

# Industrial Charge Amplifier

Type 5038A2Y...

## for WIM Lineas®

Industrial charge amplifier with 2 channels for converting electric charge generated by piezoelectric sensors into a proportional voltage.

- Robust aluminum diecast housing
- Vibration-proof
- Degree of protection IP60
- No adjustment necessary
- Conforming to CE
- Internal connected for continuous operate



### Description

The charge amplifier Type 5038A2Y... has a hybrid capacitive feedback amplifier with extremely high insulating resistance in each input channel.

An unregulated voltage source of 15 ... 30 V suffices for powering the charge amplifier.

The instrument is conforming to EC with EC Directive 89/336/EC and complies with EMC standards (EN 50081-1 resp. EN 50081-2 regarding interference emission and EN 50082-1 resp. EN 50082-2 regarding interference immunity); compliance is required with the relevant installation information.

### Application

The charge amplifier Type 5038A2Y... is especially intended for use in industrial applications together with Lineas sensors.

The output signals can be transferred to control units and processed.

### Technical Data

#### Charge amplifier

Measuring range	Type 5038A2Y43	pC	±60 000
	Type 5038A2Y53	pC	±100 000
Error		%	<1
Output voltage		V	0 ... ±5
Output current		mA	0 ... ±2
Output impedance		Ω	100
Output interference signal		mV <sub>pp</sub>	<3
Frequency range (-3 dB)		kHz	≈0,0016 ... >10
Time constant		s	≈100

#### Power supply

Supply voltage	VDC	15 ... 30
Current consumption	mA	<25

#### General Data

Operating temperature range	°C	0 ... 60
Storage temperature range min./max.	°C	-10/+60
Housing material		Aluminum
Degree of protection acc. to EN 60529		IP60
Vibration resistance	g <sub>p</sub>	10
Test conditions: 20 ... 2 000 Hz continuous in 2 min., 8x within 16 min.		
Shock resistance during 1 ms	g	200
Weight	grams	≈550
Dimensions		
LxWxH	mm	150x64x34,5
with isolation plate	mm	172x64x42,5
Connections		
Charge input		Type BNC neg.
Output/Supply		Type 8-pol. male DIN 45 326

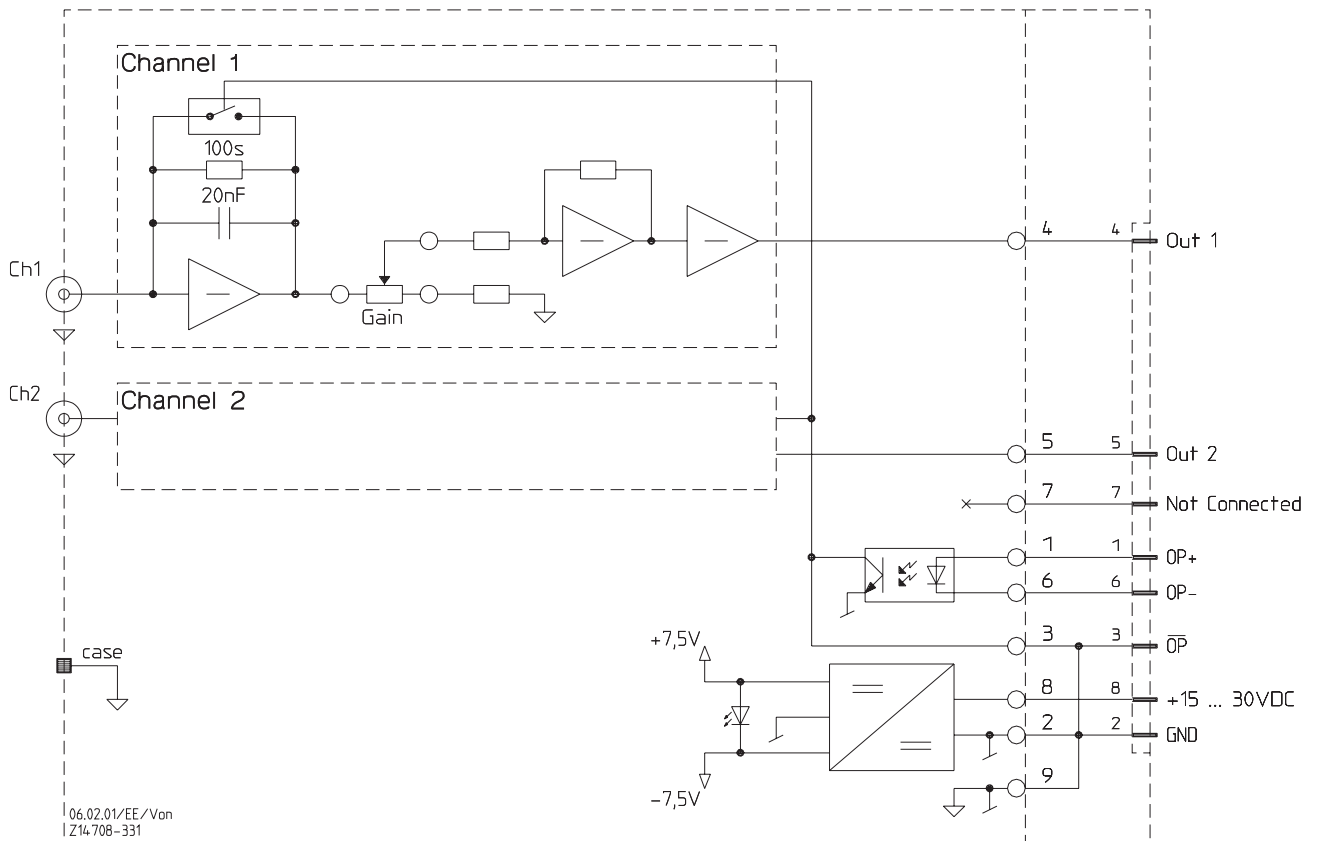


Fig. 1: Block diagram of charge amplifier

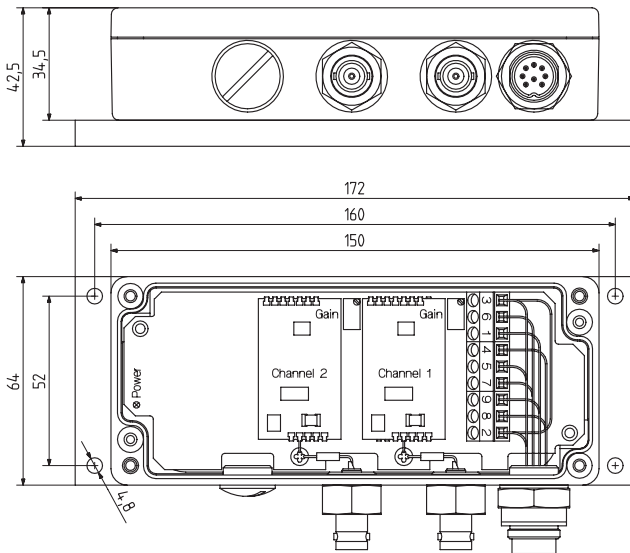


Fig. 2: Charge amplifier for WIM Lineas® Type 9195...

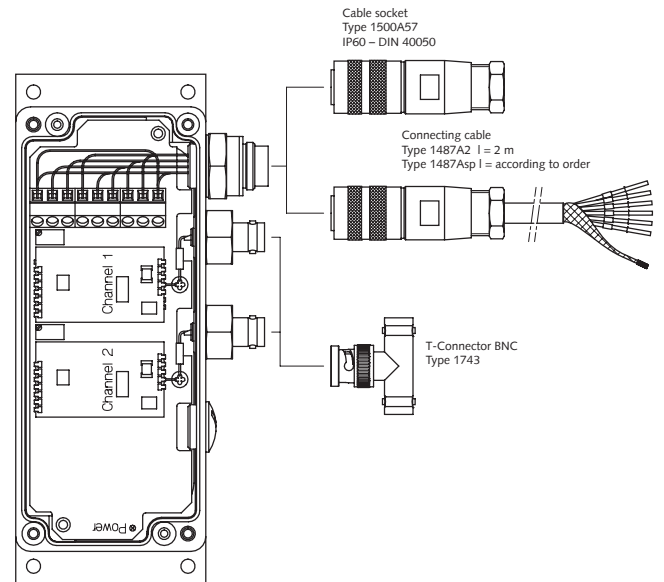


Fig. 3: Connection of sensors to the charge amplifier

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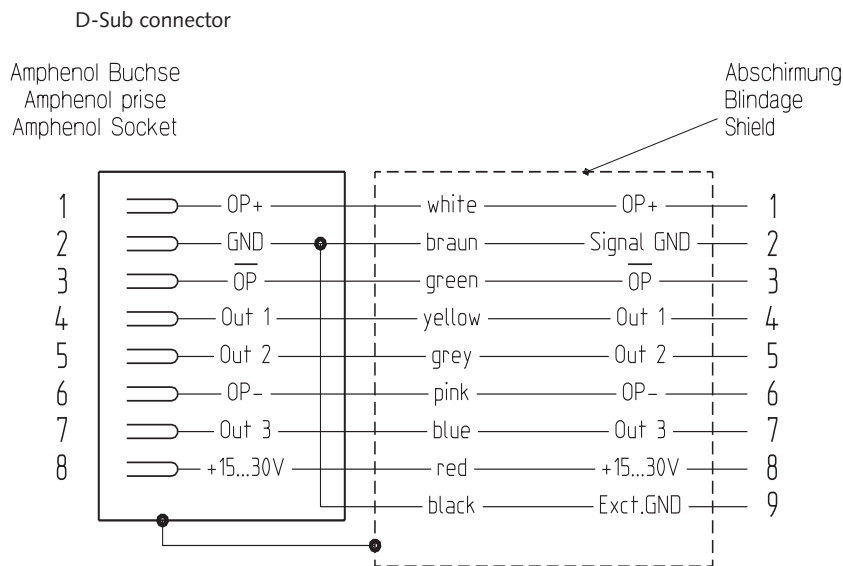


Fig. 4: Terminal allocation to Type 1487A...

### Included Accessories

- None

### Optional Accessories

- Cable socket 8 PIN DIN 45326
- Cable socket 8 PIN DIN 45326 with connection cable  
length = 2 m  
length = customized  
(L<sub>min</sub> = 0,1 m/L<sub>max</sub> = 15 m)
- T-connector BNC

### Type/Art. No.

- 1500A57
- 1487A2
- 1487Asp
- 1743

### Ordering Key

#### Industrial charge amplifier for WIM Lineas®

±60 000 pC for wheel load measuring (1 sensor per channel)	43
±100 000 pC for axle load measuring (2 sensors per channel)	53

Type 5038A2Y

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