



A3M60 PROFIBUS

Compact, robust, powerful

ABSOLUTE ENCODERS

SICK
Sensor Intelligence.



Technical data overview

Encoder design	Multiturn						
Shaft type	Solid shaft, face mount flange Solid shaft, Servo flange Blind hollow shaft						
Shaft diameter	<table border="0"> <tr> <td>Solid shaft, face mount flange</td> <td>10 mm</td> </tr> <tr> <td>Solid shaft, Servo flange</td> <td>6 mm</td> </tr> <tr> <td>Blind hollow shaft</td> <td>8 mm 10 mm 12 mm 14 mm 15 mm 1/2" 3/8" 5/8"</td> </tr> </table>	Solid shaft, face mount flange	10 mm	Solid shaft, Servo flange	6 mm	Blind hollow shaft	8 mm 10 mm 12 mm 14 mm 15 mm 1/2" 3/8" 5/8"
Solid shaft, face mount flange	10 mm						
Solid shaft, Servo flange	6 mm						
Blind hollow shaft	8 mm 10 mm 12 mm 14 mm 15 mm 1/2" 3/8" 5/8"						
Connection type	Male connector, M12, 5-pin, axial Female connector, M12, 5-pin, axial						
Communication interface	PROFIBUS DP / PROFIBUS DP / PROFIBUS DP / PROFIBUS DP (depending on type)						
Communication Interface detail	DPV0 DPV1 DPV2						
Number of steps per revolution (max. resolution)							
Max. resolution (number of steps per revolution x number of revolutions)	<table border="0"> <tr> <td>PROFIBUS DP, DPV0</td> <td>13 bit x 13 bit (8,192 x 8,192) 14 bit x 17 bit (16,384 x 131,072)</td> </tr> <tr> <td>PROFIBUS DP, DPV0 PROFIBUS DP PROFIBUS DP, DPV1 DPV2</td> <td>14 bit x 17 bit (16,384 x 131,072)</td> </tr> </table>	PROFIBUS DP, DPV0	13 bit x 13 bit (8,192 x 8,192) 14 bit x 17 bit (16,384 x 131,072)	PROFIBUS DP, DPV0 PROFIBUS DP PROFIBUS DP, DPV1 DPV2	14 bit x 17 bit (16,384 x 131,072)		
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PROFIBUS DP, DPV0 PROFIBUS DP PROFIBUS DP, DPV1 DPV2	14 bit x 17 bit (16,384 x 131,072)						
Programmable/configurable	Over PLC-Engineering-Tool						

Product description

The A3M60 PROFIBUS is an extremely rugged absolute multiturn encoder inside a 60 mm housing. Maximum reliability even in the harshest of ambient conditions is attained by means of magnetic scanning, both with singleturn and multiturn detection. New singleturn technology combines the durability of a magnetic sensor with high resolutions, previously only possible with optical systems. The innovative, gearless multiturn technology keeps the number of moving components on the A3M60 to a minimum. This results in a long service life with low maintenance costs and consequently optimum system availability. The highly compact technology in single and multiturn detection provides the user a space-saving and cost-efficient solution. Together with the integrated PROFIBUS interface, the A3M60 is particularly suited for applications where installation space is tight.

At a glance

- Rugged absolute multiturn encoder with up to 31 bits (14-bit singleturn and 17-bit multiturn)
- Face mount flange, servo flange or blind hollow shaft
- Compact design (<70 mm)
- Integrated PROFIBUS interface with DP V0, V1, and V2 functionality (depending on type)
- Connectivity: 3 x M12 male connector
- Protection class up to IP67
- Operating temperature: -30 to +80 °C (depending on type)

Your benefits

- Maximum system throughput, even under extreme ambient conditions
- Reduced maintenance costs due to wear-free magnetic singleturn and multiturn scanning
- Space-saving and cost-efficient design - the best solution, particularly when installation space is limited
- High productivity thanks to fast communication and position calculation
- Immune to contamination and condensation - ideal for tough ambient conditions
- High performance at a cost-efficient price

Fields of application

- Measurement of absolute position in various machines and systems such as palletizers, high-bay warehouses, cranes, presses, printing machines

Ordering information

Other models and accessories → www.sick.com/A3M60_PROFIBUS

- **Mechanical design:** Solid shaft, face mount flange
- **Singleturn or multiturn version:** Multiturn
- **Mechanical design:** Solid shaft face mount flange 10 mm x 19 mm
- **Connection type:** male connector, 2x, M12, 5-pin, axial, Female connector, 1x, M12, 5-pin, axial
- **Programmable/configurable:** ✓

Type	Part no.
A3M60A-S4PB014x17	1053341
A3M60B-S4PB013x13	1038826

- **Mechanical design:** Solid shaft, Servo flange
- **Specialty:** Operating temperature range -40 °C ... +70 °C, Resolution: 14 x 17 bit

Singleturn or multiturn version	Mechanical design	Connection type	Programmable/configurable	Type	Part no.
Multiturn	Solid shaft Servo flange 6 mm x 10 mm	Male connector, 2x, M12, 5-pin, axial Female connector, 1x, M12, 5-pin, axial	✓	A3M60B-S1PB-S01	1051775

- **Mechanical design:** Solid shaft, Servo flange
- **Singleturn or multiturn version:** Multiturn
- **Mechanical design:** Solid shaft Servo flange 6 mm x 10 mm
- **Connection type:** male connector, 2x, M12, 5-pin, axial, Female connector, 1x, M12, 5-pin, axial
- **Programmable/configurable:** ✓

Type	Part no.
A3M60A-S1PB014x17	1053342
A3M60B-S1PB013x13	1051018

- **Mechanical design:** blind hollow shaft
- **Singleturn or multiturn version:** Multiturn
- **Connection type:** male connector, 2x, M12, 5-pin, axial, Female connector, 1x, M12, 5-pin, axial
- **Programmable/configurable:** ✓

Mechanical design	Type	Part no.
Blind hollow shaft 1/2"	A3M60A-BF-PB014x17	1053335
	A3M60B-BF-PB013x13	1053328
Blind hollow shaft 10 mm	A3M60A-BDPB014x17	1053331
	A3M60B-BDPB013x13	1038824
Blind hollow shaft 12 mm	A3M60A-BEPB014x17	1053332
	A3M60B-BEPB013x13	1038825

Mechanical design	Type	Part no.
Blind hollow shaft 14 mm	A3M60A-BGPB014x17	1053336
	A3M60B-BGPB013x13	1051325
Blind hollow shaft 15 mm	A3M60A-BH-PB014x17	1053333
	A3M60B-BH-PB013x13	1051017
Blind hollow shaft 3/8"	A3M60A-BCPB014x17	1053334
	A3M60B-BCPB013x13	1053327
Blind hollow shaft 5/8"	A3M60A-BJPB014x17	1053337
	A3M60B-BJPB013x13	1053329
Blind hollow shaft 8 mm	A3M60A-BBPB014x17	1053330
	A3M60B-BBPB013x13	1051016

• **Specialty:** Sales Kit

Scope of delivery	Type	Part no.
1 x A3M60B-BBPB013X13 (1051016), 1 x DOL-1202-W05MC (6042067), 1 x DOL-1205-W05MQ (6041423)	A3M60B-BBP Sales Kit 02	1052490
1 x A3M60B-BBPB013X13 (1051016), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-BBP Sales Kit 01	1052477
1 x A3M60B-BBPB013X13 (1051016), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303), 1 x STE-1205-WQ (6041428)	A3M60B-BBP Sales Kit 03	1052507
1 x A3M60B-BBPB013X13 (1051016), 1 x STL-1205-W05MQ (6041426), 1 x DOL-1202-W05MC (6042067), 1 x DOL-1205-W05MQ (6041423)	A3M60B-BBP Sales Kit 04	1052515
1 x A3M60B-BDPB013X13 (1038824), 1 x DOL-1205-W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-BDP Sales Kit 02	1052491
1 x A3M60B-BDPB013X13 (1038824), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-BDP Sales Kit 01	1052478
1 x A3M60B-BDPB013X13 (1038824), 1 x STE-1205-WQ (6041428), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-BDP Sales Kit 03	1052508
1 x A3M60B-BDPB013X13 (1038824), 1 x STL-1205-W05MQ (6041426), 1 x DOL-1205-W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-BDP Sales Kit 04	1052516
1 x A3M60B-BEPB013X13 (1038825), 1 x DOS-1204-W (6007303), 1 x DOS-1205-WQ (6041429)	A3M60B-BEP Sales Kit 01	1052479
1 x A3M60B-BEPB013X13 (1038825), 1 x STE-1205-WQ (6041428), 1 x DOS-1204-W (6007303), 1 x DOS-1205-WQ (6041429)	A3M60B-BEP Sales Kit 03	1052509
1 x A3M60B-BEPB013X13 (1038825), 1 x STL-1205-W05MQ (6041426), 1 x DOL-1205-W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-BEP Sales Kit 04	1052517
1 x A3M60B-BEPB013X13 (1038825), 1 x DOL-1205-W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-BEP Sales Kit 02	1052493
1 x A3M60B-BGPB013X13 (1051325), 1 x DOL-1205-W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-BGP Sales Kit 02	1053976

Scope of delivery	Type	Part no.
1 x A3M60B-BGPB013X13 (1051325), 1 x DOS-1204-W (6007303), 1 x DOS-1205-WQ (6041429)	A3M60B-BGP Sales Kit 01	1053975
1 x A3M60B-BGPB013X13 (1051325), 1 x STE-1205-WQ (6041428), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-BGP Sales Kit 03	1053977
1 x A3M60B-BGPB013X13 (1051325), 1 x STL-1205-W05MQ (6041426), 1 x DOL-1205-W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-BGP Sales Kit 04	1053978
1 x A3M60B-BHPB013X13 (1051017), 1 x DOL-1205- W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-BHP Sales Kit 02	1052494
1 x A3M60B-BHPB013X13 (1051017), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-BHP Sales Kit 01	1052486
1 x A3M60B-BHPB013X13 (1051017), 1 x STE-1205-WQ (6041428), 1 x DOS-1204-W (6007303), 1 x DOS-1205-WQ (6041429)	A3M60B-BHP Sales Kit 03	1052510
1 x A3M60B-BHPB013X13 (1051017), 1 x STL-1205-W05MQ (6041426), 1 x DOL-1205-W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-BHP Sales Kit 04	1052518
1 x A3M60B-S1PB013X13 (1051018), 1 x DOL-1205- W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-S1P Sales Kit 02	1052506
1 x A3M60B-S1PB013X13 (1051018), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-S1P Sales Kit 01	1052489
1 x A3M60B-S1PB013X13 (1051018), 1 x STE-1205-WQ (6041428), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-S1P Sales Kit 03	1052514
1 x A3M60B-S1PB013X13 (1051018), 1 x STL-1205-W05MQ (6041426), 1 x DOL-1205-W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-S1P Sales Kit 04	1052520
1 x A3M60B-S4PB013X13 (1038826), 1 x DOL-1205- W05MQ (6041423), 1 x DOL-1202-W05MC (6042067)	A3M60B-S4P Sales Kit 02	1052492
1 x A3M60B-S4PB013X13 (1038826), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-S4P Sales Kit 01	1052488
1 x A3M60B-S4PB013X13 (1038826), 1 x STE-1205-WQ (6041428), 1 x DOS-1205-WQ (6041429), 1 x DOS-1204-W (6007303)	A3M60B-S4P Sales Kit 03	1052513
1 x A3M60B-S4PB013X13 (1038826), 1 x STL-1205-W05MQ (6041426), 1 x DOL-1202-W05MC (6042067), 1 x DOL-1205-W05MQ (6041423)	A3M60B-S4P Sales Kit 04	1052519

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.

For us, that is “Sensor Intelligence.”

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