Physical Logic

MAXL-CL-3000

Closed Loop Products

Physical Logic Ltd. | www.physical-logic.com | info@physical-logic.com

MAXL-CL-3015 Key Parameters

Parameter		MAXL-CL-3015-10 *	MAXL-CL-3015-15 **	MAXL-CL-3015-20	MAXL-CL-3015-30
Input Range g		±15	±15	±15	±15
Bias					
Short Term Stability (5h) µg	•	<175	<125	<100	<75
Long Term Repeatability µg		<4000	<2000	<1200	<500
Temperature Sensitivity µg/°C	••	<600	<300	<250	<150
Temp. Residual Error µg	••	<450	<300	<150	<70
In run stability (min AVAR) µg	•	<7	<7	<7	<7
Scale Factor					
Short Term Stability (5h) ppm	•	<150	<150	<100	<100
Long Term Repeatability ppm		<800	<600	<400	<400
Temperature Sensitivity ppm/°C	••	<200	<150	<100	<75
Temp. Residual Error ppm	••	<250	<200	<150	<100
Linearity Error (full range) ppm		<300	<300	<300	<300
Other					
Bandwidth Hz		>300	>300	>300	>300
Noise Density µg/√Hz		<45	<40	<40	<40
VRE (20-2000 Hz) $\mu g/g^2_{RMS}$		<30	<25	<25	<25

* Cost effective, MTCR free ** MTCR free

Environmental conditions

- • Tested at room temperature
- •• Tested over temperature span of [-40°C , +85°C]
  - › Short Term Stability, Temperature Residual Error, and Turn On to Turn On Repeatability are analyzed as the Standard Deviation over multiple measurements
  - › Long Term Repeatability is tested during operational / non-operational vibrations and shocks, multiple temperature cycles and different storage temperatures
  - › Temperature Run to Run is defined as the mean values change between temperature runs
  - › SF Linearity Error of input acceleration according to IEEE method

MAXL-CL-3030 Key Parameters

Parameter		MAXL-CL-3030-10 *	MAXL-CL-3030-15 **	MAXL-CL-3030-20	MAXL-CL-3030-30
Input Range g		±30	±30	±30	±30
Bias					
Short Term Stability (5h) µg	•	<175	<125	<100	<75
Long Term Repeatability µg		<4000	<2000	<1200	<500
Temperature Sensitivity µg/°C	••	<600	<300	<250	<150
Temp. Residual Error µg	••	<450	<300	<150	<70
In run stability (min AVAR) µg	•	<10	<10	<10	<10
Scale Factor					
Short Term Stability (5h) ppm	•	<150	<150	<100	<100
Long Term Repeatability ppm		<800	<600	<400	<400
Temperature Sensitivity ppm/°C	••	<200	<150	<100	<75
Temp. Residual Error ppm	••	<250	<200	<150	<100
Linearity Error (full range) ppm		<300	<300	<300	<300
Other					
Bandwidth Hz		>300	>300	>300	>300
Noise Density µg/√Hz		<50	<45	<45	<45
VRE (20-2000 Hz) $\mu g/g^2_{RMS}$		<30	<25	<25	<25

* Cost effective, MTCR free ** MTCR free

Environmental conditions

- • Tested at room temperature
- •• Tested over temperature span of [-40°C , +85°C]
  - › Short Term Stability, Temperature Residual Error, and Turn On to Turn On Repeatability are analyzed as the Standard Deviation over multiple measurements
  - › Long Term Repeatability is tested during operational / non-operational vibrations and shocks, multiple temperature cycles and different storage temperatures
  - › Temperature Run to Run is defined as the mean values change between temperature runs
  - › SF Linearity Error of input acceleration according to IEEE method

MAXL-CL-3050 Key Parameters

Parameter		MAXL-CL-3050-10 *	MAXL-CL-3050-15 **	MAXL-CL-3050-20	MAXL-CL-3050-30 *** Coming soon
Input Range g		±50	±50	±50	±50
Bias					
Short Term Stability (5h) µg	•	<200	<175	<150	<125
Long Term Repeatability µg		<4000	<2000	<1200	<500
Temperature Sensitivity µg/°C	••	<600	<300	<250	<200
Temp. Residual Error µg	••	<500	<350	<250	<150
In run stability (min AVAR) µg	•	<14	<14	<14	<14
Scale Factor					
Short Term Stability (5h) ppm	•	<150	<150	<100	<100
Long Term Repeatability ppm		<800	<600	<400	<400
Temperature Sensitivity ppm/°C	••	<200	<150	<100	<100
Temp. Residual Error ppm	••	<250	<200	<150	<100
Linearity Error (full range) ppm		<400	<400	<300	<300
Other					
Bandwidth Hz		>300	>300	>300	>300
Noise Density µg/√Hz		<100	<90	<80	<75
VRE (20-2000 Hz) $\mu g/g^2_{RMS}$		<35	<30	<25	<25

* Cost effective, MTCR free ** MTCR free *** Target spec

Environmental conditions

- • Tested at room temperature
- •• Tested over temperature span of [-40°C , +85°C]
  - › Short Term Stability, Temperature Residual Error, and Turn On to Turn On Repeatability are analyzed as the Standard Deviation over multiple measurements
  - › Long Term Repeatability is tested during operational / non-operational vibrations and shocks, multiple temperature cycles and different storage temperatures
  - › Temperature Run to Run is defined as the mean values change between temperature runs
  - › SF Linearity Error of input acceleration according to IEEE method

MAXL-CL-3070 Key Parameters

Parameter		MAXL-CL-3070-10 *	MAXL-CL-3070-15 **	MAXL-CL-3070-20	MAXL-CL-3070-30 *** Coming soon
Input Range g		±70	±70	±70	±70
Bias					
Short Term Stability (5h) µg	•	<250	<210	<180	<150
Long Term Repeatability µg		<4000	<2000	<1200	<800
Temperature Sensitivity µg/°C	••	<600	<500	<350	<300
Temp. Residual Error µg	••	<700	<500	<350	<300
In run stability (min AVAR) µg	•	<16	<16	<16	<16
Scale Factor					
Short Term Stability (5h) ppm	•	<150	<150	<100	<100
Long Term Repeatability ppm		<800	<700	<600	<500
Temperature Sensitivity ppm/°C	••	<250	<200	<150	<150
Temp. Residual Error ppm	••	<250	<200	<150	<120
Linearity Error (full range) ppm		<500	<450	<400	<350
Other					
Bandwidth Hz		>300	>300	>300	>300
Noise Density µg/√Hz		<130	<115	<100	<100
VRE (20-2000 Hz) $\mu g/g^2_{RMS}$		<35	<35	<35	<35

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Environmental conditions

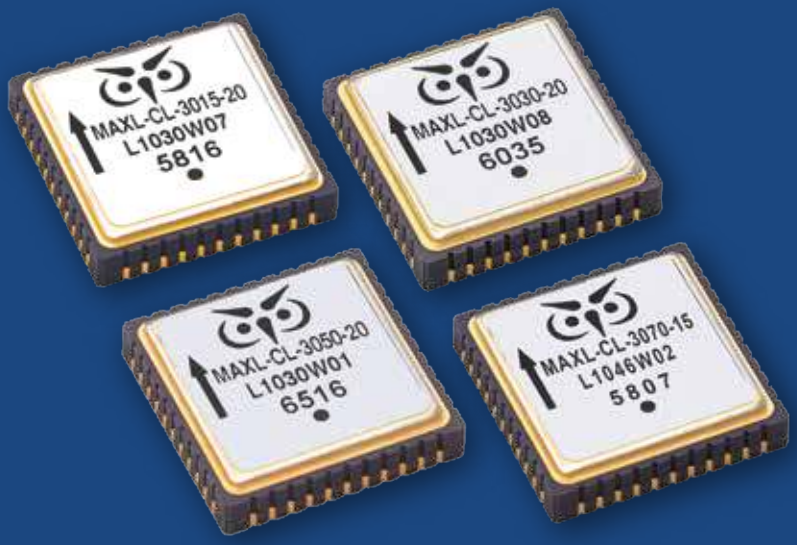
- • Tested at room temperature
- •• Tested over temperature span of [-40°C , +85°C]
  - › Short Term Stability, Temperature Residual Error, and Turn On to Turn On Repeatability are analyzed as the Standard Deviation over multiple measurements
  - › Long Term Repeatability is tested during operational / non-operational vibrations and shocks, multiple temperature cycles and different storage temperatures
  - › Temperature Run to Run is defined as the mean values change between temperature runs
  - › SF Linearity Error of input acceleration according to IEEE method

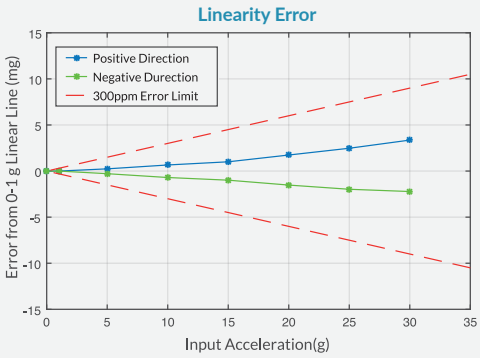
Closed Loop MEMS Sensor

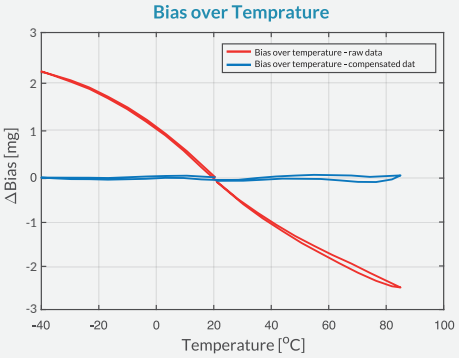
Taking accuracy to the next level!

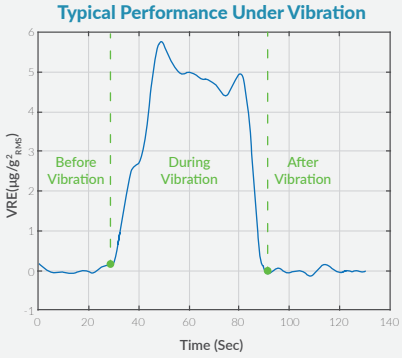
Physical Logic - a leader in high precision Closed-loop and Open-loop MEMS (Micro-Electro-Mechanical System) Accelerometers and pioneer in bringing MEMS technology to high-end inertial navigation sensors.

These unique Closed-loop MEMS Accelerometers are available for aerial, land and marine applications, providing enhanced performance with current sensing range from 15g to 70g.









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