

# B12

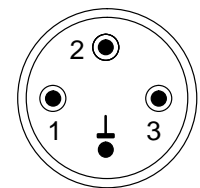
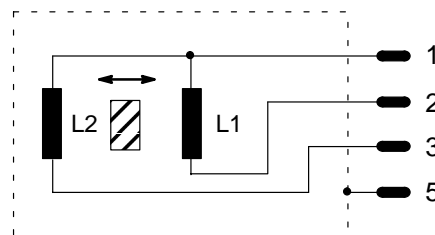
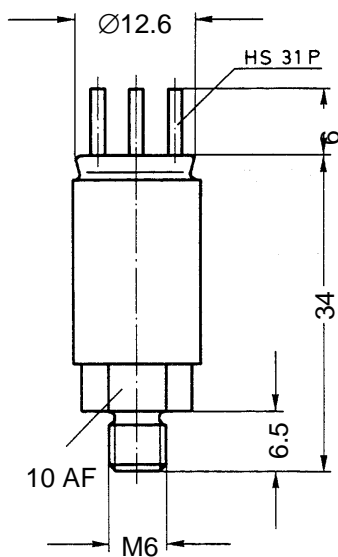
## Acceleration transducers with inductive measuring system



### Special features

- High sensitivity
- Small dimensions
- Low weight
- Cable length up to 100m
- Easy to calibrate by turning by 180°

### Dimensions (in mm, 1mm = 0.03937inches)



For equipment	Cable plug	Cable pole assignment		Cable socket
With 7-pole socket connector MS313102A16S-S	MS3106A16S-1P (Amphenol)	Cable 0106- A (WH) B (BK) C (BU) E	B12 pin 1 pin 2 pin 3 pin 5 ↓	HK31S-G
With soldering or clamp-type terminals (e.g. MC2)	free ends	Cable 0104-3 WH (1) BK (2) BU (3) YE (5) <sub>screen</sub>	pin 1 pin 2 pin 3 pin 5 ↓	HK31S-G
	free ends	Cable 0119-3		HK31S-W

## Specifications

Types		B12/200	B12/500
<b>Measured quantity</b>		constant and changing acceleration, vibration acceleration	
<b>Measurement principle</b>		high tuned spring–mass vibrator	
<b>Natural frequency, approx.</b>	Hz	200	500
<b>Measuring frequency range</b>	Hz	0...100	0...250
<b>Damping D at reference temperature</b>		0.6 ± 0.1	0.6 ± 0.1
<b>Nominal acceleration</b>	m/s <sup>2</sup>	± 200	± 1000
<b>Nominal sensitivity</b> (nominal output signal at positive or negative nominal acceleration)	mV/V	± 80	± 80
<b>Nominal output signal span</b>	mV/V	approx. 160	approx. 160
<b>Temperature effect per 10K in the nominal temperature range</b> on sensitivity <sup>1)</sup> , related to the actual value, typical	%	< ± 0.2	
on zero signal, related to the nominal sensitivity, typical	%	< ± 0.25	< ± 0.25
<b>Linearity deviation including hysteresis,</b> related to nominal output signal span	%	< ± 2	
<b>Transverse sensitivity<sup>2)</sup></b> (directional factor)	%	< ± 3	
<b>Relative side load limit, related to the nominal acceleration</b>	%	100	
<b>Electrical measurement principle</b>		inductive system with differential choke	
<b>Nominal energising voltage, rms value</b>	V	2.5 ± 5%	
<b>Service range of energising voltage, rms value</b>	V	1...6	
<b>Carrier frequency</b>	kHz	5	
<b>Input resistance at reference temperature</b> (between connections 2 and 3)	Ω	approx. 40	
<b>Input inductance at reference temperature</b> (between connections 2 and 3)	mH	approx. 10	
<b>Reference temperature</b>	°C [°F]	+23 [+73.4]	
<b>Nominal temperature range</b>	°C [°F]	-10...+60 [+14...+140]	
<b>Service temperature range</b>	°C [°F]	-10...+60 [+14...+140]	
<b>Storage temperature range</b>	°C [°F]	-10...+60 [+14...+140]	
<b>Weight</b>	g	17	
<b>Mounting</b>		screwed on by means of threaded M6	

<sup>1)</sup> The sensitivity is the actual output signal at nominal acceleration.

<sup>2)</sup> The transverse sensitivity is the output signal for loads normal to the transducer axis related to output signal for same load in the proper measuring direction of the transducer.

### Accessories (not included with the supplied items):

Connecting cable: Kab 0104–3      3m long (HK31S–G–free ends)  
Kab 0104–10      10m long (HK31S–G–free ends)  
Kab 0106–3      3m long (HK31S–G–MS3106A16S–1P)  
Kab 0119–3      3m long (HK31S–W–free ends)  
Kab 405.27–3      3m long (HK31S–G–HS31–P)



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