

COMPACT MOTOR POWER SENSOR MODEL TP-2



IDEAL FOR SMALL MOTOR STARTER ENCLOSURES

- MEASURES TRUE MOTOR POWER
- 10X BETTER THAN SENSING JUST AMPS

ALSO AVAILABLE: TP-2 SINGLE PHASE

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 MILLIAMP 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

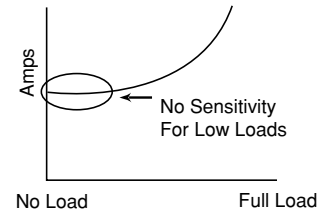
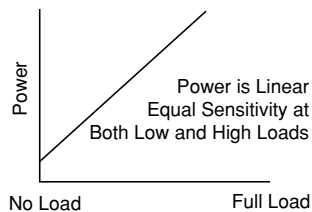
For bigger motors

- Use with Current Transformer
- Or, use Power Cell

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

FREE 30 DAY TRIAL AVAILABLE
Model TP-2 \$400 – Immediate Shipment

WHY MONITOR POWER INSTEAD OF JUST AMPS?



TYPICAL INSTALLATION – MODEL TP-2

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.

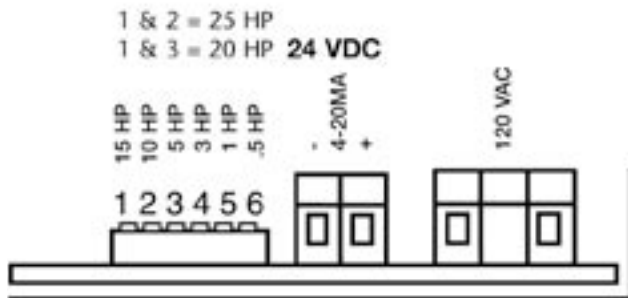
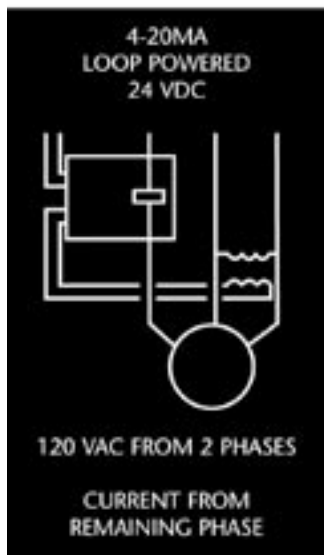
In a 120/208V three phase system, the 120V MUST come from a transformer connected to two of the phases. The 120V phase to ground voltage cannot be used.

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

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 .5HP to .25HP.
- For larger motors use TP-2 plus Current Transformer or, use Power Cell.

TP-2 WITH CURRENT TRANSFORMER

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

Full Scale HP at 460 Volts with Current Transformer

50:5	36.8HP	200:5	147HP
75:5	55.2HP	300:5	221HP
100:5	73.6HP	400:5	294HP
150:5	110HP	500:5	368HP

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

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)

