

## Pumppro



**GELCO** has developed prodless type pumppro unit which is basically current sensing single phasing which can protect the submersible pumps against overloading, dry running, unbalanced currents, reverse phasing and single phasing up to motor terminal. As it is prodless, it eliminates external sensing prod. With the use of this unit. Bimetallic overload relays and single phasing preventers are not required.

Thus it offers comprehensive protection to submersible pumps and also saves cost by eliminating thermal overload relay, separate single phasing preventer, water level guard and cable for sensor. It is available up to 200 amps. Green led indicates spp healthy condition and red led indicates overloading condition. Auto / manual / remote reset provision is provided for overloading. It weighs 750 grams approx. And measures 140 x 100 x 95mm (overall). Mounting dimensions is 129 x 74mm.

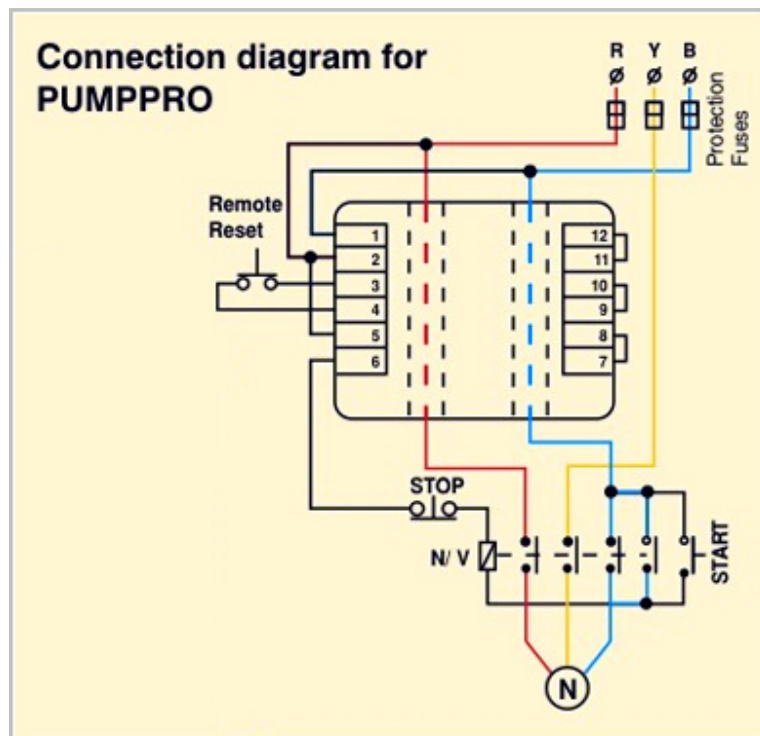
### Introduction

PUMPPRO is a negative sequence current sensing SPP with single phasing, overload(over current) and dry run (under current) protections. Overload setting needs to be set as per current rating of the pump & Dry Run setting needs to be as per no load current of pump. PUMPPRO offers dry run protection without need of the prod.

### Technical Specifications

System Voltage	: 415V +/- 20%, 3, 50 Hz.
Auxiliary Supply	: 415V/230/110 V AC, 50 Hz.
Output contact rating	: 1 C/O potential free,6A resistive at 230V or 1 A at 415V at 0.5 P.F.
Trip Setting	
Unbalanced	: 50% of rated maximum current.
Dry Run(under current)	: Variable between 50-75% at set overload current
Overload	: 120% of the full load current for that adjustable potentiometer provided on the unit.
Trip Time Delay	
For Single Phasing, Reverse Phasing	: 4 to 7 Seconds
Dry Run	: 15-18 Seconds
For Overload	: As per inverse time current characteristics(2sec. standard & 6/10sec. on request)
Reset	: Auto/Manual/Remote for each SPP,O/L & Dry Run selection
Power Consumption	: 3 VA

Recommended Wiring	: 1.0 Sq.mm
H.V Test	: 2 KV AC, 50 Hz for 1 minute between mounting plate and any terminal.
Fail Safe	: Relay is energized in healthy conditions and trips in faulty conditions.
Humidity	: Up to 95% RH
Enclosure	: High impact polystyrene moduled with nylon moulded connection strip.
Life Expectancy	: 0.5*100000 operations
Indication	: ON,SPP FAULTY, OVERLOAD, DRY RUN
Dimension	
Overall	: 140 X 100 X 95 mm
Mounting	: 129 X 74 mm.
CT Dimension	
Inbuilt	: 16 mm ID
Separate	: 31 mm ID
Weight	: 750 gms(approx.)



**Terminal Marking**

- 1-2 Auxiliary Supply.
- 3-4 Remote reset normally open push button(if required).

- 5-4 Relay-N/O contact. Contact in series of N/V coil.
- 7-8 Link-Remove link to make SPP reset automatic.
- 9-10 Link-Remove link to make overload reset automatic.
- 11-12 Link-Remove link to make dry run reset automatic.

### **Instructions**

- Dotted line shown here goes through the two PVC pipes internally to the pumppro unit
- In healthy conditions relay is energized.
- If starter does not hold, interchange R & B wire passing through pumppro unit.
- To changed direction of rotation of motor interchange wires on motor side.
- Set overload current setting property (120% of motor current).if overload setting is higher it may mistrip starter in dry running.