



Sensor de ângulo 424D

O sensor de ângulo modelo 424D tem range de medição de 20° até 360°. Devido à tecnologia de sensores de efeito Hall, é um produto extremamente confiável e com elevada vida útil.

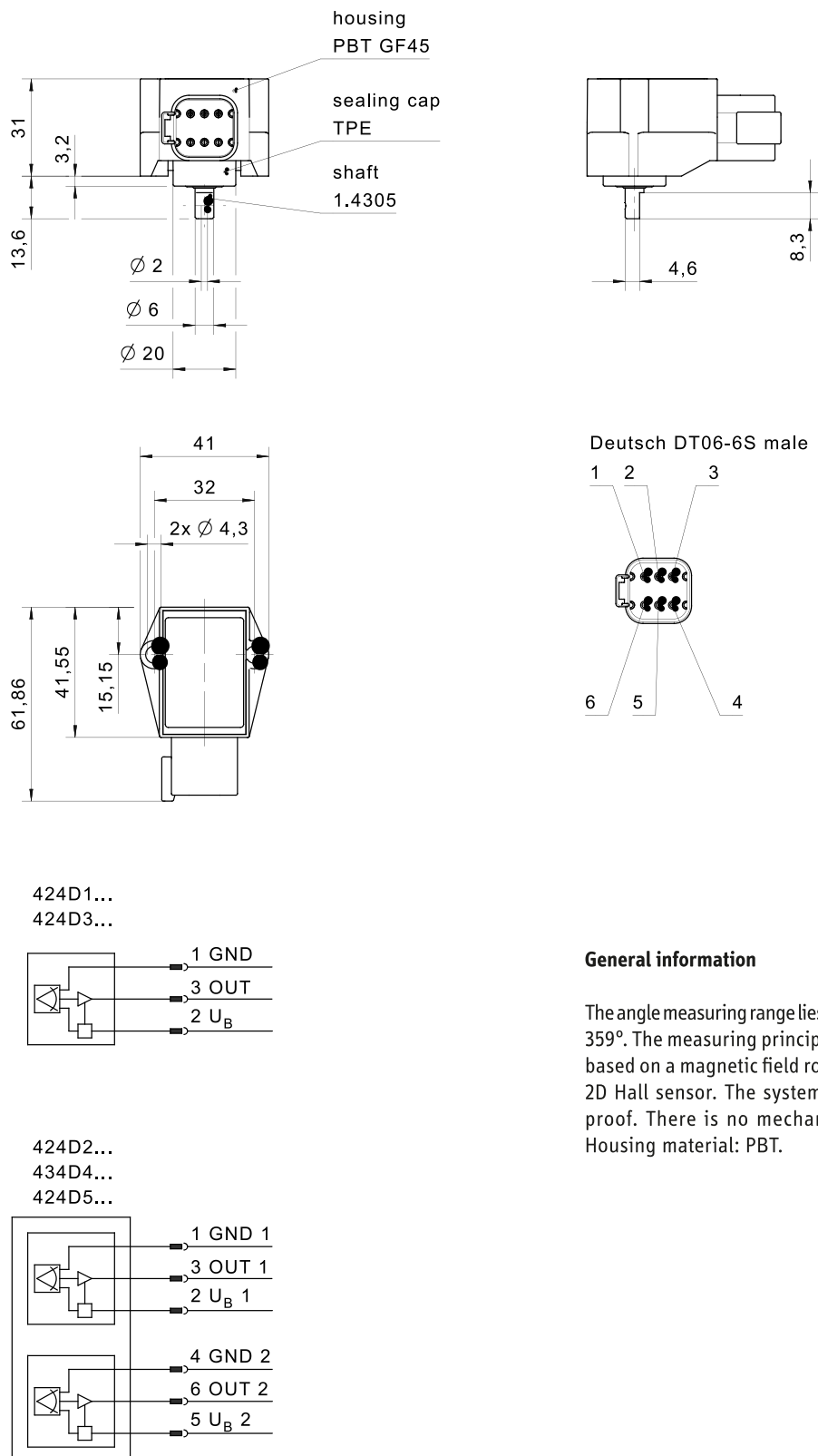
Os sensores de ângulo 424D são aplicados, por exemplo, em pedais de aceleração em equipamentos móveis ou controlar a posição em guindastes. Devido ao seu design robusto, o sensor 424D é ideal para aplicação em escavadeiras, robôs ou turbinas eólicas.

Especificação Técnica

- Durabilidade e confiabilidade de medição devido à tecnologia de sensores de efeito Hall
- Range de medição de 20° até 360°
- Classe de proteção IP67
- Temperatura de trabalho -40 °C até +85 °C
- Resolução 12 bits
- Sinal de saída em tensão ou corrente
- Disponível com um ou dois sinais de saída
- Sinal de saída PWM sob consulta
- Sem limite mecânico de travamento
- À prova de curto-circuito
- Material da carcaça: PBT

Desenho técnico

IMAGE 1/2

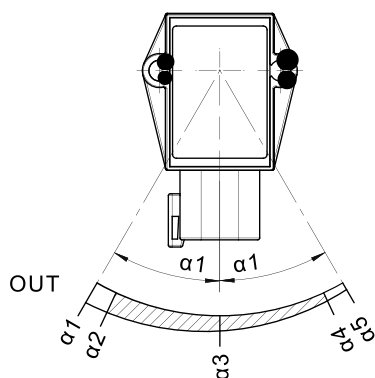


General information

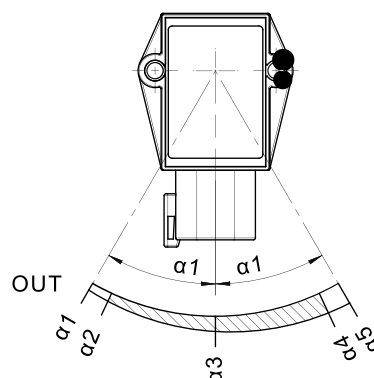
The angle measuring range lies between 20° and 359°. The measuring principle is contactless, based on a magnetic field rotating above the 2D Hall sensor. The system is short-circuit proof. There is no mechanical limit stop. Housing material: PBT.

IMAGE 2/2

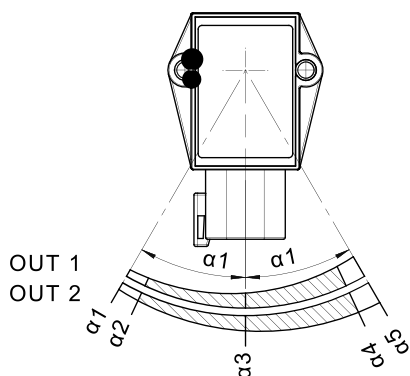
424D3... CW



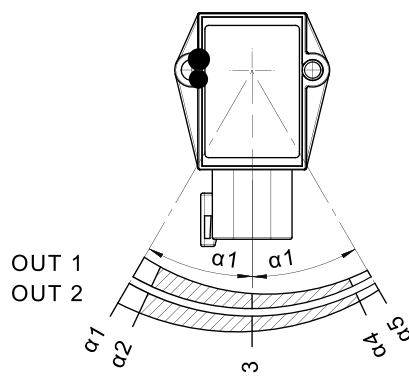
424D1... CCW



424D2... CCW / CCW



424D4... CW / CW



424D5... CW / CCW



Product options

IMAGE 1/1

ORDERING KEY

424D...				Angle sensor 360°, magnetic + redundant
				Output signal
	11			4-20mA, one output (CCW)
	17			0.5-4.5V, one output (CCW)
	51			4-20mA, two outputs (opposite)
	57			0.5-4.5V, two outputs (opposite)
				Angle measuring range
		359		359°
		270		270°
		240		240°
		210		210°
		180		180°
		150		150°
		120		120°
		090		90°
		045		45°
				Operating lever
			B	Yes
			-	No (if selected without lever, this position is omitted)

Optional

Output signal

1-5V

PWM

Other output signals, angle rates on request

Electrical data

Attribute	424D.1...	424D.7...
Polarity reversal protection	yes	
Output signal min.	-	0.5 V DC
Output signal max.	-	4.5 V DC
Output signal min.	4 mA	-
Output signal max.	20 mA	-
Output signal - centre position/zero position	-	2.5 V DC
Output signal - centre position/zero position	12 mA	-
Resolution	0.09 °	
Operating voltage min.	10 V DC	
Operating voltage max.	30 V DC	
Current consumption	30 mA	
Load resistance min.	-	100000 Ohm
Load resistance max.	200 Ohm	-
Linearity error	±1 %	±1 %
Signal sequence	CCW or CW/CCW	
Signal update rate	1600 Hz	
Outputs (quantity, type)	1 or 2	
Technology	Hall	
Angle measuring range	20°...360 °	
Outputs	4...20mA	0,5...4,5V
MTTF	79.6 a	115.9 a
Temperature coefficient	±1.2 %	
EMC Agricultural and forestry machines (Norm)	EN ISO 14982 pulse 5b: max. voltage 35V (absolute), functional status C for pulse 1 and 4	
EMC Earth-moving and building construction machinery (Norm)	DIN EN ISO 13766-1 pulse "load dump": max. voltage 35V (absolute)	
EMC Industrial trucks (Norm)	DIN EN 12895	

Mechanical data

Attribute	424D.1...	424D.7...
Max. shaft load, axial	50 N	
Max. shaft load, radial	100 N	
Mechanical stop	no	
Actuating lever	Selectable	

Environmental conditions

Attribute	424D.1...	424D.7...
Protection class	IP67 DIN EN 60529	
Operating temperature min.	-40 °C	
Max. operating temperature	85 °C	
Min. storage temperature	-40 °C	
Max. storage temperature	85 °C	

Installation

Attribute	424D.1...	424D.7...
Torque for fastening screws	2.5 N m	

Connection

Attribute	424D.1...	424D.7...
Connector type	Deutsch DT04-6P	