



A3M60

Absolute encoder with PROFIBUS interface for numerous applications

SICK
Sensor Intelligence.



Technical data overview

Encoder design	Multiturn						
Shaft type	Solid shaft, Servo flange Solid shaft, face mount flange Blind hollow shaft						
Shaft diameter	<table border="0"> <tr> <td>Solid shaft, Servo flange</td> <td>6 mm With flat</td> </tr> <tr> <td>Solid shaft, face mount flange</td> <td>10 mm With flat</td> </tr> <tr> <td>Blind hollow shaft</td> <td> 12 mm Front clamp 8 mm Front clamp 3/8" Front clamp 10 mm Front clamp 1/2" Front clamp 14 mm Front clamp 15 mm Front clamp 5/8" Front clamp </td> </tr> </table>	Solid shaft, Servo flange	6 mm With flat	Solid shaft, face mount flange	10 mm With flat	Blind hollow shaft	12 mm Front clamp 8 mm Front clamp 3/8" Front clamp 10 mm Front clamp 1/2" Front clamp 14 mm Front clamp 15 mm Front clamp 5/8" Front clamp
Solid shaft, Servo flange	6 mm With flat						
Solid shaft, face mount flange	10 mm With flat						
Blind hollow shaft	12 mm Front clamp 8 mm Front clamp 3/8" Front clamp 10 mm Front clamp 1/2" Front clamp 14 mm Front clamp 15 mm Front clamp 5/8" Front clamp						
Connection type	Male connector, 2x, M12, 5-pin, axial Female connector, 1x, M12, 5-pin, axial						
Communication interface	PROFIBUS DP / PROFINET (depends on variant)						
Number of steps per revolution (max. resolution)							
Max. resolution (number of steps per revolution x number of revolutions)							
PROFIBUS DP, DPV0, programmable	13 bit x 13 bit (8,192 x 8,192)						
PROFIBUS DP, DPV0, programmable DPV1 DPV2	14 bit x 17 bit (16,384 x 131,072)						
Programmable/configurable	Over PLC-Engineering-Tool						
Operating temperature range	-30 °C ... +80 °C (depends on variant)						
Enclosure rating	IP65 (IEC 60529) Shaft side IP67 (IEC 60529) Housing side ¹⁾ IP67 (IEC 60529) Shaft side						

¹⁾ With mating connector fitted.

Product description

The A3M60 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

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

Communication Interface detail	Type	Part no.
DPVO	A3M60B-S1PB013x13	1051018
DPVO DPV1 DPV2	A3M60A-S1PB014x17	1053342

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

Communication Interface detail	Type	Part no.
DPVO	A3M60B-S4PB013x13	1038826
DPVO DPV1 DPV2	A3M60A-S4PB014x17	1053341

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

Communication Interface detail	Shaft diameter	Type	Part no.
DPVO	1/2"	A3M60B-BFPB013x13	1053328
	10 mm	A3M60B-BDPB013x13	1038824
	12 mm	A3M60B-BEPB013x13	1038825
	14 mm	A3M60B-BGPB013x13	1051325
	15 mm	A3M60B-BHPB013x13	1051017
	3/8"	A3M60B-BCPB013x13	1053327
	5/8"	A3M60B-BJPB013x13	1053329
	8 mm	A3M60B-BBPB013x13	1051016

Communication Interface detail	Shaft diameter	Type	Part no.
DPV0 DPV1 DPV2	1/2"	A3M60A-BFPB014x17	1053335
	10 mm	A3M60A-BDPB014x17	1053331
	12 mm	A3M60A-BEPB014x17	1053332
	14 mm	A3M60A-BGPB014x17	1053336
	15 mm	A3M60A-BHPB014x17	1053333
	3/8"	A3M60A-BCPB014x17	1053334
	5/8"	A3M60A-BJPB014x17	1053337
	8 mm	A3M60A-BBPB014x17	1053330

- **Singleturn or multiturn version:** Multiturn
- **Communication interface:** PROFINET
- **Specialty:** Sales Kit

Scope of delivery	Type	Part no.
1 x A3M60B-BBPB013X13 (1051016), 1 x DOL-1202-W05MC (6042067), 1 x YG2B22-050PB1XLEAX (2106274)	A3M60B-BBP Sales Kit 02	1052490
1 x A3M60B-BBPB013X13 (1051016), 1 x DOS-1205-WQ (6041429), 1 x DOS-1205-W (6009720)	A3M60B-BBP Sales Kit 01	1052477
1 x A3M60B-BBPB013X13 (1051016), 1 x DOS-1205-WQ (6041429), 1 x DOS-1205-W (6009720), 1 x STE-1205-WQ (6041428)	A3M60B-BBP Sales Kit 03	1052507
1 x A3M60B-BBPB013X13 (1051016), 1 x YG2B22-050PB1XLEAX (2106274), 1 x DOL-1202-W05MC (6042067), 1 x YN2B22-050PB1XLEAX (2106277)	A3M60B-BBP Sales Kit 04	1052515
1 x A3M60B-BDPB013X13 (1038824), 1 x DOS-1205-WQ (6041429), 1 x DOS-1205-W (6009720)	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-1205-W (6009720)	A3M60B-BDP Sales Kit 03	1052508
1 x A3M60B-BDPB013X13 (1038824), 1 x YG2B22-050P-B1XLEAX (2106274), 1 x DOL-1202-W05MC (6042067)	A3M60B-BDP Sales Kit 02	1052491
1 x A3M60B-BDPB013X13 (1038824), 1 x YG2B22-050PB1XLEAX (2106274), 1 x YN2B22-050PB1XLEAX (2106277), 1 x DOL-1202-W05MC (6042067)	A3M60B-BDP Sales Kit 04	1052516
1 x A3M60B-BEPB013X13 (1038825), 1 x DOS-1205-W (6009720), 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-1205-W (6009720), 1 x DOS-1205-WQ (6041429)	A3M60B-BEP Sales Kit 03	1052509
1 x A3M60B-BEPB013X13 (1038825), 1 x YG2B22-050PB1XLEAX (2106274), 1 x YN2B22-050PB1XLEAX (2106277), 1 x DOL-1202-W05MC (6042067)	A3M60B-BEP Sales Kit 04	1052517
1 x A3M60B-BEPB013X13 (1038825), 1 x YG2B22-050P-B1XLEAX (2106274), 1 x DOL-1202-W05MC (6042067)	A3M60B-BEP Sales Kit 02	1052493
1 x A3M60B-BGPB013X13 (1051325), 1 x DOS-1205-W (6009720), 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-1205-W (6009720)	A3M60B-BGP Sales Kit 03	1053977
1 x A3M60B-BGPB013X13 (1051325), 1 x YG2B22-050P-B1XLEAX (2106274), 1 x DOL-1202-W05MC (6042067)	A3M60B-BGP Sales Kit 02	1053976
1 x A3M60B-BGPB013X13 (1051325), 1 x YG2B22-050PB1XLEAX (2106274), 1 x YN2B22-050PB1XLEAX (2106277), 1 x DOL-1202-W05MC (6042067)	A3M60B-BGP Sales Kit 04	1053978
1 x A3M60B-BHPB013X13 (1051017), 1 x DOS-1205-WQ (6041429), 1 x DOS-1205-W (6009720)	A3M60B-BHP Sales Kit 01	1052486

Scope of delivery	Type	Part no.
1 x A3M60B-BHPB013X13 (1051017), 1 x STE-1205-WQ (6041428), 1 x DOS-1205-W (6009720), 1 x DOS-1205-WQ (6041429)	A3M60B-BHP Sales Kit 03	1052510
1 x A3M60B-BHPB013X13 (1051017), 1 x YG2B22-050P- B1XLEAX (2106274), 1 x DOL-1202-W05MC (6042067)	A3M60B-BHP Sales Kit 02	1052494
1 x A3M60B-BHPB013X13 (1051017), 1 x YG2B22-050PB1XLEAX (2106274), 1 x YN2B22-050PB1XLEAX (2106277), 1 x DOL-1202-W05MC (6042067)	A3M60B-BHP Sales Kit 04	1052518
1 x A3M60B-S1PB013X13 (1051018), 1 x DOS-1205- WQ (6041429), 1 x DOS-1205-W (6009720)	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-1205-W (6009720)	A3M60B-S1P Sales Kit 03	1052514
1 x A3M60B-S1PB013X13 (1051018), 1 x YG2B22-050P- B1XLEAX (2106274), 1 x DOL-1202-W05MC (6042067)	A3M60B-S1P Sales Kit 02	1052506
1 x A3M60B-S1PB013X13 (1051018), 1 x YG2B22-050PB1XLEAX (2106274), 1 x YN2B22-050PB1XLEAX (2106277), 1 x DOL-1202-W05MC (6042067)	A3M60B-S1P Sales Kit 04	1052520
1 x A3M60B-S4PB013X13 (1038826), 1 x DOS-1205- WQ (6041429), 1 x DOS-1205-W (6009720)	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-1205-W (6009720)	A3M60B-S4P Sales Kit 03	1052513
1 x A3M60B-S4PB013X13 (1038826), 1 x YG2B22-050P- B1XLEAX (2106274), 1 x DOL-1202-W05MC (6042067)	A3M60B-S4P Sales Kit 02	1052492
1 x A3M60B-S4PB013X13 (1038826), 1 x YG2B22-050PB1XLEAX (2106274), 1 x DOL-1202-W05MC (6042067), 1 x YN2B22-050PB1XLEAX (2106277)	A3M60B-S4P Sales Kit 04	1052519

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For us, that is “Sensor Intelligence.”

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