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Sensor de ângulo 424S

O sensor de ângulo modelo 424S tem sinal de saída redundante, portanto é adequado para aplicações que exijam maior grau de segurança. O sensor tem um range de medição de 30° até 120°. Confiabilidade de medição e uma elevada vida útil ao produto devido à tecnologia de sensores de efeito Hall. O sensor pode ser usado em manipuladores telescópicos, plataformas elevatórias, veículos fora de estrada, entre outros.

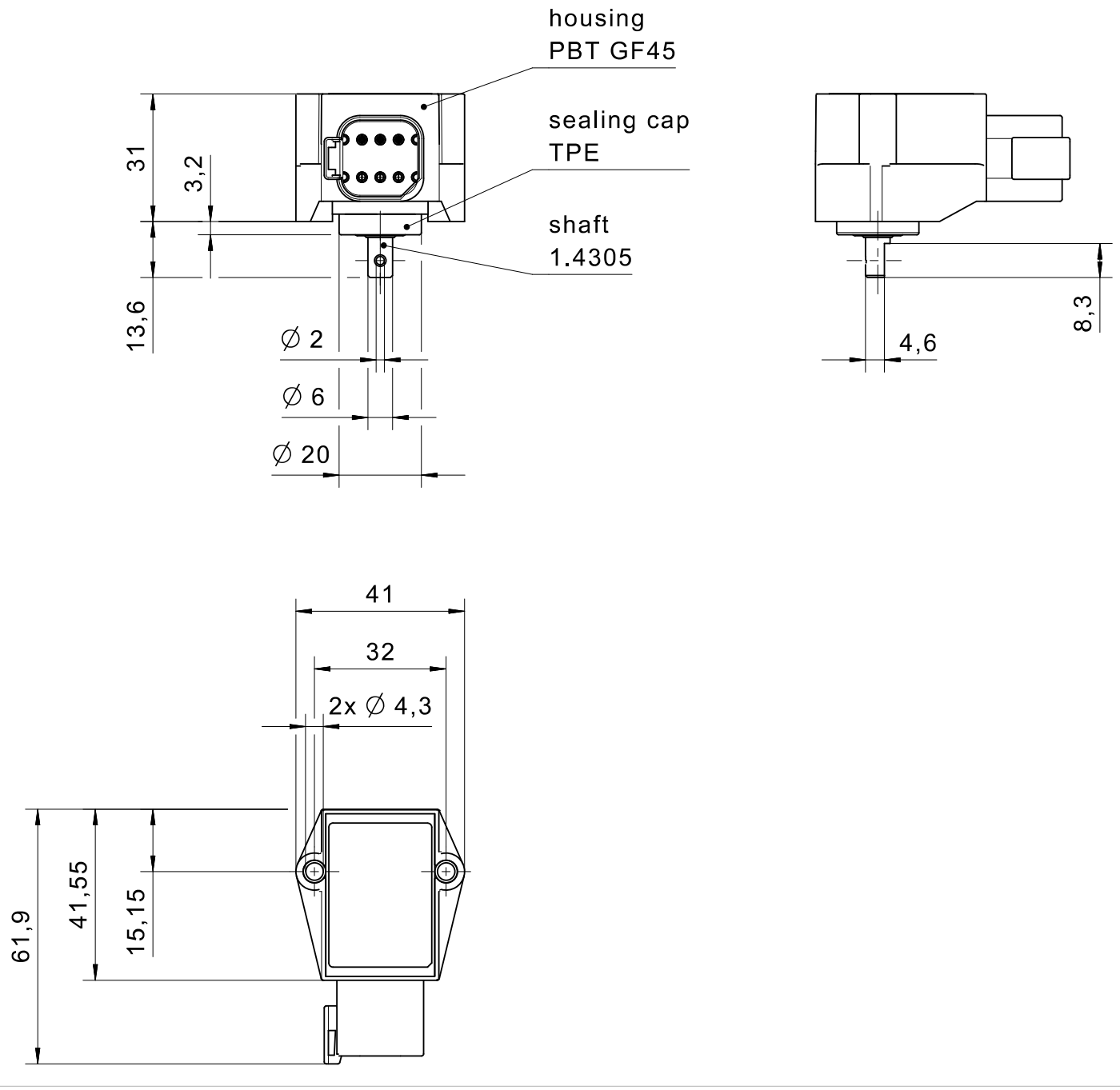
- Durabilidade e confiabilidade de medição devido à tecnologia de sensores de efeito Hall
- Classe de proteção IP67
- Temperatura de trabalho -40 °C até +85 °C
- Resolução 0.1°
- Sinal de saída em tensão ou corrente
- Sinal de saída digital (push-pull / high-side / low-side) até 1.5A
- Conector AMP (Micro Quadlock) ou Deutsch DT04-6P

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Desenho técnico

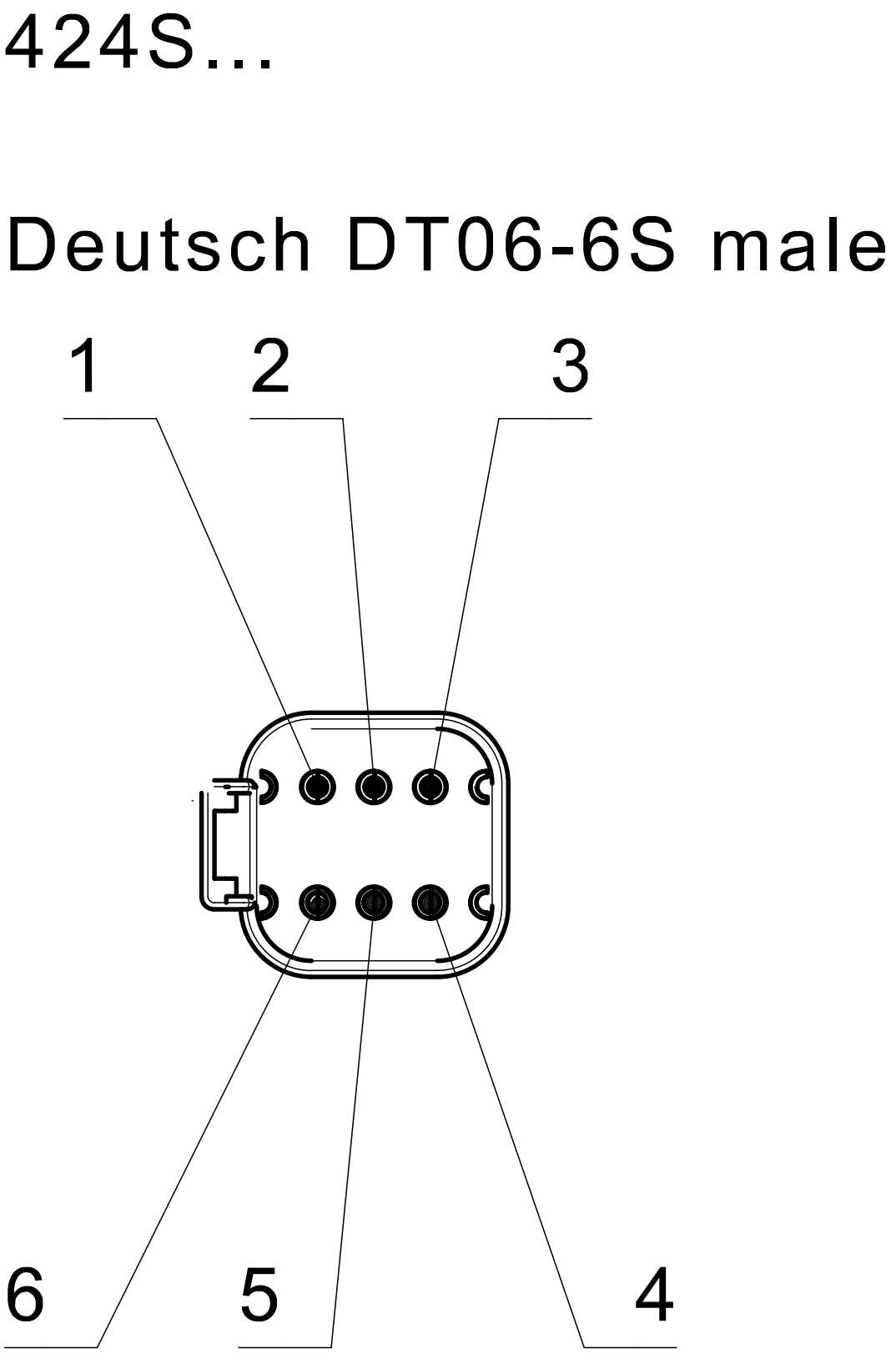
IMAGE 1/4



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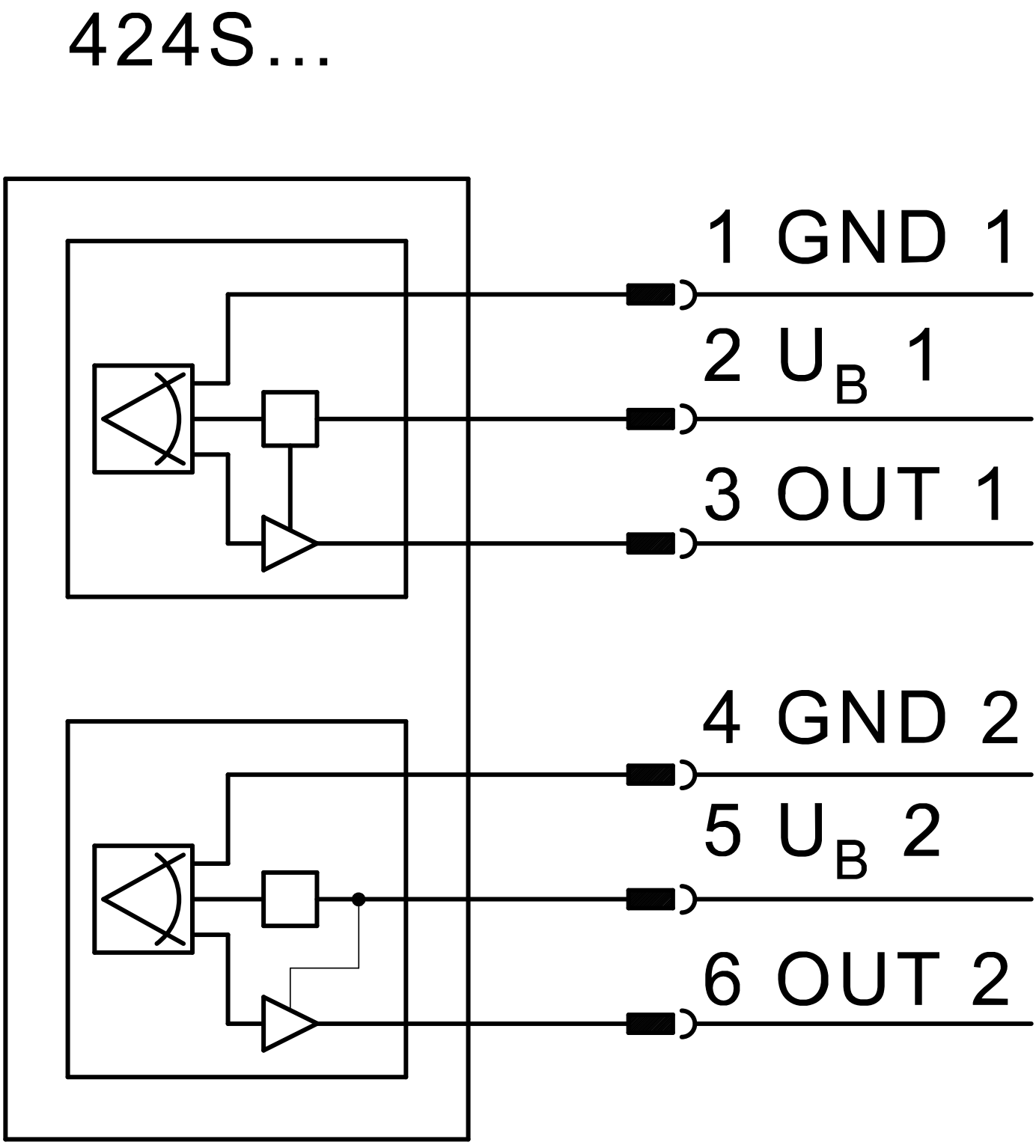
IMAGE 2/4



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IMAGE 3/4

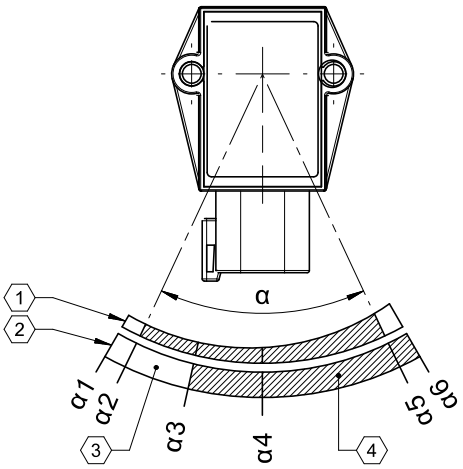


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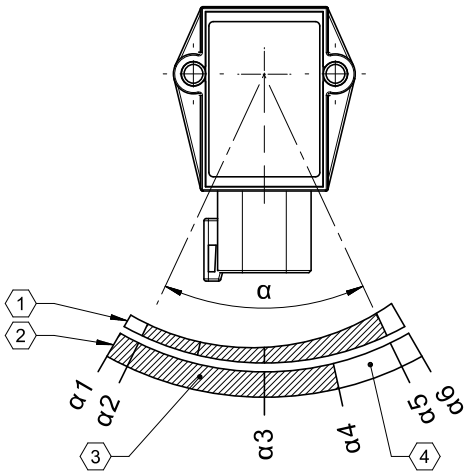
IMAGE 4/4

424S...



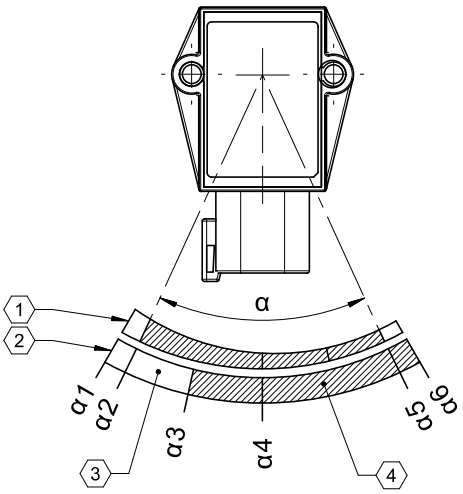
1 OUT 1: analogue CCW (counter clock wise)
2 OUT 2: digital output - push pull / high side
3 low
4 high

424S...



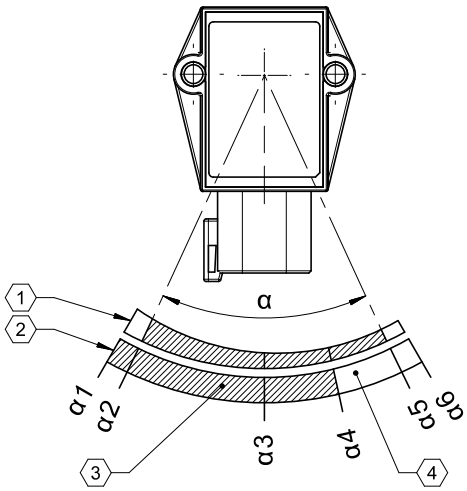
1 OUT 1: analogue CCW (counter clock wise)
2 OUT 2: digital output - push pull / low side
3 high
4 low

424S...



1 OUT 1: analogue CW (clock wise)
2 OUT 2: digital output - push pull / high side
3 low
4 high

424S...



1 OUT 1: analogue CW (clock wise)
2 OUT 2: digital output - push pull / low side
3 high
4 low

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Product options

IMAGE 1/1

ORDERING KEY

424S								Angle sensor 120°, analogue/switching output
								Connection
	A							AMP connector
	D							Deutsch connector
								Analogue output
			10					**1 - 5 V**
			11					4 - 20 mA
			16					0.5 - 4.5 V ratiometric
			17					0.5 - 4.5 V
								Switching output
					DH			High-side switch
					DL			Low-side switch
					DS			Push-pull
								Code number (specified by elobau)
						001		3-digit code number
								Accessories
							B	Operating lever mounted
								Selection of angle measuring range [1] (selectable in 5° increments) between 30° and 120°
								xxx°
								Selection of switching point [1] (selectable in 5° increments) between 0° and 120°
								xxx°
								[1] Please specify when ordering.

Standard
Optional (on request)

Options (on request)
Customer-specific shaft end
Special characteristic curve for output signal
Customised connection
Selection of direction of rotation CCW/CW
Switching output without analogue output
Special angle between 30°-120° (0-120°) ex-works

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Características do artigo

Attribute	424SD11D....	424SD16D....	424SD17D....
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	-	
Output signal - switching point	Selectable (Highside, Lowside, Push-Pull)		
Resolution	0.1 °		
EMC Agricultural and forestry machines (Norm)	EN ISO 14982 pulse 5b: max. voltage 54V (absolute), functional status C for pulse 1 and 4	EN ISO 14982 conducted disturbance not applicable for 5V supply	EN ISO 14982 pulse 5b: max. voltage 54V (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 54V (absolute)	DIN EN ISO 13766-1 conducted disturbance not applicable for 5V supply	DIN EN ISO 13766-1 pulse "load dump": max. voltage 54V (absolute)
EMC Industrial trucks (Norm)	DIN EN 12895		
Operating voltage min.	9 V DC	4.5 V DC	9 V DC
Operating voltage max.	32 V DC	5.5 V DC	32 V DC
Max. overvoltage	(5min @ 25°C) 36 V DC	5.5 V DC	(5min @ 25°C) 36 V DC
Current consumption	424SD11D.: 17.00 mA 424SD1.DH: 9.00 mA 424SD1.DL: 15.00 mA 424SD1.DS: 15.00 mA	424SD16D.: 9.00 mA 424SD1.DH: 9.00 mA 424SD1.DL: 15.00 mA 424SD1.DS: 15.00 mA	424SD17D.: 17.00 mA 424SD1.DH: 9.00 mA 424SD1.DL: 15.00 mA 424SD1.DS: 15.00 mA
Load resistance min.	-	20000 Ohm	10000 Ohm
Load resistance max.	9V: 150 Ohm > 12V: 350 Ohm	-	
Temperature coefficient	typ. +- 250 ppm/K		
Typical linearity error	= ±15°:±0,2° = ±25°:±0,4° = ±35°:±1,0° = ±45°:±2,0° = ±60°:±5,0°		
Signal sequence	CCW (CW on request)		
Signal update rate	2000 Hz		
Outputs (quantity, type)	2		
Max. switching current	Highside / Lowside: 1500 mA Push-Pull: 0,25 mA		

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Attribute	424SD11D....	424SD16D....	424SD17D....
Technology	Hall		
Angle measuring range - analogue output	30° - 120° (selectable in 5° increments)		
Angle range - switching output	0° - 120° (Selectable in 5° increments)		
Outputs	4...20mA + switching output	0,5...4,5V ratiometric + Switching output	0,5...4,5V + Switching output
MTTF	424SD11D.: 72.2 a 424SD1.DH: 78.4 a 424SD1.DL: 87.1 a 424SD1.DS: 113.0 a	424SD16D.: 111.9 a 424SD1.DH: 78.4 a 424SD1.DL: 87.1 a 424SD1.DS: 113.0 a	424SD17D.: 79.6 a 424SD1.DH: 78.4 a 424SD1.DL: 87.1 a 424SD1.DS: 113.0 a
Max. shaft load, axial	50 N		
Max. shaft load, radial	100 N		
Bearing	Ball bearing		
Mechanical stop	Optional		
Actuating lever	Optional (Accessories: 350210)		
Protection class	IP67 DIN EN 60529 / IPX9K ISO 20653		
Operating temperature min.	-40 °C		
Max. operating temperature	85 °C		
Min. storage temperature	-40 °C		
Max. storage temperature	105 °C		
Torque for fastening screws	2.5 N m		
Connector type	Deutsch DT04-6P		