

ACTUATOR SM93



<u>USE</u>

The actuator SM93 is suitable to the motorization IDROSFER two and three-way ball valves up to DN32.

OPERATION

This is controlled through regulation systems which provide a pilot analog signal (Y) that can be 0...10, 2...10VDC or 0...20, 4...20mA and which is accepted in accordance with the programming performed on the card.

As a function of the pilot signal Y the actuator is positioned within the working range of the regulator which is 90°.

It's available in output an analog signal U selectable between 0 and 10VDC which indicates the current position of the actuator and which is independent from the type of pilot signal.

At the first startup, or whenever it's removed and restored the power, the actuator rotates clockwise until it reaches the limit in order to define the position of "0".

The type of rotation is usually set when the operation is controlled: when increasing the pilot signal Y, it makes the actuator rotating counterclockwise (CCW): this can be reversed acting on the specific selection.

SETTING INSTRUCTIONS

- 1. Select input type[V] or [mA], acting on K1
- 2. Select input signal value 0-10, 2-10VDC or 0-20, 4-20mA, acting on JP1 and JP2
- 3. Select running time for 90°: 30 or 60 or 120 seconds, acting on JP3, JP4 and JP5
- 4. Select the type of rotation, clockwise or counterclockwise (CW o CCW), that you want to obtain at increasing of command signal Y, acting on JP3

Please refer to the following drawing to identify positions of the different controls



ELECTRICAL CONNECTIONS



1-2 Feeding 24VAC ±10% 50Hz

3 Pilot signal Y (negative pole of the signal is common to terminal 2)

4-5 analogic output signal U [V]

STARTUP

After the settings required by the type of use, by the type of pilot signal Y, by the direction of rotation, it's recommended to always place the actuator halfway before coupling it to the valve, also placed halfway.

To place the actuator halfway act on the release button and rotate the handle until the indicator coincides with the center of the screen-printed scale on the cover.

Couple the actuator to the valve and secure it with the screw included.

Make electrical connections as shown in the diagram.

Power the actuator.

The actuator, regardless of the settings, performs an autoregulation: rotates clockwise (CW) up to act on the microswitch which provides the "0" reference point, then it's positioned according to the value of the pilot signal Y.

THIS OPERATION OCCURS ALL TIMES YOU TAKE OFF POWER SUPPLY AND THEN YOU RESTORE IT

A POSSIBLE MANUAL OPERATION MUST BE PERFORMED ONLY AFTER REMOVING POWER SUPPLY: IN CASE OF CHANGE OF PROGRAMMING, ALWAYS REMOVE POWER SUPPLY BEFORE

Technical dates	SM93-06	0	SM93-120	
Feeding	24 VAC ± 10% - 50Hz			
Power consumption	5,6 VA			
Pilot signal Y [VDC]	010; 210 VDC			
Input resistance	400 ΚΩ			
Pilot signal Y [mADC]	020; 420 mADC			
Input resistance	100 Ω			
Running time	30 sec/90°	60 sec	2c/90° 120 sec/90°	
Output torque	9 Nm	13 N	lm	13 Nm
Protection class	IP50 (optional IP65)			
Ambient temperature	0°50° C			
Weight	0,450 g			

DIMENSION







- L'accoppiamento del servomotore alle valvole è diretto, mediante vite centrale sull'albero (tipo EASY CLICK). The coupling of the servomotor to the valves is directed by the central stem screw (EASY CLICK type).

ASSEMBLATO ASSEMBLY

