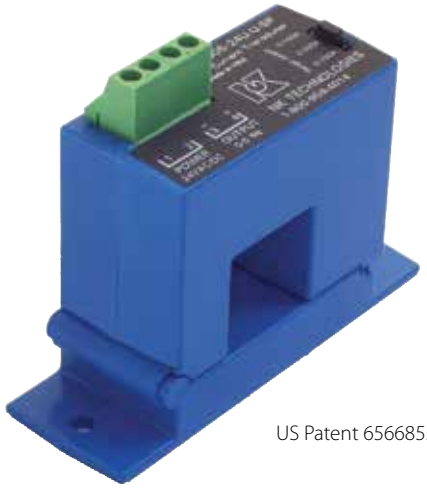
# ATQ SERIES

## Frequency Output AC Current Transducers

ATQ Series AC Current Transducers have a patented frequency output design used as an input to high-speed counter or frequency PLC modules, panel meters or programmable relays. Use where no analog inputs are available. Eight ranges, from 0–2 to 0–200 A, across three models provide the best available resolution. The ATQ Series AC Current Transducers are designed with a split-core case for easy installation.



US Patent 6566855

### AC Current Transducer Applications

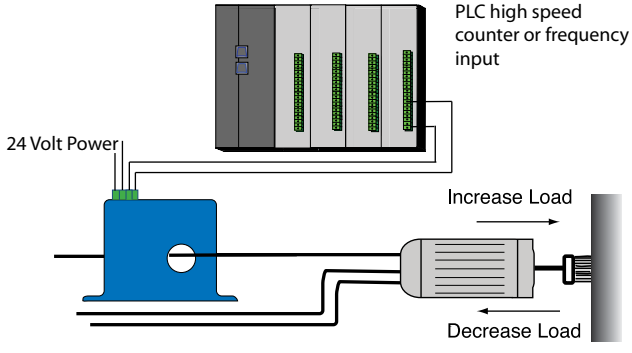
**Motion and Motor Control**

- Pump, grinder, and fan motor status monitoring.
- Belt jam sensing in conveyor applications.
- Motor control in deburring/brush operations.
- Detect strain, acts as an electronic shear pin.

**Current Measurement**

- Measure current use in machine tools, polishing, and cutting operations where a small PLC has sufficient capacity to accept the sensor inputs measuring speed, time of use and electrical demands of the equipment.

Frequency Output Control




For additional Application Examples, go to www.nktechnologies.com/applications

### AC Current Transducer Features

**True RMS Output**

- True RMS technology is accurate on distorted waveforms like VFD or SCR outputs.

**Jumper-selectable Ranges**

- Reduces inventory.
- Eliminates zero and span pots.

**Isolation**

- Output is magnetically isolated from the input for safety.
- Eliminates insertion loss (voltage drop).

**Easy Installation**

- Split-core case means the monitored conductor does not need to be disconnected to install the sensor.

OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

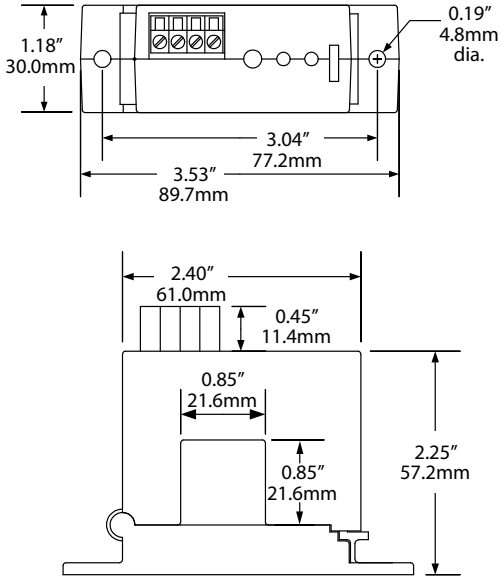


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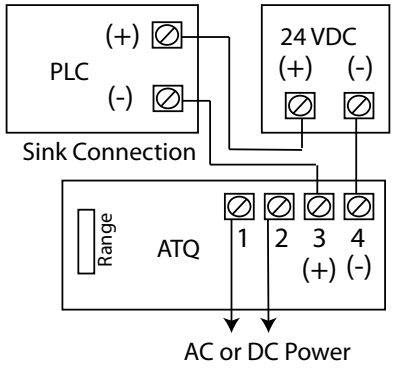
## AC Current Transducer Dimensions

SP Case

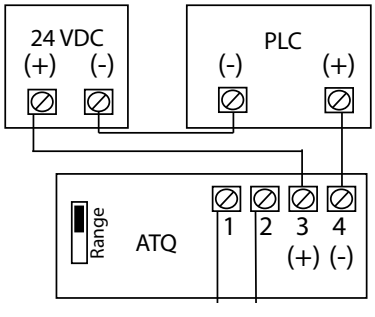



## AC Current Transducer Connections

Sinking Input Connection




Sourcing Input Connection




## AC Current Transducer Specifications

| | |
|---|---|
| **Power Supply** | 24 VAC/DC (19–26 V) |
| **Power Consumption** | <1 VA |
| **Output Signal** | • 5 KHz at full range current<br>• 10 KHz at full range current |
| **Response Time** | 100 ms (to 90% step change) |
| **Frequency Range** | 6–100 Hz |
| **Input Frequency** | 40–400 Hz |
| **Pulse Width** | On: 40 microseconds<br>Off: Variable |
| **Isolation Voltage** | Tested to 5 KV |
| **Case** | UL94 V-0 Flammability Rated |
| **Environmental** | -4 to 122°F (-20 to 50°C)<br>0–95% RH, non-condensing |

## AC Current Transducer Ordering Information

Sample Model Number: ATQ1-05K-24U-SP

AC current transducer, 5K frequency at 10, 20 or 50 A, split-core case. (DIN rail adapters are included)

| | (1) | | (2) | | | | (3) | | | | (4) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ATQ** | | – | | | | – | **2** | **4** | **U** | – | **S** | **P** |

(1) Range

| | |
|---|---|
| 0 | 2 and 5 A |
| 1 | 10, 20, 50 A |
| 2 | 100, 150, 200 A |

(2) Frequency Output

| | |
|---|---|
| 05K | 5K Hz |
| 10K | 10K Hz |

(3) Power Supply

| | |
|---|---|
| 24U | 24 VAC/DC power (external) |

(4) Case Style

| | |
|---|---|
| SP | Split-core |





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