

ONLINE DATA SHEET
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Absolute encoders
ATM60 DeviceNet, Rotary

ATM60-D4H13X13



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ATM60 DeviceNet, Rotary

Model Name > ATM60-D4H13X13
Part No. > 1030017



Illustration may differ

At a glance

- Extremely rugged, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: face mount, servo flange, blind hollow shaft and adapter accessories
- Zero set and preset functions via hardware/software
- No battery
- Electrical interface:CAN/DeviceNet specification 2.0B, electrically isolated; device profile: Generic [0]
- Electronically adjustable, configurable resolution
- Network status info via duo LED
- Magnetic scanning

Your benefits

- Fewer variants are required since one freely programmable encoder offers all singleturn and multiturn resolutions
- Easy setup due to electrical connection adapters (1 to 2x PG, 1 to 2x M12)
- Less maintenance and a long service life reduce overall costs
- Application flexibility due to easily interchangeable collets for the blind hollow shaft
- Quick commissioning using the zero set/preset function either at the press of the button on the device or via software
- Increased productivity due to highly reliable shock and vibration resistance
- Worldwide availability and service ensure quick and reliable customer service

Performance

Max. number of steps per revolution:	8,192
Max. number of revolutions:	8,192
Resolution power:	8,192 x 8,192
Resolution:	13 bit x 13 bit
Error limits:	± 0.25 °
Repeatability (Ta not constant):	0.1 °
Measuring step:	0.043 °
Initialization time:	1,250 ms [1)]

[1)] Valid positional data can be read once this time has elapsed

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Mechanical data

Mechanical interface:	Solid shaft, Face mount flange
Shaft diameter:	10 mm
Mass:	0.59 kg
Permissible Load capacity of shaft:	300 N (radial), 50 N (axial)
Moment of inertia of the rotor:	35 gcm²
Bearing lifetime:	3.6 x 10^9 revolutions
Max. angular acceleration:	500,000 rad/s²
Shaft material:	Stainless steel
Flange material:	Aluminum
Housing material:	Die-cast aluminum
Start up torque with shaft seal:	2.5 Ncm
Start up torque without shaft seal:	0.5 Ncm
Operating torque with shaft seal:	1.8 Ncm
Operating torque without shaft seal:	0.3 Ncm [1]

[1] If the shaft seal has been removed by the customer

Electrical data

Operating voltage range:	10 V ... 32 V
Power consumption max.:	2 W
MTTFd: mean time to dangerous failure:	150 a (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.

Interfaces

Electrical interface:	Bus adaptor with cable screw fixings or connector [1]
SET (electronic adjustment):	Via PRESET push button or protocol
Bus:	DeviceNet
Bus interface::	ISO-DIS 11898 [2] [3]
Data protocol:	DeviceNet Specification Release 2.0
Address setting:	0 ... 63, DIP-switches or protocol
Data transmission rate (baud rate):	250 kBaud, 500 kBaud, DIP-switches or protocol／125 kBaud
Status information:	Network status LED, 2-colours
Bus termination:	DIP switch

[1] Please order the DeviceNet adaptor separately [2] CAN High Speed [3] CAN Specification 2.0 B

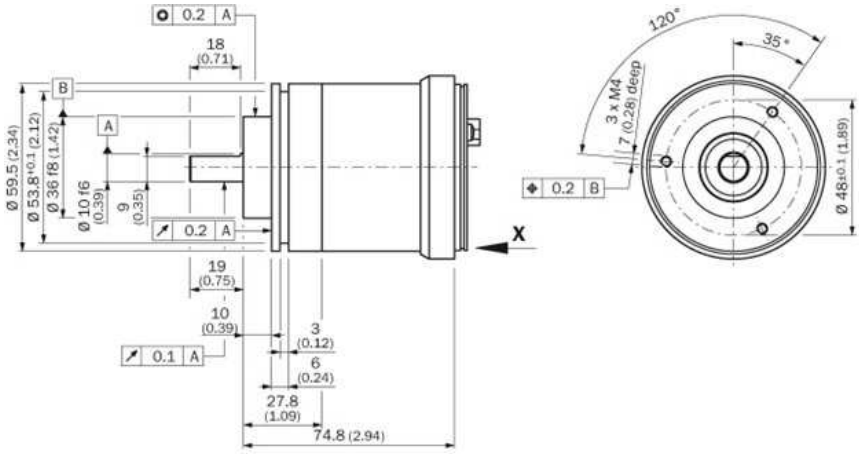
Ambient data

EMC:	(according to EN 61000-6-2 and EN 61000-6-3)
Enclosure rating:	IP 43 (according to IEC 60529), without shaft seal, on encoder flange not sealed, IP 66 (according to IEC 60529), without shaft seal, on encoder flange sealed, IP 67 (according to IEC 60529), with shaft seal
Permissible relative humidity:	98 %
Working temperature range:	-20 °C ... 85 °C
Storage temperature range:	-40 °C ... 125 °C, without package
Resistance to shocks:	100 g (according to EN 60068-2-27)

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Resistance to vibration:	20 g, 10 Hz ... 2,000 Hz (according to EN 60068-2-6)

Dimensional drawing



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PIN assignment



PIN and wire allocation

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