

CR-TEC Engineering Inc.

Electric actuators

Catalog 2024





Standard Models

Electric actuators

ER PLUS

Description

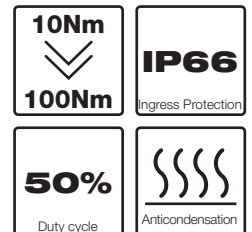
90° electric actuator, PA6 housing UL 94 V-0 with secured manual override for torques of 10-20-35-60-100 Nm in accordance with CE-ROHS-REACH Directives.

Versions

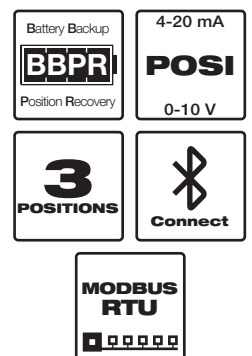
- Standard version: 90°
- Long operating time version: 90°
- 180° or 270° on request
- Compatible with functions:
 - BBPR** · position recovery
 - POSI** · 4-20 mA or 0-10 V signal control
- **3 POSITIONS**
- **MODBUS-RTU®** · industrial fieldbus
- **BLUETOOTH®** · connected actuator

Technical data

- Multivoltage actuator:
 - 100 V to 240 V 50/60 Hz (100 V to 350 V DC)
 - 15 V to 30 V 50/60 Hz (12 V to 48 V DC)
- 3-point modulating or on-off control
- Duty cycle S4 50 % (IEC34)
- 2 adjustable position feedback switches
- Removable ISO 5211 adaptation plates:
 - ER 10 to 35 Nm : F03/F04/F05
 - ER 35 to 100 Nm : F05/F07
- Star drive nut
- Manual override
- Modular position indicator
- Anticondensation heater
- Electronic torque limiter
- Actuator failure feedback relay (normal duty, failure)
- RS485 connection
- Mechanical travel stops at 0° and 90°
- 3P+T DIN43650 connector + 1 ISO M20 (ISO/ NPT adapters available as option)
- Temperature:
 - standard: -10 °C to +55 °C
 - BBPR: -10 °C to +40 °C
- Enclosure: IP66
- Weight: 1 kg - 2.3 kg



Available versions



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AXMART®

Certifications
Approvals



Standard range (G00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
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	26 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	23 s

¹⁾ Conversion sleeve star 14 to square 9-11
X=Removable plate F03/F05 or F04

Long operating time range (G00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
ER35.93A.G00	22 F05/F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	41 s
ER35.93B.G00	22 F05/F07	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	41 s
ER60.93A.G00	22 F05/F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	79 s
ER60.93B.G00	22 F05/F07	60 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	79 s
ER100.93A.G00	22 F05/F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	119 s
ER100.93B.G00	22 F05/F07	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	119 s

BBPR range (GS6)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
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	23 s

¹⁾ Conversion sleeve star 14 to square 9-11
X=Removable plate F03/F05 or F04



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

Long operating time BBPR range (GS6)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
ER35.93A.GS6	22 F05/F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	41 s
ER35.93B.GS6	22 F05/F07	35 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	41 s
ER60.93A.GS6	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.GS6	22 F05/F07	60 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	79 s
ER100.93A.GS6	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.GS6	22 F05/F07	100 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	119 s

POSI range (GP6)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
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	41 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	41 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 sleeve star 14 to square 9-11

X=Removable plate F03/F05 or F04

POSI-Modbus-RTU range (GP8)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
ER35.93A.GP8	22 F05/F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	41 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	41 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

3-position range (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	26 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	23 s

¹⁾ Conversion sleeve star 14 to square 9-11

X=Removable plate F03/F05 or F04



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

Long operating time 3-position range (GF3)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
ER35.93A.GF3	22 F05/F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	41 s
ER35.93B.GF3	22 F05/F07	35 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	41 s
ER60.93A.GF3	22 F05/F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	79 s
ER60.93B.GF3	22 F05/F07	60 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	79 s
ER100.93A.GF3	22 F05/F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	119 s
ER100.93B.GF3	22 F05/F07	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	119 s

Options

Code	Description
EPR...B ¹⁾	Feedback potentiometer 100 / 1000 / 5000 / 10000 Ohms
EPT.C ²⁾	0-20 mA, 4-20 mA or 0-10 V transmitter
EFC.2	Card with two extra limit switches
LC	Local control box F05/F07
BLUETOOTH®	Powered by AXMART® Bluetooth® version
VIB	Version for applications with vibrations
HUMPRO	Mainboard conformal coating
MODBUS	MODBUS-RTU communication
LMO.F03F05	Padlockable manual override (ER10-35)
LMO.F05F07	Padlockable manual override (ER35-100)

1) Specify the model

2) Only for a travel time higher or equal to 10 s

Connection

Code	Description
ECD.1A	3P+T Din 43 650 connector
ECM.4 ¹⁾	4P M12 power supply connector
ECM.8 ²⁾	8P M12 feedback/option connector
ECM.4+8 ^{1) 2)}	2 connectors (4 and 8 pins)
NPT.1	ISO M20 to 1/2" NPT adapter
NPT.2	2 ISO M20 to 1/2" NPT adapters
ECD.NPT	Power supply connector (1/2" NPT input)
ECD.1A.NPT	Feedback connector (1/2" NPT input)
2PE	Set of 2 cable glands

1) 24 V 50/60 Hz and 24 V DC maximum

2) 24 V 1.5 A maximum



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

Compatibility

Code	Standard	Standard long op. time	BBPR	BBPR long op. time	POSI	POSI-Modbus-RTU	3 positions	3 positions long op. time
	G00	G00	GS6	GS6	GP6	GP8	GF3	GF3
EPR...B Feedback potentiometer	•	•						
EPT.C Signal transmitter	•	•						
EFC.2 2 additional switches	•	•						
LC Local control box	•	•						
BLUETOOTH® Wireless control via Axmart	•	•	standard	standard		standard		
VIB Vibration proof	•	•	•	•	•	•	•	•
HUMPRO Varnished electronic 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 Additional 3P+T M12 connector	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
ECM.8 Additional 8P M12 connector	(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 Additional 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



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

	EPT.C	EFC.2	LC	BLUETOOTH®	VIB	HUMPRO	MODBUS	LMO.FO3/F05 & LMO.F05F07	ECD.1A	ECM.4	ECM.8	NPT.1	NPT.2	ECD.NPT	ECD.1A.NPT	2PE
EPR...B Feedback potentiometer	✗	✗	✓	✓	✓	✓	✓	✓	(1)	✓	✓	✓	✓	✓	(1)	✓
EPT.C Signal transmitter		✗	✓	✓	✓	✓	✓	✓	(1)	✓	✓	✓	✓	✓	(1)	✓
EFC.2 2 additional switches			✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓
LC Local control box				✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓
BLUETOOTH® Wireless control via Axbart					✗	✓	(2) (3)	✓	✗	✓	✓	✓	✓	✓	✓	✓
VIB Vibration proof						✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
HUMPRO Varnished electronic boards							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MODBUS Modbus-RTU control								✓	(1)	✓	(1)	✓	✓	✓	(1)	✓
LMO.FO3/F05 & LMO.F05F07 Padlockable manual override									✓	✓	✓	✓	✓	✓	✓	✓
ECD.1A Additional DIN connector										✓	✗	✓	✗	✓	✗	✗
ECM.4 Additional 3P+T M12 connector											✓	✓	✗	✗	✓	✗
ECM.8 Additional 8P M12 connector												✗	✗	✗	✗	✗
NPT.1 1 ISO to 1/2" NPT adapter													✗	✗	✗	✗
NPT.2 2 ISO to 1/2" NPT adapters														✗	✗	✗
ECD.NPT Additional NPT connector															✓	✗
ECD.1A.NPT 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-RTU version

 Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

ER PREMIER

Description

90° electric actuator, PA6 housing UL 94 V-0 with secured manual override for torques of 20 to 100 Nm in accordance with CE-ROHS-REACH Directives.

Technical data

- Multivoltage actuator:
100 V to 240 V 50/60 Hz (100 V to 350 V DC)
24 V 50/60 Hz (24 V DC)
- 3-point modulating or on-off control
- Duty cycle S4 30 % (IEC34)
- 2 adjustable position feedback switches
- Removable ISO 521 1 adaptation plates:
ER 20 Nm: F03/F04/F05
ER 35 to 100 Nm: F05/F07
- Star drive nut
- Manual override
- Modular position indicator
- Mechanical travel stops at 0° and 90°
- 3P+T DIN43650 connector + 1 ISO M20
- Temperature: -10°C to +55°C
- Enclosure: IP65
- Weight: 1 kg - 2 kg



Certifications
Approvals



Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
ER20.X0A.M00 ¹⁾	14 F03/F04/F05	20 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	15 W	13 s
ER20.X03.M00 ¹⁾	14 F03/F04/F05	20 Nm	24 V 50/60 Hz (24 V DC)	15 W	12 s
ER35.90A.M00	22 F05/F07	35 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	8 s
ER35.903.M00	22 F05/F07	35 Nm	24 V 50/60 Hz (24 V DC)	45 W	7 s
ER60.90A.M00	22 F05/F07	60 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
ER60.903.M00	22 F05/F07	60 Nm	24 V 50/60 Hz (24 V DC)	45 W	13 s
ER100.90A.M00	22 F05/F07	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	25 s
ER100.903.M00	22 F05/F07	100 Nm	24 V 50/60 Hz (24 V DC)	45 W	22 s

¹⁾ Conversion sleeve star 14 to square 9-11
X=Removable plate F03/F05 or F04

ER FASTSTOP

Description

90° electric actuator, PA6 housing UL 94 V-0 with secured manual override for torques of 10 and 20 Nm, in accordance with CE-ROHS-REACH Directives.

Technical data

- 12 V and 24 V 50/60 Hz (12 V and 24 V DC)
- 3-point modulating or on-off control
- Duty cycle S4 30 % (IEC34)
- 2 adjustable position feedback switches
- Removable ISO 5211 adaptation plates
- Star drive nut
- Manual override
- Modular position indicator
- Mechanical travel stops at 0° and 90°
- 2 ISO M20
- Temperature: -10°C to +55°C
- Enclosure: IP65
- Weight: 1 kg



Certifications
Approvals



Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
ER10.X91.M00 ¹⁾	14 F03/F04/F05	10 Nm	12 V 50/60 Hz (12 V DC)	15 W	4 s
ER10.X93.M00 ¹⁾	14 F03/F04/F05	10 Nm	24 V 50/60 Hz (24 V DC)	15 W	2 s
ER20.X91.M00 ¹⁾	14 F03/F04/F05	20 Nm	12 V 50/60 Hz (12 V DC)	15 W	8 s
ER20.X93.M00 ¹⁾	14 F03/F04/F05	20 Nm	24 V 50/60 Hz (24 V DC)	15 W	4 s

¹⁾ Conversion sleeve star 14 to square 9-11
X=Removable plate F03/F05 or F04



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

VR**Description**

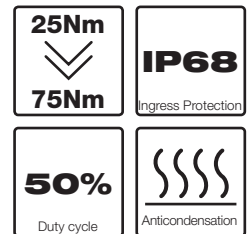
90° electric actuator, aluminium housing with C4 class coating and polyamide PA6 UL 94 V-0 or aluminium cover (option) with secured manual override for torques of 25 to 75 Nm in accordance with CE-ROHS-REACH Directives.

Versions

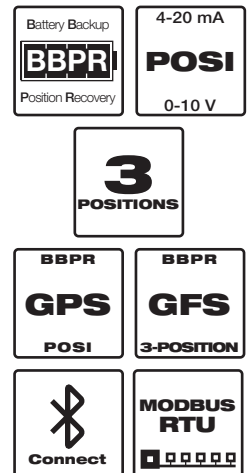
- Standard version 90°
- 180° or 270° on request
- Version for marine applications. High durability
C5-M coating, 15-year warranty
- Compatible with functions (except 400 V):
BBPR · position recovery
POSI · 4-20 mA or 0-10 V signal control
- **3 POSITIONS**
GPS · POSI + BBPR
GFS · 3 POSITIONS + BBPR
MODBUS-RTU[®] · industrial fieldbus
BLUETOOTH[®] · connected actuator

Technical data

- Multivoltage actuator:
100 V to 240 V 50/60 Hz (100 V to 350 V DC)
15 V to 30 V 50/60 Hz (12 V to 48 V DC)
3-phase 400 V 50/60 Hz
- 3-point modulating or on-off control
(400 V : 3-point modulating)
- Duty cycle S4 50 % (IEC34)
- 2 adjustable position feedback switches
- Connection F05/F07 according to ISO5211
- Star drive nut
- Manual override
- Modular position indicator
- Anticondensation heater
- Electronic torque limiter (except 400 V)
- Actuator failure feedback relay (normal duty, failure) · (except 400 V)
- RS485 connection (except 400 V)
- Mechanical travel stops at 0° and 90°
- Cable entry: 2 ISO M20 (ISO/NPT adapters available as option)
- Temperature:
standard: -20 °C to +70 °C
BBPR: -10 °C to +40 °C
- Enclosure:
IP68 2 m / 72 h (plastic cover)
IP68 5 m / 72 h (aluminium cover)
- Weight: 3.4 kg - 4.9 kg



Available versions



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Certifications
Approvals

Standard range (G00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VR25.70A.G00	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VR25.70B.G00	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	7 s
VR45.70A.G00	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR45.70B.G00	17 F05/F07	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VR75.70A.G00	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VR75.70B.G00	17 F05/F07	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	20 s

3-phase 400 V range (R00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VR25.70A.G00	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VR25.70B.G00	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	7 s
VR45.70A.G00	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s

BBPR range (GS6)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VR25.70A.GS6	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VR25.70B.GS6	17 F05/F07	25 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	7 s
VR45.70A.GS6	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR45.70B.GS6	17 F05/F07	45 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VR75.70A.GS6	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VR75.70B.GS6	17 F05/F07	75 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	20 s

POSI range (GP5)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VR25.70A.GP5	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR25.70B.GP5	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VR45.70A.GP5	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR45.70B.GP5	17 F05/F07	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VR75.70A.GP5	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VR75.70B.GP5	17 F05/F07	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	20 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

POSI-Modbus-RTU range (GP8)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VR25.70A.GP8	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR25.70B.GP8	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VR45.70A.GP8	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR45.70B.GP8	17 F05/F07	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VR75.70A.GP8	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VR75.70B.GP8	17 F05/F07	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	20 s

POSI-BBPR range (GPS)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VR25.70A.GPS	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR25.70B.GPS	17 F05/F07	25 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VR45.70A.GPS	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR45.70B.GPS	17 F05/F07	45 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VR75.70A.GPS	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VR75.70B.GPS	17 F05/F07	75 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	20 s

3-position range (GF3)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VR25.70A.GF3	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VR25.70B.GF3	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	7 s
VR45.70A.GF3	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR45.70B.GF3	17 F05/F07	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VR75.70A.GF3	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VR75.70B.GF3	17 F05/F07	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	20 s

3-POSITION-BBPR range (GFS)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VR25.70A.GFS	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VR25.70B.GFS	17 F05/F07	25 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	7 s
VR45.70A.GFS	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VR45.70B.GFS	17 F05/F07	45 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VR75.70A.GFS	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VR75.70B.GFS	17 F05/F07	75 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	20 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

Options

Code	Description
EPR....B ¹⁾	Feedback potentiometer 100 / 1000 / 5000 / 10000 Ohms
EPT.C ²⁾	0-20 mA, 4-20 mA or 0-10 V transmitter
EFC.2	Card with two extra limit switches
LC	Local control box F05/F07 (IP66)
BLUETOOTH®	Powered by AXMART® Bluetooth® version
ECA	Aluminium cover (+1 kg)
MARINE	Marine coating
VIB	Version for applications with vibrations
HUMPRO	Mainboard conformal coating
MODBUS	MODBUS-RTU communication
LMO.F05F07	Padlockable manual override

1) Specify the model,

2) Only for a travel time higher or equal to 10 s

Connection

Code	Description
ECM.4 ¹⁾	4P M12 power supply connector
ECM.8 ²⁾	8P M12 feedback/option connector
ECM.4+8 ^{1) 2)}	2 connectors (4 and 8 pins)
NPT.2	2 ISO M20 to 1/2" NPT adapters
MULTI	Multipin connector (400 V consult us)

1) 24 V 50/60 Hz and 24 V DC maximum

2) 24 V 1.5 A maximum



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

Compatibility

Code	Standard multivolt	Standard 400 V	BBPR	POSI	POSI-Modbus-RTU	POSI-BBPR	3 positions	3-POSITIONS-BBPR
	G00	R00	GS6	GP5	GP8	GPS	GF3	GFS
EPR...B Feedback potentiometer	•	•						
EPT.C Signal transmitter	•							
EFC.2 2 additional switches	•	•						
LC Local control box	•							
BLUETOOTH® Wireless control via Axmart	•		standard		standard	standard		standard
ECA Aluminium cover	•	•	•	•	•	•	•	•
MARINE CS-M Norsok coating	•	•	•	•	•	•	•	•
VIB Vibration proof	•	•	•	•	•	•	•	•
HUMPRO Varnished electronic boards	•		•	•	•	•	•	•
MODBUS Modbus-RTU control	(1)		•		standard	•	(1)	•
LMO.F05F07 Padlockable manual override	•	•	•	•	•	•	•	•
ECM.4 Additional 3P+T M12 connector	(2)		(2)	(2)	(2)	(2)	(2)	(2)
ECM.8 Additional 8P M12 connector	(3)		(3)	(3)	(3)	(3)	(3)	(3)
NPT.2 2 ISO to 1/2" NPT adapters	•	•	•	•	•	•	•	•
MULTI 24 P+T connector	•	(4)	•	•	•	•	•	•

(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

(4) Consult us



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

	EPT.C	EFC.2	LC	BLUETOOTH®	ECA	MARINE	VIB	HUMPRO	MODBUS	LMO.F05F07	ECM.4	ECM.8	NPT.2	MULTI
EPR....B Feedback potentiometer	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
EPT.C Signal transmitter		✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
EFC.2 2 additional switches			✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
LC Local control box				✓	✓	✗	✓	✓	✗	✓	✗	✗	✓	✓
BLUETOOTH® Wireless control via Axmart					✓	✓	✗	✓	(2) (3)	✓	✓	✓	✓	✓
ECA Aluminium cover						(4)	✓	✓	✓	✓	✓	✓	✓	✓
MARINE C5-M Norsok coating							✓	✓	✓	✓	✓	✓	✓	✓
VIB Vibration proof								✓	✓	✗	✓	✓	✓	✗
HUMPRO Varnished electronic boards									✓	✓	✓	✓	✓	✓
MODBUS Modbus-RTU control										✓	✓	(1)	✓	✓
LMO.F05F07 Padlockable manual override											✓	✓	✓	✓
ECM.4 Additional 3P+T M12 connector												✓	✗	✗
ECM.8 Additional 8P M12 connector													✗	✗
NPT.2 2 ISO to 1/2" NPT adapters														✓

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

 Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

VS**Description**

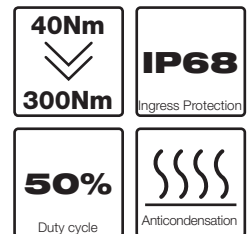
90° electric actuator, aluminium housing with C4 class coating and polyamide PA6 UL 94 V-0 or aluminium cover (option) with secured manual override by handwheel for torques of 40 to 300 Nm in accordance with CE-ROHS-REACH Directives.

Versions

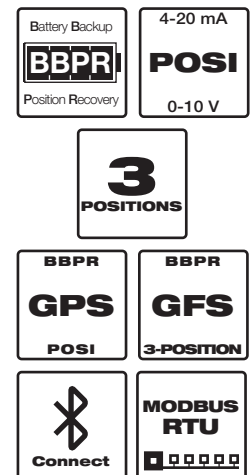
- Standard version 90°
- 180° or 270° on request
- Version for marine applications. High durability C5-M coating, 15-year warranty
- Compatible with functions (except 400 V):
BBPR · position recovery
POSI · 4-20 mA or 0-10 V signal control
- **3 POSITIONS**
GPS · POSI + BBPR
GFS · 3 POSITIONS + BBPR
MODBUS-RTU[®] · industrial fieldbus
BLUETOOTH[®] · connected actuator

Technical data

- Multivoltage actuator:
100 V to 240 V 50/60 Hz (100 V to 350 V DC)
15 V to 30 V 50/60 Hz (12 V to 48 V DC)
3-phase 400 V 50/60 Hz
- 3-point modulating or on-off control
(400 V : 3-point modulating)
- Duty cycle S4 50 % (IEC34)
- 2 adjustable position feedback switches
- Connection F07/F10 according to ISO5211
- Star drive nut
- Manual override by hand wheel
- Position indicator
- Anticondensation heater
- Electronic torque limiter (except 400 V)
- Actuator failure feedback relay (normal duty, failure) · (except 400 V)
- RS485 connection (except 400 V)
- Mechanical travel stops at 0° and 90°
- Cable entry: 2 ISO M20 (ISO/NPT adapters available as option)
- Temperature:
standard: -20 °C to +70 °C
BBPR: -10 °C to +40 °C
- Enclosure:
IP68 2 m / 72 h (plastic cover)
IP68 5 m / 72 h (aluminium cover)
IP68 10 m / 72 h (aluminium cover + option)
- Weight: 6 kg - 7.5 kg



Available versions



Powered by
AXMART[®]

Certifications
Approvals



Standard range (G00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VS40.90A.G00	22 F07/F10	40 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS40.90B.G00	22 F07/F10	40 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS70.90A.G00	22 F07/F10	70 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS70.90B.G00	22 F07/F10	70 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS100.90A.G00	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS100.90B.G00	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS150.90A.G00	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VS150.90B.G00	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	30 s
VS300.90A.G00	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VS300.90B.G00	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	60 s

3-phase 400 V range (R00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VS100.909.R00	22 F07/F10	100 Nm	3-phase 400 V 50/60 Hz	135 W	10 s
VS150.909.R00	22 F07/F10	150 Nm	3-phase 400 V 50/60 Hz	135 W	20 s
VS300.909.R00	22 F07/F10	300 Nm	3-phase 400 V 50/60 Hz	135 W	35 s

BBPR range (GS6)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VS40.90A.GS6	22 F07/F10	40 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS40.90B.GS6	22 F07/F10	40 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS70.90A.GS6	22 F07/F10	70 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS70.90B.GS6	22 F07/F10	70 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS100.90A.GS6	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS100.90B.GS6	22 F07/F10	100 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS150.90A.GS6	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VS150.90B.GS6	22 F07/F10	150 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	30 s
VS300.90A.GS6	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VS300.90B.GS6	22 F07/F10	300 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	60 s

POSI range (GP5)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VS40.90A.GP5	22 F07/F10	40 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS40.90B.GP5	22 F07/F10	40 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS70.90A.GP5	22 F07/F10	70 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS70.90B.GP5	22 F07/F10	70 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS100.90A.GP5	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS100.90B.GP5	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS150.90A.GP5	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VS150.90B.GP5	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	30 s
VS300.90A.GP5	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VS300.90B.GP5	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	60 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

POSI-MODBUS-RTU range (GP8)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VS40.90A.GP8	22 F07/F10	40 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS40.90B.GP8	22 F07/F10	40 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS70.90A.GP8	22 F07/F10	70 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS70.90B.GP8	22 F07/F10	70 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS100.90A.GP8	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS100.90B.GP8	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS150.90A.GP8	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VS150.90B.GP8	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	30 s
VS300.90A.GP8	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VS300.90B.GP8	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	60 s

POSI-BBPR range (GPS)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VS40.90A.GPS	22 F07/F10	40 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS40.90B.GPS	22 F07/F10	40 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS70.90A.GPS	22 F07/F10	70 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS70.90B.GPS	22 F07/F10	70 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS100.90A.GPS	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS100.90B.GPS	22 F07/F10	100 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS150.90A.GPS	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VS150.90B.GPS	22 F07/F10	150 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	30 s
VS300.90A.GPS	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VS300.90B.GPS	22 F07/F10	300 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	60 s

3-position range (GF3)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VS40.90A.GF3	22 F07/F10	40 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS40.90B.GF3	22 F07/F10	40 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS70.90A.GF3	22 F07/F10	70 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS70.90B.GF3	22 F07/F10	70 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS100.90A.GF3	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS100.90B.GF3	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VS150.90A.GF3	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VS150.90B.GF3	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	30 s
VS300.90A.GF3	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VS300.90B.GF3	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	60 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

3-POSITION-BBPR range (GFS)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VS40.90A.GFS	22 F07/F10	40 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS40.90B.GFS	22 F07/F10	40 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS70.90A.GFS	22 F07/F10	70 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS70.90B.GFS	22 F07/F10	70 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS100.90A.GFS	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VS100.90B.GFS	22 F07/F10	100 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VS150.90A.GFS	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VS150.90B.GFS	22 F07/F10	150 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	30 s
VS300.90A.GFS	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VS300.90B.GFS	22 F07/F10	300 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	60 s

Options

Code	Description
EPR...B ¹⁾	Feedback potentiometer 100 / 1000 / 5000 / 10000 Ohms
EPT.C	0-20 mA, 4-20 mA or 0-10 V transmitter
EFC.2	Card with two extra limit switches
LC	Local control box F07/F10 (IP66)
BLUETOOTH®	Powered by AXMART® Bluetooth® version
ECA	Aluminium cover (+1 kg)
IP10 ²⁾	10 meters 72 hours IP68 tightness
MARINE	Marine coating
VIB	Version for applications with vibrations
HUMPRO	Mainboard conformal coating
MODBUS	MODBUS-RTU communication

¹⁾ Specify the model,

²⁾ Delivered without cable gland

Connection

Code	Description
ECM.4 ¹⁾	4P M12 power supply connector
ECM.8 ²⁾	8P M12 feedback/option connector
ECM.4+8 ^{1) 2)}	2 connectors (4 and 8 pins)
NPT.2	2 ISO M20 to 1/2" NPT adapters
MULTI	Multipin connector (400 V consult us)

¹⁾ 24 V 50/60 Hz and 24 V DC maximum

²⁾ 24 V 1.5 A maximum



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

Compatibility

Code	Standard multivolt	Standard 400 V	BBPR	POSI	POSI-Modbus-RTU	POSI-BBPR	3 positions	3-POSITIONS-BBPR
	G00	R00	GS6	GP5	GP8	GPS	GF3	GFS
EPR...B Feedback potentiometer	•	•						
EPT.C Signal transmitter	•							
EFC.2 2 additional switches	•	•						
LC Local control box	•							
BLUETOOTH® Wireless control via Axmart	•		standard		standard	standard		standard
ECA Aluminium cover	•	•	•	•	•	•	•	•
IP10 10 meters 72 hours IP68 tightness	•	•	•	•	•	•	•	•
MARINE CS-M Norsok coating	•	•	•	•	•	•	•	•
VIB Vibration proof	•	•	•	•	•	•	•	•
HUMPRO Varnished electronic boards	•		•	•	•	•	•	•
MODBUS Modbus-RTU control	(1)		•		standard	•	(1)	•
ECM.4 Additional 3P+T M12 connector	(2)		(2)	(2)	(2)	(2)	(2)	(2)
ECM.8 Additional 8P M12 connector	(3)		(3)	(3)	(3)	(3)	(3)	(3)
NPT.2 2 ISO to 1/2" NPT adapters	•	•	•	•	•	•	•	•
MULTI 24 P+T connector	•	(4)	•	•	•	•	•	•

(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

(4) Consult us



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

	EPT.C	EFC.2	LC	BLUETOOTH®	ECA	IP10	MARINE	VIB	HUMPRO	MODBUS	ECM.4	ECM.8	NPT.2	MULTI
EPR....B Feedback potentiometer	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓
EPT.C Signal transmitter		✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓
EFC.2 2 additional switches			✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓
LC Local control box				✓	✓	✗	✗	✓	✓	✗	✗	✗	✓	✓
BLUETOOTH® Wireless control via Axmart					✓	✓	✓	✗	✓	(2) (3)	✓	✓	✓	✓
ECA Aluminium cover						(4)	(4)	✓	✓	✓	✓	✓	✓	✓
IP10 10 meters 72 hours IP68 tightness							✓	✓	✓	✓	✓	✓	✓	✓
MARINE C5-M Norsok coating								✓	✓	✓	✓	✓	✓	✓
VIB Vibration proof									✓	✓	✓	✓	✓	✗
HUMPRO Varnished electronic boards										✓	✓	✓	✓	✓
MODBUS Modbus-RTU control											✓	(1)	✓	✓
ECM.4 Additional 3P+T M12 connector												✓	✗	✗
ECM.8 Additional 8P M12 connector													✗	✗
NPT.2 2 ISO to 1/2" NPT adapters														✓

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

 Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

VT**Description**

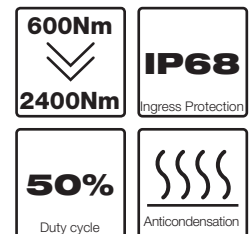
90° electric actuator, aluminium housing with C4 class coating and polyamide PA6 UL 94 V-0 or aluminium cover (option) with secured manual override by handwheel for torques of 600 to 2400 Nm in accordance with CE-ROHS-REACH Directives.

Versions

- Standard version 90°
- 180° or 270° on request
- Version for marine applications. High durability
C5-M coating, 15-year warranty

Technical data

- 3-phase 400 V 50 Hz actuator
- 3-point modulating control
- Duty cycle S4 50 % (IEC34)
- 2 adjustable position feedback switches
- Connection according to ISO5211
VT600-1000 Nm : F10/F12
VT1500-2400 Nm : F12/F14/F16
- Star drive nut
- Manual override by hand wheel
- Position indicator
- Anticondensation heater
- Mechanical torque limiter
- Actuator failure feedback relay (normal duty, failure)
- Mechanical travel stops at 0° and 90°
- Cable entry: 2 ISO M20 (ISO/NPT adapters available as option)
- Temperature: -20 °C to +70 °C
- Enclosure:
IP68 2 m / 72 h (plastic cover)
IP68 5 m / 72 h (aluminium cover)
- Weight:
VT600-1000 Nm : 24 kg
VT1500-2400 Nm : 53 kg



Certifications
Approvals



Code	Star drive nut/connection	Torque	Power	Operating time
VT600.A09.R00	36 F10/F12	600 Nm	250 W	38 s
VT1000.A09.R00	36 F10/F12	1000 Nm	250 W	38 s
VT1500.B09.R00	46 F14	1500 Nm	250 W	113 s
VT1500.C09.R00	46 F12/F16	1500 Nm	250 W	113 s
VT2400.B09.R00	46 F14	2400 Nm	250 W	113 s
VT2400.C09.R00	46 F12/F16	2400 Nm	250 W	113 s

Options

Code	Description
EPR...B ¹⁾	Feedback potentiometer 100 / 1000 / 5000 / 10000 Ohms
EPT.C	0-20 mA, 4-20 mA or 0-10 V transmitter
EFC.2	Card with two extra limit switches
ECA	Aluminium cover (+1 kg)
MARINE	Marine coating

¹⁾ Specify the model



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

VT PLUS

Description

90° electric actuator, aluminium housing and C4 class coating, with manual override by hand wheel, for torques from 400 to 2400 Nm in accordance with CE-ROHS-REACH Directives.

The VT PLUS models include **AXMART® Bluetooth®** functionality

Versions

- Standard version 90°
- 180° or 270° on request for 400, 600 and 1000 Nm models
- Version for marine applications. High durability C5-M coating, 15-year warranty
- Compatible with functions:
 - BBPR** · position recovery
 - POSI** · 4-20 mA or 0-10 V signal control
- **3 POSITIONS**
 - GPS** · POSI + BBPR
 - GFS** · 3 POSITIONS + BBPR
 - MODBUS-RTU®** · industrial fieldbus

Technical data

- Multivoltage actuator:
 - 100 V to 240 V 50/60 Hz (100 V to 300 V DC)
 - 24 V to 48 V 50/60 Hz (24 V to 72 V DC)
- 3-point modulating, on-off and pulse control
- Duty cycle S4 50 % (IEC34)
- 2 adjustable position feedback switches
- Connection according to ISO5211
 - VT400-1000 Nm : F10/F12
 - VT1500-2400 Nm : F12/F14/F16
- Star drive nut
- Manual override by hand wheel
- Position indicator
- Anticondensation heater
- Electronic torque limiter
- Actuator failure feedback relay (normal duty, failure)
- RS485 connection
- Mechanical travel stops at 0° and 90°
- Single multipin connector
- Temperature:
 - standard: -20 °C to +70 °C
 - BBPR: -10 °C to +40 °C
- Enclosure: IP68 5 m / 72 h
- Weight:
 - VT400-1000 Nm : 25 kg
 - VT1500-2400 Nm : 54 kg



1500-2400 Nm



600-1000 Nm

400Nm ∇ 2400Nm	IP68 Ingress Protection
50% Duty cycle	SSSS Anticondensation

Available versions

Battery Backup BBPR Position Recovery	4-20 mA POSI 0-10 V
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3 POSITIONS

BBPR GPS POSI	BBPR GFS 3-POSITION
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Bluetooth Connect	MODBUS RTU □ □ □ □ □ □
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Powered by **AXMART®**

Certifications Approvals



Standard range (G00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VT400.A0A.G00	36 F10/F12	400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	35s
VT400.A0B.G00	36 F10/F12	400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	35s
VT600.A0A.G00	36 F10/F12	600 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	45 s
VT600.A0B.G00	36 F10/F12	600 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	45 s
VT1000.A0A.G00	36 F10/F12	1000 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	72 s
VT1000.A0B.G00	36 F10/F12	1000 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	72 s
VT1500.B0A.G00	46 F14	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.B0B.G00	46 F14	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT1500.C0A.G00	46 F12/F16	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.C0B.G00	46 F12/F16	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT2400.B0A.G00	46 F14	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.B0B.G00	46 F14	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s
VT2400.C0A.G00	46 F12/F16	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.C0B.G00	46 F12/F16	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s

BBPR range (GS6)

Code	Star drive nut/ connection	Torque	Votages	Power	Operating time
VT400.A0A.GS6	36 F10/F12	400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	35s
VT400.A0B.GS6	36 F10/F12	400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	35s
VT600.A0A.GS6	36 F10/F12	600 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	45 s
VT600.A0B.GS6	36 F10/F12	600 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	45 s
VT1000.A0A.GS6	36 F10/F12	1000 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	72 s
VT1000.A0B.GS6	36 F10/F12	1000 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	72 s
VT1500.B0A.GS6	46 F14	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.B0B.GS6	46 F14	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT1500.C0A.GS6	46 F12/F16	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.C0B.GS6	46 F12/F16	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT2400.B0A.GS6	46 F14	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.B0B.GS6	46 F14	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s
VT2400.C0A.GS6	46 F12/F16	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.C0B.GS6	46 F12/F16	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s

POSI range (GP7)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VT400.A0A.GP7	36 F10/F12	400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	35s
VT400.A0B.GP7	36 F10/F12	400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	35s
VT600.A0A.GP7	36 F10/F12	600 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	45 s
VT600.A0B.GP7	36 F10/F12	600 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	45 s
VT1000.A0A.GP7	36 F10/F12	1000 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	72 s
VT1000.A0B.GP7	36 F10/F12	1000 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	72 s
VT1500.B0A.GP7	46 F14	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.B0B.GP7	46 F14	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT1500.C0A.GP7	46 F12/F16	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.C0B.GP7	46 F12/F16	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT2400.B0A.GP7	46 F14	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.B0B.GP7	46 F14	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s
VT2400.C0A.GP7	46 F12/F16	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.C0B.GP7	46 F12/F16	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

POSI-BBPR range (GPS)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VT400.A0A.GPS	36 F10/F12	400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	35s
VT400.A0B.GPS	36 F10/F12	400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	35s
VT600.A0A.GPS	36 F10/F12	600 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	45 s
VT600.A0B.GPS	36 F10/F12	600 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	45 s
VT1000.A0A.GPS	36 F10/F12	1000 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	72 s
VT1000.A0B.GPS	36 F10/F12	1000 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	72 s
VT1500.B0A.GPS	46 F14	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.B0B.GPS	46 F14	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT1500.C0A.GPS	46 F12/F16	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.C0B.GPS	46 F12/F16	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT2400.B0A.GPS	46 F14	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.B0B.GPS	46 F14	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s
VT2400.C0A.GPS	46 F12/F16	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.C0B.GPS	46 F12/F16	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s

3-position range (GF3)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VT400.A0A.GF3	36 F10/F12	400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	35s
VT400.A0B.GF3	36 F10/F12	400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	35s
VT600.A0A.GF3	36 F10/F12	600 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	45 s
VT600.A0B.GF3	36 F10/F12	600 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	45 s
VT1000.A0A.GF3	36 F10/F12	1000 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	72 s
VT1000.A0B.GF3	36 F10/F12	1000 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	72 s
VT1500.B0A.GF3	46 F14	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.B0B.GF3	46 F14	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT1500.C0A.GF3	46 F12/F16	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.C0B.GF3	46 F12/F16	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT2400.B0A.GF3	46 F14	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.B0B.GF3	46 F14	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s
VT2400.C0A.GF3	46 F12/F16	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.C0B.GF3	46 F12/F16	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s

3-POSITION-BBPR range (GFS)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VT400.A0A.GFS	36 F10/F12	400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	35s
VT400.A0B.GFS	36 F10/F12	400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	35s
VT600.A0A.GFS	36 F10/F12	600 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	45 s
VT600.A0B.GFS	36 F10/F12	600 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	45 s
VT1000.A0A.GFS	36 F10/F12	1000 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	72 s
VT1000.A0B.GFS	36 F10/F12	1000 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	72 s
VT1500.B0A.GFS	46 F14	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.B0B.GFS	46 F14	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT1500.C0A.GFS	46 F12/F16	1500 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	182 s
VT1500.C0B.GFS	46 F12/F16	1500 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	182 s
VT2400.B0A.GFS	46 F14	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.B0B.GFS	46 F14	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s
VT2400.C0A.GFS	46 F12/F16	2400 Nm	100 V to 240 V 50/60 Hz (100 V to 300 V DC)	300 W	291 s
VT2400.C0B.GFS	46 F12/F16	2400 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	300 W	291 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

Options

Code	Description
MARINE	Marine coating (400-1000 Nm)
MARINE	Marine coating (1500-2400 Nm)
VIB	Version for applications with vibrations
LC	Local control box F10/F12 (IP66)

Compatibility

Code	STANDARD	BBPR	POSI	POSI-BBPR	3 POSITIONS	3-POSITIONS-BBPR
MARINE CS-M Norsok coating	•	•	•	•	•	•
VIB Vibration proof	•	•	•	•	•	•
MODBUS Modbus-RTU control	•	•	•	•	•	•
LC Local control box	•					



Special Models

LT**Special Model "Low Temperature"****Description**

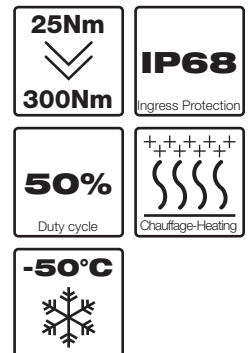
90° electric actuator, aluminium housing and C4 class coating, designed for low temperatures (-50 °C), with secured manual override by handwheel for torques of 25 to 300 Nm in accordance with CE-ROHS-REACH Directives.

Versions

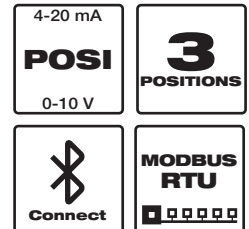
- Standard version 90°
- 180° or 270° on request
- Version for marine applications. High durability
C5-M coating, 15-year warranty
- Compatible with functions:
POSI · 4-20 mA or 0-10 V signal control
- **3 POSITIONS**
MODBUS-RTU® · industrial fieldbus
BLUETOOTH® · connected actuator

Technical data

- Multivoltage actuator:
100 V to 240 V 50/60 Hz (100 V to 350 V DC)
15 V to 30 V 50/60 Hz (12 V to 48 V DC)
- 3-point modulating or on-off control
- Duty cycle S4 50 % (IEC34)
- 2 adjustable position feedback switches
- Connection according to ISO5211
- Star drive nut
- Manual override by hand wheel
- Position indicator
- Integrated 30 W heating unit
- Electronic torque limiter
- Actuator failure feedback relay (normal duty, failure)
- RS485 connection
- Mechanical travel stops at 0° and 90°
- Cable entry: 2 ISO M20 (ISO/NPT adapters available as option)
- Temperature:
standard: -50 °C to +70 °C
POSI: -40 °C to +70 °C
- Enclosure:
IP68 5 m / 72 h
IP68 10 m / 72 h (option)
- Weight: 7.1 kg to 8.2 kg



Available versions



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AXMART®

Certifications
Approvals

Standard range (G00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
LT25.90Ax.G00	22 F07/F10 ¹⁾	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT25.90Bx.G00	22 F07/F10 ¹⁾	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT45.90Ax.G00	22 F07/F10 ¹⁾	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT45.90Bx.G00	22 F07/F10 ¹⁾	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT75.90Ax.G00	22 F07/F10 ¹⁾	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT75.90Bx.G00	22 F07/F10 ¹⁾	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT100.90Ax.G00	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT100.90Bx.G00	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT150.90Ax.G00	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	30 s
LT150.90Bx.G00	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	30 s
LT300.90Ax.G00	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	60 s
LT300.90Bx.G00	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	60 s

delivered without cable gland

X : Specify the heating system voltage (3 = 24 V AC/DC | 7 = 110 V AC | 8 = 230 V AC)**1)** Delivered with F05/F07 removable plate and 17 mm star adaptation sleeve

POSI range (GP5)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
LT25.90Ax.GP5	22 F07/F10 ¹⁾	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT25.90Bx.GP5	22 F07/F10 ¹⁾	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT45.90Ax.GP5	22 F07/F10 ¹⁾	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT45.90Bx.GP5	22 F07/F10 ¹⁾	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT75.90Ax.GP5	22 F07/F10 ¹⁾	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT75.90Bx.GP5	22 F07/F10 ¹⁾	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT100.90Ax.GP5	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT100.90Bx.GP5	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT150.90Ax.GP5	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	30 s
LT150.90Bx.GP5	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	30 s
LT300.90Ax.GP5	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	60 s
LT300.90Bx.GP5	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	60 s

delivered without cable gland

X : Specify the heating system voltage (3 = 24 V AC/DC | 7 = 110 V AC | 8 = 230 V AC)**1)** Delivered with F05/F07 removable plate and 17 mm star adaptation sleeve

Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

3-position range (GF3)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
LT25.90Ax.GF3	22 F07/F10 ¹⁾	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT25.90Bx.GF3	22 F07/F10 ¹⁾	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT45.90Ax.GF3	22 F07/F10 ¹⁾	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT45.90Bx.GF3	22 F07/F10 ¹⁾	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT75.90Ax.GF3	22 F07/F10 ¹⁾	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT75.90Bx.GF3	22 F07/F10 ¹⁾	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT100.90Ax.GF3	22 F07/F10 ¹⁾	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	15 s
LT100.90Bx.GF3	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	15 s
LT150.90Ax.GF3	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	30 s
LT150.90Bx.GF3	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	30 s
LT300.90Ax.GF3	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	75 W	60 s
LT300.90Bx.GF3	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	75 W	60 s

delivered without cable gland

X : Specify the heating system voltage (3 = 24 V AC/DC | 7 = 110 V AC | 8 = 230 V AC)

1) Delivered with F05/F07 removable plate and 17 mm star adaptation sleeve

Options

Code	Description
EPR....B ¹⁾	Feedback potentiometer 100 / 1000 / 5000 / 10000 Ohms
EPT.C	0-20 mA, 4-20 mA or 0-10 V transmitter
EFC.2	Card with two extra limit switches
BLUETOOTH®	Powered by AXMART® Bluetooth® version
IP10	10 meters 72 hours IP68 tightness
MARINE	Marine coating
HUMPRO	Mainboard conformal coating
MODBUS	MODBUS-RTU communication

1) Specify the model,

Connection

Code	Description
NPT.2	Set of 2 ISO M20 to 1/2" NPT adapters (up to -40 °C)
MULTI	Multipin connector (up to -40 °C)



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

Compatibility

Code	Standard multivolt G00	POSI GP5	3 positions GF3
EPR....B Feedback potentiometer	•		
EPT.C Signal transmitter	•		
EFC.2 2 additional switches	•		
BLUETOOTH® Wireless control via Axmart	•		
IP10 10 meters 72 hours IP68 tightness	•	•	•
MARINE C5-M Norsok coating	•	•	•
HUMPRO Varnished electronic boards	•	•	•
MODBUS Modbus-RTU control	(1)		(1)
NPT.2 2 ISO to 1/2" NPT adapters	• (-40 °C)	• (-40 °C)	• (-40 °C)
MULTI 24 P+T connector	• (-40 °C)	• (-40 °C)	• (-40 °C)

(1) The feedback switches are not available

	EPT,C	EFC,2	BLUETOOTH®	IP10	MARINE	HUMPRO	MODBUS	NPT,2	MULTI
EPR....B Feedback potentiometer	✗	✗	✓	✓	✓	✓	✓	✗	✓
EPT,C Signal transmitter		✗	✓	✓	✓	✓	✓	✗	✓
EFC,2 2 additional switches			✓	✓	✓	✓	✓	✗	✓
BLUETOOTH® Wireless control via Axmart				✓	✓	✓	✗	✓	✓
IP10 10 meters 72 hours IP68 tightness					✓	✓	✓	✗	✗
MARINE C5-M Norsok coating						✓	✓	✓	✓
HUMPRO Varnished electronic boards							✓	✓	✓
MODBUS Modbus-RTU control								✓	✓
NPT,2 2 ISO to 1/2" NPT adapters									✓

VRX·VSX·VTX Special Model "ATEX Explosive Atmospheres"

Description

90° electric actuator, aluminium housing and C4 class coating, design for use in ATEX zones, with secured manual override by handwheel for torques of 25 to 1000 Nm in accordance with CE-ROHS-REACH Directives.

Versions

- Standard version 90°
- 180° or 270° on request
- Version for marine applications. High durability C5-M coating, 15-year warranty
- Compatible with functions (except 400 V & VTX):
 - BBPR** · position recovery
 - POSI** · 4-20 mA or 0-10 V signal control
- **3 POSITIONS**
 - GPS** · POSI + BBPR
 - GFS** · 3 POSITIONS + BBPR
 - MODBUS-RTU**[®] · industrial fieldbus
 - BLUETOOTH**[®] · connected actuator

Technical data

- Multivoltage VRX/VSX actuators:
 - 100 V to 240 V 50/60 Hz (100 V to 350 V DC)
 - 15 V to 30 V 50/60 Hz (12 V to 48 V DC)
 - 3-phase 400 V 50/60 Hz
- VTX actuator:
 - 230 V 50 Hz
 - 3-phase 400 V 50 Hz
- 3-point modulating or on-off control (400 V & VTX : 3-point modulating)
- Duty cycle S4 50 % (IEC34)
- 2 adjustable position feedback switches
- Connection according to ISO5211
 - VRX : F05/F07
 - VSX : F07/F10
 - VTX : F10/F12
- Star drive nut
- Manual override by hand wheel
- Position indicator
- Anticondensation heater
- Torque limiter (except VRX & VSX 400 V)
- Failure feedback relay (except 400 V & VTX)
- RS485 connection (except 400 V & VTX)
- Mechanical travel stops at 0° and 90°
- Cable entry: 2 ISO M20 (ISO/NPT adapters available as option)
- Enclosure: IP68 5 m / 72 h
- Weight:
 - VRX: 4.4 kg - 4.9 kg
 - VSX: 7 kg - 7.5 kg
 - VTX: 24 kg



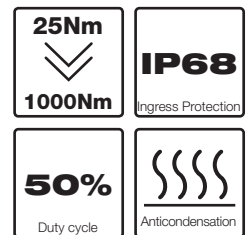
VRX



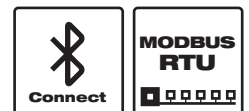
VSX



VTX



Versions disponibles
Available versions



Powered by
AXMART[®]

Certifications
Approvals



ATEX marking

Series	Zones	ATEX marking		T_a
		Gas	Dust	
VRX/VSX · G00, GP5, GF3	II 2 G D	Ex db IIB T6 Gb	Ex tb IIIC T80°C Db	LCIE 06 ATEX 6006X -20 °C to +70 °C
VRX/VSX · GS6, GPS, GFS	II 2 G D	Ex db IIB T6 Gb	Ex tb IIIC T80°C Db	LCIE 06 ATEX 6006X -10 °C to +40 °C
VRX/VSX · 400 V	II 2 G D	Ex db IIB T5 Gb	Ex tb IIIC T95°C Db	LCIE 06 ATEX 6006X -20 °C to +54 °C
VTX	II 2 G D	Ex db IIB T5 Gb	Ex tb IIIC T90°C Db	LCIE 06 ATEX 6006X -20 °C to +63 °C

Denomination	VRX/VSX		VTX		
	Covered areas		Covered areas		
Installation places	II		II		Approved equipment for surface industries
Protection level	2 2 & 3		2 2 & 3		Installation into chemical, petrochemical, agriculture, food industry ...
Installation areas for gas, vapors, liquids	G zone 1 zone 2		G zone 1 zone 2		Zone 1 : presence of explosive substances (gas) between 10 and 1000 hours/year Zone 2 : presence of explosive substances (gas) less than 10 hours/year
Installation areas for dusts	D zone 21 zone 22		D zone 21 zone 22		Zone 21 : presence of explosive substances (gas) between 10 and 1000 hours/year Zone 22 : presence of explosive substances (gas) less than 10 hours/year
IEC marking	Ex		Ex		
Type of protection (gas)	db		db		Flameproof enclosure protection
Gases in the atmosphere	IIB IIB & IIA & I		IIB IIB & IIA & I		ethylene, propane, methane
Maximum surface temperature (gas)	T6 T6 (85°C) T5 (100°C) T4 (135°C) T3 (200°C) T2 (300°C) T1 (450°C)		T5 T5 (100°C) T4 (135°C) T3 (200°C) T2 (300°C) T1 (450°C)		Maximum authorized temperature of the housing for equipment installation (gas)
Equipment Protection Levels	Gb zone 1 zone 2		Gb zone 1 zone 2		Possible installation in zones 1 & 2
IEC marking	Ex		Ex		
Type of protection (dusts)	tb		tb		Flameproof enclosure protection
Dusts in the atmosphere	IIIC IIIC IIIB IIIA		IIIC IIIC IIIB IIIA		IIIC : conductive dusts IIIB : non conductive dusts IIIA : flammable fiber lints
Maximum surface temperature (dusts)	T 80°C		T 90°C		Maximum authorized temperature of the housing for equipment installation (dusts)
Equipment Protection Levels	Db zone 21 zone 22		Db zone 21 zone 22		Possible installation in zones 21 & 22



Use only metal cable glands with ATEX category equivalent to the actuator.

Standard VRX/VSX range

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VRX25.70A.G00	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VRX25.70B.G00	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	7 s
VRX45.70A.G00	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX45.70B.G00	17 F05/F07	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VRX75.70A.G00	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VRX75.70B.G00	17 F05/F07	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	20 s
VSX100.90A.G00	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VSX100.90B.G00	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VSX150.90A.G00	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VSX150.90B.G00	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	30 s
VSX300.90A.G00	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VSX300.90B.G00	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	60 s

3-phase 400 V VRX/VSX range (R00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VRX25.709.R00	17 F05/F07	25 Nm	3-phase 400 V 50/60 Hz	52 W	10 s
VRX45.709.R00	17 F05/F07	45 Nm	3-phase 400 V 50/60 Hz	52 W	10 s
VRX75.709.R00	17 F05/F07	75 Nm	3-phase 400 V 50/60 Hz	52 W	15 s
VSX100.909.R00	22 F07/F10	100 Nm	3-phase 400 V 50/60 Hz	135 W	10 s
VSX150.909.R00	22 F07/F10	150 Nm	3-phase 400 V 50/60 Hz	135 W	20 s
VSX300.909.R00	22 F07/F10	300 Nm	3-phase 400 V 50/60 Hz	135 W	35 s

Standard VTX range (G00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VTX600.A08.G00	36 F10/F12	600 Nm	230 V 50 Hz	250 W	38 s
VTX1000.A08.G00	36 F10/F12	1000 Nm	230 V 50 Hz	250 W	38 s

3-phase 400 V VTX range (R00)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VTX600.A09.R00	36 F10/F12	600 Nm	3-phase 400V 50Hz	250 W	38 s
VTX1000.A09.R00	36 F10/F12	1000 Nm	3-phase 400V 50Hz	250 W	38 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

BBPR range (GS6)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VRX25.70A.GS6	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VRX25.70B.GS6	17 F05/F07	25 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	45 W	7 s
VRX45.70A.GS6	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX45.70B.GS6	17 F05/F07	45 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	45 W	15 s
VRX75.70A.GS6	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VRX75.70B.GS6	17 F05/F07	75 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	45 W	20 s
VSX100.90A.GS6	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VSX100.90B.GS6	22 F07/F10	100 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	45 W	15 s
VSX150.90A.GS6	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VSX150.90B.GS6	22 F07/F10	150 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	45 W	30 s
VSX300.90A.GS6	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VSX300.90B.GS6	22 F07/F10	300 Nm	24 V to 48 V 50/60 Hz (24 V to 72 V DC)	45 W	60 s

POSI range (GP5)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VRX25.70A.GP5	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX25.70B.GP5	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VRX45.70A.GP5	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX45.70B.GP5	17 F05/F07	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VRX75.70A.GP5	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VRX75.70B.GP5	17 F05/F07	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	20 s
VSX100.90A.GP5	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VSX100.90B.GP5	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VSX150.90A.GP5	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VSX150.90B.GP5	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	30 s
VSX300.90A.GP5	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VSX300.90B.GP5	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	60 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

POSI-MODBUS-RTU range (GP8)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time
VRX25.70A.GP8	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX25.70B.GP8	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VRX45.70A.GP8	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX45.70B.GP8	17 F05/F07	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VRX75.70A.GP8	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VRX75.70B.GP8	17 F05/F07	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	20 s
V SX100.90A.GP8	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
V SX100.90B.GP8	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
V SX150.90A.GP8	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
V SX150.90B.GP8	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	30 s
V SX300.90A.GP8	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
V SX300.90B.GP8	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	60 s

POSI-BBPR range (GPS)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VRX25.70A.GPS	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX25.70B.GPS	17 F05/F07	25 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VRX45.70A.GPS	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX45.70B.GPS	17 F05/F07	45 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VRX75.70A.GPS	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VRX75.70B.GPS	17 F05/F07	75 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	20 s
V SX100.90A.GPS	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
V SX100.90B.GPS	22 F07/F10	100 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
V SX150.90A.GPS	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
V SX150.90B.GPS	22 F07/F10	150 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	30 s
V SX300.90A.GPS	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
V SX300.90B.GPS	22 F07/F10	300 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	60 s

3-position range (GF3)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VRX25.70A.GF3	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VRX25.70B.GF3	17 F05/F07	25 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	7 s
VRX45.70A.GF3	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX45.70B.GF3	17 F05/F07	45 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
VRX75.70A.GF3	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VRX75.70B.GF3	17 F05/F07	75 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	20 s
V SX100.90A.GF3	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
V SX100.90B.GF3	22 F07/F10	100 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	15 s
V SX150.90A.GF3	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
V SX150.90B.GF3	22 F07/F10	150 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	30 s
V SX300.90A.GF3	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
V SX300.90B.GF3	22 F07/F10	300 Nm	15 V to 30 V 50/60 Hz (12 V to 48 V DC)	45 W	60 s



Please consider 1.5 safety factor (and 2 safety factor for POSI version) when sizing the actuator.

3-POSITION-BBPR range (GFS)

Code	Star drive nut/ connection	Torque	Voltages	Power	Operating time (90°)
VRX25.70A.GFS	17 F05/F07	25 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	7 s
VRX25.70B.GFS	17 F05/F07	25 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	7 s
VRX45.70A.GFS	17 F05/F07	45 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VRX45.70B.GFS	17 F05/F07	45 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VRX75.70A.GFS	17 F05/F07	75 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	20 s
VRX75.70B.GFS	17 F05/F07	75 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	20 s
VSX100.90A.GFS	22 F07/F10	100 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	15 s
VSX100.90B.GFS	22 F07/F10	100 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	15 s
VSX150.90A.GFS	22 F07/F10	150 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	30 s
VSX150.90B.GFS	22 F07/F10	150 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	30 s
VSX300.90A.GFS	22 F07/F10	300 Nm	100 V to 240 V 50/60 Hz (100 V to 350 V DC)	45 W	60 s
VSX300.90B.GFS	22 F07/F10	300 Nm	24 V to 30 V 50/60 Hz (24 V to 48 V DC)	45 W	60 s

Options

Code	Description
EPR...B ¹⁾	Feedback potentiometer 100 / 1000 / 5000 / 10000 Ohms
EPT.C ²⁾	0-20 mA, 4-20 mA or 0-10 V transmitter
EFC.2	Card with two extra limit switches
HUMPRO	Mainboard conformal coating
MODBUS	MODBUS-RTU communication
VIB	Version for applications with vibrations
MARINE	Marine coating (VRX/VSX)

(1) Specify the model,

(2) Only for a travel time higher or equal to 10 s

Compatibility

Code	VRX/VSX									VTX	
	Standard multivolt	Standard 400 V	BBPR	POSI	PDOI-MOBUS-RTU	POSI-BBPR	3 positions	3-POSITION-BBPR	standard	400 V	
	G00	R00	GS6	GP5	GP8	GPS	GF3	GFS	G00	R00	
EPR....B Feedback potentiometer	•	•			•				•	•	
EPT.C Signal transmitter	•				•				•	•	
EFC.2 2 additional switches	•	•			•				•	•	
HUMPRO Varnished electronic boards	•		•	•	•	•	•	•			
MODBUS Modbus-RTU control	(1)		•	•	standard	•	(1)	•			
VIB Vibration proof	•	•	•	•	•	•	•	•			
MARINE CS-M Norsok coating	•	•	•	•	•	•	•	•			

(1) The feedback switches are not available

	EPT.C	EFC.2	HUMPRO	VIB	MODBUS	MARINE
EPR....B Feedback potentiometer	✗	✗	✓	✗	✓	✓
EPT.C Signal transmitter		✗	✓	✗	✓	✓
EFC.2 2 additional switches			✓	✗	✓	✓
HUMPRO Varnished electronic boards				✓	✓	✓
VIB Vibration proof					✓	✓
MODBUS Modbus-RTU control						✓



Modbus-RTU®

Communication fieldbus for electric actuators

Description

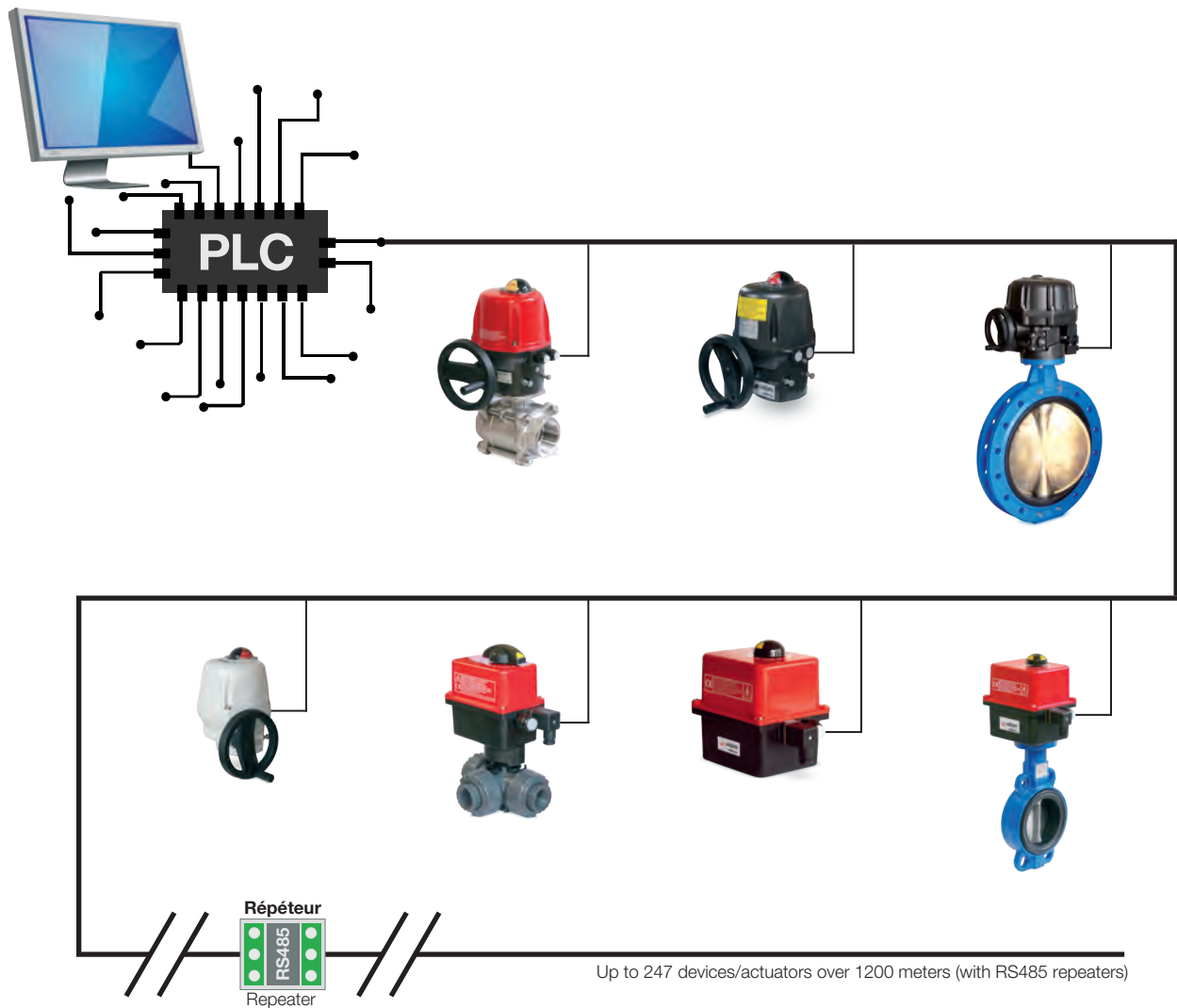
Industrial communication protocol via RS485 serial link for actuators from 10 to 2400 Nm.

Customer benefits

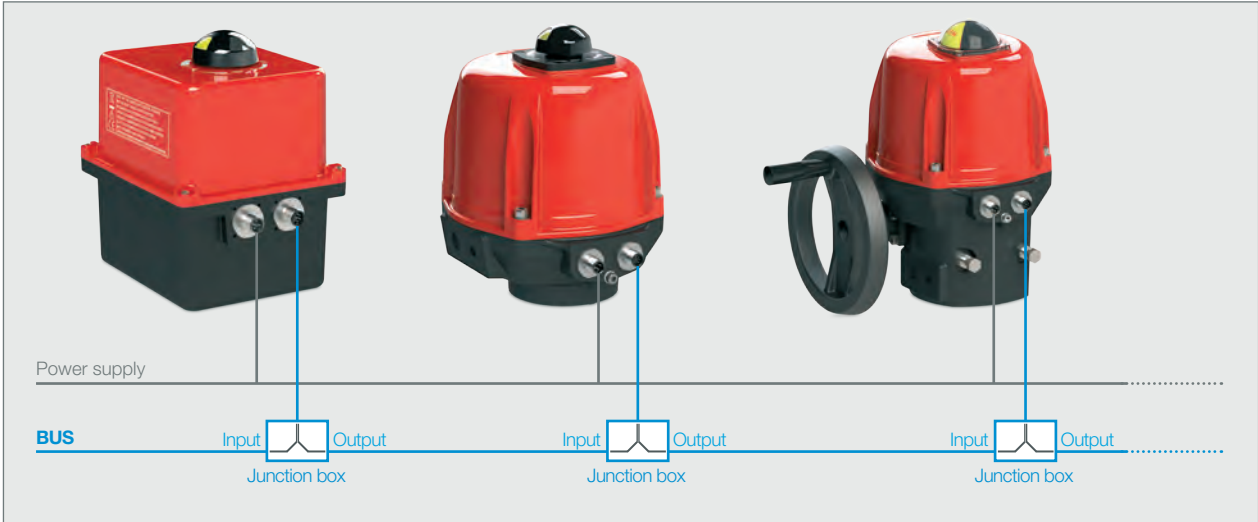
- Modbus-RTU approved by “Modbus organisation”
- RS485 interface
- Up to 31 actuators over 1200 meters per line
- Up to 247 actuators with repeaters
- Can be integrated into any type of network via gateways
- Removable termination resistor included.
- Compatible BBPR, POSI and 3-position functions.

Compatible series

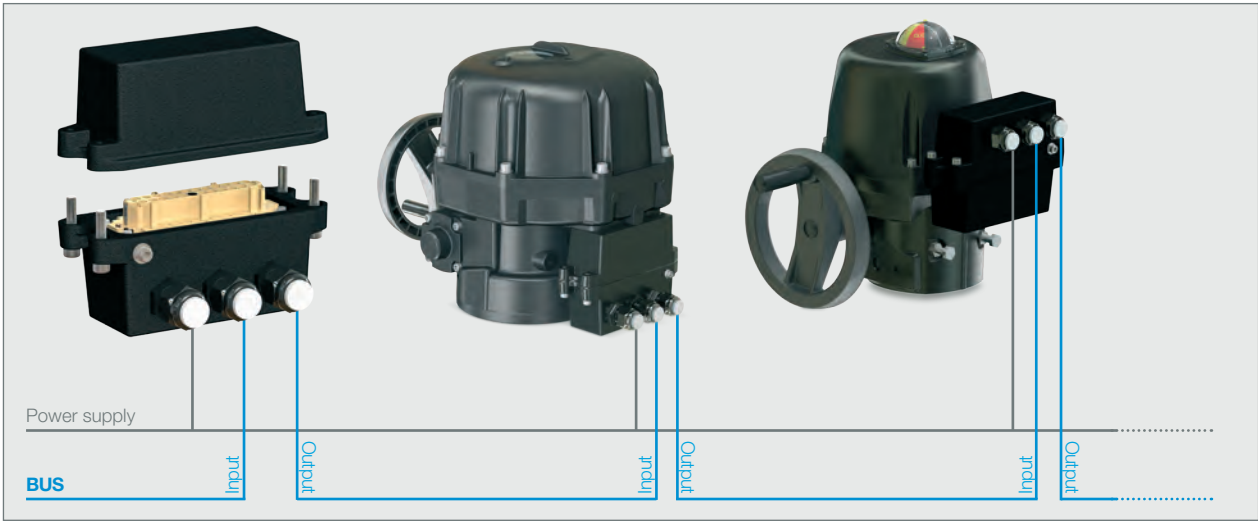
- ER PLUS
- VR/VS
- VT PLUS
- LT - low temperatures
- VRX/VSX - ATEX
- DV/DVX - DNV



Our plug & play solutions with pre-wiring



Our plug & play solutions with pre-wiring + junction box (for VR, VS, LT, VT+ series)



Compatible with other protocols via Box Control



Bluetooth®

Connected actuators

**Description**

Bluetooth® communication via AXMART® v3, the management and control interface for electric actuators from 10 to 2400 Nm.

Customer benefits

- Usable within a range of 15 meters in open field
- Compatible with ATEX devices for use in explosive atmospheres
- Available for free on Android and IOS

As option on

- ER PLUS
- VR/VS
- LT - low temperatures
- DV/DVX - DNV

As a standard on

- VT PLUS
- All BBPR, POSI-MODBUS-RTU, POSI-BBPR and 3-POSITION-BBPR models





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

Backup position (BBPR models), setpoint and feedback signals (POSI models), electrical wiring and operating mode can be set directly with AXMART®.

BBPR

Actuators with battery backup position recovery system



Description

Actuators from 10 to 2400 Nm with function ensuring a return to safety position in case of power failure. This function includes all AXMART® Bluetooth® functionalities.

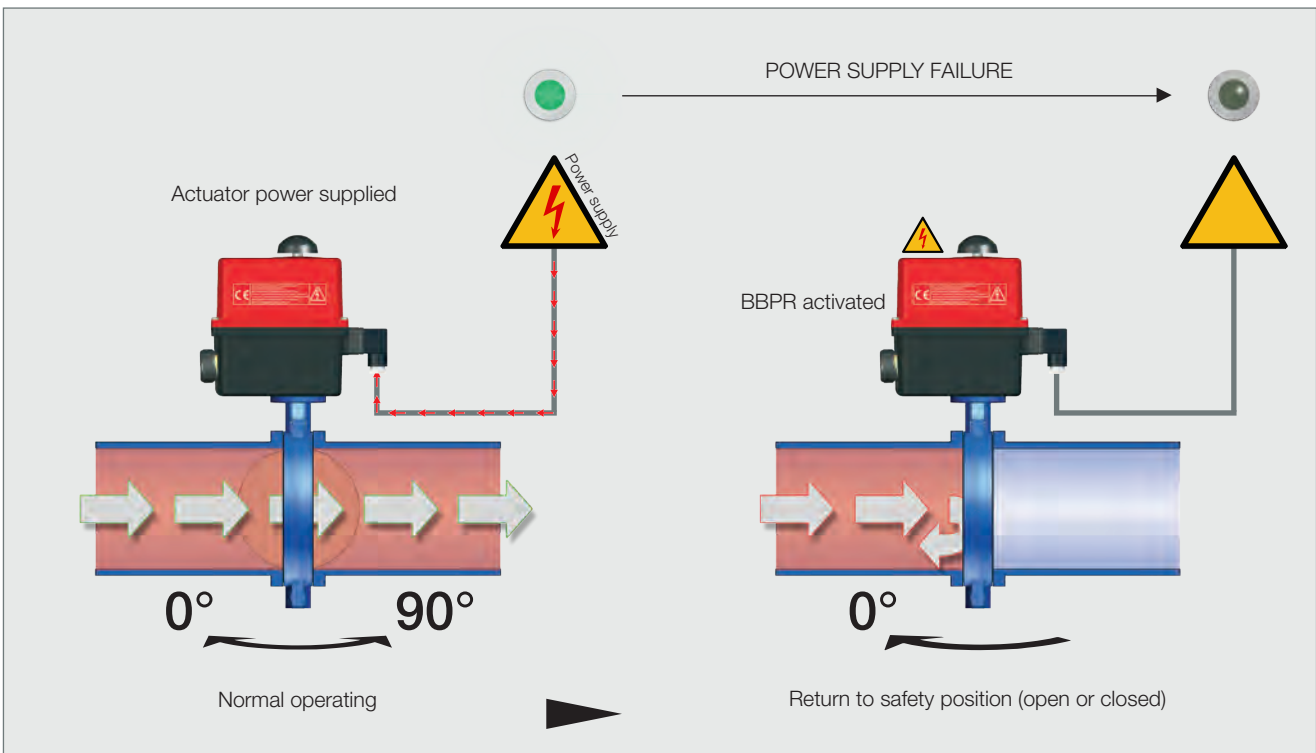
Customer benefits

- CE, UKCA, CSA/UL, EAC certified
- Warranted 18 month from delivery date (see general sales conditions)
- All in one: no additional wiring required
- “Fail to set” (closed, open) easy setting with 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
- Bluetooth® connection for monitoring, programming, control and setup of all actuators with AXMART® interface
- Failure report
- Robust and reliable over the entire temperature range, from -10 °C to +40 °C
- Compatible with POSI function: GPS
- Compatible with 3-position function: GFS
- Compatible with Modbus-RTU protocol
- Includes Bluetooth® function as standard



Compatible series

- ER PLUS
- VR/VS
- VT PLUS
- VRX/VSX - ATEX
- DV/DVX - DNV



POSI

Actuators with 4-20 mA or 0-10 V analogic control



Description

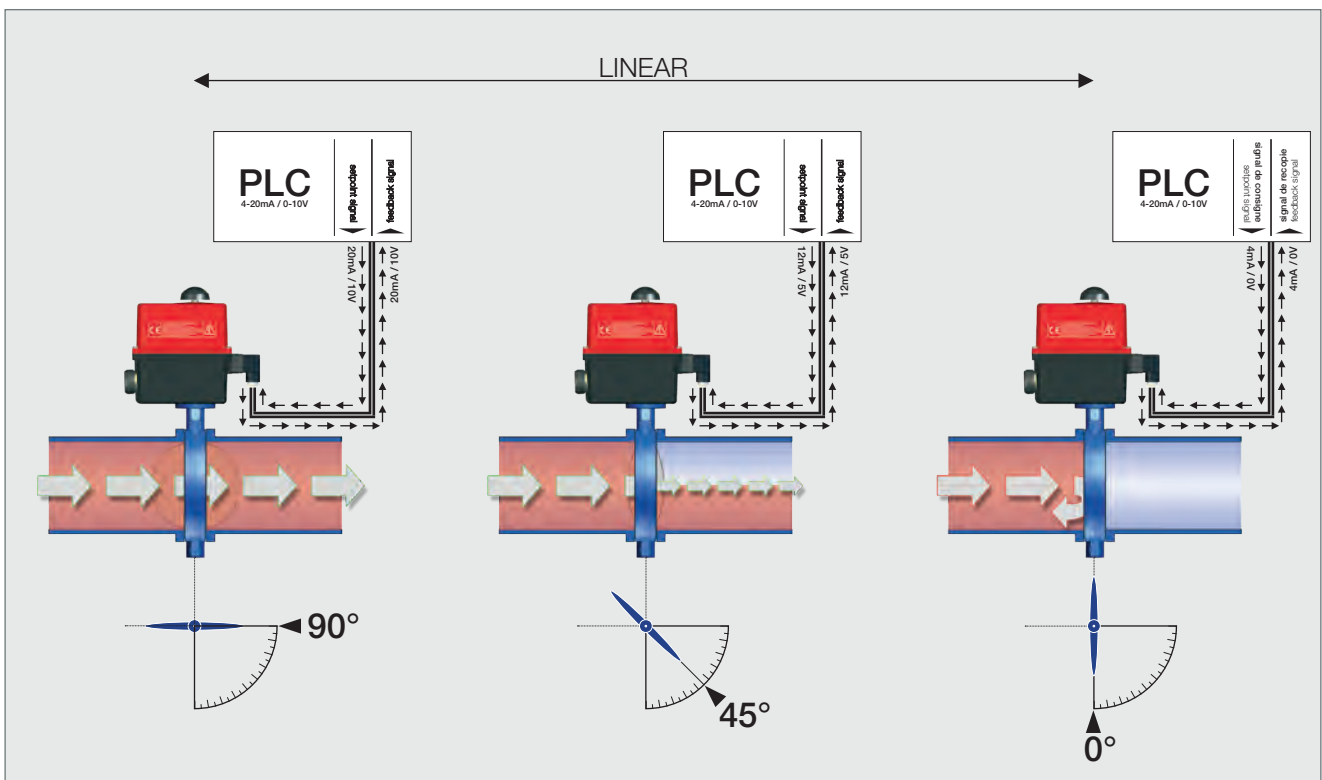
Actuators from 20 to 2400 Nm with positioning function by 4-20 mA or 0-10 V analogue signal.

Customer benefits

- CE, UKCA, CSA/UL, EAC certified
- All in one: no additional wiring required
- Feedback signal 4-20 mA or 0-10 V
- Reversible setpoint and feedback signals (example: 20-4 mA or 10-0 V)
- Training mode
- Electronic torque limiter (GP5 & GP8)
- Rotation up to 180° or 270° (on request)
- Compatible with the BBPR function: GPS
- Compatible with the Modbus-RTU® protocol and the Bluetooth® function: GP8

Compatible series

- ER PLUS
- VR/VS
- VT PLUS
- LT - low temperatures
- VRX/VSX - ATEX
- DV/DVX - DNV



3 positions

Intermediate position

Powered by
AXMART®**Description**

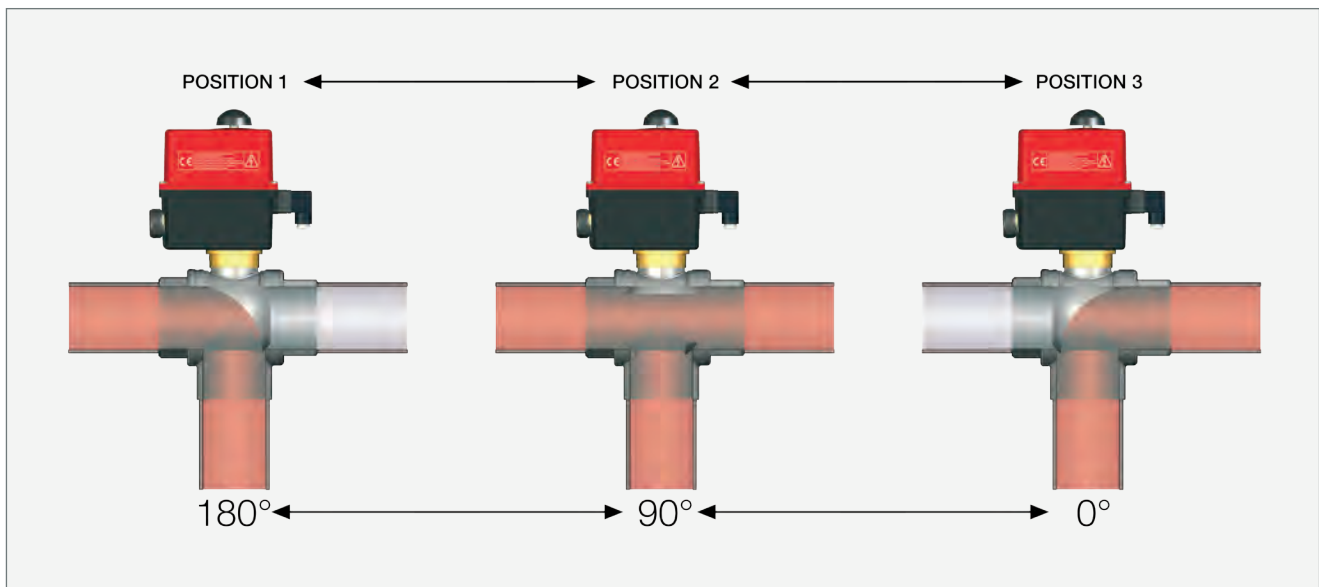
Actuators from 10 to 2400 Nm with an intermediate position between 0° and 90°, 180° or 270°.

Customer benefits

- CE, UKCA, CSA/UL, EAC certified
- All in one: no additional wiring required
- 7 limit switches
- Electronic torque limiter
- Failure report
- Rotation up to 270°
- Compatible BBPR (3-POSITION-BBPR · GFS), Modbus-RTU® (depending of the model) and AXMART® (Bluetooth®).

**Compatible series**

- ER PLUS
- VR/VS
- VT PLUS
- LT - low temperatures
- VRX/VSX - ATEX
- DV/DVX - DNV



Standard Models



ER PLUS



ER PREMIER



VR



VS

Specifications

Rotation	90° (180°/270° On request)			
Torques	10-100 Nm	20-100 Nm	25-75 Nm	40-300 Nm
Voltages	100-240 V 50/60 Hz 100-350 V DC 15-30 V 50/60 Hz 12-48 V DC	100-240 V 50/60 Hz 100-350 V DC 24 V 50/60 Hz 24 V DC	100-240 V 50/60 Hz · 100-350 V DC 15-30 V 50/60 Hz · 12-48 V DC 3-phase 400 V	
Duty cycle	S4 · 50 %	S4 · 30 %	S4 · 50 %	
ISO connecting plate	ER10-35: F03/F04/F05 ER35-100: F05/F07	ER10-20: F03/F04/F05 ER35-100: F05/F07	F05/F07	F07/F10
Drive (star)	ER10-35: 14 mm ER35-100: 22 mm	ER10-20: 14 mm ER35-100: 22 mm	17 mm	22 mm
Ambient operating temperature	-10 °C to +55 °C (models with battery -10 °C to +40 °C)		-20 °C to +70 °C (models with battery -10 °C to +40 °C)	
Ingress protection	IP66	IP65	IP68 2-5 m / 72 h	IP68 2-5 m / 72 h 10 m / 72 h (option)
Weight	1 kg to 2.2 kg	1 kg to 2 kg	3.4 kg to 4.8 kg	5.7 kg to 7.1 kg
Anticondensation heater	✓	✗	✓	✓
Manual override	✓	✓	✓	✓
Torque limiter	✓	✓	✓ ⁽¹⁾	✓ ⁽¹⁾
Failure feedback	✓	✗	✓ ⁽¹⁾	✓ ⁽¹⁾
On-off control	✓	✓	✓	✓
3-point modulating control	✓	✓	✓	✓
Pulse control	✓	✗	✓	✓

(1) Except 3-phase 400 V

Standard Models



VT



VT PLUS



LT



ATEX

Specifications

Rotation	90° (180°/270° On request)			
Torques	600-2400 Nm	400-2400 Nm	25-300 Nm	25-1000 Nm
Voltages	3-phase 400 V	100-240 V 50/60 Hz · 100-300 V DC 24-48 V 50/60 Hz · 24-72 V DC	100-240 V 50/60 Hz 100-350 V DC 15-30 V 50/60 Hz 12-48 V DC	100-240 V 50/60 Hz · 100-350 V DC 15-30 V 50/60 Hz · 12-48 V DC 3-phase 400 V
Duty cycle	S4 · 50 %			
ISO connecting plate	VT600-1000 : F10/F12 VT1500-2400 : F12/F14/F16	VT400-1000 : F10/F12 VT1500-2400 : F12/F14/F16	LT25-75 : F05/F07/F10 LT100-300 : F07/F10	VRX : F05/F07 VSX : F07/F10 VTX : F10/F12
Drive (star)	VT600-1000 : 36 mm VT1500-2400 : 46 mm	VT400-1000 : 36 mm VT1500-2400 : 46 mm	LT25-75 : 17/22 mm LT100-300 : 22 mm	VRX : 17 mm VSX : 22 mm VTX : 36 mm
Ambient operating temperature	-20 °C to +70 °C	-20 °C to +70 °C (models with battery -10°C to +40°C)	-50 °C to +70 °C	-20 °C to +70 °C (models with battery -10°C to +40°C)
Ingress protection	IP68 5 m / 72 h	IP68 5 m / 72 h 10 m / 72 h (option)		IP68 5 m / 72 h VSX : 10 m / 72 h (option)
Weight	VT600-1000 : 24 kg VT1500-2400 : 53 kg	VT400-1000 : 25 kg VT1500-2400 : 54 kg	6.7 kg to 8.5 kg	VRX : 4.4 kg to 4.8 kg VSX : 6.7 kg to 7.1 kg VTX : 24 kg
Anticondensation heater	✓	✓	✓ (2)	✓
Manual override	✓	✓	✓	✓
Torque limiter	✓	✓	✓	✓ (1)
Failure feedback	✓	✓	✓	✓ (1)
On-off control	✗	✓	✓	✓ (1)
3-point modulating control	✓	✓	✓	✓
Pulse control	✗	✓	✓	✓ (1)

(1) Except 3-phase 400 V
(2) Integrated heating system

Standard Models



ER PLUS



ER PREMIER



VR



VS

Special functions

BBPR · emergency position (NC std, NO via AXMART®)	✓	✗	✓ (1)	✓ (1)
POSI · 4-20 mA (std) or 0-10 V (via AXMART®) control signal	✓	✗	✓ (1)	✓ (1)
3 POSITIONS	✓	✗	✓ (1)	✓ (1)
GPS · POSI + BBPR	✗	✗	✓ (1)	✓ (1)
GFS · 3 POSITIONS + BBPR	✗	✗	✓ (1)	✓ (1)
BLUETOOTH® Connected actuator	✓	✗	✓ (1)	✓ (1)
MODBUS-RTU® Industrial fieldbus	✓	✗	✓ (1)	✓ (1)

Special processes

Corrosive marine environments	✗	✗	✓	✓
Processes with vibrations	✓	✗	✓	✓

Options

4-20 mA or 0-10 V transmitter (EPT.C)	✓	✗	✓	✓
100-10000 Ohms feedback potentiometer (EPR.B)	✓	✗	✓	✓
Card with two extra limit switches (EFC.2)	✓	✗	✓	✓
Mainboard conformal coating (HUMPRO)	✓	✗	✓	✓
10 meters 72 hours IP68 tightness (IP10)	✗	✗	✗	✓

Standards

CE		✓	✓	✓	✓
CSA/UL CSA C22.2 N°139-13 UL 429:2013		✓	✗	✓ (1)	✓ (1)
EAC		✓	✓	✓	✓
UKCA		✓	✓	✓	✓
ATEX		✗	✗	✗	✗
IECEX		✗	✗	✗	✗
EACEx		✗	✗	✗	✗
UKCAEx		✗	✗	✗	✗

(1) Except 3-phase 400 V
(3) For 600 and 1000 Nm

Standard Models

Special Models



VT



VT PLUS



LT



ATEX

Special functions

BBPR · emergency position (NC std, NO via AXMART®)	✗	✓	✗	✓
POSI · 4-20 mA (std) or 0-10 V (via AXMART®) control signal	✗	✓	✓	✓
3 POSITIONS	✓ ⁽³⁾	✓	✓	✓ ⁽¹⁾⁽²⁾
GPS · POSI + BBPR	✗	✓	✗	✓ ⁽¹⁾⁽²⁾
GFS · 3 POSITIONS + BBPR	✗	✓	✗	✓ ⁽¹⁾⁽²⁾
BLUETOOTH® Connected actuator	✗	Standard	✓	✓ ⁽¹⁾⁽²⁾
MODBUS-RTU® Industrial fieldbus	✗	✓	✓	✓ ⁽¹⁾⁽²⁾

Special processes

Corrosive marine environments	✓	✓	✓	✓ ⁽²⁾
Processes with vibrations	✗	✓	✓	✗

Options

4-20 mA or 0-10 V transmitter (EPT.C)	✓	Standard	✓	✓
100-10000 Ohms feedback potentiometer (EPR.B)	✓	✗	✓	✓
Card with two extra limit switches (EFC.2)	✓	✗	✓	✓
Mainboard conformal coating (HUMPRO)	✗	Standard	✓	✓
10 meters 72 hours IP68 tightness (IP10)	✗	✗	✓	✓ ⁽³⁾

Standards




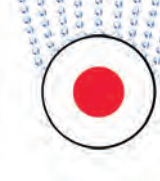




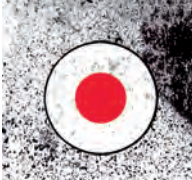



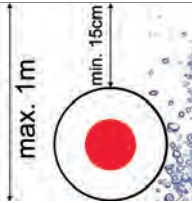
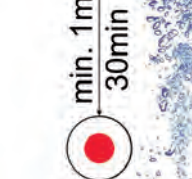
CE		✓	✓	✓	✓
CSA/UL CSA C22.2 N°139-13 UL 429:2013		✗	✗	✓	✗
EAC		✓	✓	✓	✓
UKCA		✓	✓	✓	✓
ATEX		✗	✗	✗	✓
IECEX		✗	✗	✗	✓
EACEx		✗	✗	✗	✓ ⁽²⁾
UKCA Ex		✗	✗	✗	✓ ⁽²⁾

(1) Except 3-phase 400 V
 (2) Except VTX
 (3) VSX only

IP protection marking

Protection against solid parts

Protection against liquid parts

<p>IP1X</p> <p>Protection against solid parts bigger than 50 mm intrusion</p>	 <p>1 1</p>	 <p>IPX1</p> <p>Protection against vertically dripping water</p>
<p>IP2X</p> <p>Protection against solid parts > 12 mm intrusion</p>	 <p>2 2</p>	 <p>IPX2</p> <p>Protection against dripping water when tilted up to 15°</p>
<p>IP3X</p> <p>Protection against solid parts > 2.5 mm intrusion</p>	 <p>3 3</p>	 <p>IPX3</p> <p>Protection against water falling as a spray at any angle up to 60° from the vertical</p>
<p>IP4X</p> <p>Protection against solid parts > 1 mm intrusion</p>	 <p>4 4</p>	 <p>IPX4</p> <p>Protection against water splashing from any direction</p>
<p>IP5X</p> <p>Protection against dust (no harmful residues)</p>	 <p>5 5</p>	 <p>IPX5</p> <p>Protection against water projected in water jets from any direction (6.3 mm nozzle, distance 2.5 m-3 m, 12.5 l/min flow)</p>
<p>IP6X</p> <p>Full protection against dust</p>	 <p>6 6</p>	 <p>IPX6</p> <p>Protection against water projected in powerful water jets from any direction (12.5 mm nozzle, distance 2.5 m-3 m, 100 l/min flow)</p>
<p>7</p>		 <p>IPX7</p> <p>Protection against temporary submersion effects (15 cm up to 1 m)</p>
<p>8</p>		 <p>IPX8</p> <p>Protection against the effects of prolonged immersion under pressure (min. 1 m/30 min.)</p>

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