

FTI DYNAMIC SINGLE OR DUAL-REDUNDANT INCLINATION SENSORS



Easy to install 6 Axis IMU Inclinometer with enhanced digital filtering added gyroscope provides precise tilt measurement for moving / vibrating objects.



FTI dynamic gyroscope inclinometers is a range of products that provides precise roll and pitch angle measurement for moving/vibrating objects, through advanced inertial navigation technology, it is reliable on mobile equipment such as construction machinery, cranes or agriculture machinery.



KEY VALUES



Shock proof



*6-axis DoF



CAN open
or J1939



IP 68 and IP69K
protection class



Wide temperature
range



4-20 mA / 0-10V
Analog Out

* The FTI2 enables 6 axis motion detection based on raw data acquisition for acceleration (3 axis) and rotation rate (3 axis). High-precision data processing carried out @ 400 Hz using a sophisticated sensor fusion algorithm enables high performances in any conditions. Integrated sensor fusion filters help in orientation calculation by suppressing externally acting accelerations.

Description	P/N
FTI2	1110241

Default Parameters:

1 axis measurement

360° full scale

Description	P/N
FTI2	1110242
FTI3	1110488

Default Parameters:

2 axis measurement

± 90° full scale

Common Default Parameters:

CAN open CiA 410 profile

ID node No.1: 0x1F

ID node No.2: 0x1E (FTI3 only)

Baud rate 125kbps

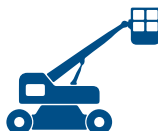


FTI2



FTI3

APPLICATIONS



Material Handling
and Lifting Technology



Agricultural Machinery



Construction Equipment

TECHNICAL DATA

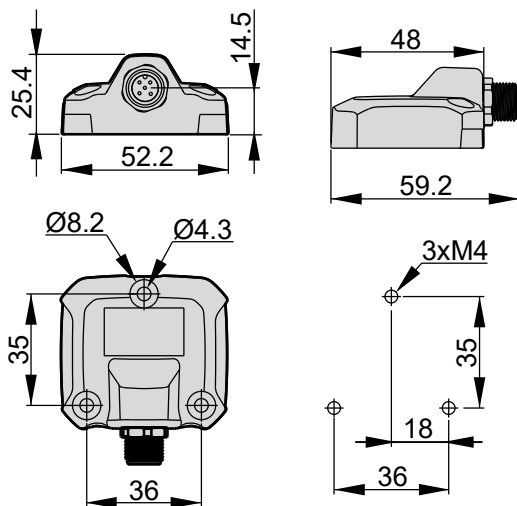
Measurement Range	Settable, up to 360°. One axis or two axis (pitch and roll)
Supply voltage	+5Vdc; +9 ...+36Vdc
Output signal	CANbus (multiple options), 0.5...4.5Vdc, 4...20 mA, 0...10Vdc*, switching*
Resolution	Up to: CAN: 0.01°; Analogue: 0,005°
Accuracy (incl. Linearity, hysteresis, repeatability)	STATIC : ±0.25° typ DYNAMIC: ± 1.0° *typ
Working temperature	-40°C ... +85°C
Thermal drift	<0.008°/°C typ (within -20°C/+70°C range)
Vibrations	20g between 10 Hz ... 2000 Hz IEC 60068-2-6.
Shock	Pulse on 3 axes; 50g 11 ms IEC 60068-2-27.
Electromagnetic compatibility	2014/30/EU Electromagnetic Compatibility (EMC).
Protections and immunity	Protected against reverse polarity and short circuit
IP Protection Level	IP66, IP68 and IP69K
Housing body	Black anodized aluminum

All performance data are values resulting from qualification tests on specific configuration sample production batch.
Final product configuration, actual application and respect of installation recommendation may impact on some performance data.
Where not differently indicated, data refer to Tamb condition test environment.

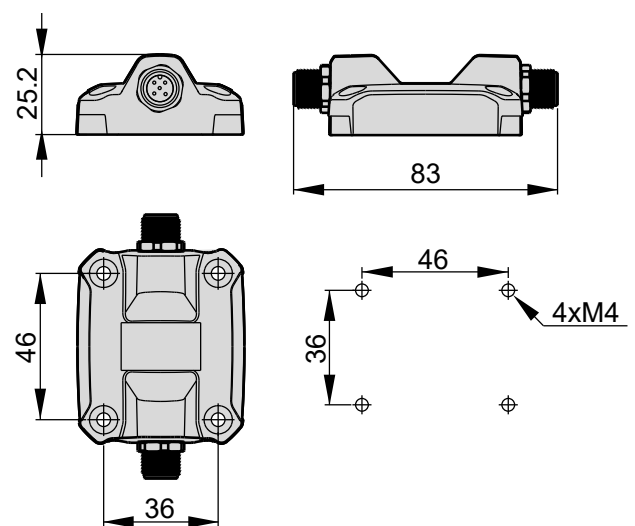
*With limitations. Contact our specialist team for more details.

DIMENSIONS

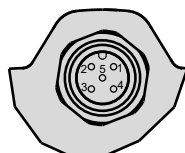
SINGLE VERSION HOUSING



SINGLE OR REDUNTANT VERSION HOUSING



CONNECTOR



N PIN	CANbus	Analogue
1	CAN-S	V+
2	+VIN	Out 1
3	GND	GND
4	CAN-H	Out 2
5	CAN-L	Calibration

ORDERING KEY

FAMILY	SUBFAMILY	CASE MATERIAL	CONNECTOR	CHANNEL 1 RANGE (°)	CHANNEL 2 RANGE (°)	SUPPLY VOLTAGE	OUTPUT TYPE	SPECIAL FEATURE CUSTOM SOFTWARE	MANUAL ZERO HALL PEN	FACTORY LINEARITY TABLE	ACCESSORIES MAGNET TYPE	PROJECT REVISION
FTI	2 Single	A Aluminium	5M single M12 5P	0090 ±90° (horizontal axis)	0NOT Single channel FTI2	H 12-24Vdc nominal	001 analogue 0,5-4,5Vdc	000 Standard	0 Standard (not present)	0 not supplied (standard)	000 standard (not present)	2
	3 Redundant		MM double M12 male	W180 360° clock wise Z axis	C180 redundant crossed degrees		004 analogue 4-20mA			L supplied		
							051 CANopen CiA 403					

EXAMPLE OF RESULTING ORDERING CODE

FTI3.A.5M.0090.0NOT.H.051.000.0.0.000.2

Further possibilities available, some options are mutually exclusive, please contact our team for more details.

EXAMPLE OF DYNAMIC PERFORMANCE

