard	• (1)	• (1)
LMO.FO3/F05 & LMO.F05F07 Padlockable manual override	•	•	•	•	•	•	•	•
ECD.1A Additional DIN connector	•	•	•	•				
ECM.4 4P M12 connector for power supply	• (2)	• (2)	• (2)	• (2)	• (2)	• (2)	• (2)	• (2)
ECM.8 8P M12 connector for feedback and options	• (3)	• (3)	• (3)	• (3)	• (3)	• (3)	• (3)	• (3)
NPT.1 1 ISO to 1/2" NPT adapter	•	•	•	•	•	•	•	•
NPT.2 2 ISO to 1/2" NPT adapters	•	•	•	•	•	•	•	•
ECD.NPT NPT connector	•	•	•	•	•	•		
ECD.1A.NPT Additional NPT connector	•	•	•	•				
2PE 2 cable glands	•	•	•	•	•	•	standard	standard

(1) The feedback switches are not available

(2) 24 V 50/60 Hz and 24 V DC maximum

(3) 24 V 1.5 A maximum

Code	EPT.C	EFC.2	LC	BLUETOOTH®	VIB	HUMPRO	MODBUS	LMO.F03/F05 & LMO.F05F07	ECD.1A	ECM.4	ECM.8	NPT.1	NPT.2	ECD.NPT	ECD.1A.NPT	2PE
EPR....B Feedback potentiometer	✗	✗	✓	✓	✓	✓	✓	✓	Ⓜ	✓	✓	✓	✓	✓	Ⓜ	✓
EPT.C Signal transmitter		✗	✓	✓	✓	✓	✓	✓	Ⓜ	✓	✓	✓	✓	✓	Ⓜ	✓
EFC.2 2 additional switches			✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓
LC Local control box				✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓
BLUETOOTH® Wireless control via Axmart®					✗	✓	Ⓜ	✓	✗	✓	✓	✓	✓	✓	✓	✓
VIB Vibration proof						✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
HUMPRO Varnished power supply boards							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MODBUS Modbus-RTU® control								✓	Ⓜ	✓	Ⓜ	✓	✓	✓	Ⓜ	✓
LMO.F03/F05 & LMO.F05F07 Padlockable manual override									✓	✓	✓	✓	✓	✓	✓	✓
ECD.1A Additional DIN connector										✓	✗	✓	✗	✓	✗	✗
ECM.4 4P M12 connector for power supply											✓	✓	✗	✗	✓	✗
ECM.8 8P M12 connector for feedback and options												✗	✗	✗	✗	✗
NPT.1 1 ISO to 1/2" NPT adapter													✗	✗	✗	✗
NPT.2 2 ISO to 1/2" NPT adapters														✗	✗	✗
ECD.NPT NPT connector															✓	✗
ECD.1A.NPT Additional NPT connector																✗

- (1) The feedback switches are not available
(2) Only for BBPR, POSI-BBPR and 3-POSITION-BBPR
(3) As standard on POSI-Modbus version

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding. Valpes reserves the right to carry out any technical and design improvements to its products without prior notice. Warranty : All sales and contracts for sale are expressly conditioned on the buyer's assent to Valpes terms and conditions found on its website at www.valpes.com. Valpes hereby objects to any term, different from or additional to its terms, contained in any buyer communication in any form, unless agreed to in a writing signed by an officer of Valpes.



Valpes sas
Z.I. Centr'alp, 89 ruze des étangs • 38430 Moirans • France
Tel. +33 04 76 35 06 06 • Fax +33 04 76 35 14 34
Valpes-info@wattswater.com • www.valpes.com