

## AFS60A-BFEB262144

AFS/AFM60 Ethernet

**ABSOLUTE ENCODERS** 





#### Ordering information

Туре	part no.
AFS60A-BFEB262144	1059066

Other models and accessories → www.sick.com/AFS\_AFM60\_Ethernet

Illustration may differ



#### Detailed technical data

#### Safety-related parameters

MTTF <sub>D</sub> (mean time to dangerous failure)	80 years (EN ISO 13849-1) <sup>1)</sup>
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<sup>1)</sup> 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

#### Performance

Number of steps per revolution (max. resolution)	262,144 (18 bit)
Error limits G	0.03° <sup>1)</sup>
Repeatability standard deviation $\boldsymbol{\sigma}_{r}$	0.002° <sup>2)</sup>

<sup>1)</sup> 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

Communication interface	EtherCAT®
Communication Interface detail	CoE (CAN over EtherCAT®)
Encoder profile	CiA DS-406
Data transmission rate (baud rate)	10 Mbit/s, 100 Mbit/s
Transmission medium	CAT-5e cable
Initialization time	6 s
Cycle time	125 μs 100 ms
Parameterising data	Number of steps per revolution PRESET Counting direction Sampling rate for speed calculation Unit for output of the speed value Singleturn or multiturn access mode Quicker data exchange mode
Available diagnostics data	Minimum and maximum temperature Maximumspeed Position monitoring Power-on counter

 $<sup>^{2)}</sup>$  In accordance with DIN ISO 55350-13; 68.3% of the measured values are inside the specified area.

Operatinghours counter power-on/motion Counter of direction changes/number of movements cw/number of movements ccw Minimum andmaximum operating voltage Signal monitoring for singleturn and multiturn
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#### Electronics

Connection type	Male connector, 1x, M12, 4-pin, axial <sup>1)</sup> Female connector, 2x, M12, 4-pin, axial <sup>2)</sup>
Supply voltage	10 30 V
Power consumption	≤ 3 W (without load)
Reverse polarity protection	✓

<sup>1)</sup> A-coded.

#### Mechanics

Mechanical design	Blind hollow shaft
Shaft diameter	1/2"
Characteristics of the shaft	Front clamp
Weight	0.2 kg
Shaft material	Stainless steel
Flange material	Zinc diecast
Housing material	Aluminum
Start up torque	0.8 Ncm (+20 °C)
Operating torque	0.6 Ncm (+20 °C)
Permissible movement static	± 0.3 mm (radial) ± 0.5 mm (axial)
Permissible movement dynamic	± 0.05 mm (radial) ± 0.1 mm (axial)
Operating speed	≤ 6,000 min <sup>-1</sup> 1)
Moment of inertia of the rotor	40 gcm <sup>2</sup>
Bearing lifetime	3 x 10^9 revolutions
Angular acceleration	≤ 500,000 rad/s²

 $<sup>^{1)}</sup>$  Allow for self-heating of 3.3 K per 1,000 rpm when designing the operating temperature range.

#### Ambient data

ЕМС	According to EN 61000-6-2 and EN 61000-6-3 <sup>1)</sup>
Enclosure rating	IP65, shaft side (IEC 60529) IP67, housing side (IEC 60529) <sup>2)</sup>
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 (EN 60068-2-27)
Resistance to vibration	30 g, 10 Hz 2,000 Hz (EN 60068-2-6)

 $<sup>^{1)}\,\</sup>mathrm{The}\;\mathrm{EMC}$  according to the standards quoted is achieved if screened cables are used.

<sup>&</sup>lt;sup>2)</sup> D-coded.

<sup>2)</sup> With mating connector fitted.

## AFS60A-BFEB262144 | AFS/AFM60 Ethernet

ABSOLUTE ENCODERS

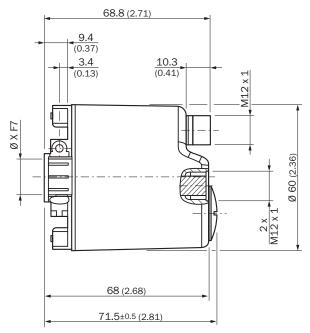
#### Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cTUVus certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

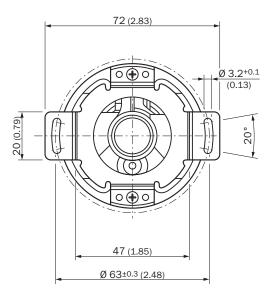
#### Classifications

ECLASS 5.0	27270502
ECLASS 5.1.4	27270502
ECLASS 6.0	27270590
ECLASS 6.2	27270590
ECLASS 7.0	27270502
ECLASS 8.0	27270502
ECLASS 8.1	27270502
ECLASS 9.0	27270502
ECLASS 10.0	27270502
ECLASS 11.0	27270502
ECLASS 12.0	27270502
ETIM 5.0	EC001486
ETIM 6.0	EC001486
ETIM 7.0	EC001486
ETIM 8.0	EC001486
UNSPSC 16.0901	41112113

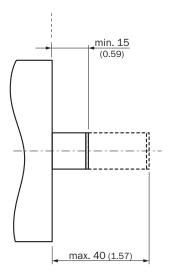
#### Dimensional drawing Blind hollow shaft



Dimensions in mm (inch) diameter x f7 corresponds to the shaft diameter

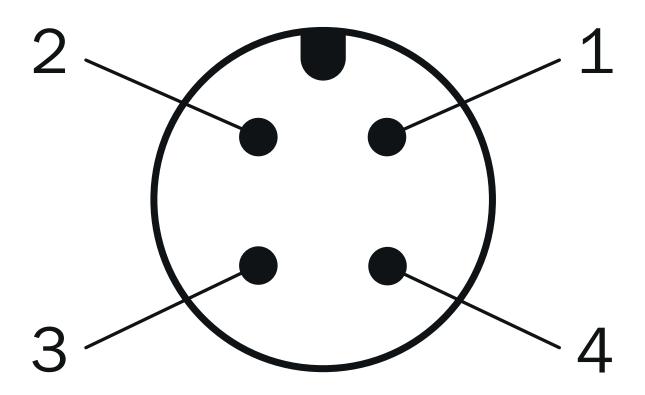


#### Attachment specifications Blind hollow shaft



All dimensions in mm (inch)

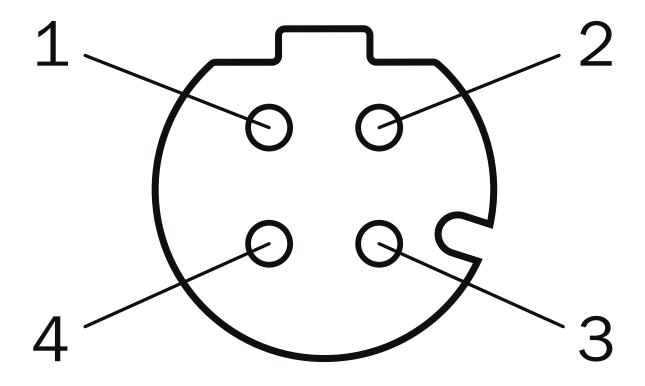
#### PIN assignment Male connector



#### Supply voltage

PIN	Wire color	Signal
1	Brown	U <sub>S</sub> 10 V 30 V
2	White	Not assigned
3	Blue	GND
4	Black	Not assigned

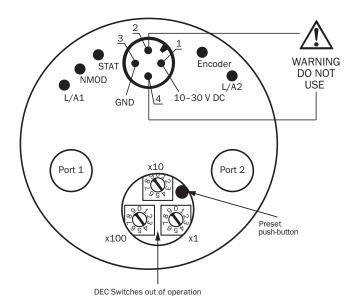
#### PIN assignment Female connector



Port 1, Port 2

PIN	Wire color	Signal
1	Yellow	T x D+
2	White	R x D+
3	Orange	T x D-
4	Blue	R x D-

#### Connection diagram



#### Recommended accessories

Other models and accessories → www.sick.com/AFS\_AFM60\_Ethernet

	Brief description	Туре	part no.	
connectors an	connectors and cables			
	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm²	DOS-1204-W	6007303	
00	<ul> <li>Connection type head A: Female connector, M12, 4-pin, D-coded</li> <li>Connection type head B: Female connector, RJ45, 8-pin</li> <li>Signal type: Ethernet</li> <li>Cable: CAT5, CAT5e</li> <li>Description: Ethernet, shielded</li> <li>Note: Cabinet through</li> </ul>	Feedthrough fe- male connector Ethernet RJ45	6048180	
	Connection type head A: Female connector, M12, 4-pin, straight, D-coded Signal type: PROFINET Cable: CAT5, CAT5e Description: PROFINET, shielded Connection systems: IDC quick connection Permitted cross-section: 0.14 mm² 0.34 mm²	DOS-1204-GZ	6048263	
	<ul> <li>Connection type head A: Female connector, M12, 4-pin, angled, D-coded</li> <li>Signal type: PROFINET</li> <li>Cable: CAT5, CAT5e</li> <li>Description: PROFINET, shielded</li> <li>Connection systems: IDC quick connection</li> <li>Permitted cross-section: 0.14 mm² 0.34 mm²</li> </ul>	DOS-1204-WZ	6048264	
9	<ul> <li>Connection type head A: Male connector, RJ45, 4-pin, straight</li> <li>Connection type head B: Male connector, M12, 4-pin, angled, D-coded</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 30 m, 4-wire, CAT5, CAT5e, PVC</li> <li>Description: Ethernet, shielded, PROFINET</li> </ul>	SSL-2J04-F30MZ	6059450	
	<ul> <li>Connection type head A: Male connector, RJ45, 4-pin, straight</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: CAT5, CAT5e</li> <li>Description: Ethernet, shieldedPROFINET</li> <li>Connection systems: IDC quick connection</li> <li>Permitted cross-section: 4 mm² 8 mm²</li> </ul>	STE-0J04-GZ	6048260	
0	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Signal type: PROFINET</li> <li>Cable: CAT5, CAT5e</li> <li>Description: PROFINET, shielded</li> <li>Connection systems: IDC quick connection</li> <li>Permitted cross-section: 0.14 mm² 0.34 mm²</li> </ul>	STE-1204-GZ	6048261	
	Connection type head A: Male connector, M12, 4-pin, angled, D-coded Signal type: PROFINET Cable: CAT5, CAT5e Description: PROFINET, shielded Connection systems: IDC quick connection Permitted cross-section: 0.14 mm² 0.34 mm²	STE-1204-WZ	6048262	
1	<ul> <li>Connection type head A: Female connector, M12, 4-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 2 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A14-020UB3XLEAX	2095607	
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A14-050UB3XLEAX	2095608	
No.	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded	YF2A14-100UB3XLEAX	2095609	

	Brief description	Туре	part no.
	Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation		
1	<ul> <li>Connection type head A: Female connector, M12, 4-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 25 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A14-250UB3XLEAX	2095615
	<ul> <li>Connection type head A: Fernale connector, M12, 4-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 2 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A14-020UB3XLEAX	2095766
	<ul> <li>Connection type head A: Female connector, M12, 4-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A14-050UB3XLEAX	2095767
>	<ul> <li>Connection type head A: Female connector, M12, 4-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 10 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A14-100UB3XLEAX	2095768
	<ul> <li>Connection type head A: Female connector, M12, 4-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 25 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A14-250UB3XLEAX	2095771
	<ul> <li>Connection type head A: Male connector, M12, 4-pin, angled, D-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 25 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YN2D24-250P- N1XLEAX	2106180
	<ul> <li>Connection type head A: Male connector, M12, 4-pin, angled, D-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 10 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YN2D24-100P- N1XLEAX	2106176
	<ul> <li>Connection type head A: Male connector, M12, 4-pin, angled, D-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YN2D24-050P- N1XLEAX	2106175
	<ul> <li>Connection type head A: Male connector, M12, 4-pin, angled, D-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 2 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YN2D24-020P- N1XLEAX	2106174
1	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 10 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-100P- N1XLEAX	2106173
Ties .	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> </ul>	YM2D24-050P- N1XLEAX	2106172

	Brief description	Туре	part no.
	Application: Drag chain operation, Zones with oils and lubricants		
100	Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Flying leads Signal type: Ethernet, PROFINET Cable: 2 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants	YM2D24-020P- N1XLEAX	2106171
	Connection type head A: Male connector, M12, 4-pin, angled, D-coded Connection type head B: Male connector, M12, 4-pin, angled, D-coded Signal type: Ethernet, PROFINET Cable: 10 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants	YN2D24-100P- N1N2D24	2106170
	Connection type head A: Male connector, M12, 4-pin, angled, D-coded Connection type head B: Male connector, M12, 4-pin, angled, D-coded Signal type: Ethernet, PROFINET Cable: 2 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants	YN2D24-020P- N1N2D24	2106168
8 8	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Male connector, M12, 4-pin, straight, D-coded</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 10 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-100P- N1M2D24	2106161
8 8	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Male connector, M12, 4-pin, straight, D-coded</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 2 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-020P- N1M2D24	2106159
6.0	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Male connector, M12, 4-pin, angled, D-coded</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 10 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-100P- N1N2D24	2106167
68	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Male connector, M12, 4-pin, angled, D-coded</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-050P- N1N2D24	2106166
68	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Male connector, M12, 4-pin, angled, D-coded</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 2 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-020P- N1N2D24	2106165
88	Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Male connector, RJ45, 4-pin, straight Signal type: Ethernet, PROFINET Cable: 2 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants	YM2D24-020P- N1MRJA4	2106182
88	Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Male connector, RJ45, 4-pin, straight Signal type: Ethernet, PROFINET Cable: 10 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants	YM2D24-100P- N1MRJA4	2106185
9 6	Connection type head A: Male connector, M12, 4-pin, angled, D-coded Connection type head B: Male connector, RJ45, 4-pin, straight Signal type: Ethernet, PROFINET Cable: 10 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET	YN2D24-100P- N1MRJA4	2106164

	Brief description	Туре	part no.
	Application: Drag chain operation, Zones with oils and lubricants		
96	<ul> <li>Connection type head A: Male connector, M12, 4-pin, angled, D-coded</li> <li>Connection type head B: Male connector, RJ45, 4-pin, straight</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YN2D24-050P- N1MRJA4	2106163
96	<ul> <li>Connection type head A: Male connector, M12, 4-pin, angled, D-coded</li> <li>Connection type head B: Male connector, RJ45, 4-pin, straight</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 2 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YN2D24-020P- N1MRJA4	2106162
8 8	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Male connector, M12, 4-pin, straight, D-coded</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-050P- N1M2D24	2106160
96	<ul> <li>Connection type head A: Male connector, M12, 4-pin, angled, D-coded</li> <li>Connection type head B: Male connector, RJ45, 4-pin, straight</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 3 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YN2D24-030P- N1MRJA4	2144265
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A14- C60UB3XLEAX	2145654
	<ul> <li>Connection type head A: Female connector, M12, 4-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 1 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A14-010UB3XLEAX	2145655
1	<ul> <li>Connection type head A: Female connector, M12, 4-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 3 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A14-030UB3XLEAX	2145656
	<ul> <li>Connection type head A: Female connector, M12, 4-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 0.6 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A14- C60UB3XLEAX	2145657
>	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YG2A14-010UB3XLEAX	2145658
	<ul> <li>Connection type head A: Male connector, M12, 4-pin, angled, D-coded</li> <li>Connection type head B: Male connector, M12, 4-pin, angled, D-coded</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> <li>Application: Drag chain operation, Zones with oils and lubricants</li> </ul>	YN2D24-050P- N1N2D24	2127662
68	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, D-coded</li> <li>Connection type head B: Male connector, RJ45, 4-pin, straight</li> <li>Signal type: Ethernet, PROFINET</li> <li>Cable: 5 m, 4-wire, PUR, halogen-free</li> <li>Description: Ethernet, shielded, PROFINET</li> </ul>	YM2D24-050P- N1MRJA4	2106184

	Brief description	Туре	part no.
	Application: Drag chain operation, Zones with oils and lubricants		
>	<ul> <li>Connection type head A: Female connector, M12, 4-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 20 m, 4-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A14-200UB3XLEAX	2095770
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 20 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A14-200UB3XLEAX	2095611
Mounting syst	ems		
	Description: Flange adapter, adaptation of face mount flange with 36 mm centering hub to 50 mm servo flange, aluminum, including 3 flat head screws M4 x 10     Material: Aluminum     Details: Aluminum     Items supplied: Including 3 countersunk screws M3 x 10	BEF-FA-036-050	2029160
8 0	<ul> <li>Description: Flange adapter, adaptation of face mount flange with 36 mm centering hub to 60 mm square mounting plate, aluminum, including 3 flat head screws M4 x 8</li> <li>Material: Aluminum</li> <li>Details: Aluminum</li> <li>Items supplied: Including 3 countersunk screws M4 x 8</li> </ul>	BEF-FA-036-060REC	2029162
	<ul> <li>Description: Flange adapter, adaptation of face mount flange with 36 mm centering hub to 58 mm square mounting plate with shock absorbers, aluminum</li> <li>Material: Aluminum</li> <li>Details: Aluminum</li> </ul>	BEF-FA-036-060RSA	2029163
	Description: Flange adapter, adaptation of face mount flange with 36 mm centering hub to 63 mm square mounting plate, aluminum, including 3 flat head screws M4 x 10     Material: Aluminum     Details: Aluminum     Items supplied: Including 3 countersunk screws M3 x 10	BEF-FA-036-063REC	2034225
70	<ul> <li>Product family: Stator couplings</li> <li>Description: One-sided stator coupling, slot, slot radius 33 mm to 211.9 mm, slot width 5.1 mm</li> </ul>	BEF-DS03DFS/VFS	2047431

	Brief description	Туре	part no.
measuring w	rheels and measuring wheel mechanics		
	<ul> <li>Product segment: Measuring wheels and measuring wheel mechanics</li> <li>Product family: Measuring wheels</li> <li>Description: Aluminium measuring wheel with 0-ring (NBR70) for 6 mm solid shaft, circumference 200 mm</li> </ul>	BEF-MR006020R	2055222
	<ul> <li>Product segment: Measuring wheels and measuring wheel mechanics</li> <li>Product family: Measuring wheels</li> <li>Description: Measuring wheel with O-ring (NBR70) for 6 mm solid shaft, circumference 300 mm</li> </ul>	BEF-MR006030R	2055634
0	<ul> <li>Product segment: Measuring wheels and measuring wheel mechanics</li> <li>Product family: Measuring wheels</li> <li>Description: Plastic measuring wheel with smooth plastic surface (Hytrel), for 10 mm solid shaft, circumference 200 mm</li> </ul>	BEF-MR-010020	5312988
0	<ul> <li>Product segment: Measuring wheels and measuring wheel mechanics</li> <li>Product family: Measuring wheels</li> <li>Description: Measuring wheel with ridged plastic surface (Hytrel) for 10 mm solid shaft, circumference 200 mm</li> </ul>	BEF-MR-010020G	5318678
	Product segment: Measuring wheels and measuring wheel mechanics Product family: Measuring wheels Description: Aluminium measuring wheel with O-ring (NBR70) for 10 mm solid shaft, circumference 200 mm	BEF-MR010020R	2055224
	Product segment: Measuring wheels and measuring wheel mechanics Product family: Measuring wheels Description: Aluminium measuring wheel with O-ring (NBR70) for 10 mm solid shaft, circumference 300 mm	BEF-MR010030R	2049278
	<ul> <li>Product segment: Measuring wheels and measuring wheel mechanics</li> <li>Product family: Measuring wheels</li> <li>Description: Plastic measuring wheel with smooth plastic surface (Hytrel) for 10 mm solid shaft, circumference 500 mm</li> </ul>	BEF-MR-010050	5312989
	<ul> <li>Product segment: Measuring wheels and measuring wheel mechanics</li> <li>Product family: Measuring wheels</li> <li>Description: Measuring wheel with O-ring (NBR70) for 10 mm solid shaft, circumference 500 mm</li> </ul>	BEF-MR010050R	2055227
14 ABSOLU	TE ENCPREDICT SEgment: Measuring wheels and measuring wheel mechanics	BEF-OR-053t-040et	<sup>2025</sup> 2064061 <sup>5</sup>

# AFS60A-BFEB262144 | AFS/AFM60 Ethernet ABSOLUTE ENCODERS

Brie	ef description	Туре	part no.
	Product family: Measuring wheel mechanics Description: O-ring for measuring wheels (circumference 200 mm)		
• P	Product segment: Measuring wheels and measuring wheel mechanics Product family: Measuring wheel mechanics Description: O-ring for measuring wheels (circumference 300 mm) tems supplied: 2x O-ring	BEF-OR-083-050	2064076

#### SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. 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.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our 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 us a reliable supplier and development partner.

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

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