



technische import

Produkt informatie

COSTER

COSTER T.E.

REVERSIBLE 90° ROTARY ACTUATOR WITH MANUAL RELEASE AND TWO AUXILIARY MINIATURE SWITCHES

CVH.../S1 Eng.



- Three-wire electric control (common, opens, closes)
- Rotation angle: 90°
- Run times: 630 - 210 - 105 - 52 seconds
- Auxiliary miniature switch with adjustable intervention point
- Manual release mechanism
- IP 54 protection
- Power supply: 230 V~ or 24 V~

1. APPLICATION

CVH.../S1 actuators are designed to operate the following Coster rotary valves:

- mixing VSG-VSF-VFG-VFF up to DN 100.
- ball XDG, XLG, YDG, 2 S (for DIN see 2. MODELS).
- butterfly shut-off 2F up to DN 200.

Using AVA and AVS linkage kits, CVH.../S1 actuators can be adapted to operate mixing valves of other makes.

2. MODELS

Model	Power Supply	Run time	Nominal torque	Starting torque	Mixing Valves VSG-VFG VSF-VFF up to DN	Butterfly valves 2 F up to DN	Ball valves XDG-XLG up to inches	Ball Valves YDG up to inches	Ball Valves 2 S up to DN
	V ~ (VA)	s	kg/cm (Nm)	kg/cm (Nm)					
CVH 638/S1	230 (4.5)	630	150 (15)	200 (20)	100	200	2"	2"1/2	65
CVH 634/S1	24 (4.5)	630	150 (15)	200 (20)	100	200	2"	2"1/2	65
CVH 218/S1	230 (4.5)	210	150 (15)	200 (20)	100	200	2"	2"1/2	65
CVH 214/S1	24 (4.5)	210	150 (15)	200 (20)	100	200	2"	2"1/2	65
CVH 118/S1	230 (4.5)	105	150 (15)	200 (20)	100	200	1"1/2	2"1/2	-
CVH 114/S1	24 (4.5)	105	150 (15)	200 (20)	100	200	1"1/2	2"1/2	-
CVH 058/S1	230 (5.0)	52	150 (15)	200 (20)	100	200	2"	2"1/2	-
CVH 054/S1	24 (5.0)	52	150 (15)	200 (20)	100	200	2"	2"1/2	-

3. SPECIAL MODELS

Model	Description
CVH .../T	Supplied with 6W heater for use in plants with chilled water.

4. ACCESSORIES

Model	Description
AVA 101 AVS 102	Universal linkage kit for valves: Buche, Controlli, Honeywell, Mut, Landis & Gyr, Lazzari, Stark, Zentra. Special linkage kit for othes makes of valve (universal linkage plate without holes).

5. TECHNICAL DATA

Power supply (see 2. Models)	230 V ~ , 24 V ~	Run times (see 2. Models)	52...630 s
Frequency	50...60 Hz	Materials:	
Consumption (see 2. Models)	4,5 , 5,0 VA (add 6W for CVH .../S1/T)	– base	Nylon 66
Auxiliary miniature switches:		– cover	Nylon 66
– maximum switching voltage	250 V ~	Valve fluid temperature:	
– maximum switching current	5 (1) A	– CVH .../S1	5...120 °C
Protection	IP 54	– CVH.../S1/T	–20...120 °C
Rotation angle	fixed at 90°	Ambient temperature:	
Nominal torque:	150 kg/cm (15 Nm)	– operating	0...45 °C
Starting torque:	200 kg/cm (20 Nm)	– storage	– 20...+60 °C
		Weight	1.8 kg

6. OPERATION

CVH can be controlled by an On-Off or modulating device (e.g. thermostat, switch, modulating controller) provided with an SPDT output switch. The small electric motor transmits the rotary movement to the mechanical reduction unit that determines the rotation speed of the shaft and, accordingly, the run time of the actuator.

The actuator has a rotary movement with a working angle of 90°, limited by two microswitches (9.11) operated by an end-of-run cam (9.14).

7. CONSTRUCTION

The base (9.1) and the protective cover (9.2) of the CVH .../S1 actuator are made of Nylon 66 with IP 54 protection.

Two PG 11 screwed holes in the lower part of the base, and closed by two plastic plugs (9.7), permit the introduction of the electric cables. All the electrical and mechanical components, including the terminal block for the connections (9.10), are accessible when the protective cover is removed.

The linkage device is in the rear part of the base and allows rapid mounting on the valve by means of the two threaded pins (10.3) and a linkage (10.4) supplied with the actuator.

8. INSTALLATION

• On Coster mixing valve VSG-VSF-VFG-VFF or Coster butterfly valves 2F :

- Loosen the two screws (10.2), withdraw the two threaded pins (10.3) and screw them into the screwed valve supports (10.5)
- Position the valve spindle so that the internal sector is halfway between the closed and open positions and then slide the Coster valve coupling (10.6) on the valve spindle
- Loosen the screw of the manual release (9.6) and, using the manual control, position the actuator shaft at half run.
- Mount the actuator so that the pins fit into their housings and so that the actuator shaft fits into the milling on the valve coupling. Then secure it by tightening the two pins (10.8),
- Using the manual control make a couple of complete runs of the valve to check the correct movement and the tighten up the screw of the manual release (9.6).

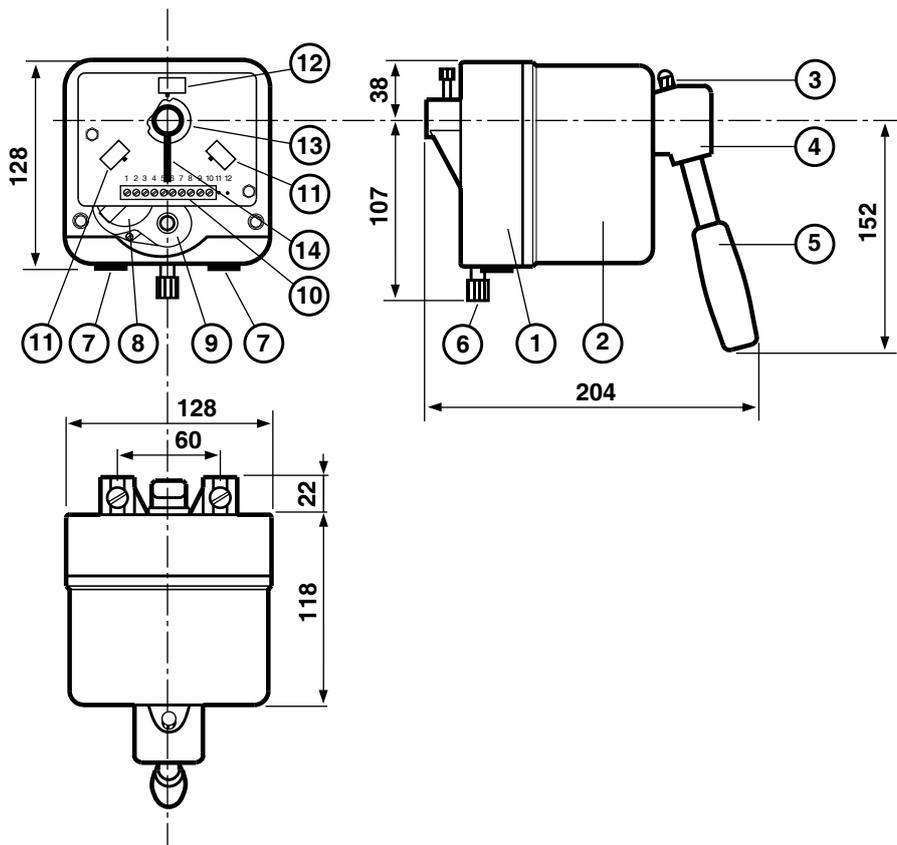
• On non-Coster mixing valve (use AVA 101 or AVS 102) :

- Loosen the two screws (10.2), withdraw the two threaded pins (10.3) and screw them into the mobile blocks (10.7) of the linkage bracket (10.10),
- Position the valve spindle so that the internal sector is halfway between the closed and open positions; slide the coupling (10.6) on to the valve spindle,
- Loosen the screw of the manual release (9.6) and, using the manual control, position the actuator shaft at half run.
- Fix the coupling bracket to the valve using the screws (10.9) supplied with the coupling AVA 101 or AVS 102.
- Mount the actuator so that the pins fit into their seats and secure them by tightening the two screws (10.2),
- Loosen the two screws fixing the mobile blocks (10.8) and move them so that the actuator shaft fits into the milling on the coupling; tighten up the two screws on the coupling (10.8),
- Using the manual control make a couple of complete runs of the valve to check the correct movement and then tighten up the screw of the manual release (9.6).

• On Coster ball valves XDG-XLG-YDG-2S

- loosen the two screws (10.2), withdraw the two threaded spigots (10.3) and screw them into the holes provided on the valve coupling plate (10.11);
- loosen the screw of the manual release (9.6) so that the actuator stem can be operated by the handle;
- install the actuator so that the spigots slide into their housings and, using the handle, couple the stem to the milling on the valve spindle or on the coupling; then secure the actuator on the spigots by tightening the two screws (10.2);
- using the manual control make a couple of complete runs of the valve in order to check its correct operation and then tighten up the manual release screw (9.6).

9. OVERALL DIMENSIONS

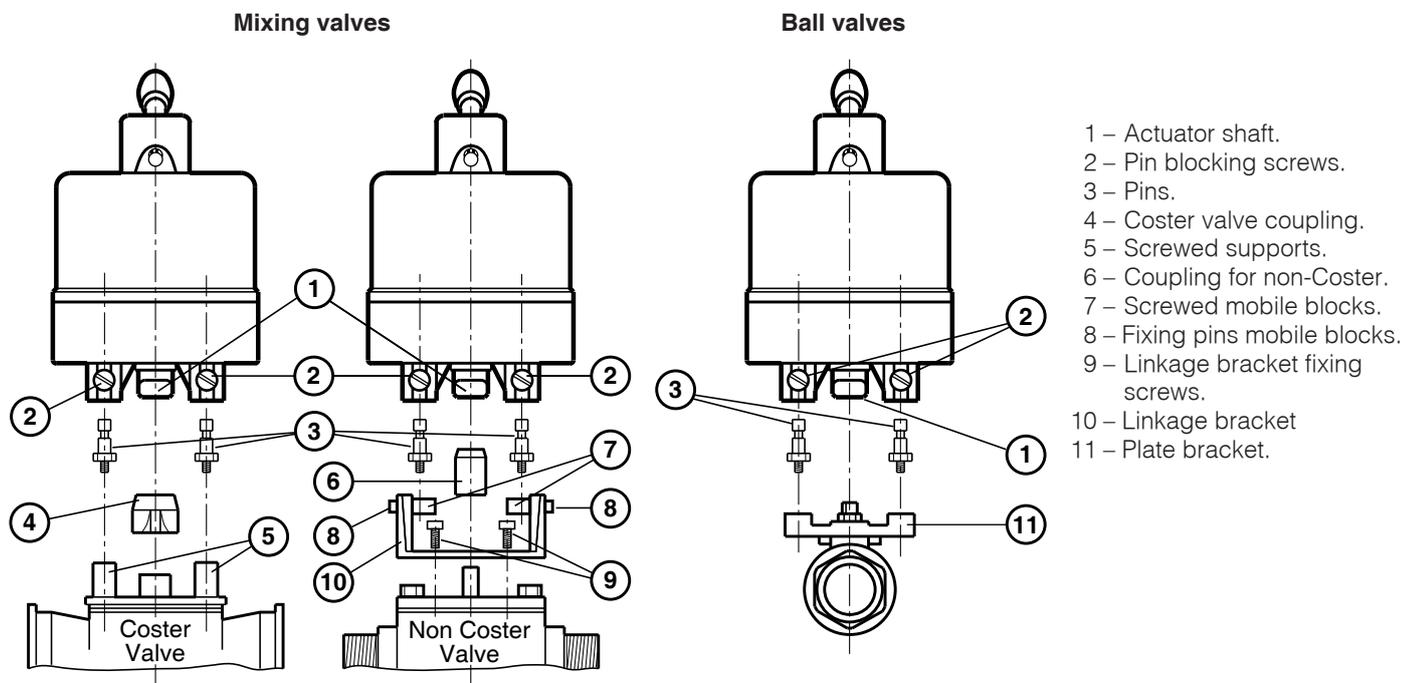


N.B.: dimensions in mm.

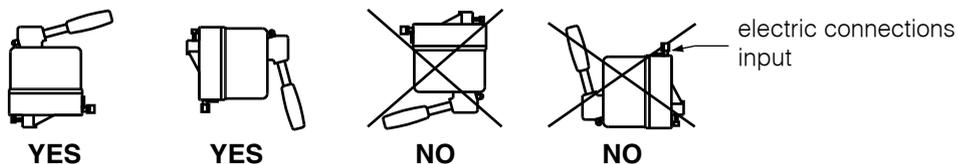
- 1 – Base
- 2 – Protective cover.
- 3 – Pointer; handle securing nut.
- 4 – Handle mounting.
- 5 – Hand grip.
- 6 – Manual release screw.
- 7 – Plugs for PG 11 cable entry.
- 8 – Small electric motor.
- 9 – Geared motor.
- 10 – Connection block.
- 11 – Manual release screw.
- 12 – Auxiliary miniature switches.
- 13 – Auxiliary switches cam.
- 14 – End-of-run cam

10. INSTALLATION

10.1 Installation on mixing and ball valves



10.2 Position of actuator installation

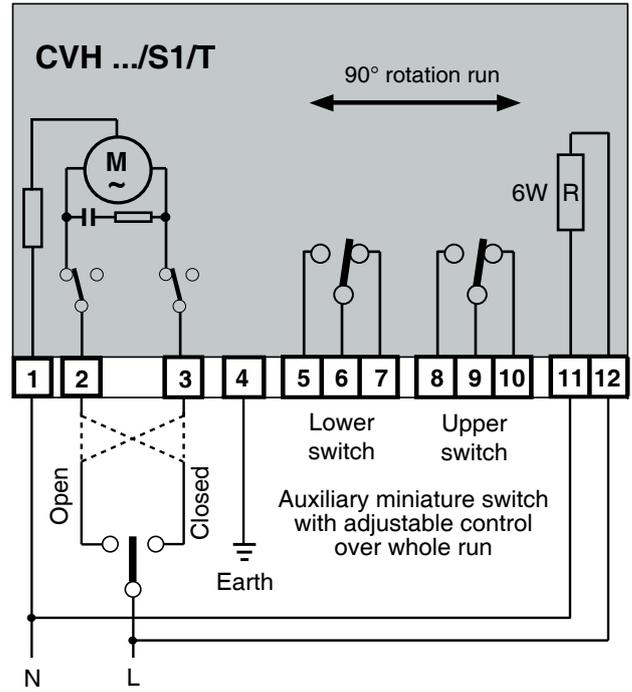
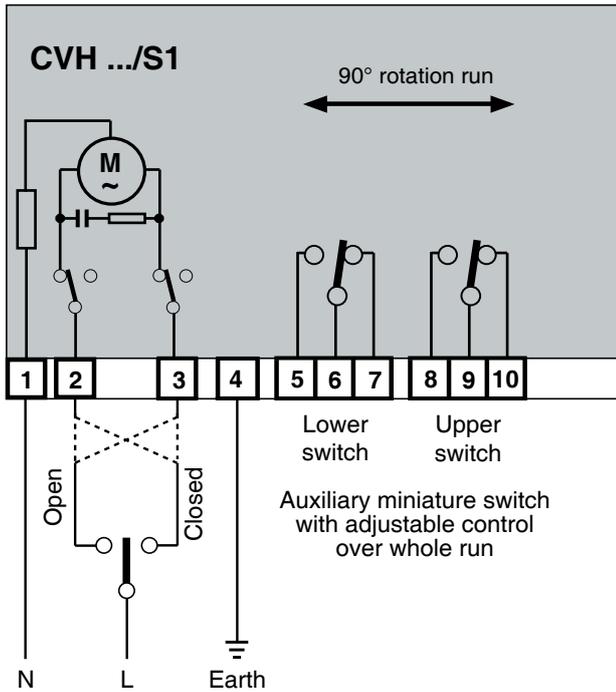


11. WIRING

To make the electrical connections proceed as follows :

- loosen the pointer of the manual control (9.3) and withdraw the hand grip (9.5), turning it gently,
- withdraw the handle mounting (9.4) from the actuator shaft and remove the protective cover (9.2),
- introduce the electric cables into the actuator through the holes provided (9.7) to accept cable entry glands PG11,
- make the electrical connections, using 1,5 mm² cables, according to the diagram for the actuator model used, and in strict observance of the relevant current safety regulations.
- replace the protective cover and the handle mounting, insert the handle in its seat and tighten up the pointer.

12. WIRING DIAGRAMS



IMPORTANT:

- the wiring diagram shows the auxiliary miniature switches in the Off position (i.e. not depressed),
- the two cams of the auxiliary miniature switches can be set at any angle in respect of the position of the actuator so as to render completely free and adjustable the actions of the miniature switches themselves according to use requirements.

Amendment to data sheet

Data	Revisione	Page	Section	Amendment description
15.12.06 AM				First emission.
12.02.13 AM	01	3 - 4 - 5	various	Update installation and overall dimension diagrams. Add 10. 2 section.