

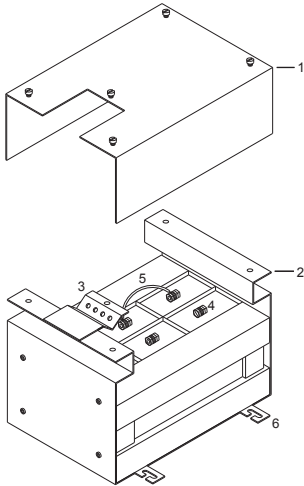
# I-Pump balanceCOUPLER

## User Manual

The balanceCOUPLER connects to the 3 Phase supply to the ESP and creates a Star (Wye) Point. It is required for Switchboard installations and Delta connected transformers.

Designed to be freestanding or mounted into an enclosure the balanceCOUPLER must be protected by three externally mounted high voltage instrument fuses. Autonomous Well fuseCARTRIDGES are suitable and may have been supplied with your order.

Galvanised steel plates form the base and cover for the coupler, maintaining a ground shield for safety. The outgoing, wye point, connection must be fused to the connected Single Phase Coupler, starCOUPLER or other coupler before connecting to the I-Pump Transceiver.



- 1 top cover with captive fixings
- 2 mounting base with ground point
- 3 wire transit point (A, B, C, wye)
- 4 wye point (outgoing connection)
- 5 phase A-B-C (incoming connections)
- 6 4 off M6 fixing points



### Warning – High Voltages

Transceiver connect, via couplers, to the High Voltage Supply to the ESP. Only personnel trained in High Voltage Equipment and Operations should access this equipment.

### Warning – Equipment May Be Live

Remove power to Transceiver prior to working on ESP 3-Phase Supply (a-well coupler, switchboard motor connections, junction box, well head connector).

### Warning – Meggering

Disconnect any wiring connected to the wye point before meggering.

### Be Safe – Be Sure

If in doubt seek advice from Autonomous Well:  
[help@a-well.com](mailto:help@a-well.com)

### I-Pump System

I-Pump from Autonomous Well is a flexible and complete gauge system for ESP wells. Available as component parts for third party gauge manufacture or on-site repair, as well as complete systems I-Pump is unmatched in practicality, cost of use and its diversity of measurements.

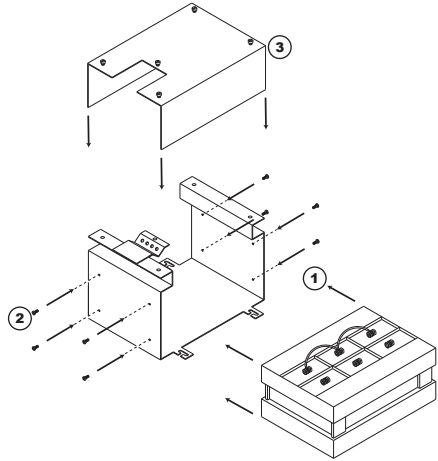
Autonomous  
Well



## Assembly

balanceCOUPLER is designed to be free-standing or mounted (via rear mounts) to an enclosure. In most application the balanceCOUPLER is simply located free-standing inside the Step Up Transformer Secondary Cable Box.

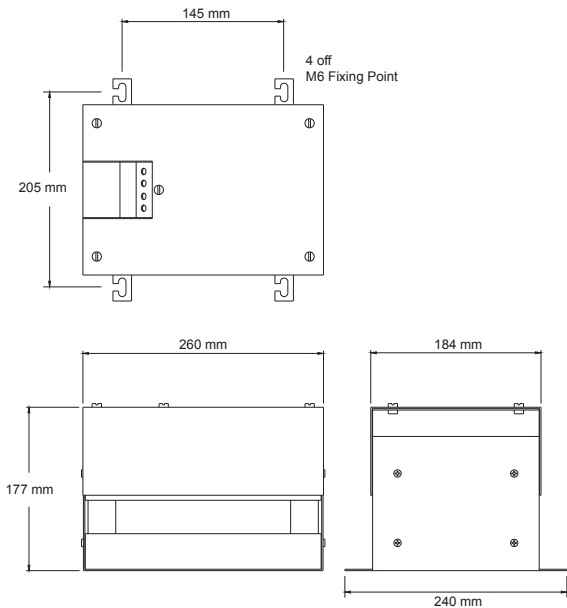
- 1 insert inductor into base frame
- 2 secure inductor with 8 self-tapping M4 fixings
- 3 fix down lid (5 captive screws)



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## Mounting

balanceCOUPLER is designed to be free-standing or mounted (via rear mounts) to an enclosure. In most application the balanceCOUPLER is simply located free-standing inside the Step Up Transformer Secondary Cable Box.



## Connections

balanceCOUPLER has three sets of connections.

### Ground Connection

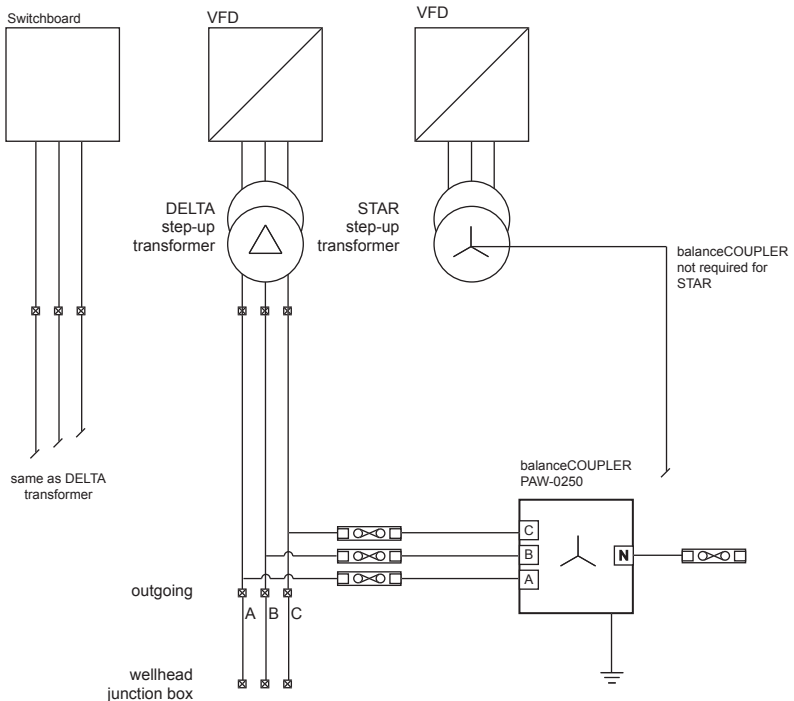
This is an M6 Ground Point on the galvanised steel base of the balanceCOUPLER . All exposed metal items (e.g. cover plates) are connected to ground via assembly fittings..

### 3 Phase HV Connections

balanceCOUPLER has 3 high voltage connections. These are accessible by removing the top cover. Incoming connections from the supply Phase A, B and C must be fused for 1/8A at the supply end for safety. Inline medium voltage fuseCARTRIDGES are available from Autonomous Well. Wire used must meet application requirements. Autonomous Well provide 8kV 18AWG Instrument Wire.

### Star (Wye) Point HV Connection

When the top cover is removed you will see two link wires creating a wye connection on three studs. The outgoing wire to the starCOUPLER is to be terminated to one of these three studs. Before connecting the wye point to any other coupler or instrument you must connect to a 1/8A fuse (a fuseCARTRIDGE comes with a starCOUPLER kit and is suitable).



## Specification

<b>Document</b>	PAW-0313-00
<b>Product</b>	balanceCOUPLER
<b>Part Number</b>	PAW-0269
<b>Description</b>	Instrument rated 3 Phase, Wye Connected 5kV Inductor (250H/phase) designed for fixed and variable frequency operation on ESP oil wells.
<b>Mounted Dimensions</b>	240x260x177 mm
<b>Weight</b>	13.0 kg
<b>Voltage Rating</b>	5kV 3 Phase 10kVdc flash test
<b>Current Rating</b>	fuse at 1/8A
<b>Environment</b>	IP30 Operating -40 - +85C

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