

Premo presents HCT-BP1 series AC/DC current transducer, a new design based on the Hall Effect principle. HCT-BP1 series has good stability in medium and high currents, provides high insulation between primary and secondary and is suited for a great variety of applications.



Features

- Open loop Hall Effect sensor.
- Bipolar power supply.
- High currents measurement.
- High precision.
- High linearity.



1. Electrical parameters

| | Symbol | Min | Typ | Max | Unit |
|--|----------|--------------|----------|------------|--------|
| Nominal current | I_{PN} | | | | |
| HCT-65BP1 | | | 65 | | A |
| HCT-85BP1 | | | 85 | | A |
| HCT-100BP1 | | | 100 | | A |
| HCT-125BP1 | | | 125 | | A |
| HCT-200BP1 | | | 200 | | A |
| HCT-300BP1 | | | 300 | | A |
| HCT-400BP1 | | | 400 | | A |
| HCT-600BP1 | | | 600 | | A |
| Measuring range | I_p | | | | |
| HCT-65BP1 | | -195 | | 195 | A |
| HCT-85BP1 | | -255 | | 255 | A |
| HCT-100BP1 | | -300 | | 300 | A |
| HCT-125BP1 | | -375 | | 375 | A |
| HCT-200BP1 HCT-300BP1, HCT-400BP1, HCT-600BP1 | | -600 -900 | | 600 900 | A A |
| Rated output (at I_{PN}) | V_O | | 4 | | V |
| Supply voltage ($\pm 5\%$) | V_{CC} | | ± 15 | | V |
| Current consumption (measured at $I_p = 0$ A) | I_{CC} | 25 | | | mA |



AC/DC Current transducers HCT-BP1 series

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2. Performance parameters

| | Symbol | Min | Typ | Max | Unit |
|--|------------------|---------|-----|----------------------|----------------|
| Accuracy (measured at I_{PN}) | | ± 1 | | | % |
| Linearity (measured at full range) | ϵ_{LLR} | | | 1 | % |
| Offset voltage HCT-65BP1, HCT-85BP1 HCT-BP1 series | V_{OS} | | | ± 30 ± 25 | mV mV |
| Offset voltage drift HCT-65BP1, HCT-85BP1 HCT-BP1 series | KV_{OS} | | | ± 1 ± 0.5 | mV/°C mV/°C |
| Response time | T_R | | | 3 | μs |
| Bandwidth (-3 dB) | F_C | 0 | | 20 | kHz |

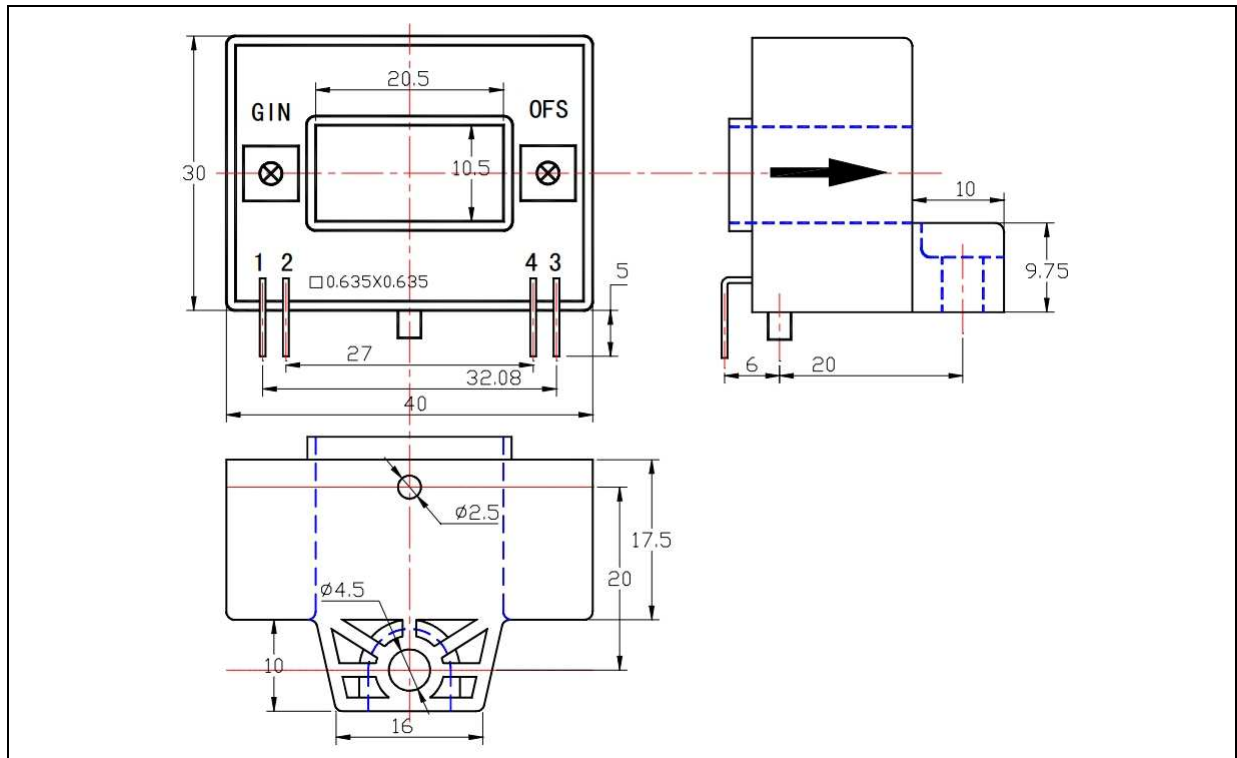
3. Isolation parameters

| | Symbol | Min | Typ | Max | Unit |
|--------------------------------------|--------|-----|-----|-----|------|
| Galvanic isolation (50 Hz, 1 min) | V_I | | 3 | | kV |

4. General parameters

| | Symbol | Min | Typ | Max | Unit |
|-----------------------|--------|-----|-----|-----|------|
| Operating temperature | T_A | -40 | | 85 | °C |
| Storage temperature | T_S | -55 | | 125 | °C |
| Mass | m | | 65 | | g |

5. Dimensions



Pin description

| Pin | Value |
|-----|------------------|
| 1 | +V _{CC} |
| 2 | -V _{CC} |
| 3 | Output |
| 4 | Ground |

Connector description

| Connector | Type |
|-----------|------|
| Connector | PTH |

Mechanical notes

1. All dimensions are in mm.
2. General tolerances are ± 0.5 mm.
3. All dimensions and mechanical fixations could be changed upon user needs or PREMO transducer development.
4. Arrow indicates direction of positive currents.

6. Marking



HCT-600BP1 marking sample

Marking notes

1. Component is marked on top side.