CYCLOPS

Sensor for light pulses emitted by a meter,
for monitoring energetic consumption

USER MANUAL

Warnings and Precautions

-Install the module only as described in this manual, don't violate the rules showed. Before using it, verify limits of applicability.

- Before supplying it, check that the connections correspond to those described on the manual. In addition, before beginning any maintenance, disconnect the electrical connections of the device.

- Don't modify the feature and the module, as: making holes on the case, replacing its accessories with other coming from unknown manufacturers not described on the manual's list, because this operation may compromise the protection degree, causing also a malfunction and a damage of the instrument. In addition, don't modify the layout of the internal components.

- For any calibration and maintenance of the internal circuit, contact Energy Team. In case of malfunction or fault, send the device and include a precise description about the fault.

- Don't expose the module to temperature ranges outside those reported on the data-sheet. Don't install it in sites with strong vibrations, corrosive gases, excessive dirt or high humidity. Use it only in the operating limits.

- Always supply it using the voltage reported on the data-sheet and also check the power supply status. Pay attention to accidental overvoltage on the input or output terminals because it can damage the galvanic insulation.

ATTENTION !
During the installation operation, DON'T place the cable near devices such as: Transformers, Engines, Inverters, Switchboards, capacitor banks, UPS groups and other devices which can generate electromagnetic noise. In addition, DON'T twist them and DON'T place them near cables carrying high currents and voltages.

NOTE:
This manual is part of the product and therefore must be carefully preserved.

INTRODUCTION

This device can detect light pulses emitted by ENEL meters model GET1A/GET2A/GET3A, GIST/GET4S/GISS, and by not ENEL meters always equipped by optical output. The measurement is carried out by applying on the meter a small probe equipped by a photodiode and connected to the module by means of a connector. In the module there's a filter for clearing long duration pulses that occur in the absence of consumption or not totalizable consumption. By connecting a X-Meter or X-RWU, it's possible to monitor the energetic consumption of a plant.

IDENTIFICATION OF THE MAIN COMPONENTS

1 – Probe with photodiode.
2 – Connector for specific RCA outlet.
3 – Presence pulse indicator.
4 – Power supply connector and digital output

MECHANICAL INSTALLATION

SENSOR POSITIONING:

Fix the photodiode on the LED corresponding to Active Power emission (RA), as indicated on the following models:

ENEL meters:

GET2A

GET3A

GET4S

GIST

GISS

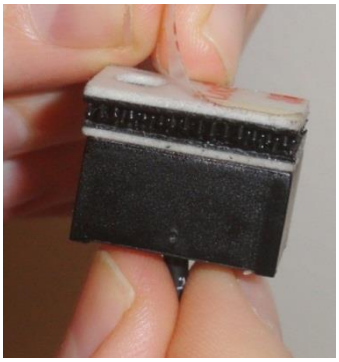
NOT ENEL meters:

LANDIS + GYR

ACTARIS SL7000

ISKRA

14x22 mm VELCRO FIXING.



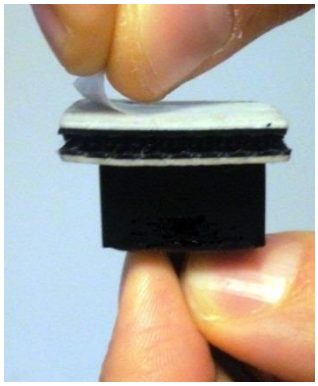
1 - Remove the veil that protects the adhesive

2 – Fix the sensor as showed on this picture and align the "RA" LED with the photodiode.

3 – Sensor correctly fixed.

4 – Complete system. Fix the module on a wall or a surface with good fixing characteristics for the adhesive side.

26x28 mm VELCRO FIXING.



1 - Remove the veil that protects the adhesive

2 – Fix the sensor to the SL7000 ACTARIS meter, as shown in this picture, by matching the LED with the photodiode.

3 – Sensor correctly fixed.

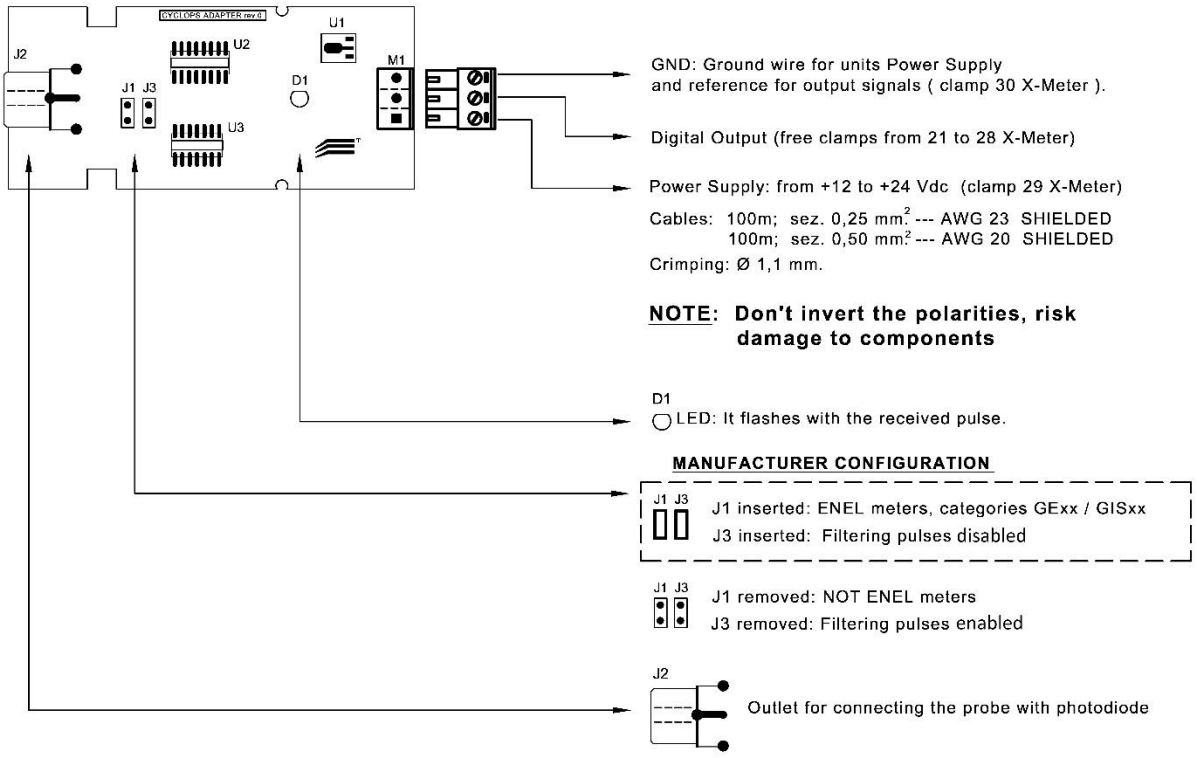
IMPORTANT NOTE:

In order to avoid any anomaly or interruptions in working, don't expose the system directly to solar light or to light sources having particular intensity.

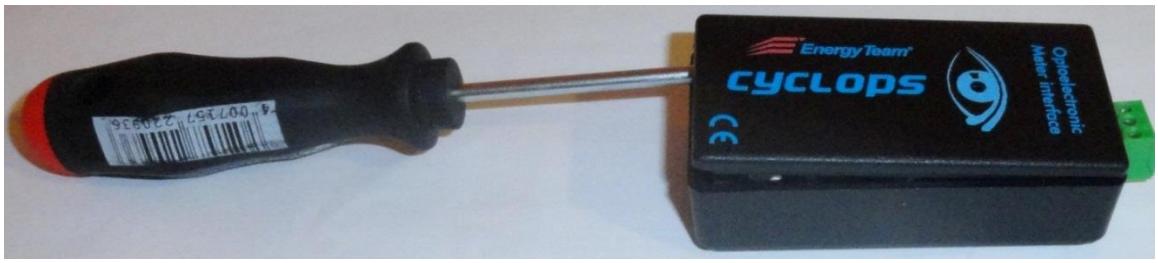
ELECTRIC INSTALLATION

ATTENTION !

During the installation operation, DON'T place the cables near devices such as: Transformers, Engines, Inverters, Switchboards, capacitor banks, UPS groups and other devices which can generate electromagnetic noise. In addition, DON'T twist them and DON'T place them near cables carrying high currents and voltages.



Set the Jumper J1 according to the model of the meter used; don't insert the jumper on J3. To access to configuration jumpers, remove the lid inserted as a joint, by means of a screwdriver or another tool, taking care not to damage the case.



TECHNICAL FEATURES

General	
Dimensions	39 x 78 x 23 mm.
Weight	30 g.
Case material	Plastic
Protection degree	IP20
Working temperature	-20° ÷ +70°C
Relative humidity	95% without condensation
Supplied accessories	External probe with photodiode, connected via RCA; Cable L = 50 cm. - Sheet in Velcro 14x22 mm, for ENEL meters. - Sheet in Velcro 26x28 mm, for NOT ENEL meters.
Electrical	
Power Supply	+12 ÷ +24 Vdc
Consumption	Max: 60 mW / 5,0 mA.
Visual signaling	1 LED, It flashes with the received pulse.
Output	Open Collector; V_{MAX} = 28Vdc; I_{MAX} = 100 mA
Output pulse duration	Min: 20 mSec; Max: 100 mSec.
Power supply cables	Sez. 0,25 mm^2 (AWG 23); L_{MAX} = 100 m. SHIELDED CABLE Sez. 0,50 mm^2 AWG 20); L_{MAX} = 100 m. SHIELDED CABLE

WARRANTY

Energy Team guarantees that the supplied products are free from defects and suitable for use. If any malfunction occurs and these are due to manufacturing defects, E.T. will respond within the terms and modalities foreseen by General Conditions of Supply, with particular reference to articles 5B (terms and duration), 1C (limits), 5D (other warranties). Whatever operation or manumission made by third parties not expressly authorized determines in each case the immediate termination of the warranty.

DISPOSAL

WASTE OF ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)
Don't dispose among generic waste but collect separately for recycling and disposal operations according by law.

Energy Team S.p.A.
Via della Repubblica, 9, 20090 Trezzano sul Naviglio (MI)
P +39 02 40405033 – F. +39 02 48405035 - E info@energyteam.it - PEC pec@pec.energyteam.it - W www.energyteam.it