

INSTALLATION,OPERATION AND MAINTENANCE **MANUAL**

CATHODIC PROTECTION SYSTEM SERIES CPS0990X

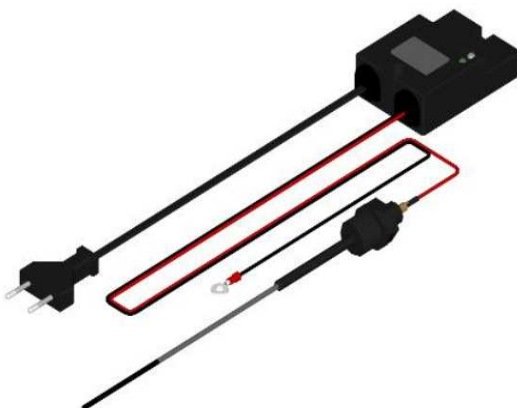
APPLICATIONS

The device is developed for the protection against the corrosion of the internal surfaces of metal boilers filled with water. It's based on the injected current cathodic protection principle. The system works modulating dynamically the injected current on the electronic anode, in order to prevent the corrosion.

INSIDE OF THE KIT

The kit is housed inside a cardboard box and it's composed by the following parts:

- Preassembled device
- Electronic anode
- Operational manual



Description	Page
INSTALLATION,OPERATION AND MAINTENANCE MANUAL (rev. 2013-1.A)	1/4

INSTALLATION AND CONNECTIONS

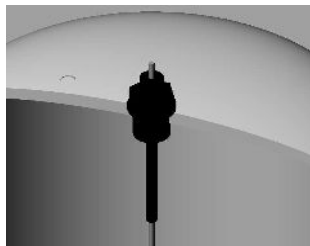
IMPORTANT NOTE: Before to start the installation of the device,read carefully the final notes on the page 4.

WARNING: Disconnect the device from the power network before to start the installation

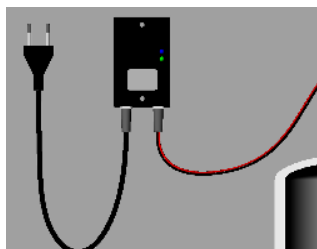
For proper installation,follow the sequence as below:

1. Empty the tank if it is a pressurized type
2. Insert the anode in the threaded housing, using a suitable gasket.Tighten the hex head of the anode through a suitable wrench,taking care of avoid to damage the thread.

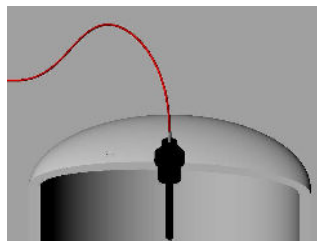
NOTE: Observe the maximun torque as indicated on the page 4.



3. Fasten the device on the boiler or in a suitable area near it,in order to avoid excessive traction of the wirings.



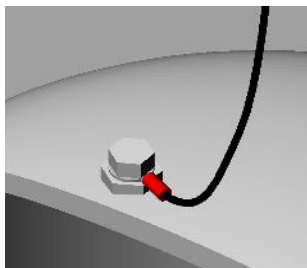
4. Connect the red cable on the anode.



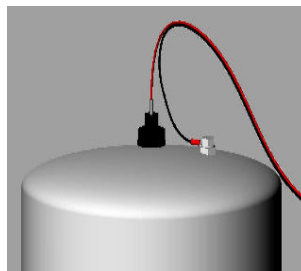
Description	Page
INSTALLATION,OPERATION AND MAINTENANCE MANUAL (rev. 2013-1.A)	2/4

5. Connect the black wire on the eyelet.

NOTE: For the correct operation of the device, ensure that the metallic surface contact where the eyelet is applied is clean and not oxidated.



6. Check the connections and fill again the boiler (if it's a pressurized type).



7. Connect the device to the power network.

OPERATIONAL MONITORING

On the device there are two leds to monitor the real-time protection status and malfunctions. It should be emphasized that hydraulic malfunctions will not damage the device, that will continue to work correctly (after the hydraulic fault is restored). The following table shows the leds status on different operational situations:

L1(BLUE LED)	L2(GREEN LED)	DEVICE STATUS
TURNED OFF	TURNED OFF	Not powered
BLINK / ALWAYS TURNED ON	TURNED ON	Powered and working
BLINK	BLINK	Short-circuit of the Anode
ALTERNATE BLINK	ALTERNATE BLINK	Anode not connected

Description	Page
INSTALLATION, OPERATION AND MAINTENANCE MANUAL (rev. 2013-1.A)	3/4

Electrical characteristics

power supply	230VAC +/-15% 50 Hz
maximum power consumption.....	3W
maximum output voltage	20VDC
maximum output current	100mADC
operational temperature range.....	-10 – 85°C
protection degree	IP55
dimension	80x55x40mm
mounting position	any
power cable length.....	1m
anode cable length	2.5m
ground cable length.....	2.5m

Anode characteristics

anode material.....	Activated titanium Ø 3mm
housing	1/2”
maximum torque.....	30 Nm
maximum length.....	from 100 to 1000mm
activated zone length	from 20 to 500mm
operational temperature range.....	-10 / + 100°C

Connections

power supply cable	double insulation t.max105°C
connection type.....	2 poles plug
anode cable	red/black ribbon 2x0.50mm
anode connection	ferrule Ø 3mm
boiler connection	eyelet Ø 4mm

Installation and usage notes:

- 1. The installation must be performed by a qualified personnel, following the regulations
- 2. The device is not intended to be used by children, or people with reduced physical, sensorial and mental capacities, or without the supervision of a responsible for their safety
- 3. Install the device in an area protected from external agents and away from heat sources
- 4. Before to start the installation, disconnect the device from the power network
- 5. The system must be protected with proper safety equipment (fuse and/or circuit breakers)
- 6. Keep strictly separated the network power supply cables from the rest, trying different paths
- 7. There aren't replaceable parts inside of the device
- 8. It's forbidden to tamper parts or cables of the device
- 9. The power supply cable must not be replaced. If such cable is damaged, the device must be replaced

Description	Page
INSTALLATION, OPERATION AND MAINTENANCE MANUAL (rev. 2013-1.A)	4/4