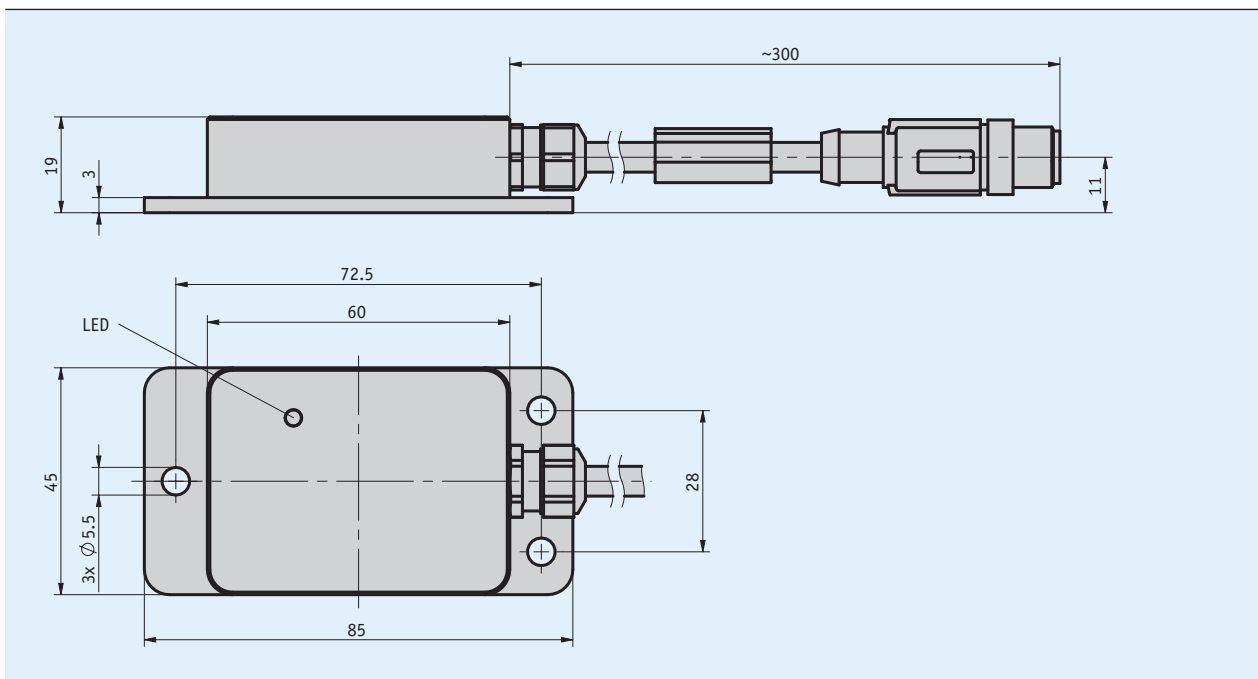


## Profile

- 6 Axis Inertial Measurement Unit (IMU)
- Compensation of external acceleration thanks to innovative sensor fusion
- Dynamically compensated inclination measurement (360° or ±90°)
- CANopen (DS406) or SAE J1939 interface
- IP6K9K, IP67 protection class
- E1 Approval by the German Federal Office for Motor Vehicles
- With PURE.MOBILE technology



## Mechanical data

Feature	Technical data	Additional information
Housing	anodized aluminum	
Mounting type	3-point mounting	
Weight	~0.13 kg	

### Electrical data

Feature	Technical data	Additional information
Operating voltage	8 ... 36 V DC	reverse-polarity protected
Power input	≤600 mW	without load
Status display	2x two-color LEDs (red/green)	device status/CAN status
Power rating	±36 V	CAN interface
Temperature drift	0.01 °/K	
Interface	according to ISO 11898-1/2, not electrically isolated	CANopen
	according to ISO 11898-1, not electrically isolated	SAE J1939
Address	0 ... 127	
Baud rate	100 kbit/s	
	125 kbit/s	
	250 kbit/s	
	500 kbit/s	
	800 kbit/s	
	1 Mbit/s	
Starting time	<500 ms	
Parameter	according to CiA 301, CiA 303 Part 3, CiA 305, CiA 410	CANopen
Type of connection	1x M12 connector (A-coded)	5-pole, 1x pin (E12X connection type)

### System data

#### ■ Acceleration sensor

Feature	Technical data	Additional information
Scanning	MEMS	
Resolution	1 µg	
Measuring range	±1 g	

#### ■ Gyroscope

Feature	Technical data	Additional information
Scanning	MEMS	
Resolution	0.001 °/s	
Measuring range	±1000 °/s	

#### ■ Inclinometer sensor

Feature	Technical data	Additional information
Scanning	MEMS	
Resolution	0.01°	
System accuracy	±0.3°	static
	±0.5°	dynamically compensated
Measuring range	0 ... 360°	1 axis, parameterizable
	±90°	2 axes, parameterizable

### Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-40 ... 85 °C	
Storage temperature	-40 ... 85 °C	
EMC	EN 61326-1	industry immunity requirement
	EN 61000-4-2, -3, -4, -5, -6	interference resistance / immission
	ISO 11452-2, -5	interference radiation ESA
	ISO 7637-2, -3	transient pulses
	ISO 10605	electrostatic discharge (ESD)
Protection category	IP67	EN 60529 installed according to assembly instructions and with suitable mating connector
	IP6K5	ISO20653 installed according to assembly instructions and with suitable mating connector
	IP6K9K	ISO20653 installed according to assembly instructions and with suitable mating connector
Salt spray test	sharpness degree 4	EN 60068-2-52
Shock resistance	490 m/s <sup>2</sup> , 6 ms	EN 60068-2-27, half sine, 3 axes (+/-), each 10 shocks
Vibration resistance	10 ... 2000 Hz	EN 60068-2-64, EN 60068-2-14, 3 axes, each 4 cycles

## Pin assignment

### E12X

Signal	PIN
CAN_SHLD	1
+UB	2
GND	3
CAN_H	4
CAN_L	5

## Order

### Ordering table

Feature	Ordering data	Specification	Additional information
Interface/protocol	CAN	CANopen	
	J1939	SAE J1939	
Filter	SFI	Standard	
	KFI	Kalman	
Number of axes	1	Z-axis	
	2	X-axis, Y-axis	
Measuring range	360	0 ... 360°	only with 1 axis
	-90/+90	-90 ... +90°	only with 2 axes

### Order key

IMS360 - A - B - C - D - E12X - 00.3 - S

**Scope of delivery:** IMS360, Quick Start Guide

#### Accessories:

Cable extension KV0550

Mating Connector Overview

Mating connector, 5-pole, socket

Mating connector, 5-pole, angle socket

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