Product family overview



ATM90

Reliable, established and modular

SICK
Sensor Intelligence.



Technical data overview

Encoder design	Multiturn
Shaft type	Through hollow shaft
Shaft diameter	12 mm 1/2″ 16 mm
Connection type	Male connector, M23, 12-pin, radial Cable, 12-wire, radial Bus adapter, 3x, M14, 7-pin, radial Cable gland
Communication interface	SSI / PROFIBUS DP (depending on type)
Number of steps per revolution (max. resolution)	
Max. resolution (number of steps per revolution x number of revolutions)	
SSI, programmable	12 bit x 12 bit (4,096 x 4,096)
PROFIBUS DP, DPV0, programmable	13 bit x 13 bit (8,192 x 8,192) 13 bit x 11 bit (8,192 x 2,048) 12 bit x 12 bit (4,096 x 4,096) 11 bit x 13 bit (2,048 x 8,192)
Programmable/configurable	Over handheld programming tool Over PLC-Engineering-Tool (depending on type)
Operating temperature range	–20 °C ... +80 °C (depending on type)
Enclosure rating	IP65 (IEC 60529) With shaft seal [1]

[1] With mating connector fitted.

Product description

The ATM90 rounds out the ATM60 product family with hollow shaft variants. The ATM90 functions reliably even under harsh ambient conditions. Its rugged, mechanical design ensures maximum reliability and long service life. The magnetic singleturn scanning allows for a resolution of max. 13 bit within one revolution. The output or recording of the number of revolutions, max. 13 bit, is performed by a mechanical, almost wear-free gear. This means the ATM90 does not need a battery. Its short installation depth of 60 mm, combined with high shock and vibration resistance, makes the ATM90 perfect for use in applications with high mechanical loads and pronounced climatic fluctuations.

At a glance

- Extremely rugged multiturn absolute encoder with up to 26 bits
- Through hollow shaft with thin installation depth
- Zero-set and preset functions via hardware/software
- Communication interface: SSI, PROFIBUS DP
- Electronically adjustable, configurable resolution
- Magnetic scanning

Your benefits

- Reduction in variants due to one encoder for all resolutions, single- and multiturn freely programmable
- Variable thanks to various electrical connection options
- Maintenance-free encoder, long service life
- Fast commissioning thanks to zero-set/preset function at the touch of a button on the device or with software
- Reliable applications thanks to high permissible shock and vibration values
- Worldwide availability and service
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Fields of application

Measurement of absolute position in various machines and systems such as wind power and solar plants, material handling equipment, textile machines, packaging plants, rollers, port facilities, printing machines

Ordering information

Other models and accessories ➜ www.sick.com/ATM90

- **Mechanical design:** through hollow shaft
- **Singleturn or multiturn version:** Multiturn
- **Programmable/configurable:** ✓

Communication interface	Communication Interface detail	Shaft diameter	Connection type	Type	Part no.
PROFIBUS DP	DPV0	1/2″	Bus adapter, 3x, M14, 7-pin, radial	ATM90-PUF11x13	1032897
				ATM90-PUF12x12	1032661
				ATM90-PUF13x11	1032655
				ATM90-PUF13x13	1030043
			Cable gland [1]	ATM90-PUG11x13	1032900
				ATM90-PUG12x12	1032664
				ATM90-PUG13x11	1032658
				ATM90-PUG13x13	1030046
		12 mm	Bus adapter, 3x, M14, 7-pin, radial	ATM90-PTF11x13	1032896
				ATM90-PTF12x12	1032660
				ATM90-PTF13x11	1032654
				ATM90-PTF13x13	1030042
			Cable gland [1]	ATM90-PTG11x13	1032899
				ATM90-PTG12x12	1032663
				ATM90-PTG13x11	1032657
				ATM90-PTG13x13	1030045
		16 mm	Bus adapter, 3x, M14, 7-pin, radial	ATM90-PXF11x13	1032898
				ATM90-PXF12x12	1032662
				ATM90-PXF13x11	1032656
				ATM90-PXF13x13	1030044
			Cable gland [1]	ATM90-PXG11x13	1032901
				ATM90-PXG12x12	1032665
				ATM90-PXG13x11	1032659
				ATM90-PXG13x13	1030047

[1] Metrisch M16 x 1,5; SW17.

Communication interface	Communication Interface detail	Shaft diameter	Connection type	Type	Part no.
SSI	–	1/2″	Cable, 12-wire, radial, 1.5 m	ATM90-AUK12x12	1030035
			Cable, 12-wire, radial, 3 m	ATM90-AUL12x12	1030036
			Cable, 12-wire, radial, 5 m	ATM90-AUM12x12	1030037
			Male connector, M23, 12-pin, radial	ATM90-AUA12x12	1030034
		12 mm	Cable, 12-wire, radial, 1.5 m	ATM90-ATK12x12	1030031
			Cable, 12-wire, radial, 3 m	ATM90-ATL12x12	1030032
			Cable, 12-wire, radial, 5 m	ATM90-ATM12x12	1030033
			Male connector, M23, 12-pin, radial	ATM90-ATA12x12	1030030
		16 mm	Cable, 12-wire, radial, 1.5 m	ATM90-AXK12x12	1030039
			Cable, 12-wire, radial, 3 m	ATM90-AXL12x12	1030040
			Cable, 12-wire, radial, 5 m	ATM90-AXM12x12	1030041
			Male connector, M23, 12-pin, radial	ATM90-AXA12x12	1030038

[1] Metrisch M16 x 1,5; SW17.

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.”

WORLDWIDE PRESENCE:

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