

<b>ELECTRIC ACTUATORS VERSIONS</b>
Standard version 0°-90° (upon 0°-180° o 0°-270°)
Version with fail-safe operation N.C. (battery backup)
Version with standard (4 ÷ 20ma o 0 ÷ 10v) or reverse (20 ÷ 4ma o 10 ÷ 0v) mode positioner
Version with potentiometer
Version with middle position

The new series 86 actuators, with metal enclosure, are designed and manufactured for the automation of ball and butterfly valves. Our experience, applied to careful research and accurate design, is a reliable guarantee of quality and functionality over time.

The series is produced with the following characteristics:

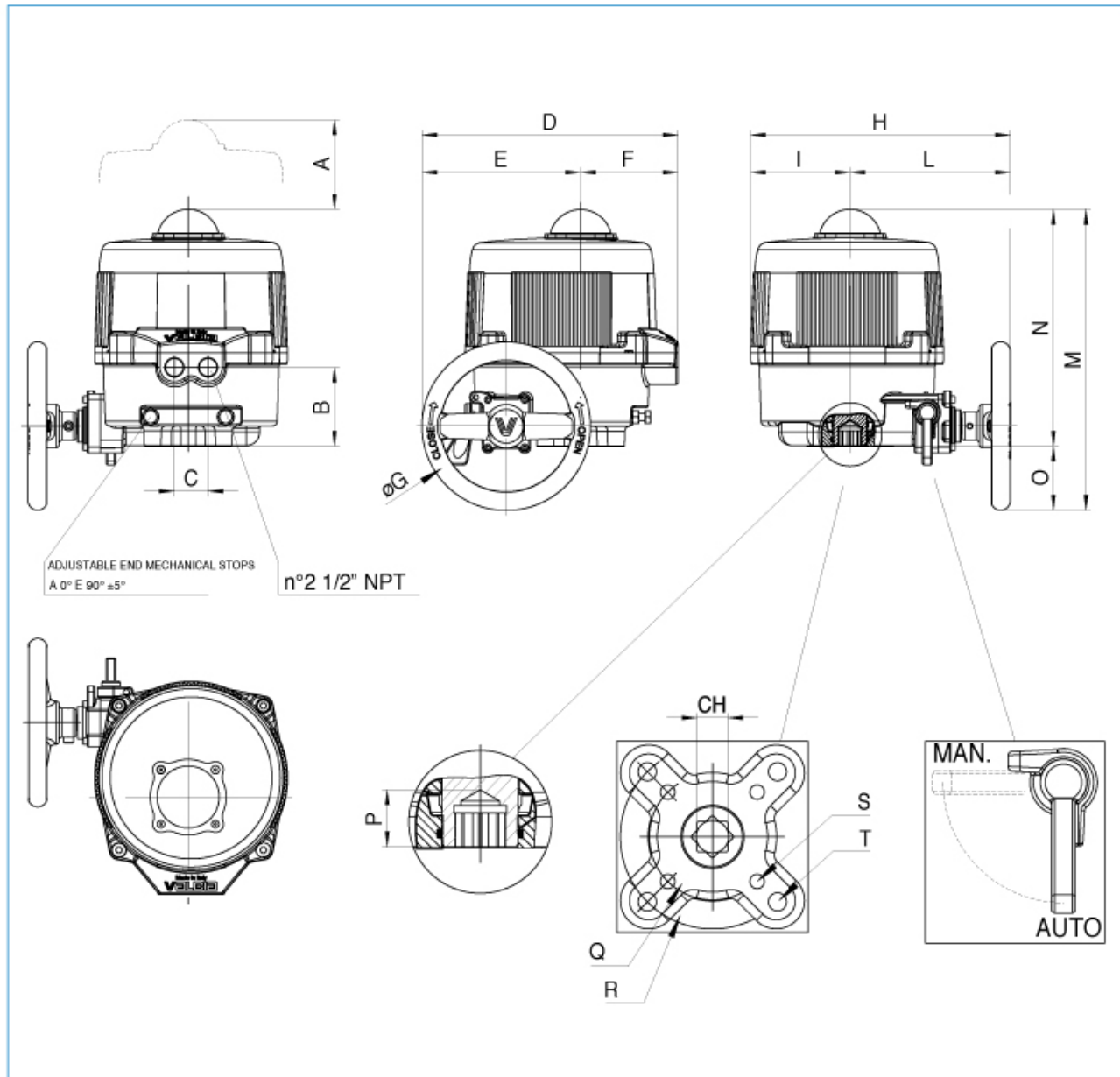
- the enclosure is made of die cast aluminum coated with polyester powder;
- the gear train is made of steel and techno-polymer gear wheels, supported by hardened steel pinions, mounted on self-lubricating bushes. All the components are inserted in a strong structure of die-cast aluminum;
- the connection part of the actuators with the valves meets the ISO5211-DIN 3337 standard requirements;
- the electronic circuit adjusts automatically the motor speed, depending on the mechanical load variations. This ensures consistent cycle time.
- the whole range of actuators is provided with an electronic safety system for the torque control (torque limiter);
- the whole range of actuators is standard provided of heater, activated when the actuator is powered;
- the whole range of actuators can be supplied with positioner, programmable in standard (4-20mA or 0-10V) or reverse (20-4mA or 10-0V) mode;
- all electric actuators can be equipped with rotary potentiometer (5K $\Omega$  1W);
- the whole range of actuators can be supplied with battery backup for failsafe operation (except model with 12VAC/DC power supply);
- Optional middle position operation available for all versions.

MODEL		VB190M
MAX WORKING TORQUE (in-Lbs)		1680
NOMINAL VOLTAGE (V)	LOW VOLTAGE	12V AC/DC
		24V AC/DC
	MULTIVOLTAGE	100-240V AC
WORKING TIME (sec)		27
TORQUE LIMITER		STD
DUTY RATING	12V AC/DC	50%
	24V AC/DC	75%
	100-240V AC	
PROTECTION (IP rating/UL)		IP67/Type4
ENCLOSURE		Aluminium
ROTATION		90°
END MECHANICAL STOPS (only reg.0-90°)		STD
UPON REQUEST ROTATION		180° or 270°
MANUAL OVERRIDE		STD <input type="checkbox"/> with hand wheel
DOME POSITION INDICATOR		STD
WORKING TEMPERATURE		-4°F + 131°F
HEATER		STD
ADDITIONAL FREE LIMIT SWITCHES		n°2 STD (type SPDT)
DRILLING ISO 5211		F07 - F10
SQUARE (in)		0.67
OPTIONAL SQUARE (in)		0.55-0.87
FAIL-SAFE OPERATION (BATTERY BACKUP)		UPON REQUEST NOT AVAILABLE FOR MOD 12V
STD (4-20mA or 0-10 VDC) REVERSE (20-4mA or 10-0 VDC) MODE POSITIONER		UPON REQUEST
ROTARY POTENTIOMETER (5K Ω 1W)		UPON REQUEST
MIDDLE POSITION		UPON REQUEST
ELECTRIC CABLE ENTRIES		N°2 1/2" NPT
WEIGHT (Lbs)		18,7

#### ELECTRIC ACTUATOR CONSUME DATA

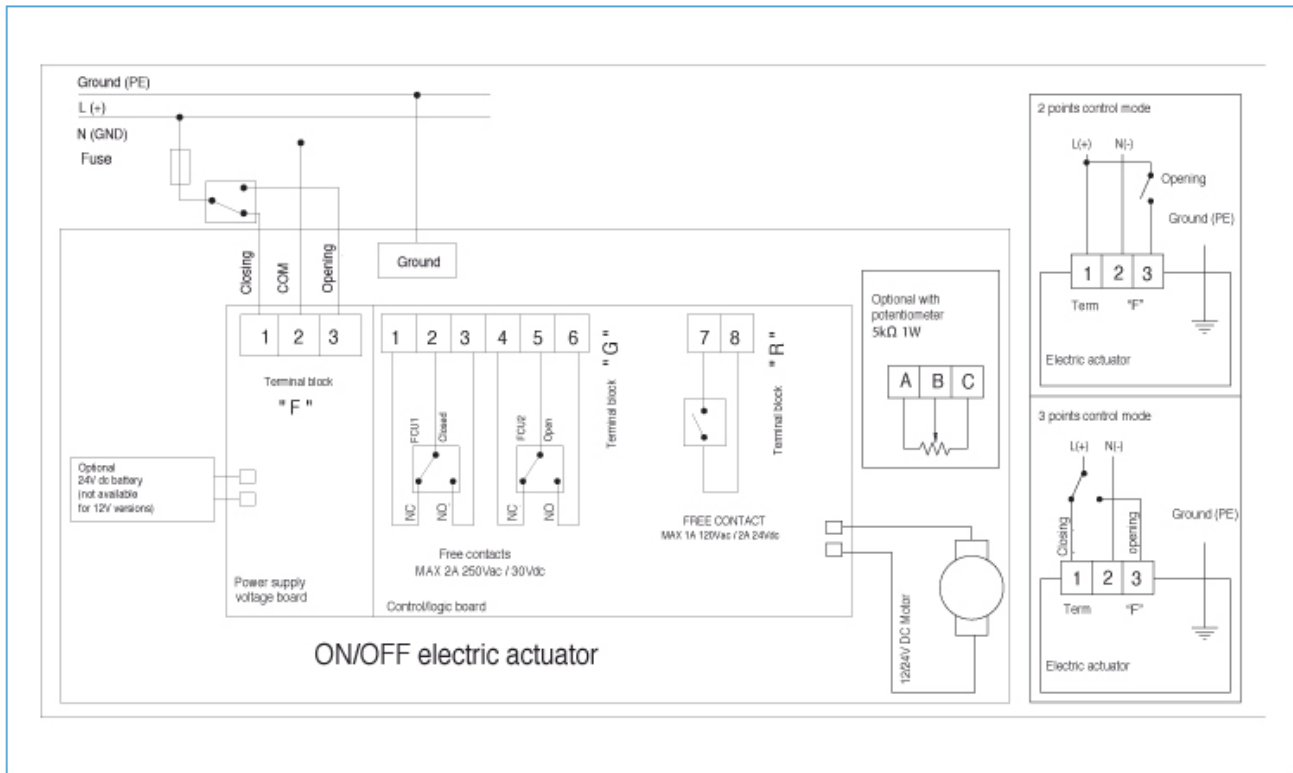
MODEL		VB190M	
VERSION H	NOMINAL VOLTAGE	100-240V AC	
	ABSORBED CURRENT	0,6-0,3 A	
	ABSORBED POWER	60-72 VA	
VERSION L	NOMINAL VOLTAGE	12V AC/DC	24V AC/DC
	ABSORBED CURRENT	3,8-2,85 A	1,8-1,2 A
	ABSORBED POWER	46-34 VA	43-29 VA
FREQUENCY		50/60 HZ	

MOD. VB190M

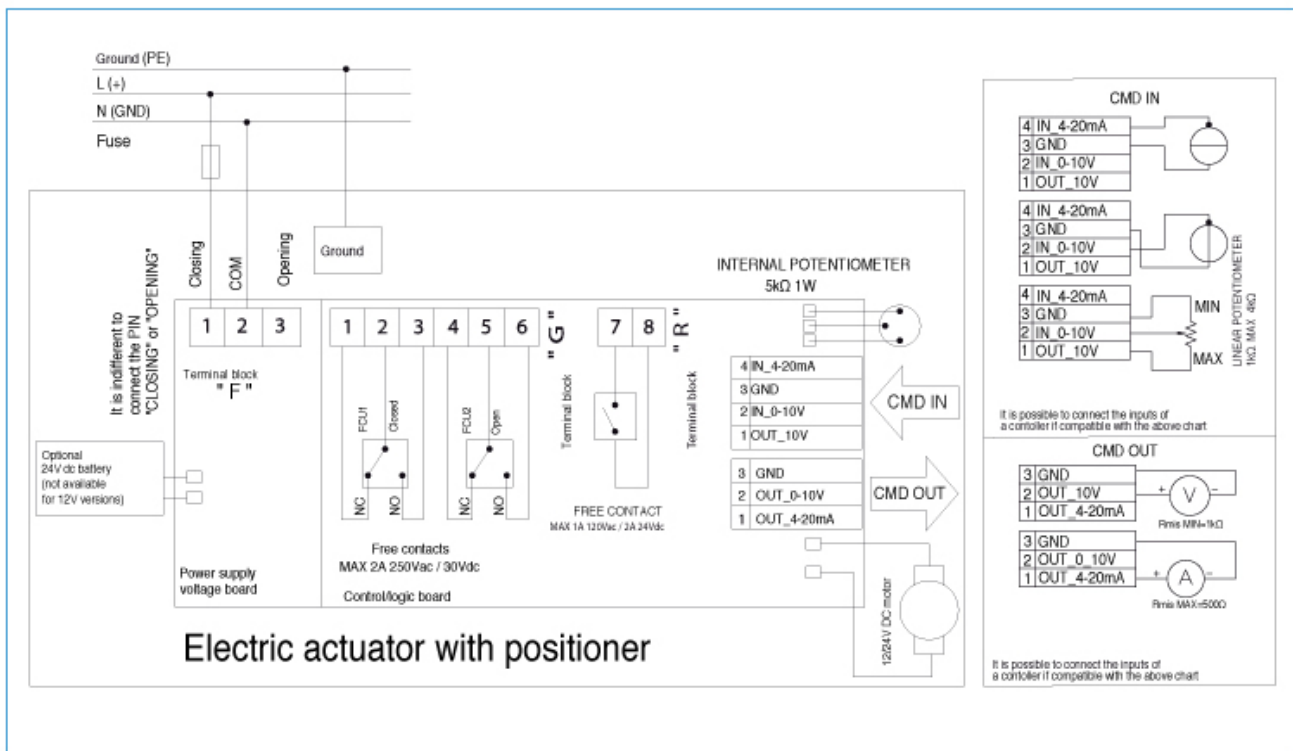


MOD.	ISO 5211 FLANGE	CH	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T
VB190M	F07-F10	0.67	5.47	3.23	1.38	10.47	6.50	3.98	6.89	10.63	4.05	6.57	12.32	9.68	2.64	0.75	2.76	4.02	5/16-18 UNC 2B x 0.59"	3/8-16 UNC 2B x 0.59"

**ELECTRIC WIRING FROM VB030M TO VB350M 12V AC/DC 50/60 Hz, 24V AC/DC 50/60 Hz, 100-240V AC 50/60 Hz**



**ELECTRIC WIRING WITH POSITIONER FROM VB030M TO VB350M 12V AC/DC 50/60 Hz, 24V AC/DC 50/60 Hz, 100-240V AC 50/60 Hz**



**ELECTRIC WIRING WITH INTERMEDIATE POSITION FROM VB030M AL VB350M 12V AC/DC 50/60Hz, 24V AC/DC 50/60Hz, 100-240V AC 50/60Hz**

