

AHS/AHM36 CANopen Inox

RESISTANT, SMART, COMPACT: ENCODERS FOR HARSH ENVIRONMENTS

Absolute encoders

SICKSensor Intelligence.

RESISTANT, SMART, COMPACT: ENCODERS FOR HARSH ENVIRONMENTS



Product description

The AHS/AHM36 CANopen Inox absolute encoders set standards in resistance to environmental influences and CANopen communication. Due to the stainless-steel design and enclosure rating IP69K, the encoders are suitable for use in very harsh ambient conditions. With various mounting hole patterns and adapter flanges, the AHS/AHM36 CANopen absolute encoders fit into

nearly every application. The configuration can be individually adjusted when integrating into the CANopen network. The encoder also communicates diagnostic data such as temperature or operating time. The rugged, reliable, fully magnetic sensor system achieves a maximum resolution of 14 bits for the singleturn variant and maximum 26 bits for the multiturn variant.

At a glance

- Compact 36 mm absolute encoder with maximum 26 bits (AHM36) or 14 bits (AHS36)
- Housing, flange, shaft made of stainless steel 1.4305
- IP69K enclosure rating
- Face mount flange, servo flange, blind hollow shaft
- M12 male connector or cable connection
- Configurable parameterization and diagnostic functions
- Operating temperature range:
 -40 °C ... +85 °C

Your benefits

- High resistance to environmental influences due to stainless-steel design
- Enclosure rating IP69K and shaft sealing ring for optimal tightness
- Simple network installation with various configuration options
- Intelligent diagnostic functions evaluate maintenance intervals for the entire system, thereby increasing system reliability
- Quick and easy mechanical installation with various mounting hole patterns and many different shafts
- Rugged, reliable, fully-magnetic sensors which can also be used in harsh environments



Additional information

Fields of application3
Detailed technical data 3
Type code6
Ordering information
Dimensional drawings 9
PIN assignment
Proposed fitting
Accessories16



For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.



Fields of application

- Applications with high requirements on the enclosure rating and resistance to aggressive media as well
- Particularly well-suited for use in mobile automation, in outdoor applications such as in ports or offshore plants, and in the food and beverage industry

Detailed technical data

Performance

	Singleturn	Multiturn
Number of steps per revolution max. (Resolution max.)	16,384 (14 bit)	-
Resolution max. (Number of steps per revolution max. x Number of revolutions max.)		14 bit x 12 bit (16,384 x 4,096)
Error limits G	0.35° (at 20 °C) 1)	
Repeatability standard deviation $\sigma_{\!\scriptscriptstyle r}$	0.2° (at 20 °C) 2)	

¹⁾ In accordance with DIN ISO 1319-1, position of the upper and lower error limit depends on the installation situation, specified value refers to a symmetrical position, i.e. deviation in upper and lower direction is the same.

Interfaces

	Singleturn	Multiturn		
Communication interface	CANopen			
Data protocol	CANopen CiA DS-301 V4.02, CiA DSP-305 LSS, Encoder Profile: - CIA DS-406, V3.2 Class C2			
Address setting	0 127, default: 5			
Data transmission rate (baud rate)	20 kbit/s 1,000 kbit/s, default: 125 kbit/s			
Process data	Position, speed, temperature			
Parameterising data	Number of steps per revolution PRESET Counting direction Sampling rate for speed calculation Unit for output of the speed value Electronic cams(2 channels x 8 cams)	Number of steps per revolution Number of revolutions PRESET Counting direction Sampling rate for speed calculation Unit for output of the speed value Round axis functionality Electronic cams(2 channels x 8 cams)		
Available diagnostics data	Minimum and maximum temperature, maximumspeed, power-on counter, operatinghours counter power-on/motion, counter ofdirection changes/number of movements cw/number of movements ccw, minimum andmaximum operating voltage			
Status information	CANopen status via status LED			
Bus termination	Via external terminator 1)			
Initialization time	2 s ²⁾			

¹⁾ See accessories.

Electrical data

Connection type	Male connector, M12, 5-pin, universal Cable, 5-wire, universal, 0.5 m Cable, 5-wire, universal, 1.5 m Cable, 5-wire, universal, 3 m Cable, 5-wire, universal, 5 m
Supply voltage range	10 V 30 V
Power consumption	≤ 1.5 W (without load)

¹⁾ This product is a standard product and does not constitute a safety component as defined in the Machinery Directive. Calculation based on nominal load of components, average ambient temperature 40°C, frequency of use 8760 h/a. All electronic failures are considered hazardous. For more information, see document no. 8015532.

²⁾ In accordance with DIN ISO 55350-13; 68.3% of the measured values are inside the specified area.

 $^{^{\}rm 2)}\,\mbox{Valid}$ positional data can be read once this time has elapsed.

Reverse polarity protection	V
MTTFd: mean time to dangerous failure	270 years (EN ISO 13849-1) ¹⁾

¹⁾ This product is a standard product and does not constitute a safety component as defined in the Machinery Directive. Calculation based on nominal load of components, average ambient temperature 40°C, frequency of use 8760 h/a. All electronic failures are considered hazardous. For more information, see document no. 8015532.

Mechanical data

Shaft diameter	
Solid shaft, face mount flange	10 mm x 12 mm
	6 mm x 12 mm
	10 mm x 24 mm ¹⁾ 8 mm x 12 mm
	3/8" x 12 mm
	1/4" x 12 mm
Solid shaft, Servo flange	6 mm x 12 mm
	8 mm x 12 mm
	10 mm x 12 mm
	1/4" x 12 mm 3/8" x 12 mm
	6 mm x 12 mm ²⁾
Blind hollow shaft	6 mm
	8 mm
	3/8"
	10 mm 1/4"
Weight	0.2 kg ³⁾
Shaft material	Stainless steel
Flange material	Stainless steel
Material, stator coupling	Stainless steel
Housing material	Stainless steel
Material, cable	PUR
Start up torque	1 Ncm
Operating torque	< 1 Ncm
Permissible shaft movement, static (for hollow shafts only)	± 0.3 mm (radial) ± 0.3 mm (axial)
Permissible shaft movement, dynamic (for	± 0.1 mm (radial)
hollow shafts only)	± 0.1 mm (axial)
Permissible shaft movement (for solid shafts only)	40 N / radial 20 N / axial
Moment of inertia of the rotor	
Solid shaft, face mount flange	2.5 gcm ²
Solid shaft, Servo flange	2.5 gcm ²
Blind hollow shaft	23 gcm ²
Bearing lifetime	
Solid shaft, face mount flange	3.6 x 10^8 revolutions
Solid shaft, Servo flange	3.6 x 10^8 revolutions
Blind hollow shaft	2.0 x 10^9 revolutions
Angular acceleration	$\leq 500,000 \text{ rad/s}^2$
Operating speed	≤ 6,000 min ^{-1 4)}

 $^{^{\}mbox{\tiny 1)}}$ For use with the adapters 2072298 and 2072295.

²⁾ For adapting to 1.25 m Ecoline wire draw mechanism; only available for multiturn variants.

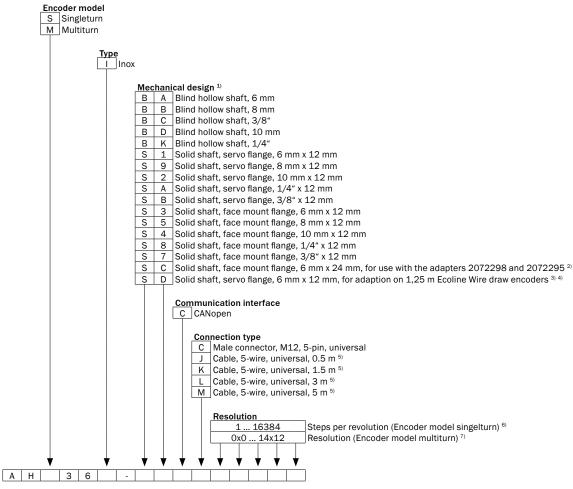
³⁾ Relates to devices with male connector connection.

⁴⁾ Self warming of 3.5 K per 1000 revolutions/min when applying note working temperature range.

Ambient data

EMC	According to EN 61000-6-2 and EN 61000-6-3
Enclosure rating	IP67 (according to IEC 60529) IP69K (according to IEC 60529)
Permissible relative humidity	90 % (Condensation not permitted)
Operating temperature range	-40 °C +85 °C
Storage temperature range	-40 °C +100 °C, without package
Resistance to shocks	100 g, 6 ms (according to EN 60068-2-27)
Resistance to vibration	20 g, 10 Hz 2,000 Hz (according to EN 60068-2-6)

Type code



 $^{^{\}scriptsize 1)}$ By using flange adapters, additional mechanical interfaces can be realized. See proposed fittings.

 $^{^{2)}}$ Permissible shaft load is lower than mentioned in technical data.

³⁾ Only with encoder version multiturn.

⁴⁾ Enclosure rating on shaft side always IP65.

⁵⁾ The universal cable outlet is positioned in such a way, that it is possible to lay the cable in a radial or axial direction without kinking it.

⁶⁾ Steps per revolution programmable via control unit or via SOPAS.

⁷⁾ Resolution programmable via control unit or via SOPAS.

Ordering information

Solid shaft, face mount flange

• Programmable: 🗸

Model	Shaft diameter	Wave length	Connection type	Steps per Revolution max.	Resolution max.	Туре	Part no.
	1/4"	12 mm	Male connector, M12, 5-pin, uni- versal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-S8CC014x12	1099330
	10 mm	12 mm	Male connector, M12, 5-pin, uni- versal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-S4CC014x12	1099329
	10 111111	24 mm	Male connector, M12, 5-pin, uni- versal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-SCCC014x12	1099332
	3/8"	12 mm	Male connector, M12, 5-pin, uni- versal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-S7CC014x12	1099331
Multiturn			Cable, 5-wire, universal, 0.5 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-S3CJ014x12	1099344
			Cable, 5-wire, universal, 1.5 m	-	14 bit (12 bit), 4,096	AHM36I-S3CK014x12	1099345
	6 mm	12 mm	Cable, 5-wire, universal, 3 m	-	14 bit (12 bit), 4,096	AHM36I-S3CL014x12	1099346
			Cable, 5-wire, universal, 5 m	-	14 bit (12 bit), 4,096	AHM36I-S3CM014x12	1099347
			Male connector, M12, 5-pin, uni- versal	-	14 bit (12 bit), 4,096	AHM36I-S3CC014x12	1099327
	8 mm	12 mm	Male connector, M12, 5-pin, uni- versal	-	14 bit (12 bit), 4,096	AHM36I-S5CC014x12	1099328
Singleturn	6 mm	12 mm	Cable, 5-wire, universal, 0.5 m	16,384 (14 bit)	-	AHS36I-S3CJ016384	1099353

Solid shaft, Servo flange

Wave length: 12 mmProgrammable: ✓

Model	Shaft diameter	Connection type	Steps per Revolution max.	Resolution max.	Туре	Part no.
	1/4"	Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-SACC014x12	1099325
	10 mm	Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-S2CC014x12	1099324
	3/8"	Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-SBCC014x12	1099326
Multiturn	6 mm	Cable, 5-wire, universal, 0.5 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-S1CJ014x12	1099348
		Cable, 5-wire, universal, 1.5 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-S1CK014x12	1099349
		Male connector, M12,		14 bit x 12 bit	AHM36I-S1CC014x12	1099321
		5-pin, universal	-	(16,384 x 4,096)	AHM36I-SDCC014x12	1099336
	8 mm	Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-S9CC014x12	1099323
Singleturn	6 mm	Cable, 5-wire, universal, 0.5 m	16,384 (14 bit)	-	AHS36I-S1CJ016384	1099354

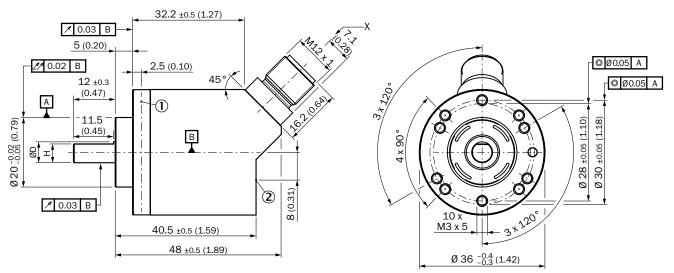
Blind hollow shaft

• Programmable: 🗸

Model	Shaft diameter	Connection type	Steps per Revolution max.	Resolution max.	Туре	Part no.
	1/4"	Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BKCC014x12	1099319
		Cable, 5-wire, universal, 0.5 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BDCJ014x12	1099342
	10 mm	Cable, 5-wire, universal, 1.5 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BDCK014x12	1099343
		Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BDCC014x12	1099318
	3/8"	Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BCCC014x12	1099317
Multiturn	6 mm	Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BACC014x12	1099315
		Cable, 5-wire, universal, 0.5 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BBCJ014x12	1099337
		Cable, 5-wire, universal, 1.5 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BBCK014x12	1099338
	8 mm	Cable, 5-wire, universal, 3 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BBCL014x12	1099339
		Cable, 5-wire, universal, 5 m	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BBCM014x12	1099340
		Male connector, M12, 5-pin, universal	-	14 bit x 12 bit (16,384 x 4,096)	AHM36I-BBCC014x12	1099316
Cincloture	10 mm	Cable, 5-wire, universal, 0.5 m	16,384 (14 bit)	-	AHS36I-BDCJ016384	1099352
Singleturn	8 mm	Cable, 5-wire, universal, 0.5 m	16,384 (14 bit)	-	AHS36I-BBCJ016384	1099351

Dimensional drawings (Dimensions in mm (inch))

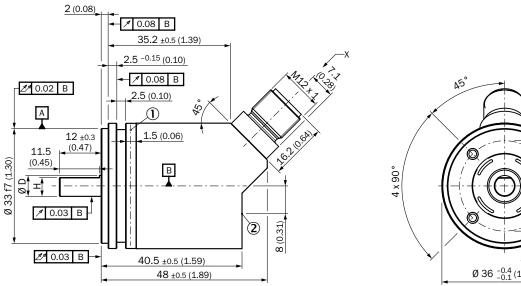
Solid shaft, face mount flange, connector outlet

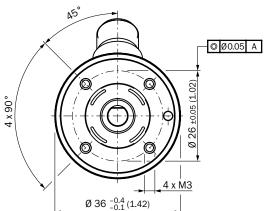


Non-tolerated dimensions according to DIN-ISO 2768-mk

- ① Measuring point for operating temperature
- 2 Measuring point for vibrations

Solid shaft, servo flange, male connector

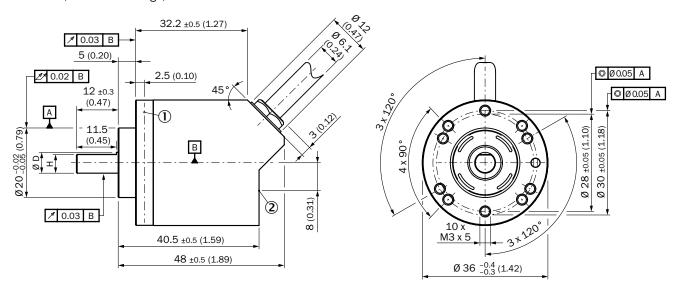




Non-tolerated dimensions according to DIN-ISO 2768-mk

- ① Measuring point for operating temperature
- 2 Measuring point for vibrations

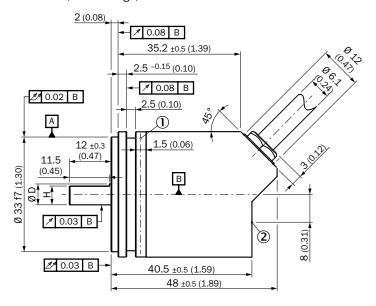
Solid shaft, face mount flange, cable outlet

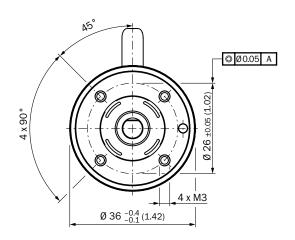


Non-tolerated dimensions according to DIN-ISO 2768-mk

- ① Measuring point for operating temperature
- 2 Measuring point for vibrations

Solid shaft, servo flange, cable outlet

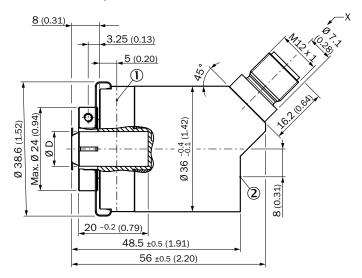


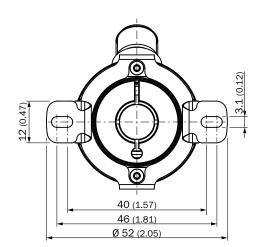


Non-tolerated dimensions according to DIN-ISO 2768-mk

- ① Measuring point for operating temperature
- 2 Measuring point for vibrations

Blind hollow shaft, male connector connection

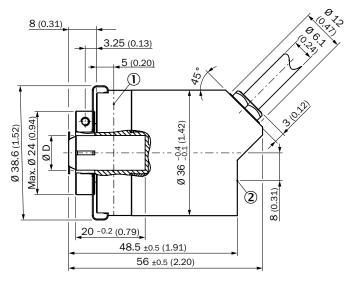


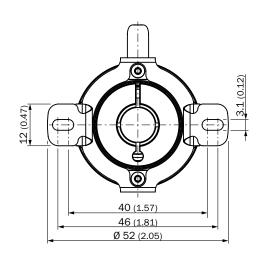


Non-tolerated dimensions according to DIN-ISO 2768-mk

- $\ensuremath{\textcircled{1}}$ Measuring point for operating temperature
- 2 Measuring point for vibrations

Blind hollow shaft, cable outlet





Non-tolerated dimensions according to DIN-ISO 2768-mk

- ① Measuring point for operating temperature
- ${\hbox{$@$}} \hbox{ Measuring point for vibrations}\\$

PIN assignment

M12 male connector (connection adapter)

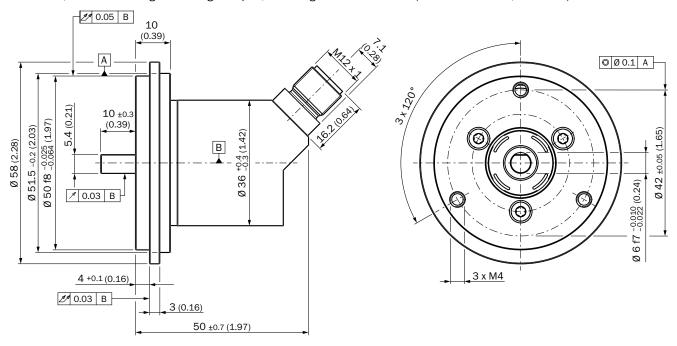


IN/US

PIN	Signal	Wire color	Function
1	CAN shield	White	Screen
2	VDC	Red	Encoder supply voltage: 10 30 V DC
3	GND/CAN GND	Blue	O V (GND)
4	CAN high	Black	CAN signal
5	CAN low	Pink	CAN signal
Housing	-	-	Screen

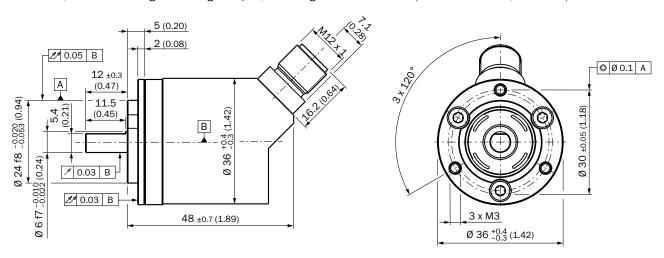
Proposed fitting

Solid shaft, face mount flange with flange adapter, centering collar D20 on D50 (BEF-FA-020-050-I, 2103985)



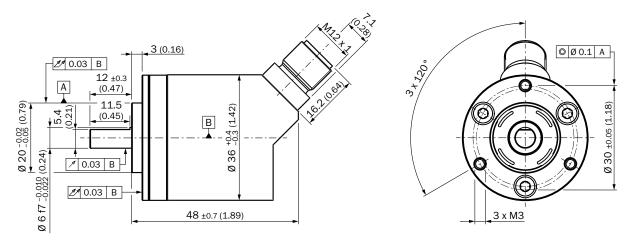
Order example for 6 mm shaft diameter: AHx36I-S3xx0xxxxx + BEF-FA-020-050-I (adapter is not pre-assembled)

Solid shaft, face mount flange with flange adapter, centering collar D20 on D24 (BEF-FA-020-024-I, 2103982)



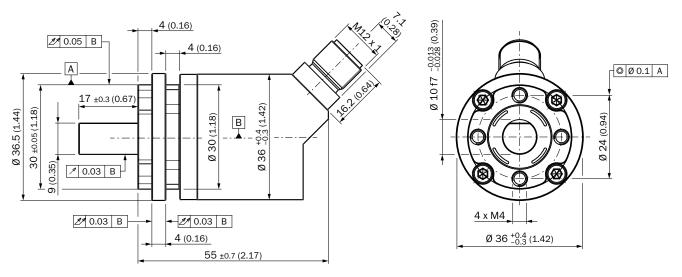
Order example for 6 mm shaft diameter: AHx36I-S3xx0xxxxx + BEF-FA-020-024-I (adapter is not pre-assembled)

Solid shaft, face mount flange with flange adapter, centering collar D20 on D36, 2 mm high (BEF-FA-020-036-2-I, 2103984)



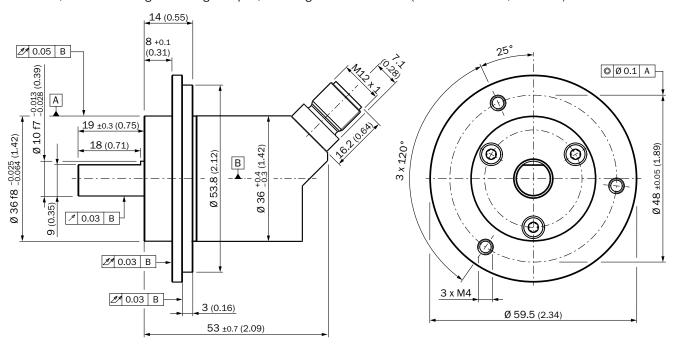
Order example for 6 mm shaft diameter: AHx36I-S3xx0xxxxx + BEF-FA-020-036-2-I (adapter is not pre-assembled)

Solid shaft, face mount flange with flange adapter, centering collar D20 on D30 (BEF-FA-020-030-I, 2103983)



Order example for 10 mm shaft diameter: AHx36I-SCxx0xxxxx + BEF-FA-020-030-I (adapter is not pre-assembled)

Solid shaft, face mount flange with flange adapter, centering collar D20 on D36 (BEF-FA-020-036-I, 2103986)



Order example for 10 mm shaft diameter: AHx36I-SCxx0xxxxx + BEF-FA-020-036-I (adapter is not pre-assembled)

Accessories

Mounting systems

Flanges

Flange plates

Figure	Brief description	Туре	Part no.
	Stator coupling on hole circle 63 mm	BEF-DS08	2072206
0	Flange adapter centering collar D20 on D24, material: stainless steel	BEF-FA-020-024-I	2103982
	Flange adapter centering collar D20 on D30, material: stainless steel, stainless steel	BEF-FA-020-030-I	2103983
	Flange adapter centering collar D20 on D36, 2 mm high, material: stainless steel, stainless steel	BEF-FA-020-036-2-I	2103984
3/	Flange adapter centering collar D20 on D36, material: stainless steel, stainless steel	BEF-FA-020-036-I	2103986
	Flange adapter centering collar D20 on D50, material: stainless steel, stainless steel	BEF-FA-020-050-I	2103985

Dimensional drawings → page 18

Mounting brackets and plates

Mounting brackets

Figure	Brief description	Туре	Part no.
9	Mounting bracket for encoder with centering hub 20 mm, including mounting kit for face mount flange, mounting kit for face mount flange included	BEF-WF-20	2066393

Dimensional drawings → page 21

Other mounting accessories

Measuring wheels and measuring wheel systems

Figure	Brief description	Туре	Part no.
	Aluminium measuring wheel with 0-ring (NBR70) for 6 mm solid shaft, circumference 200 mm	BEF-MR006020R	2055222
	Measuring wheel with 0-ring (NBR70) for 6 mm solid shaft, circumference 300 mm	BEF-MR006030R	2055634
	O-ring for measuring wheels (circumference 200 mm)	BEF-0R-053-040	2064061
	O-ring for measuring wheels (circumference 300 mm)	BEF-OR-083-050	2064076

Dimensional drawings → page 21

Servo clamps

Figure	Brief description	Туре	Part no.
B B B	Servo clamps, small, for servo flange (clamping claws, mounting eccentric), 3 pcs, without mounting hardware, without mounting hardware	BEF-WK-RESOL	2039082

Dimensional drawings → page 21

Shaft adaptation

Shaft couplings

Figure	Brief description	Туре	Part no.
	Bellows coupling, shaft diameter 6 mm / 6 mm, maximum shaft offset: radial \pm 0.25 mm, axial \pm 0.4 mm, angular +/- 4°; max. speed 10,000 rpm, -30 °C to +120 °C, max. torque 80 Ncm; material: stainless steel bellows, aluminum hub	KUP-0606-B	5312981
10	Double-loop coupling, shaft diameter 6 mm / 6 mm, maximum shaft offset: radial \pm 2.5 mm, axial \pm 3 mm, angular \pm 10°; max. speed 3,000 rpm, -30 °C to +80 °C, max. torque 1.5 Nm; material: polyurethane, galvanized steel flange	KUP-0606-D	5340152
	Bellows coupling, shaft diameter 6 mm $/$ 10 mm, maximum shaft offset: radial \pm 0.25 mm, axial \pm 0.4 mm, angular +/- 4°; max. speed 10,000 rpm, -30 °C to +120 °C, max. torque 80 Ncm; material: stainless steel bellows, aluminum hub	KUP-0610-B	5312982
10	Double loop coupling, shaft diameter 6 mm / 10 mm, max. shaft offset: radially +/- 2,5 mm, axially +/-3 mm, angle +/- 10 degrees;max. speed 3.000 rpm, -30 to +80 degrees Celsius, torsional spring stiffness of 25 Nm/rad	KUP-0610-D	5326697
(i	Spring washer coupling, shaft diameter 6 mm / 10 mm, Maximum shaft offset: radial +/- 0.3 mm, axial +/- 0.4 mm, angular +/- 2.5°; max. speed 12,000 rpm, -10° to +80°C, max. torque 60 Ncm; material: aluminum flange, glass fiber-reinforced polyamide membrane and hardened steel coupling pin	KUP-0610-F	5312985
10	Double loop coupling, shaft diameter 8 mm / 10 mm, max. shaft offset: radially +/-0,25 mm, axially +/-0,4 mm, angle +/- 4 degrees;max. speed 10.000 rpm, -30 to +120 degrees Celsius, torsional spring stiffness of 150 Nm/rad	KUP-0810-D	5326704
	Bellows coupling, shaft diameter 10 mm/10 mm; maximum shaft offset: radial +/- 0.25 mm, axial +/- 0.4 mm, angular +/- 4°; max. revolutions 10,000 rpm, -30° to +120°C, max. torque 80 Ncm; material: stainless steel bellows, aluminum clamping hubs	KUP-1010-B	5312983
10	Double loop coupling, shaft diameter 10 mm / 10 mm, Maximum shaft offset: radial +/- 2.5 mm, axial +/- 3 mm, angular +/- 10°; max. speed 3,000 rpm, -30° to +80 °C, max. torque 1.5 Nm; material: polyurethane, galvanized steel flange	KUP-1010-D	5326703
(c	Spring washer coupling, shaft diameter 10 mm / 10 mm, maximum shaft offset, radial \pm 0.3 mm, axial \pm 0.4 mm, angle \pm 2.5°, torsion spring stiffness 30 Nm/rad; material: aluminum flange, glass-fiber reinforced polyamide membrane and hardened steel coupling pin	KUP-1010-F	5312986
	10 mm / 12 mm; maximum shaft offset: radial +/- 0.25 mm, axial +/- 0.4 mm, angular +/- 4° ; max. revolutions $10,\!000$ rpm, -30° to +120 °C, max. torque 80 Ncm; material: stainless steel bellows, aluminum clamping hubs	KUP-1012-B	5312984
10	Double loop coupling, shaft diameter 10 mm / 12 mm, Maximum shaft offset: radial +/- 2.5 mm, axial +/- 3 mm, angular +/- 10°; max. speed 3,000 rpm, -30° to +80 °C, max. torque 1.5 Nm; material: polyurethane, galvanized steel flange	KUP-1012-D	5326702

Dimensional drawings → page 22

Connection systems

Plug connectors and cables

Field-attachable connectors

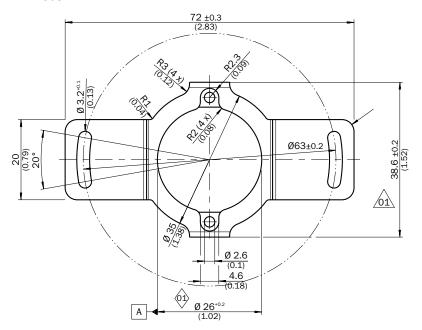
Figure	Brief description	Туре	Part no.
	Head A: female connector, M12, 5-pin, straight, A-coded Cable: shielded	YF12ES5- 0075S5586A	2097335
To the second	Head A: male connector, M12, 5-pin, straight, A-coded Cable: shielded	YM12ES5- 0075S5586A	2097336

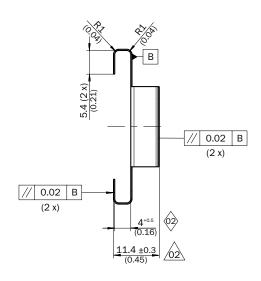
Dimensional drawings → page 22

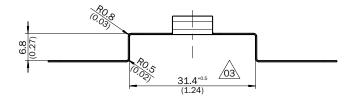
Dimensional drawings for accessories (Dimensions in mm (inch))

Flanges

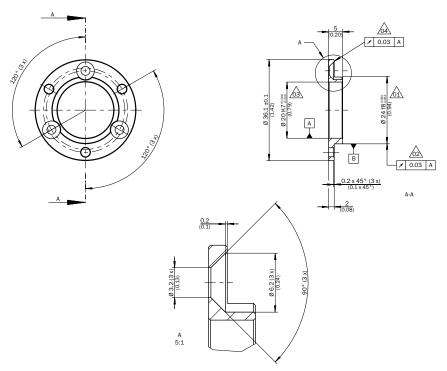
BEF-DS08

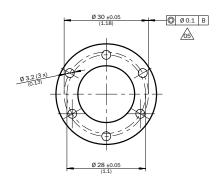




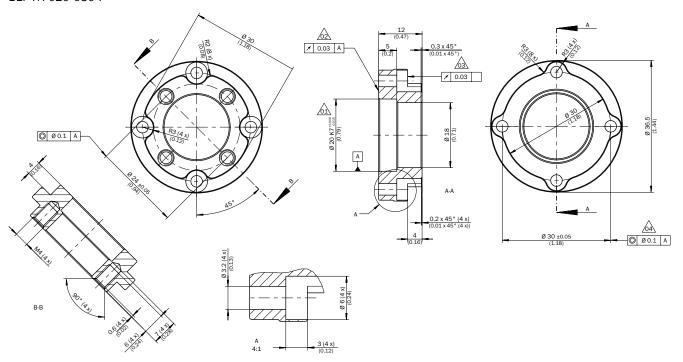


BEF-FA-020-024-I

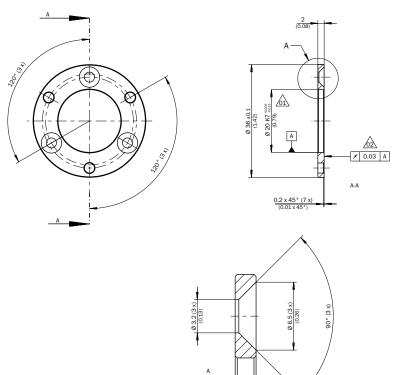


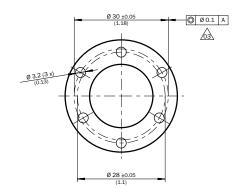


BEF-FA-020-030-I

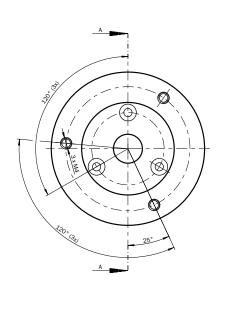


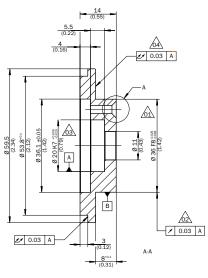
BEF-FA-020-036-2-I



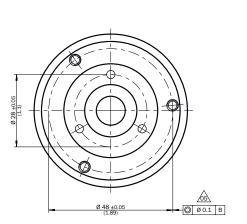


BEF-FA-020-036-I

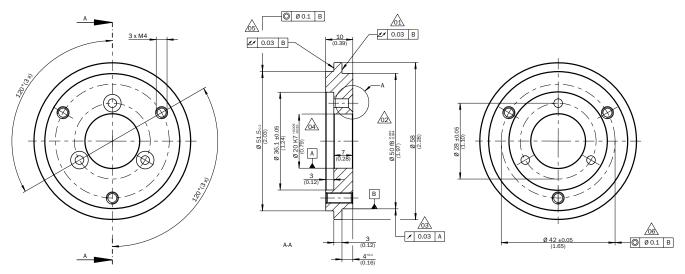


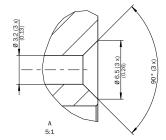






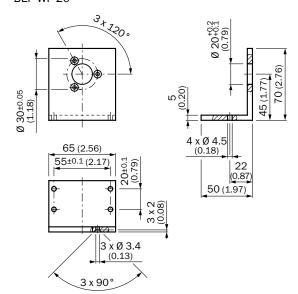
BEF-FA-020-050-I





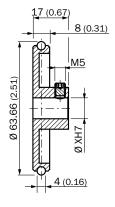
Mounting brackets and plates

BEF-WF-20

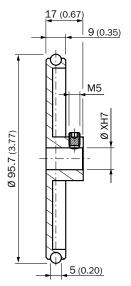


Other mounting accessories

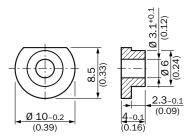
BEF-MR006020R



BEF-MR006030R

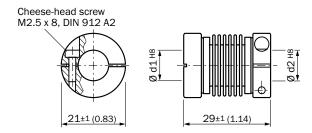


BEF-WK-RESOL

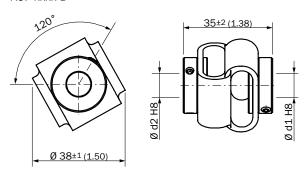


Shaft adaptation

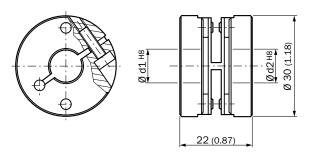
KUP-xxxx-B



KUP-xxxx-D

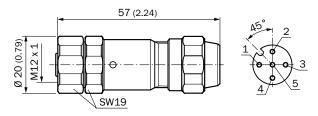


KUP-xx10-F

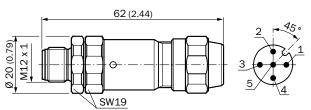


Plug connectors and cables

YF12ES5-0075S5586A



YM12ES5-0075S5586A



REGISTER AT WWW.SICK.COM TO TAKE ADVANTAGE OF OUR FOLLOWING SERVICES FOR YOU

- Access information on net prices and individual discounts.
- ▼ Easily order online and track your delivery.
- Check your history of all your orders and quotes.
- Create, save, and share as many wish lists as you want.
- Use the direct order to quickly order a big amount of products.
- Check the status of your orders and quotes and get information on status changes by e-mail.
- Save time by using past orders.
- Easily export orders and quotes, suited to your systems.



SERVICES FOR MACHINES AND PLANTS: SICK LifeTime Services

Our comprehensive and versatile LifeTime Services are the perfect addition to the comprehensive range of products from SICK. The services range from product-independent consulting to traditional product services.





Consulting and design Safe and professional



Product and system support Reliable, fast, and on-site



Verification and optimization Safe and regularly inspected



Upgrade and retrofits Easy, safe, and economical



Training and education
Practical, focused, and professional

SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 8,800 employees and over 50 subsidiaries and equity investments as well as numerous agencies worldwide, SICK is always close to its customers. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents, and preventing damage to the environment.

SICK has extensive experience in various industries and understands their processes and requirements. With intelligent sensors, SICK delivers exactly what the customers need. In application centers in Europe, Asia, and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes SICK a reliable supplier and development partner.

Comprehensive services round out the offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

That is "Sensor Intelligence."

Worldwide presence:

Australia, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Hong Kong, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Poland, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, USA, Vietnam.

Detailed addresses and further locations → www.sick.com

