



Tilt sensor N6 static analogue

The tilt sensor N6 static is available in the variants 4-20 mA, 0.5-4.5 V, CANopen, SAE J1939. Due to its robust design and high resistance to shock and vibration, it is often used to measure inclination in construction machinery, agricultural machinery, industrial trucks and harsh industrial environments.

N6 static – developed for even higher safety, reliability, functionality and flexibility.

- High precision in (quasi-)static systems or with slow machine movement
- Inclination range single axis $\pm 180^\circ$ / double axis $\pm 90^\circ/\pm 180^\circ$
- Various software filters available for precise output signals
- EMC standards in accordance with off-highway standards (EN ISO 14982; DIN EN ISO 13766-1; DIN EN 12895)
- Robust design for long service life: protection class IP6K7 (ISO 20653) / IP6K9K (ISO 20653)
- Operating range -40 °C to +85 °C
- Connector types: Deutsch DT04-08PA, 1x M12 5-pin (male) or 2x M12 5-pin (male/female)
- Fast installation thanks to efficient 2-point mounting
- Smart variant management thanks to a clever modular system
- E1 type approval for road approval
- Parameter sets customised to the application to increase performance/accuracy (on request)

Technical drawing

IMAGE 1/4

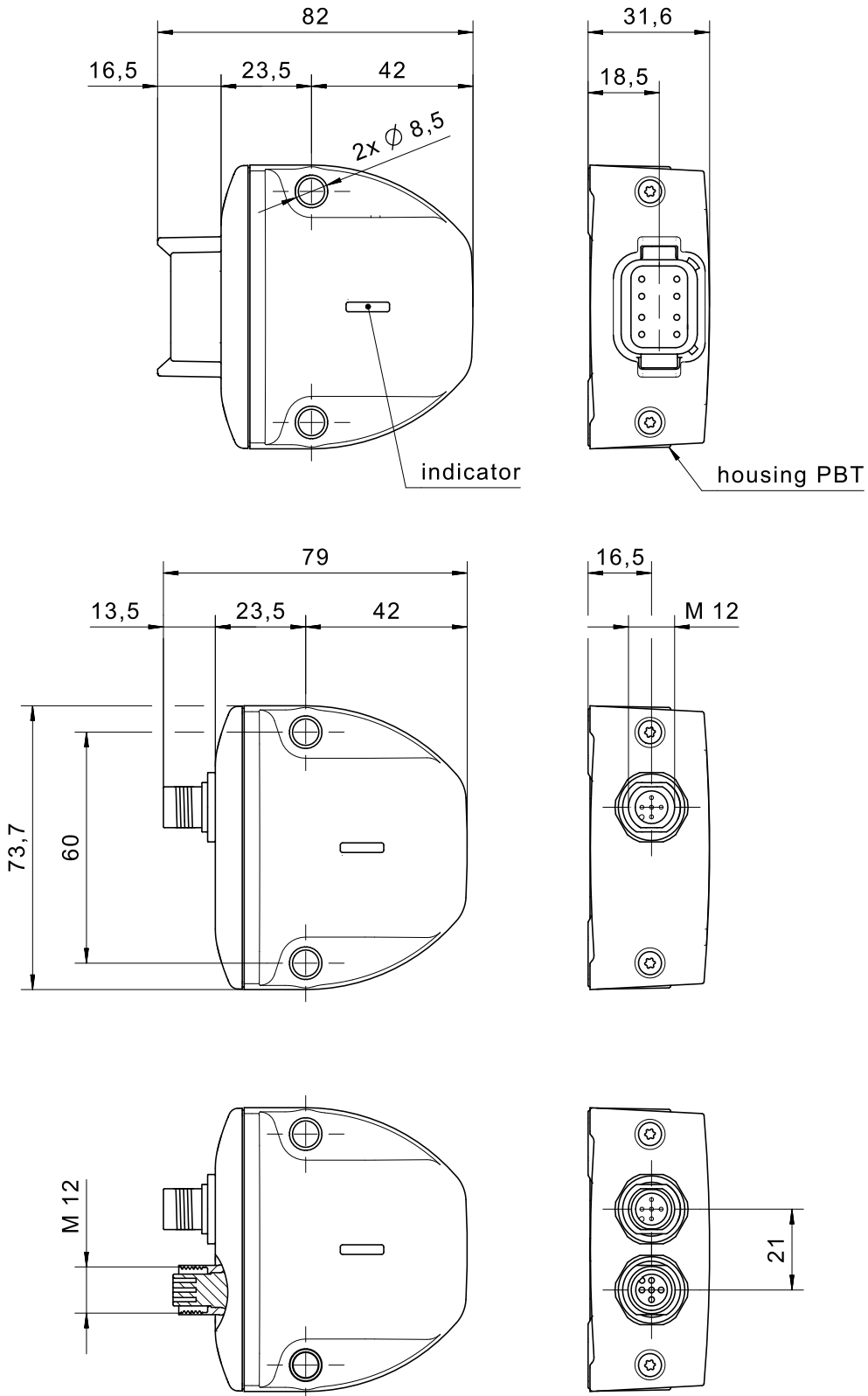
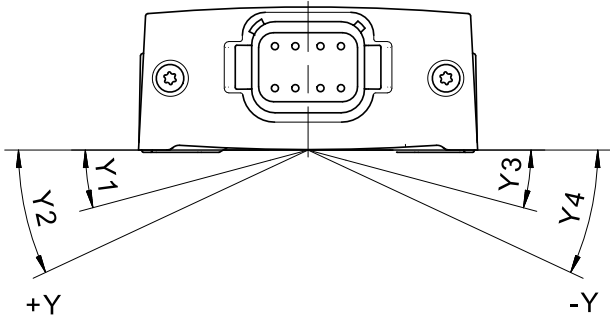


IMAGE 2/4

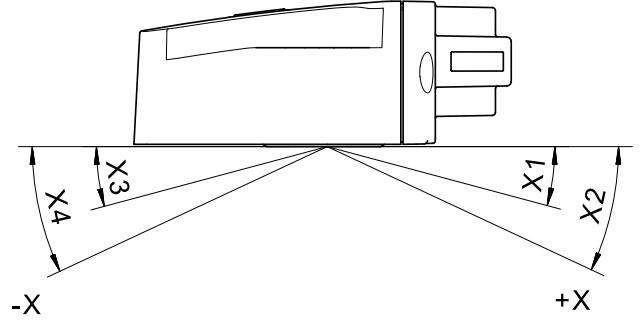
360° ($\pm 180^\circ$) horizontally mounted

Y-axis



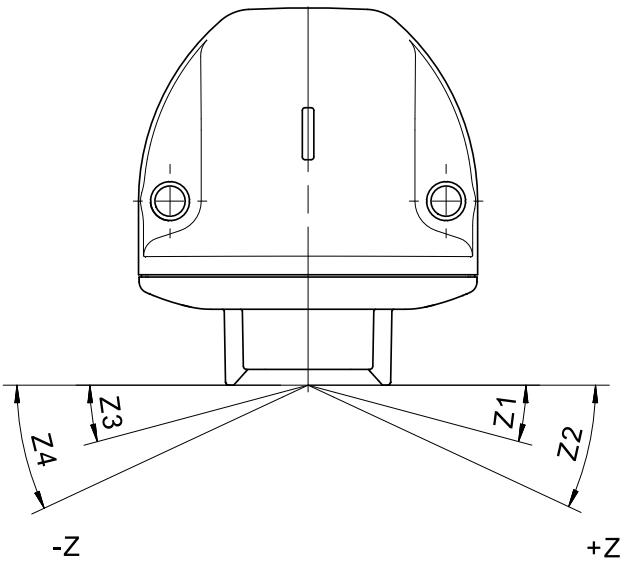
180° ($\pm 90^\circ$) horizontally mounted

X-axis



360° ($\pm 180^\circ$) vertically mounted

Z-axis



180° ($\pm 90^\circ$) vertically mounted

X-axis

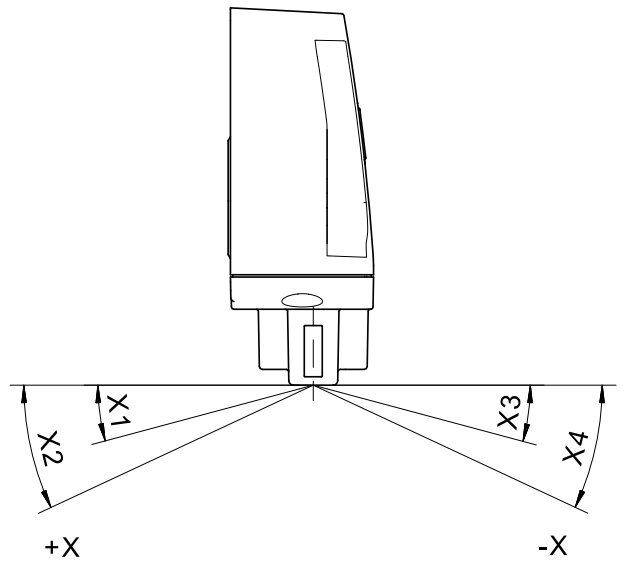
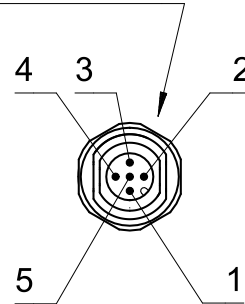


IMAGE 3/4

M12 - analog

pin	configuration	specification
1	U _B	operating voltage
2	Out1	output 1
3	GND	ground
4	Out2	output 2
5	n. c.	not connected

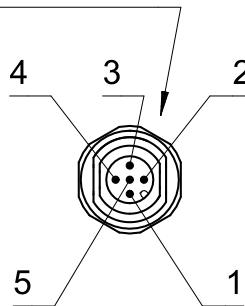
male M12



M12 - CAN

pin	configuration	specification
1	n. c.	not connected
2	U _B	operating voltage
3	GND	ground
4	CAN_H	signal line CAN
5	CAN_L	signal line CAN

male M12



2x M12 - CAN

pin	configuration	specification
1	n. c.	not connected
2	U _B	operating voltage
3	GND	ground
4	CAN_H	signal line CAN
5	CAN_L	signal line CAN

male M12

female M12

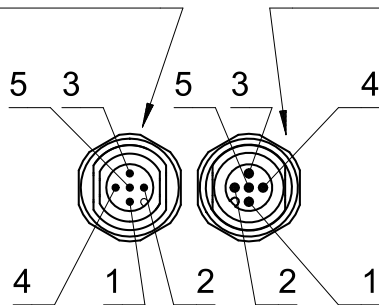
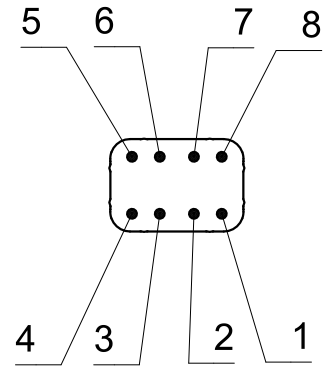


IMAGE 4/4

Deutsch DT04-08PA - analog

pin	configuration	specification
1	U _B	operating voltage
2	GND	ground
3	Out1	output 1
4	Out2	output 2
5	Relay1	switch output 1
6	Relay1	switch output 1
7	Relay2	switch output 2
8	Relay2	switch output 2

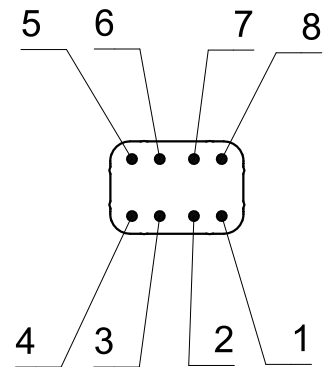
Deutsch DT04-08PA



Deutsch DT04-08PA - CAN

pin	configuration	specification
1	U _B	operating voltage
2	GND	ground
3	CAN_L	signal line CAN
4	CAN_H	
5	Relay1	switch output 1
6	Relay1	switch output 1
7	Relay2	switch output 2
8	Relay2	switch output 2

Deutsch DT04-08PA



Article characteristics

Attribute	N6SAI100V2-001	N6SAI102H2-001	N6SAI102H2-002	N6SAI102H2-003	N6SAI102H2-004	N6SAI102H2-005
Technology	MEMS					
Supply voltage	+8..+36 V DC					
Polarity reversal protection	-36 V DC					
Short-circuit protection	ISO 16750-2					
Current consumption	100 mA					
Load resistance	UB +8..+36 V DC 120-270 Ohm UB +14..+36 V DC 120-500 Ohm					
Output signal	4-20mA					
Contact form	-					
Tolerance output signal	max. $\pm 200 \mu\text{A}$					
Output signal centre position/ zero position	12mA					
Function error output signal	22mA					
Limit frequency	20Hz					
Connection type (switching output)	-					
Switching points	-					
Turn-on delay	-					
Turn-off delay	-					
Hysteresis	-					
Max. switching voltage	-					
Max. switching current	-					
Max. switching power	-					
Measuring range acceleration max.	$\pm 8 \text{ g}$					
Resolution	0,014 °					
Repeating accuracy	typ. $\pm 0,2^\circ$					
Temperature coefficient	max. $\pm 0,015^\circ/\text{K}$					
Sensing rate	100 Hz					
Initialisation time after power on/start-up time	500 ms					
Measuring range	$\pm 45^\circ$ X-Achse $\pm 45^\circ$ Z-Achse	$\pm 5^\circ$ X-Achse $\pm 5^\circ$ Y-Achse	$\pm 10^\circ$ X-Achse $\pm 10^\circ$ Y-Achse	$\pm 15^\circ$ X-Achse $\pm 15^\circ$ Y-Achse	$\pm 20^\circ$ X-Achse $\pm 20^\circ$ Y-Achse	$\pm 25^\circ$ X-Achse $\pm 25^\circ$ Y-Achse
Linearity error	max. 1% vom Messbereich					

Attribute	N6SAI100V2-001	N6SAI102H2-001	N6SAI102H2-002	N6SAI102H2-003	N6SAI102H2-004	N6SAI102H2-005
Installation	vertically	horizontal				
Zero justification	±60°					
Number of measurement axes tilt	2					
Measuring principle	(quasi-) static (non-moving applications / slow movements)					
MTTF	76 a					
Connector type	1xM12 5-polig (male)	Deutsch DT04-08PA				
Weight	113 g	108 g				
Housing material	PBT					
Torque for fastening screws	10 Nm					
Storage temperature	-40..+85 °C					
Protection class	IP6K7 ISO 20653, IP6K9K ISO 20653					
Vibration resistance (Norm)	EN 60068-2-64 (random vibration 7,99g , 5-500Hz, 20,1mm displacement)					
Shock resistance (Norm)	EN 60068-2-27 (shock 51g, 11ms)					
Operating temperature	-40..+85 °C					
Salt spray test	DIN EN 60068-2-11 (salt spray mist for 96h at 35°C)					
EMC Agricultural and forestry machines (Norm)	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Industrial trucks (Norm)	DIN EN 12895					
CE	yes					
E1 type approval	UN ECE Regulation No. 10 No. 10R06/01 9376 00					

Attribute	N6SAI1D2H2-001	N6SAI1D2H2-002	N6SAI102H2-006	N6SAI102H2-007	N6SAI102H2-008	N6SAI102V1-001
Technology	MEMS					
Supply voltage	+8..+36 V DC					
Polarity reversal protection	-36 V DC					
Short-circuit protection	ISO 16750-2					
Current consumption	100 mA					
Load resistance	UB +8..+36 V DC 120-270 Ohm UB +14..+36 V DC 120-500 Ohm					
Output signal	4-20mA + 1x Relais (NC)	4-20mA + 2x relay (NC)	4-20mA			
Contact form	NC		-			
Tolerance output signal	max. $\pm 200 \mu\text{A}$					
Output signal centre position/ zero position	12mA					
Function error output signal	22mA					
Limit frequency	20Hz					
Connection type (switching output)	Relay 1 = X1/X3 Y1/Y3 (Z1/Z3) / Relay 2 = -	Relay 1 = X1 / Relay 2 = X3	-			
Switching points	X1/X3 = 10 Y1/Y3 = 10 °	X1 = 6 X3 = 6 °	-			
Turn-on delay	1s	0,5s	-			
Turn-off delay	1s		-			
Hysteresis	$\pm 0,1^\circ$		-			
Max. switching voltage	36 V DC		-			
Max. switching current	1 A		-			
Max. switching power	30 W		-			
Measuring range acceleration max.	$\pm 8 \text{ g}$					
Resolution	0,014 °					
Repeating accuracy	typ. $\pm 0,2^\circ$					
Temperature coefficient	max. $\pm 0,015^\circ/\text{K}$					
Sensing rate	100 Hz					
Initialisation time after power on/start-up time	500 ms					
Measuring range	$\pm 15^\circ$ X-Achse $\pm 15^\circ$ Y-Achse	$\pm 10^\circ$ X-Achse $\pm 10^\circ$ Y-Achse	$\pm 30^\circ$ X-Achse $\pm 30^\circ$ Y-Achse	$\pm 45^\circ$ X-Achse $\pm 45^\circ$ Y-Achse	$\pm 60^\circ$ X-Achse $\pm 60^\circ$ Y-Achse	$\pm 15^\circ$ Z-Achse
Linearity error	max. 1% vom Messbereich					

Attribute	N6SAI1D2H2-001	N6SAI1D2H2-002	N6SAI102H2-006	N6SAI102H2-007	N6SAI102H2-008	N6SAI102V1-001
Installation	horizontal					vertically
Zero justification	±60°					
Number of measurement axes tilt	2					1
Measuring principle	(quasi-) static (non-moving applications / slow movements)					
MTTF	76 a					
Connector type	Deutsch DT04-08PA					
Weight	108 g					
Housing material	PBT					
Torque for fastening screws	10 Nm					
Storage temperature	-40..+85 °C					
Protection class	IP6K7 ISO 20653, IP6K9K ISO 20653					
Vibration resistance (Norm)	EN 60068-2-64 (random vibration 7,99g , 5-500Hz, 20,1mm displacement)					
Shock resistance (Norm)	EN 60068-2-27 (shock 51g, 11ms)					
Operating temperature	-40..+85 °C					
Salt spray test	DIN EN 60068-2-11 (salt spray mist for 96h at 35°C)					
EMC Agricultural and forestry machines (Norm)	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4			
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Industrial trucks (Norm)	DIN EN 12895					
CE	yes					
E1 type approval	UN ECE Regulation No. 10 No. 10R06/01 9376 00					

Attribute	N6SAI102V1-002	N6SAI102V1-003	N6SAI102V1-004	N6SAI102V1-005	N6SAI102V2-001	N6SAI102V2-002
Technology	MEMS					
Supply voltage	+8..+36 V DC					
Polarity reversal protection	-36 V DC					
Short-circuit protection	ISO 16750-2					
Current consumption	100 mA					
Load resistance	UB +8..+36 V DC 120-270 Ohm UB +14..+36 V DC 120-500 Ohm					
Output signal	4-20mA					
Contact form	-					
Tolerance output signal	max. $\pm 200 \mu\text{A}$					
Output signal centre position/ zero position	12mA					
Function error output signal	22mA					
Limit frequency	20Hz					
Connection type (switching output)	-					
Switching points	-					
Turn-on delay	-					
Turn-off delay	-					
Hysteresis	-					
Max. switching voltage	-					
Max. switching current	-					
Max. switching power	-					
Measuring range acceleration max.	$\pm 8 \text{ g}$					
Resolution	0,014 °					
Repeating accuracy	typ. $\pm 0,2 \text{ °}$					
Temperature coefficient	max. $\pm 0,015 \text{ °/K}$					
Sensing rate	100 Hz					
Initialisation time after power on/start-up time	500 ms					
Measuring range	$\pm 20 \text{ ° Z-Achse}$	$\pm 30 \text{ ° Z-Achse}$	$\pm 50 \text{ ° Z-Achse}$	$\pm 60 \text{ ° Z-Achse}$	$\pm 15 \text{ ° X-Achse}$ $\pm 15 \text{ ° Z-Achse}$	$\pm 20 \text{ ° X-Achse}$ $\pm 20 \text{ ° Z-Achse}$
Linearity error	max. 1% vom Messbereich					
Installation	vertically					

Attribute	N6SAI102V1-002	N6SAI102V1-003	N6SAI102V1-004	N6SAI102V1-005	N6SAI102V2-001	N6SAI102V2-002
Zero justification	±60°					
Number of measurement axes tilt	1			2		
Measuring principle	(quasi-) static (non-moving applications / slow movements)					
MTTF	76 a					
Connector type	Deutsch DT04-08PA					
Weight	108 g					
Housing material	PBT					
Torque for fastening screws	10 Nm					
Storage temperature	-40..+85 °C					
Protection class	IP6K7 ISO 20653, IP6K9K ISO 20653					
Vibration resistance (Norm)	EN 60068-2-64 (random vibration 7,99g , 5-500Hz, 20,1mm displacement)					
Shock resistance (Norm)	EN 60068-2-27 (shock 51g, 11ms)					
Operating temperature	-40..+85 °C					
Salt spray test	DIN EN 60068-2-11 (salt spray mist for 96h at 35°C)					
EMC Agricultural and forestry machines (Norm)	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Industrial trucks (Norm)	DIN EN 12895					
CE	yes					
E1 type approval	UN ECE Regulation No. 10 No. 10R06/01 9376 00					

Attribute	N6SAI102V2-003	N6SAI102V2-004	N6SAI102V3-001	N6SAU700V1-001	N6SAU702H2-001	N6SAU702H2-002
Technology	MEMS					
Supply voltage	+8..+36 V DC					
Polarity reversal protection	-36 V DC					
Short-circuit protection	ISO 16750-2					
Current consumption	100 mA					
Load resistance	UB +8..+36 V DC 120-270 Ohm UB +14..+36 V DC 120-500 Ohm			1-47 kOhm		
Output signal	4-20mA			0,5-4,5V		
Contact form	-					
Tolerance output signal	max. $\pm 200 \mu\text{A}$			max. $\pm 100 \text{ mV}$		
Output signal centre position/ zero position	12mA			2,5V		
Function error output signal	22mA			5V		
Limit frequency	20Hz					
Connection type (switching output)	-					
Switching points	-					
Turn-on delay	-					
Turn-off delay	-					
Hysteresis	-					
Max. switching voltage	-					
Max. switching current	-					
Max. switching power	-					
Measuring range acceleration max.	$\pm 8 \text{ g}$					
Resolution	0,014 °					
Repeating accuracy	typ. $\pm 0,2 \text{ °}$					
Temperature coefficient	max. $\pm 0,015 \text{ °/K}$					
Sensing rate	100 Hz					
Initialisation time after power on/start-up time	500 ms					
Measuring range	$\pm 30 \text{ ° X-Achse}$ $\pm 30 \text{ ° Z-Achse}$	$\pm 10 \text{ ° X-Achse}$ $\pm 10 \text{ ° Z-Achse}$	$\pm 10 \text{ ° X-Achse}$	$\pm 30 \text{ ° Z-Achse}$	$\pm 5 \text{ ° X-Achse}$ $\pm 5 \text{ ° Y-Achse}$	$\pm 10 \text{ ° X-Achse}$ $\pm 10 \text{ ° Y-Achse}$
Linearity error	max. 1% vom Messbereich					
Installation	vertically				horizontal	

Attribute	N6SAI102V2-003	N6SAI102V2-004	N6SAI102V3-001	N6SAU700V1-001	N6SAU702H2-001	N6SAU702H2-002
Zero justification	±60°					
Number of measurement axes tilt	2		1			2
Measuring principle	(quasi-) static (non-moving applications / slow movements)					
MTTF	76 a					
Connector type	Deutsch DT04-08PA			1xM12 5-polig (male)	Deutsch DT04-08PA	
Weight	108 g			113 g	108 g	
Housing material	PBT					
Torque for fastening screws	10 Nm					
Storage temperature	-40..+85 °C					
Protection class	IP6K7 ISO 20653, IP6K9K ISO 20653					
Vibration resistance (Norm)	EN 60068-2-64 (random vibration 7,99g , 5-500Hz, 20,1mm displacement)					
Shock resistance (Norm)	EN 60068-2-27 (shock 51g, 11ms)					
Operating temperature	-40..+85 °C					
Salt spray test	DIN EN 60068-2-11 (salt spray mist for 96h at 35°C)					
EMC Agricultural and forestry machines (Norm)	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Industrial trucks (Norm)	DIN EN 12895					
CE	yes					
E1 type approval	UN ECE Regulation No. 10 No. 10R06/01 9376 00					

Attribute	N6SAU702H2-003	N6SAU702H2-004	N6SAU702H2-005	N6SAU702H2-006	N6SAU702H2-007	N6SAU702H2-008
Technology	MEMS					
Supply voltage	+8..+36 V DC					
Polarity reversal protection	-36 V DC					
Short-circuit protection	ISO 16750-2					
Current consumption	100 mA					
Load resistance	1-47 kOhm					
Output signal	0,5-4,5V					
Contact form	-					
Tolerance output signal	max. ± 100 mV					
Output signal centre position/ zero position	2,5V					
Function error output signal	5V					
Limit frequency	20Hz					
Connection type (switching output)	-					
Switching points	-					
Turn-on delay	-					
Turn-off delay	-					
Hysteresis	-					
Max. switching voltage	-					
Max. switching current	-					
Max. switching power	-					
Measuring range acceleration max.	± 8 g					
Resolution	0,014 °					
Repeating accuracy	typ. $\pm 0,2$ °					
Temperature coefficient	max. $\pm 0,015$ °/K					
Sensing rate	100 Hz					
Initialisation time after power on/start-up time	500 ms					
Measuring range	± 15 ° X-Achse ± 15 ° Y-Achse	± 20 ° X-Achse ± 20 ° Y-Achse	± 25 ° X-Achse ± 25 ° Y-Achse	± 30 ° X-Achse ± 30 ° Y-Achse	± 60 ° X-Achse ± 60 ° Y-Achse	± 10 ° X-Achse ± 30 ° Y-Achse
Linearity error	max. 1% vom Messbereich					
Installation	horizontal					
Zero justification	± 60 °					

Attribute	N6SAU702H2-003	N6SAU702H2-004	N6SAU702H2-005	N6SAU702H2-006	N6SAU702H2-007	N6SAU702H2-008
Number of measurement axes tilt	2					
Measuring principle	(quasi-) static (non-moving applications / slow movements)					
MTTF	76 a					
Connector type	Deutsch DT04-08PA					
Weight	108 g					
Housing material	PBT					
Torque for fastening screws	10 Nm					
Storage temperature	-40..+85 °C					
Protection class	IP6K7 ISO 20653, IP6K9K ISO 20653					
Vibration resistance (Norm)	EN 60068-2-64 (random vibration 7,99g , 5-500Hz, 20,1mm displacement)					
Shock resistance (Norm)	EN 60068-2-27 (shock 51g, 11ms)					
Operating temperature	-40..+85 °C					
Salt spray test	DIN EN 60068-2-11 (salt spray mist for 96h at 35°C)					
EMC Agricultural and forestry machines (Norm)	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Industrial trucks (Norm)	DIN EN 12895					
CE	yes					
E1 type approval	UN ECE Regulation No. 10 No. 10R06/01 9376 00					

Attribute	N6SAU702V1-001	N6SAU702V1-002	N6SAU702V2-001	N6SAU702V2-002	N6SAU702V2-003	N6SAU702V2-004
Technology	MEMS					
Supply voltage	+8..+36 V DC					
Polarity reversal protection	-36 V DC					
Short-circuit protection	ISO 16750-2					
Current consumption	100 mA					
Load resistance	1-47 kOhm					
Output signal	0,5-4,5V					
Contact form	-					
Tolerance output signal	max. ± 100 mV					
Output signal centre position/ zero position	2,5V					
Function error output signal	5V					
Limit frequency	20Hz					
Connection type (switching output)	-					
Switching points	-					
Turn-on delay	-					
Turn-off delay	-					
Hysteresis	-					
Max. switching voltage	-					
Max. switching current	-					
Max. switching power	-					
Measuring range acceleration max.	± 8 g					
Resolution	0,014 °					
Repeating accuracy	typ. $\pm 0,2$ °					
Temperature coefficient	max. $\pm 0,015$ °/K					
Sensing rate	100 Hz					
Initialisation time after power on/start-up time	500 ms					
Measuring range	± 25 ° Z-Achse	± 60 ° Z-Achse	± 10 ° X-Achse ± 10 ° Z-Achse	± 20 ° X-Achse ± 20 ° Z-Achse	± 25 ° X-Achse ± 25 ° Z-Achse	± 30 ° X-Achse ± 30 ° Z-Achse
Linearity error	max. 1% vom Messbereich					
Installation	vertically					
Zero justification	± 60 °					

Attribute	N6SAU702V1-001	N6SAU702V1-002	N6SAU702V2-001	N6SAU702V2-002	N6SAU702V2-003	N6SAU702V2-004
Number of measurement axes tilt	1		2			
Measuring principle	(quasi-) static (non-moving applications / slow movements)					
MTTF	76 a					
Connector type	Deutsch DT04-08PA					
Weight	108 g					
Housing material	PBT					
Torque for fastening screws	10 Nm					
Storage temperature	-40..+85 °C					
Protection class	IP6K7 ISO 20653, IP6K9K ISO 20653					
Vibration resistance (Norm)	EN 60068-2-64 (random vibration 7,99g , 5-500Hz, 20,1mm displacement)					
Shock resistance (Norm)	EN 60068-2-27 (shock 51g, 11ms)					
Operating temperature	-40..+85 °C					
Salt spray test	DIN EN 60068-2-11 (salt spray mist for 96h at 35°C)					
EMC Agricultural and forestry machines (Norm)	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Industrial trucks (Norm)	DIN EN 12895					
CE	yes					
E1 type approval	UN ECE Regulation No. 10 No. 10R06/01 9376 00					

Attribute	N6SAU702V2-005	N6SAU702V2-006	N6SAU702V3-001	N6SAI100H2-001	N6SAI1D2H2-003	N6SAI1D2H2-004
Technology	MEMS					
Supply voltage	+8..+36 V DC					
Polarity reversal protection	-36 V DC					
Short-circuit protection	ISO 16750-2					
Current consumption	100 mA					
Load resistance	1-47 kOhm			UB +8..+36 V DC 120-270 Ohm UB +14..+36 V DC 120-500 Ohm	UB +8..+36 V DC 120-270 Ohm, UB +14..+36 V DC 120-500 Ohm	
Output signal	0,5-4,5V			4-20mA	4-20mA + 2x relay (NC)	
Contact form	-				NC	
Tolerance output signal	max. ±100 mV			max. ±200 µA		
Output signal centre position/ zero position	2,5V			12mA		
Function error output signal	5V			22mA		
Limit frequency	20Hz					
Connection type (switching output)	-				Relay 1 = X1/X3 Y1/Y3 / Relay 2 = X2/X4 Y2/Y4	
Switching points	-				X1/X3 = 5 Y1/Y3 = 5 X2/X4 = 10 Y2/Y4 = 10 °	X1/X3 = 8 Y1/Y3 = 4 X2/X4 = 12 Y2/Y4 = 6 °
Turn-on delay	-				1,5s	
Turn-off delay	-				1,5s	
Hysteresis	-				±0,1°	
Max. switching voltage	-				36 V DC	
Max. switching current	-				1 A	
Max. switching power	-				30 W	
Measuring range acceleration max.	±8 g					
Resolution	0,014 °					
Repeating accuracy	typ. ±0,2 °					
Temperature coefficient	max. ±0,015°/K				±0,015°/K	
Sensing rate	100 Hz					
Initialisation time after power on/start-up time	500 ms					

Attribute	N6SAU702V2-005	N6SAU702V2-006	N6SAU702V3-001	N6SAI100H2-001	N6SAI1D2H2-003	N6SAI1D2H2-004
Measuring range	±40° X-Achse ±40° Z-Achse	±45° X-Achse ±45° Z-Achse	±120° X-Achse	±30° X-Achse ±30° Y-Achse	±60° X-Achse ±60° Y-Achse	
Linearity error	max. 1% vom Messbereich					
Installation	vertically			horizontal		
Zero justification	±60°					
Number of measurement axes tilt	2		1	2		
Measuring principle	(quasi-) static (non-moving applications / slow movements)					
MTTF	76 a					
Connector type	Deutsch DT04-08PA			1xM12 5-polig (male)	Deutsch DT04-08PA	
Weight	108 g			113 g	108 g	
Housing material	PBT					
Torque for fastening screws	10 Nm					
Storage temperature	-40..+85 °C					
Protection class	IP6K7 ISO 20653, IP6K9K ISO 20653					
Vibration resistance (Norm)	EN 60068-2-64 (random vibration 7,99g , 5-500Hz, 20,1mm displacement)					
Shock resistance (Norm)	EN 60068-2-27 (shock 51g, 11ms)					
Operating temperature	-40..+85 °C					
Salt spray test	DIN EN 60068-2-11 (salt spray mist for 96h at 35°C)					
EMC Agricultural and forestry machines (Norm)	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4		EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4		
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4					
EMC Industrial trucks (Norm)	DIN EN 12895					
CE	yes				ja	
E1 type approval	UN ECE Regulation No. 10 No. 10R06/01 9376 00					

Attribute	N6SAI1D2H2-005	N6SAI1D2H2-006	N6SAU700V2-001
Technology	MEMS		
Supply voltage	+8..+36 V DC		
Polarity reversal protection	-36 V DC		
Short-circuit protection	ISO 16750-2		
Current consumption	100 mA		
Load resistance	UB +8..+36 V DC 120-270 Ohm, UB +14..+36 V DC 120-500 Ohm		1-47 kOhm
Output signal	4-20mA + 2x relay (NC)		0,5-4,5V
Contact form	NC		-
Tolerance output signal	max. $\pm 200 \mu\text{A}$		max. $\pm 100 \text{ mV}$
Output signal centre position/ zero position	12mA		2,5V
Function error output signal	22mA		5V
Limit frequency	20Hz		
Connection type (switching output)	Relay 1 = X1/X3 Y1/Y3 / Relay 2 = X2/X4 Y2/Y4		-
Switching points	X1/X3 = 9 Y1/Y3 = 9 X2/X4 = 10 Y2/Y4 = 10 °	X1/X3 = 30 Y1/Y3 = 30 X2/X4 = 45 Y2/Y4 = 45 °	-
Turn-on delay	0s		-
Turn-off delay	0s		-
Hysteresis	$\pm 0,1^\circ$		-
Max. switching voltage	36 V DC		-
Max. switching current	1 A		-
Max. switching power	30 W		-
Measuring range acceleration max.	$\pm 8 \text{ g}$		
Resolution	0,014 °		
Repeating accuracy	typ. $\pm 0,2^\circ$		
Temperature coefficient	$\pm 0,015^\circ/\text{K}$		max. $\pm 0,015^\circ/\text{K}$
Sensing rate	100 Hz		
Initialisation time after power on/start-up time	500 ms		
Measuring range	$\pm 10^\circ$ X-Achse $\pm 10^\circ$ Y-Achse	$\pm 45^\circ$ X-Achse $\pm 45^\circ$ Y-Achse	$\pm 90^\circ$ X-Achse $\pm 90^\circ$ Z-Achse
Linearity error	max. 1% vom Messbereich		
Installation	horizontal		vertically
Zero justification	$\pm 60^\circ$		

Attribute	N6SAI1D2H2-005	N6SAI1D2H2-006	N6SAU700V2-001
Number of measurement axes tilt	2		
Measuring principle	(quasi-) static (non-moving applications / slow movements)		
MTTF	76 a		
Connector type	Deutsch DT04-08PA		1xM12 5-polig (male)
Weight	108 g		113 g
Housing material	PBT		
Torque for fastening screws	10 Nm		
Storage temperature	-40..+85 °C		
Protection class	IP6K7 ISO 20653, IP6K9K ISO 20653		
Vibration resistance (Norm)	EN 60068-2-64 (random vibration 7,99g , 5-500Hz, 20,1mm displacement)		
Shock resistance (Norm)	EN 60068-2-27 (shock 51g, 11ms)		
Operating temperature	-40..+85 °C		
Salt spray test	DIN EN 60068-2-11 (salt spray mist for 96h at 35°C)		
EMC Agricultural and forestry machines (Norm)	EN ISO 14982, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4		
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1, Load dump Pulse B with Us = 85V, Cranking ISO 16750-2 Level 1-4		
EMC Industrial trucks (Norm)	DIN EN 12895		
CE	Ja		yes
E1 type approval	UN ECE Regulation No. 10 No. 10R06/01 9376 00		