

Galvanic Barrier ICP® Compatible

Type E-2



The galvanic barrier E-2 conditions the signals from piezoelectric sensors. The module supports standard ICP compatible charge amplifiers. The unit can be used where ground loops from voltage differences between the measurement point and the signal processing occur. An adjustable broken wire feature allows to detect the correct connection of the charge amplifier.

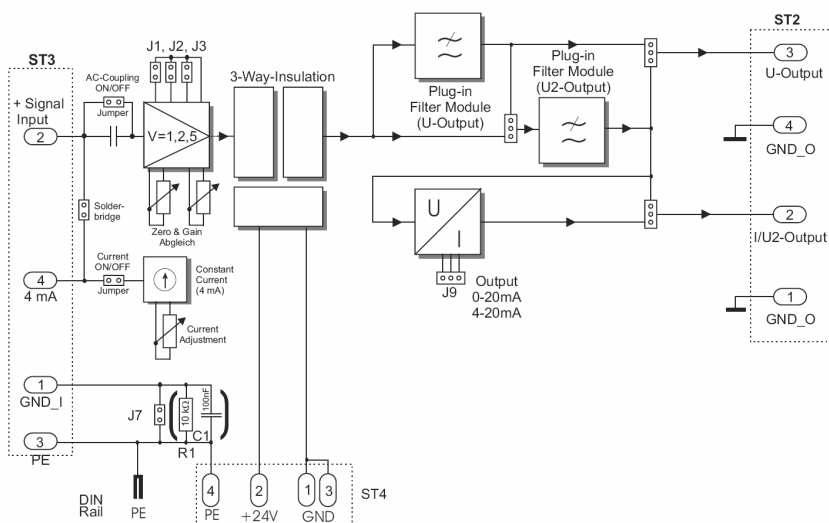
BENEFITS

- Insulated signal conversion and filtering
- Integrated ICP functionality with broken wire feature
- Switch able gain
- Very low noise
- 3 way insulation

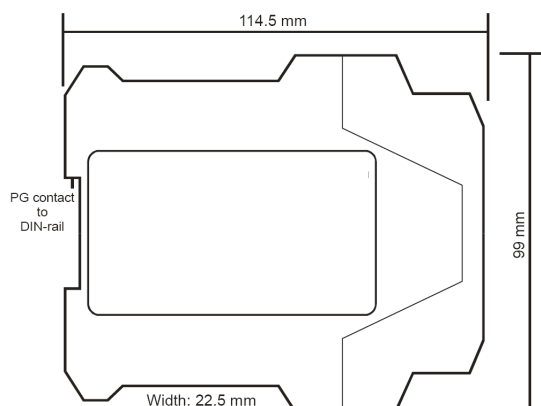
SPECIFICATIONS

Supply voltage	+24 V DC ±10 %
Power consumption at nominal voltage	40 mA
Electrical insulation	3 way insulation 1000 V DC
Accuracy	0.1 %
Frequency range	2 Hz – 15 kHz
Linearity (typical)	0.02 %
Input	ICP – sensor or charge amplifier
Voltage Output	0-12 V, max. 12 mA
Ripple	typ. 5 mV _{pp} at f _g =10 kHz
ICP supply	6mA constant current
DC signal component (broken wire control)	adjustable 0 V ... 8 V
Measurement range / gain	G = 2, 5, 10
Operation temperature	0°C to 65°C
Storage temperature	-20°C to 70°C
Module mounting	Din-Rail

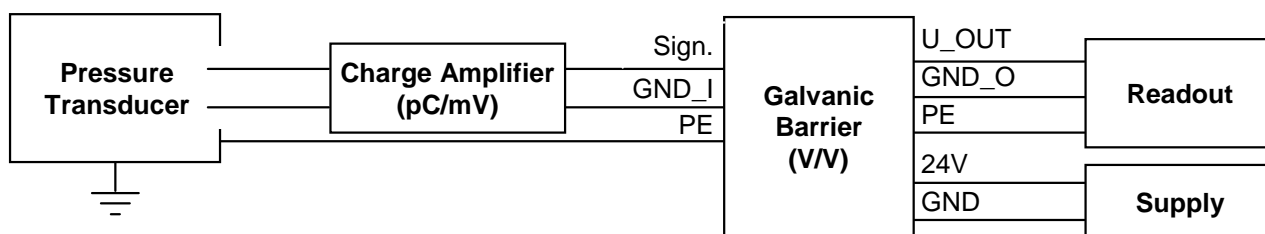
BLOCK DIAGRAM



MECHANICAL DRAWING



WIRING DIAGRAM



4mA: optional constant current supply, when using an ICP charge amplifier

Broken wire feature: a DC voltage (0V-8V) is added to U_out when the charge amplifier is operational. The maximum signal output of +12V remains.

ACCESSORIES

ICP charge amplifier E-1

Piezocryst reserves the right to change specifications and accessories without notice.