ECP-SERIES ON/OFF INSTALLATION INSTRUCTIONS

READ THESE INSTRUCTIONS BEFORE CONNECTING THE ACTUATOR. DAMAGE CAUSED BY NON COMPLIANCE TO THESE INSTRUCTIONS IS NOT COVERED UNDER WARRANTY.

ECP-Series electric actuators operate with the use of live electricity. It is recommended that only qualified electricians install or adjust these actuators. Always ensure that the power supply is disconnected prior to removing the top cover by disconnecting the DIN power input plug. It is strongly recommended that each actuator has its own independent fuse system to protect it from the electrical influence of other electrical devices (eg: pumps).

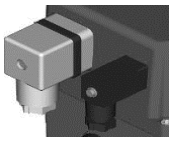

FIGURE 1

1.- ELECTRICAL CONNECTORS:

Warning:

Before connecting ensure that the voltage to be applied to the actuator is within the range shown on the identification label. The supplied electrical connectors used to connect to the actuator are DIN plugs. Ensure the diameter of cable to be used conforms to the maximum and minimum requirements of the DIN plugs to maintain water tightness.

1 Gasket
2 Terminal strip
3 Cable fixing screws
4 Housing
5 Grommet
6 Washer
7 Gland - nut
8 Fixing screw
9 Oring
10 Gasket

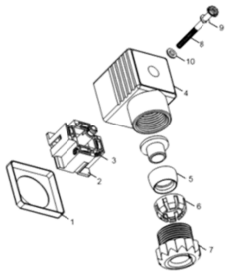

FIGURE 2

	BLACK (SMALL) CONNECTOR		GREY (LARGE) CONNECTOR	
	DIN-43650 ISO 4400 & C192		DIN-43650 ISO 4400 & C183	
Model	min diameter	max diameter	min diameter	max diameter
ECP2 – ECP8	5mm	6mm	8mm	10.5mm

Electrical connection: All models.

The power supply is connected to the large grey DIN plug. (see Fig. 3)

NEUTRAL o (-)	PHASE o (+)	ROTATION
PIN 1	PIN 2	CLOSE
PIN 1	PIN 3	OPEN
THE TOP FLAT PIN IS THE GROUND CONNECTION		

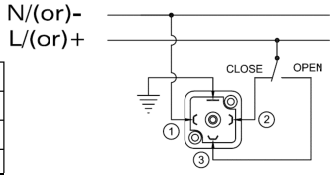

FIGURE 3

The volt free connection is made to the small black DIN plug placed on the right. (see Fig. 4)

PIN1	PIN2	PIN 3
COMMON	CLOSED POSITION CONFIRMATION	OPEN POSITION CONFIRMATION

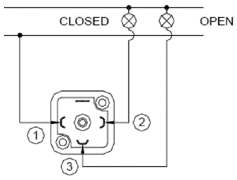

FIGURE 4

* For other connection options please contact the vendor.

Note: Isolation relays must be used when parallel wiring multiple actuators together

Warning: Ensure that the square rubber seal is in place when fixing each DIN plug to the actuator. Failure to do so could allow water ingress and damage caused by this installation error will void warranty. The DIN plugs are fixed to their respective bases on the actuator housing with a screw. Do not overtight the screw when assembling.

Anti-condensation protection:

The **ECP-Series** actuator has an integral thermostatically controlled anti-condensation heater that is automatically actived when power is applied. The heater does not require a separate power supply.

2.- LOCAL VISUAL POSITION INDICATOR:

All **ECP-Series** actuators are supplied with a local visual position indicator comprising of a black base with a yellow insert that shows both the position and direction of rotation. (see Fig. 5)
The opened and closed positions have the following logos moulded in to the top cover OPENED 90 and CLOSED 0.
Opening = ↺
Closing = ↻

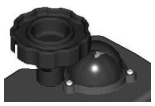

FIGURE 5

3.- EMERGENCY MANUAL OVERRIDE FACILITY:

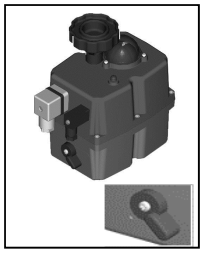

FIGURE 6

The ECP-Series has two operating modes, automatic and manual. The required mode is selected by using a lever on the lower half of the actuator housing (see Fig. 6).
The two positions are marked:
AUTO = Automatic operation
MAN = Manual operation

Warning: Do not remove the selector lever securing cross head screw as this will allow its internal mechanism to become loose and will cause irreparable damage to the actuator's gearbox. Removing this screw will void the warranty.

When "MAN" function is selected:

1. The electronic system cuts the power to the motor after a few seconds.
2. The motor to output shaft drive is disconnected.
3. The desired position can be achieved by using the manual override lever or handwheel.
4. There are two ways to re-active the motor after being isolated whilst in "MAN" position:
    a. With the actuator in "MAN" function, turn the handwheel to one of the endpositions (opened or closed). If the end position switch is actived the motor stops. Now change the manual override from "MAN" to "AUTO". The actuator is ready to operate automatically again.
    b. Change from "MAN" mode to "AUTO" . Deactivate the supply voltage for a few seconds which will reset the actuator. The actuator is then ready to operate automatically again.

4-MOUNTING TO COMPONENT BEING ACTUATED (eg:1/4 turn valve).
It is vital that the mounting kit used to connect the electric actuator to the component (eg: valve) is correctly manufactured and assembled. The mounting bracket's holes must be drilled to ensure that the centerline of the actuator's drive is in line with the component's drive-centerline, and that the drive coupling/ adaptor rotates around this centerline. The mounting holes of the actuator conform to ISO 5211, and the female output drive conforms to DIN 3337.

The male square end of the drive coupling MUST NOT be longer than the maximum depth of the actuator female output drive when the assembly is bolted together.

Failure to comply with these instructions will cause uneven wear and dramatically reduce the working life of the valve and actuator.

5-EXTERNAL LED STATUS LIGHT :
The LED status light provides visual communication between the actuator and the user.
The current operational status of the actuator is shown by either solidly lit, or different flashing sequences of the LED light:
Time: 200 mSec. X each digit of the configuration.
Configuration: digit 1=LED on, digit 0= LED off
The configuration is a respective sequence of 4 columns of 4 digits.

ACTUATOR OPERATIONAL STATUS	TIME	CONFIGURATION
Actuator without power being supplied	100%	0000 0000 0000 0000
Actuator with power being supplied	100%	1111 1111 1111 1111
Actuator with torque limiter activated	200 mSeg.	1010 1010 1010 1010
Actuator in MANUAL mode	200 mSeg.	1111 0111 1000 0000
Actuator in MANUAL but with an internal cam operating an internal micro-switch	200 mSeg.	1110 1111 1111 1110
Actuator without power and working with the BSR system. MAX. 3 minutes (applies only to units with optional battery back-up)	200 mSeg.	1000 0000 0000 0000
Battery protection. Danger - The battery needs recharging. BSR disabled (applies only to units with optional battery back-up).	200 mSeg.	1010 1000 0000 0000

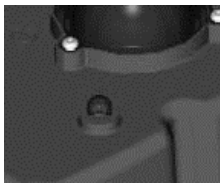

FIGURE 7

External led status light