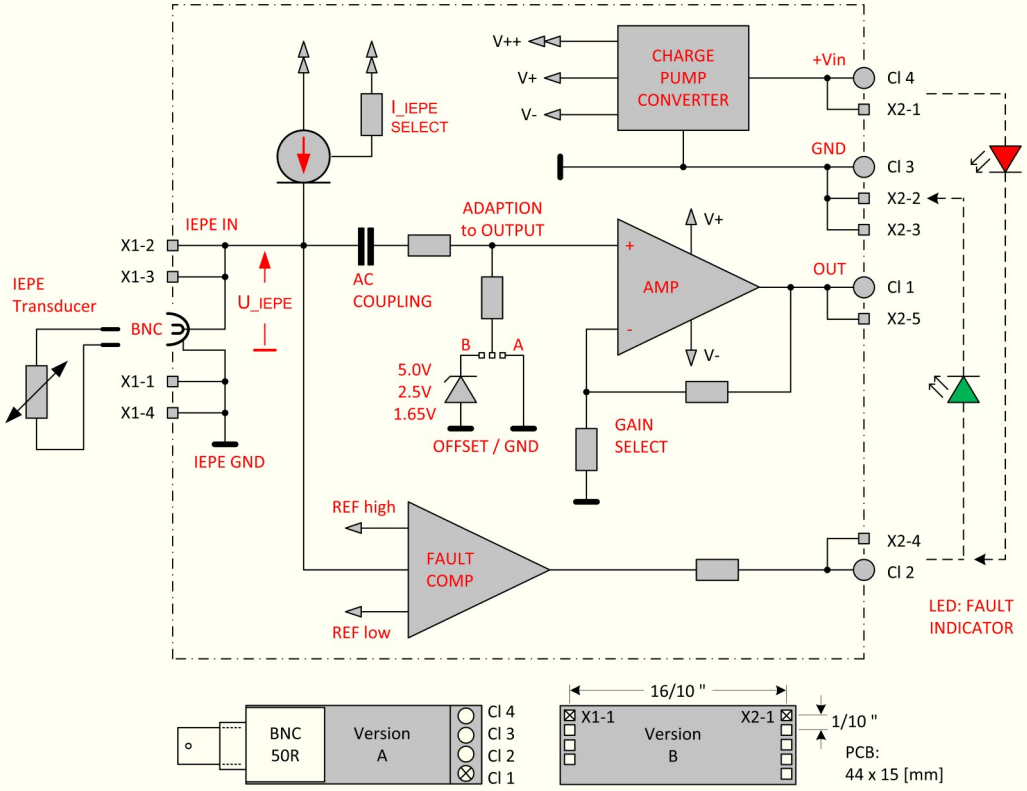
IEPE signal conditioning OEM module IPE-FM4

EIGNER MESSTECHNIK

Single-channel IEPE excitation and amplifier

- Signal conditioner for any smart IEPE transducers
- Applications: vibration, acceleration, sonic and acoustic noise measurement, strain and materials testing
- I_IEPE excitation: constant current
  2 - 4 - 8 [mA] ±5 % (-10 to 70°C) – value specify when ordering
- V_IEPE excitation (approx. Vin * 2 - 3V)
  @ Vin = 12 VDC: V_IEPE >= 20 V → signal range 0 to ±8 V
  @ Vin = 15 VDC: V_IEPE >= 26 V → signal range 0 to ±10 V
- AC Bandwith: 0.5 Hz to 25 kHz (-3dB)
- GAIN: 1 - 2 - 5 [V/V], gain inaccuracy (gain 2 - 5) < 0.3 %
- THD + N: 0.015 % at 1 kHz
- DC offset (OUT): < 5 mV (balanced to GND) or
  1.65 V (unbalanced for 0 to 3.3 V Analog-Digital Converters)
  2.5 / 5 V (unbalanced for 0 to 5 / 10 V Analog-Digital Converters)
- Power supply: 12 to 15 (max) VDC < 0.5W
- Fault detection: Open circuit or short to GND -
  indicated by external LED (I_{LED} approx. 3 mA)
  Type specify when ordering:
  • LED "green" - ON for normal operation or
  • LED "red" - ON for fault indication
  (contact either LED "green" or LED "red", but never both together!)



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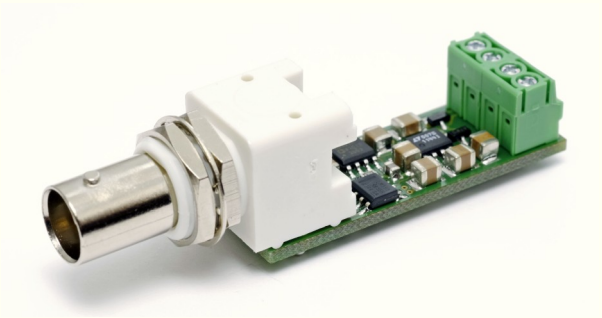
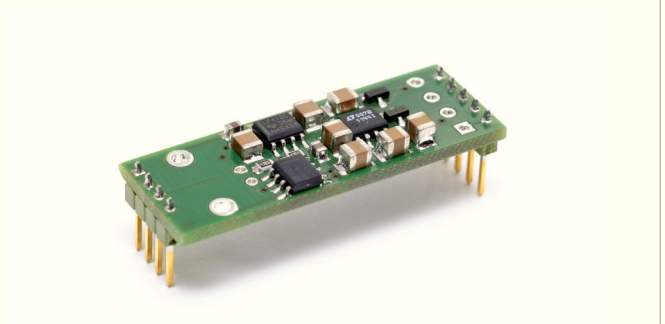
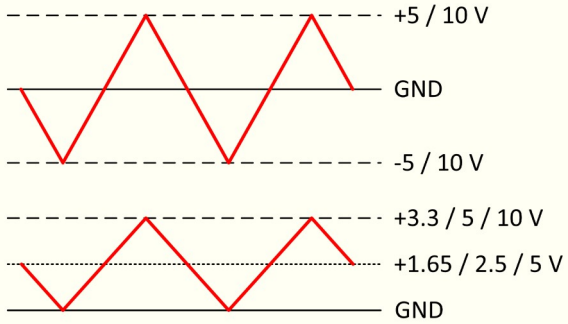


Version A - designed for front panel mounting



Version B – designed for main board mounting



Signal output: balanced vs unbalanced