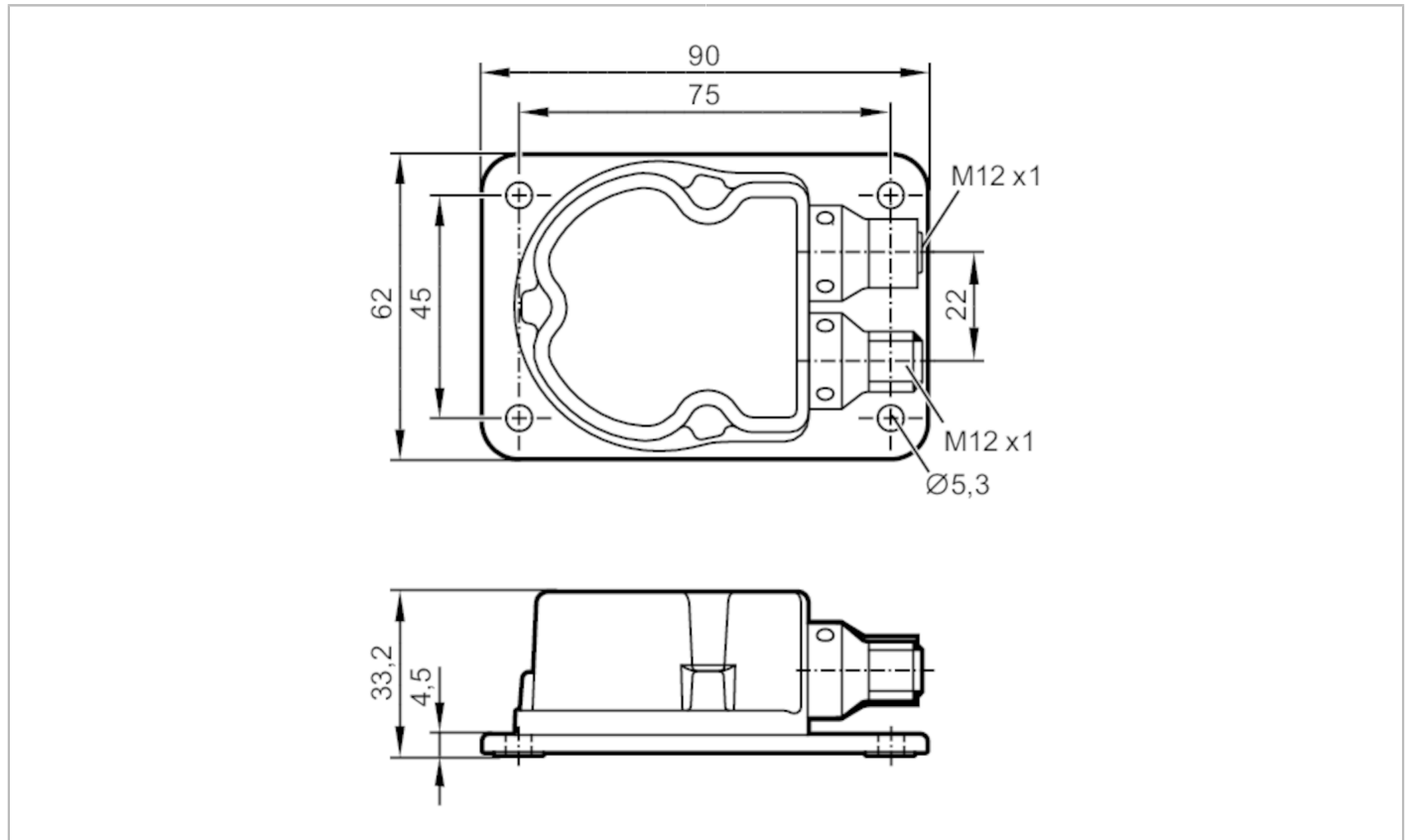


# JN2100



## Inclination sensor

INC-M2M360C -KG/US



Product characteristics	
Dimensions [mm]	90 x 62 x 33.2
Inclination measurement	
Number of measurement axes	2
Angular range [°]	0...360 / ± 180
Application	
Application	High-precision inclination measurement in 2 axes for mobile applications
Electrical data	
Operating voltage [V]	9.2...30 DC
Current consumption [mA]	70; (24 V DC, 25 °C)
Max. current consumption [mA]	310; (9.2 V DC; -40 °C)
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Reverse polarity protection	yes
Max. initialisation time [ms]	1000
Power-on delay time [s]	300; (warm-up time)
Measuring/setting range	
Measuring principle	MEMS capacitive

# JN2100



## Inclination sensor

INC-M2M360C -KG/US

Inclination measurement	
Number of measurement axes	2
Number of measurement axes	2
Angular range [°]	0...360 / ± 180
Angular range [°]	0...360 / ± 180
Limit frequency [Hz]	0.5...10; (parameterisable)
Vibration measurement	
Measuring range of vibration	16; (± 2; ± 4; ±8 g parameterisable) g      3200 mm/s
Frequency range [Hz]	0.1...400
Number of measurement axes	X/Y/Z parameterisable
Accuracy / deviations	
Accuracy [°]	≤ ± 0,5
Repeatability [°]	≤ ± 0,1
Resolution [°]	0.001; (parameterisable)
Temperature coefficient [1/K]	≤ ± 0,02
Interfaces	
Communication interface	CAN
Number of CAN interfaces	1
Terminating resistor	yes; (internal ; parameterisable)
CAN	
Protocol	CANopen CiA DS 301
Factory settings	Baud rate: 125 kBit/s Node Id: 10
Version	CiA DSP-410
Operating conditions	
Ambient temperature [°C]	-40...85
Storage temperature [°C]	-40...85
Protection	IP 65; IP 67; IP 68; IP 69K

# JN2100



## Inclination sensor

INC-M2M360C -KG/US

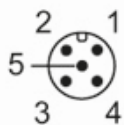
Tests / approvals		
EMC	DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	DIN EN 61000-4-3 HF radiated	10 V/m
	DIN EN 61000-4-4 Burst	2 kV
	DIN EN 61000-4-6 HF conducted	10 V
	DIN EN 55022 class B / CISPR 16-2-3	30 - 1000 MHz
	CISPR 25 ECE R 10	30 - 1000 MHz narrowband and broadband
	ISO 11452-2 ECE R 10	20 - 2000 MHz / 30 V/m
	ISO 7637-2 ECE R 10	pulse 1, 2a, 2b, 3a, 3b, 4, and pulse emission during operation, switching-on, switching-off
	ISO 7637-3	- 80 V pulse a / + 80 V pulse b
Shock resistance	DIN EN 60068-2-27	100 g 1 ms / 10000 impacts per axis (X/Y)
	DIN EN 60068-2-29	30 g 6 ms / 24000 shock (bump)
Vibration resistance	DIN EN 60068-2-64	10...2000 Hz Test VII / random, mounting place car body
	DIN EN 60068-2-6	10...500 Hz / 10 g 10 cycles/axis, sine
Salt spray test	DIN EN 60068-2-52	severity level 5 (motor vehicle)
Damp heat	DIN EN 60068-2-30	55 °C cyclic upper temperature / 95 % rh 2 cycles of 24 h
MTTF	[years]	372
Standard	Compliant with ECE R 10, rev. 5; ISO 7637-3: 2007-07	
Mechanical data		
Weight	[g]	413.8
Dimensions	[mm]	90 x 62 x 33.2
Materials	housing: diecast zinc nickel-plated	
Displays / operating elements		
Display	preoperational mode	1 x LED, green
	operational mode	1 x LED, green flashing
	fault	1 x LED, red
Accessories		
Accessories (supplied)	Protective cover: 1	
Remarks		
Pack quantity	1 pcs.	
Electrical connection - CAN-In		
1	CAN Screen	
2	+ UB	
3	CAN_GND	
4	CAN_H	
5	CAN_L	
Connector: 1 x M12		

# JN2100



## Inclination sensor

INC-M2M360C -KG/US



### Electrical connection - CAN-Out

1	CAN Screen
2	+ UB
3	CAN_GND
4	CAN_H
5	CAN_L

Connector: 1 x M12

