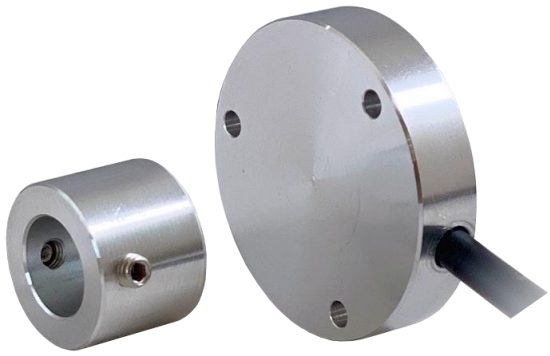
CONTACTLESS ANGLE ROTARY SENSOR

"Magnetic Contactless Singleturn Absolute Encoder" **SAS-T**



- Absolute measurement with magnetic principle
- 0-360˚ measuring range
- User selectable angle increase direction
- 14 bit angular resolution
- Linearity up to ±0,1°
- CANopen output
- Redundant output
- High accuracy
- Long service life
- Compact design
- IP67 protection class

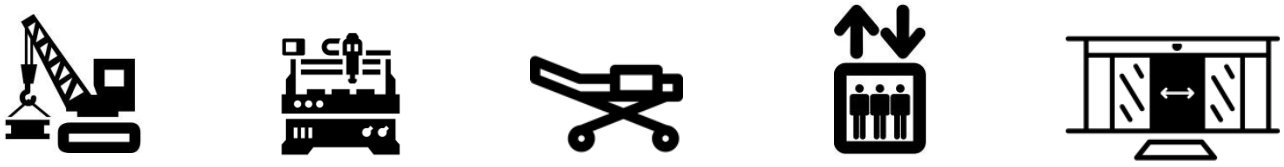
SAS-T series non-contact rotary angle sensors are non-contact magnetic absolute encoders with high operating speed used in harsh environments.Unlike the incremental systems, they do not lose their positions in power outages and continue to measure from where they left off.

SAS-T series with CANopen redundant output; suitable for industries where high speed, IP protection sealing and excellent wear and temperature resistance are required.

APPLICATION AREAS

Speed and position accuracy in one application; If it is more important than fault tolerance and system simplicity, absolute encoders should be used. Absolute encoders provide precise operation in applications.

- Identifying multi-axis orientation in CNC machines used in component manufacturing
- Automatically determine the height of the scissor bearings used in hospitals
- Correct placement of multiple stabilizers for large vehicles such as cranes or air lifts
- Automatic doors or slots to move without limiting key
- Continue robotic movement even after a power failure



TECHNICAL SPECIFICATIONS

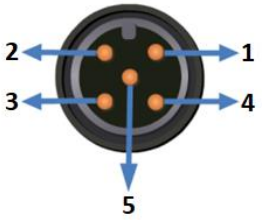
Electrical Specifications	
Working Principle	Hall Effect
Supply Voltage	12 … 30 VDC
Current Consumption	40 mA
Reverse Polarity Protection	Yes
Measuring Range	0° ... 360°
Accuracy	±0,1°
Repeatability	0,1°
Angular Resolution	14 Bit
Response Frequency	333 Hz
Electrical Interface	CANopen
Electrical Connection	4x0,14 mm^2 PVC cable M12 / 5 pin male connector

Mechanical Specifications	
Maximum Speed	3000 rpm
Housing	Ø40 x 9 mm
Weight	~50 gr
Protection Class	IP67
Operating Temp.	-25°C … +85°C
Relative Humudity	%10 … %90
Material	Body: Aluminum
	Rotor: Aluminum

CANopen Specifications	
Communication Profile	CiA 301
Device Type	CANopen, CiA DS406
Node ID	Between 1 and 127, configurable via LSS or SDO.
Baud Rate	10 kBit/s, 20 kBit/s, 50 kBit/s, 100 kBit/s, 125 kBit/s, 250 kBit/s, 500 kBit/s, 800 kBit/s, 1 Mbit/s
PDO Data Rate	100 ms
Error Check	Heartbeat, Emergency Message
PDO	3 Tx PDO
PDO Modes	Event/Time triggered, Synch/Asynch
SDO	1 server
Position data	Object Dictionary 0x6020
Terminating Resistor	Optional

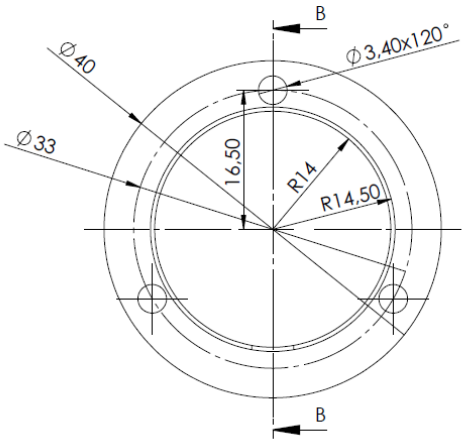
ELECTRICAL CONNECTION

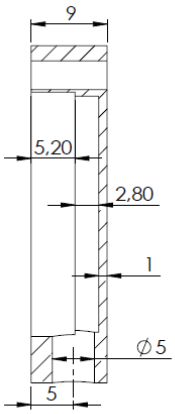
Signal	Cable	M12 / 5 Pin Male Connector
CAN SHIELD	Shield	Pin 1
V+ (12…30 VDC)	Red	Pin 2
GND (0V)	Black	Pin 3
CAN H	Yellow	Pin 4
CAN L	Green	Pin 5



MECHANICAL DIMENSIONS (mm)

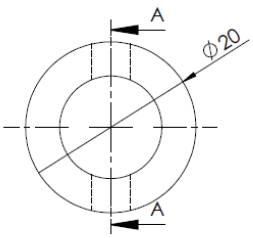
Body

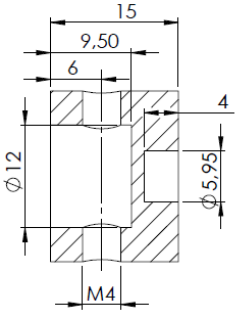




KESIT B-B

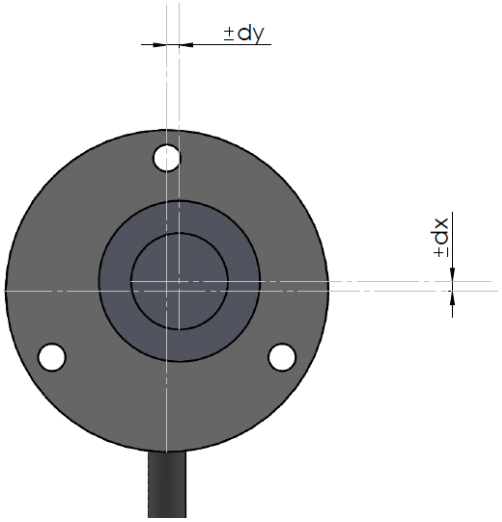
Rotor



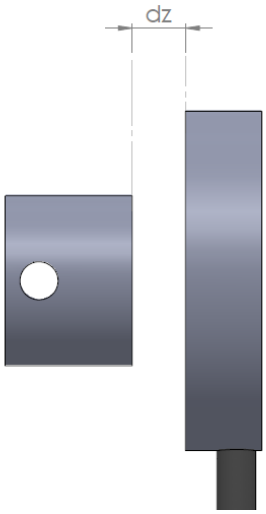


MAGNET POSITION TOLERANCES

Max misalignment dx = dz = 1mm



Air gap dz = 0,5 - 4 mm



PRODUCT CODE

Model		Body Diameter		Supply Voltage		Angle Increasing Direction	
SAS	T	040	XX	XX	X	XX	XX

Model
SAS

Type
T : Contactless

Body Diameter
040 : 40 mm

Resolution
Max 14 bit

Supply Voltage
PP: 12...30VDC

Output Signal
C : CANopen

Angle Increasing Direction
CW : Clockwise
CCW : Counter clockwise

Electrical Connection
0,5M: 0,5m PVC cable
0,5M S13M: M12/5 pin male connector, 0,5 m PVC cable