



# VYDAS

## INTERNATIONAL MARKETING

Specialist Sensors & Instruments for Industry

# NEW!

## COMPACT MOTOR POWER SENSOR IDEAL FOR SMALL MOTOR STARTER ENCLOSURES

MEASURES TRUE MOTOR POWER  
10X BETTER THAN SENSING JUST AMPS

### COMPACT

- 3" x 3.9" x 1.75" high  
(77mm x 100mm x 45mm)
- Fits in size 1 "Buckets"
- Mounts in any direction
- DIN RAIL ADAPTOR AVAILABLE

### 4-20 MILLIAMPER ANALOG OUTPUT

- Proportional to Motor Power
- Loop Powered

### HOOK TO

- Meters
- Data Collection Systems
- Programmable Controllers
- Recorders

MATCH MOTOR SIZE WITH  
DIP SWITCHES

For smaller motors

- Take extra turns

For bigger motors

- Use with Current Transformer
- Or, use Power Cell

1 & 2	= 25 HP
1 & 3	= 20 HP
1	= 15 HP
2	= 10 HP
3	= 5 HP
4	= 3 HP
5	= 1 HP
6	= .5 HP

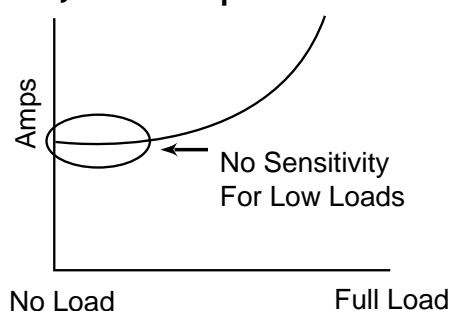
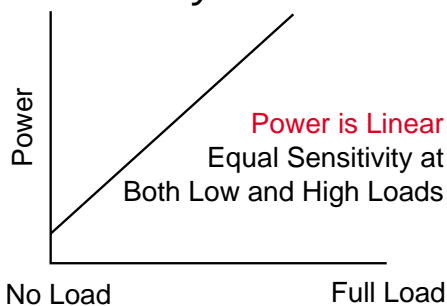


MODEL TP-2

Low Cost  
Power Sensor

ALSO AVAILABLE:  
TP-2 SINGLE PHASE

### Why Monitor Power Instead of Just Amps?



 **LOAD CONTROLS  
INCORPORATED**



**Vydas International Marketing**

Swan House Passfield Business Centre  
Lynchborough Road Passfield

Hampshire GU30 7SB United Kingdom

Tel:44(0)1428 751822 Fax:44(0)1428 751833

Email:[info@vydas.co.uk](mailto:info@vydas.co.uk) Web: [www.vydas.co.uk](http://www.vydas.co.uk)

# INSTALLATION

The TP-2 senses the electrical power input to a motor (horsepower). The Output is a 4-20 Milliamp LOOP POWERED analog signal proportional to power.

## VOLTAGE

120 Volts AC are taken from two of the phases. If the motor starter already has a 120 Volt control transformer, it can be used. Otherwise, install a separate transformer. It is OK if the secondary is grounded. BE SURE TO NOTE WHICH TWO PHASES SUPPLY THE TRANSFORMER.

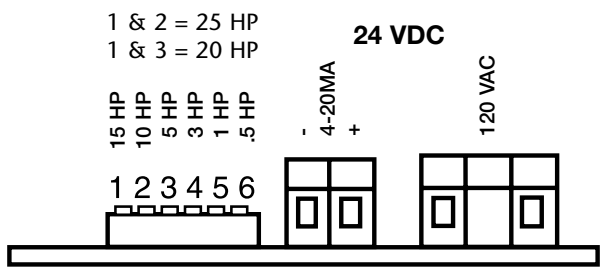
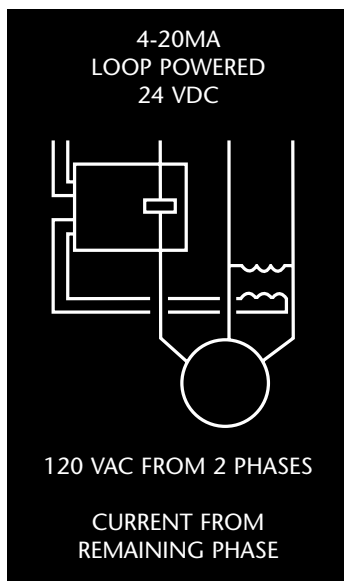
In a 120/208V three phase system, the 120V MUST come from a transformer connected to two of the phases. The 120V phase to ground voltage cannot be used.

## CURRENT

The current signal is taken from the REMAINING phase. Pass this wire directly through the window in the TP-2.

It is VERY IMPORTANT that the current signal comes from the phase that IS NOT supplying the 120 Volt control transformer. Be extra careful when the machine has reversing starters or multi-speed windings. If a wrong phase is used the control will either:

- Work backwards
- Have reduced sensitivity



## ANALOG OUTPUT

4-20MA Loop Powered. Max. Loop voltage 28 VDC

## CAPACITY

Select the capacity by turning one (or two) of the Dip Switches on:

### Full Scale HP 460 Volt (nominal) Primary

Switch	HP
6	.5 HP
5	1 HP
4	3 HP
3	5 HP
2	10 HP
1	15 HP
1 & 3	20 HP
1 & 2	25 HP

### Multipliers

For Nominal Voltages Other than 460 Volts	
Multiply 460V full scale by:	
208V =	.45
230V =	.5
380V =	.83
415V =	.9
575V =	1.25

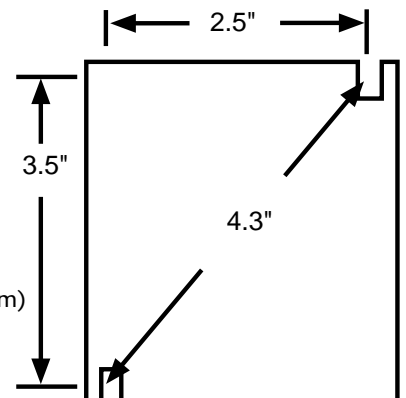
- For smaller motors, take more passes or turns through the window. Example: Passing the wire through twice reduces .5 HP to .25HP.
- For larger motors use TP-2 plus Current Transformer or, use Power Cell.

## TP-2 WITH CURRENT TRANSFORMER

- Set Dip Switch for 3 HP
- CT 5 Amp Secondary through hole
- Full Scale Horsepower = (Primary Volts) (CT Primary) (0.0016)  
Example: 100:5 Current Transformer, 460 Volts Primary  
Full Scale Horsepower = (100) (460) (0.0016) = 73.6 HP  
KW=HP x .746

REMEMBER: Put the CT on the phase that is not supplying the 120 Volt transformer.

## MOUNTING



## SPECIFICATIONS

Accuracy: 2%  
Response Time: 500 MS  
Temperature: 0-50° C

## DIMENSIONS

- 3" x 3.9" x 1.75" high (77mm x 100mm x 45mm)
- Window .5" (13mm)

Din Rail Adapter \$25



Vydas International Marketing  
Swan House PBC Lynchborough Rd  
Passfield Hampshire GU30 7SB UK

Tel: 44(0)1428 751822 Fax: 44(0)1428 751833

Email: [info@vydas.co.uk](mailto:info@vydas.co.uk) Web: [www.vydas.co.uk](http://www.vydas.co.uk)