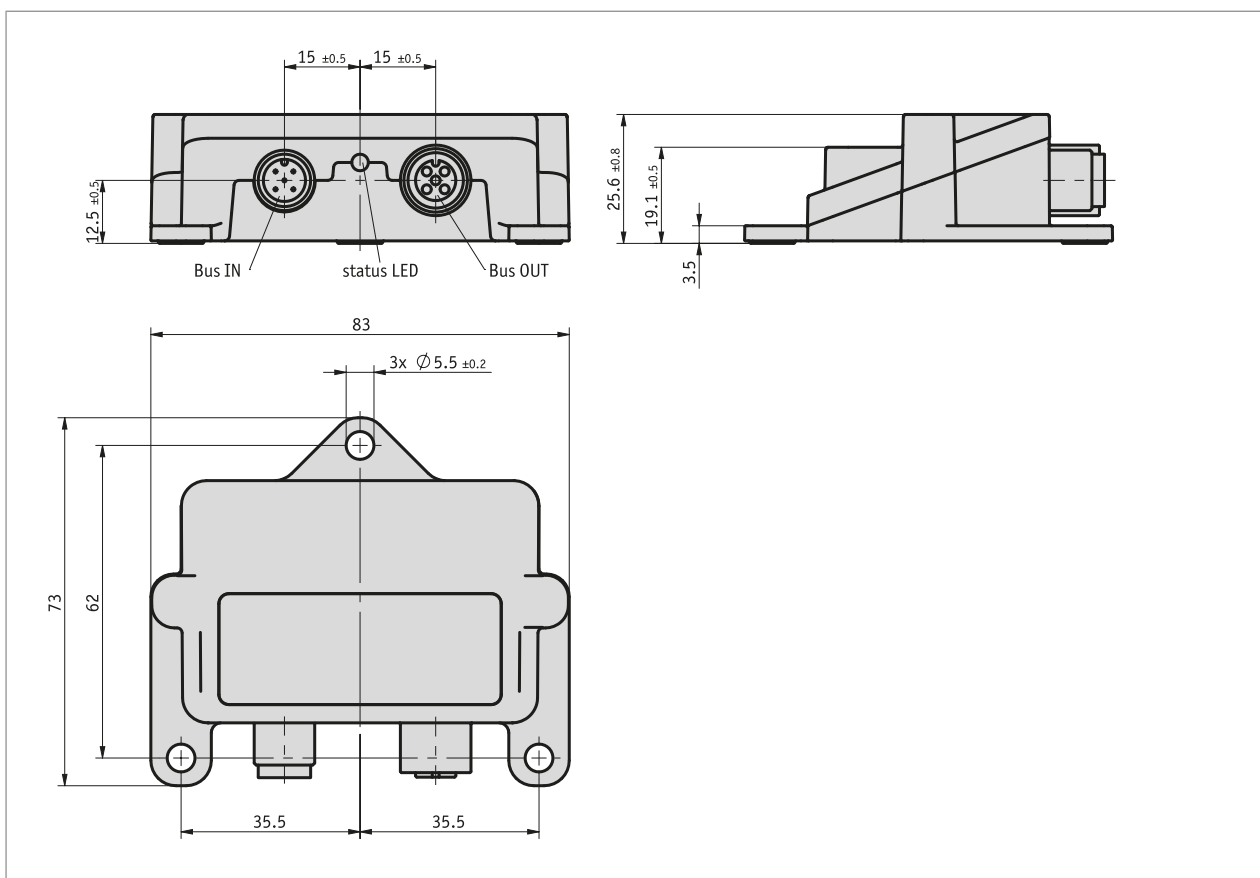


Profile

- 6 Axis Inertial Measurement Unit (IMU)
- Compensation of external acceleration thanks to innovative sensor fusion
- Freely configurable installation position and axis alignment
- Euler angle measurement (pitch & roll)
- High protection category and robustness
- E1 Approval by the German Federal Office for Motor Vehicles
- With PURE.MOBILE technology



Mechanical data

Feature	Technical data	Additional information
Housing	zinc die-cast	
Mounting type	3-point mounting	
Weight	~0.25 kg	

Electrical data

Feature	Technical data	Additional information
Operating voltage	9 ... 36 V DC	reverse polarity protection
Power input	≤330 mW	
Status display	two-color LED (red/green)	device status/CAN status
Power rating	±36 V	CAN interface
Interface	according to ISO 11898-1, not electrically isolated	SAE J1939
	according to ISO 11898-1, not electrically isolated	CANopen
Address	1 ... 127	default: 1
Baud rate	100 kbit/s	
	125 kbit/s	
	250 kbit/s	default
	500 kbit/s	
	800 kbit/s	
Starting time	<800 ms	
Parameter	according to CiA 301, CiA 303 Part 3, CiA 305, CiA 410	CANopen
	according to SAE J1939-21, -71, -81, DA	SAE J1939
Type of connection	2x M12 plug connectors (A-coded)	5-pole, 1x pin, 1x socket

System data

■ Acceleration sensor

Feature	Technical data	Additional information
Scanning	MEMS	
Resolution	±0.25 mg	
System accuracy	±2 % at 25 °C	based on measured value
	±2.6 %	based on measured value
Offset drift	±23 mg	
	±10 mg at 25 °C	
Measuring range	±2 g	
Approval	E1	UN ECE R10 approval No: E1*10R06/02*10285*00

■ Gyroscope

Feature	Technical data	Additional information
Scanning	MEMS	
Resolution	0.14 dps	default: ±0.035 dps, depending on selected measurement range
System accuracy	±2 % at 25 °C	based on measured value
	±5 %	based on measured value
Offset drift	±2 dps at 25 °C	
	±5 dps	
Measuring range	±4000 dps	configurable, default: ±1000 dps
	±1000 dps	with activated Kalman filter
Approval	E1	UN ECE R10 approval No: E1*10R06/02*10285*00

■ Inclinometer

Feature	Technical data	Additional information
Scanning	MEMS	
Resolution	0.01 °	
System accuracy	±0.3 ° at 25 °C	
	±1 °	over the entire temperature range
	±0.6 ° at 25 °C	with activated Kalman filter
	±1.8 °	over the entire temperature range with Kalman filter activated
Measuring range	0 ... 360 °	configurable
Approval	E1	UN ECE R10 approval No: E1*10R06/02*10285*00

Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-40 ... 85 °C	
Storage temperature	-40 ... 85 °C	
Relative humidity	98 %	ISO 16750-4, condensation inadmissible
EMC	EN 61326-1	immunity requirement of industry
	EN 61000-4-3, -4, -6, -8	interference resistance / immission
	ISO 11452-2, -5	interference radiation ESA
	ISO 7637-2, -3	transient pulses
	ISO 10605	electrostatic discharge (ESD)
Protection category	IPx7	EN 60529 installed according to assembly instructions and with suitable mating connector
	IP6K5	ISO 20653 installed according to assembly instructions and with suitable mating connector
Salt spray test	severity level 4	EN 60068-2-52
Shock resistance	490 m/s ² , 6 ms	EN 60068-2-27, half sine, 3 axes (+/-), each 10 shocks
Vibration resistance	10 ... 2000 Hz	EN 60068-2-64, 3 axes, each 32 hours

pin assignment

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

Order



■ Ordering table

Feature	Ordering data	Spezifikation	Additional information
Interface/protocol	A CAN J1939	CANopen SAE J1939	
Number of axes	B 1	Z-axis, 0 ... 360°	
	2	X-axis and Y-axis, -90 ... +90° each	

■ Order key

IMS365 - -

A B

 Scope of delivery: IMS365, Quick Start Guide
 Accessories you can find: Cable extension KV05S0 www.siko-global.com Overview Mating connector www.siko-global.com Mating connector, 5-pole, angle socket Order key 83006 Mating connector, 5-pole, socket Order key 84109 Bus terminating connector, 5-pole, pin Order key 82815