



aim arnold intelligente messsysteme



Inertial Measurement Unit IMU-Light

Inertial Measurement Unit IMU-Light		
Type	Unit	Value
Power Supply		
Supply voltage	V	5-18
Current consumption (at 12V)	mA	≈ 75
Properties		
Measuring range ACCL	g	± 40
Resolution ACCL	Bit	16
Bandwidth ACCL	Hz	600
In-Run Bias ACCL	μg	13
Nonlinearity (10g)	$\%FS$	0,02
Measuring range GYRO	$\frac{\circ}{s}$	± 500
Resolution GYRO	Bit	16
Bandwidth GYRO	Hz	550
In-Run Bias GYRO	$\frac{\circ}{hr}$	13
Noise GYRO	$\frac{\circ}{\sqrt{hr}}$	0,15
Nonlinearity GYRO	$\%FS$	0,2
Max. CAN output rate	Hz	1000
Dimension and cabling		
Outer dimensions	mm	60x80x27(LxBxH)
Weight	g	165
IP Code	—	IP67
Plug connectors	—	Binder 712 8-Pin, male

Inertial Measurement Unit

IMU-Light

The IMU-Light is an inertial six-component measuring unit for determining the roll, pitch and yaw rates as well as the three X, Y and Z accelerations.

The output of the simultaneously acquired data is up to $1kHz$ on the CAN bus. Providing a synchronization line, the measurement data can be synchronized, for example, with our data acquisition modules of the XXCH-DAS series. Using a stable and high-precision MEMS inertial unit results in very low drift and high resolution.

- Low drift of the gyroscope and acceleration sensors
- High resolution
- Innovative routine for optimal alignment of the three measuring axes in relation to the vehicle
- Status display with two bi-colour LEDs
- Warning when exceeding the internal rotation rate or acceleration limits
- Output rate configurable
- Synchronization line
- Robust, anodized and splash-proofed aluminium housing

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