



Absolute encoders ATM60 PROFIBUS

ATM60-P4H13X13



Model Name > ATM60-P4H13X13
Part No. > 1030013



At a glance

- Extremely robust, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: Face mount flange, servo flange, blind hollow shaft and extensive adapter accessories
- Zero-set and preset functions via hardware or software
- No battery required
- Electrical interface: PROFIBUS DP as per IEC61158 / RS 485 , electrically isolated.
- Electronically adjustable, configurable resolution
- Magnetic scanning

Your benefits

- Reduced variants due to one encoder for all resolutions, single turn and multiturn, freely programmable
- Variable due to a variety of electrical connection adapters (3x PG, 3x M12)
- Maintenance-free encoder, long service life
- One basic device with flexible application possibilities thanks 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
- Reliable applications due to highly reliable shock and vibration values
- Worldwide availability and 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 °
Repeat accuracy:	0.1 °
Measuring step:	0.043 °
Initialization time:	1,250 ms ¹⁾

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

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 gcm ²
Bearing lifetime:	3.6 x 10 ⁹ revolutions
Max. angular acceleration:	500,000 rad/s ²
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

Interfaces

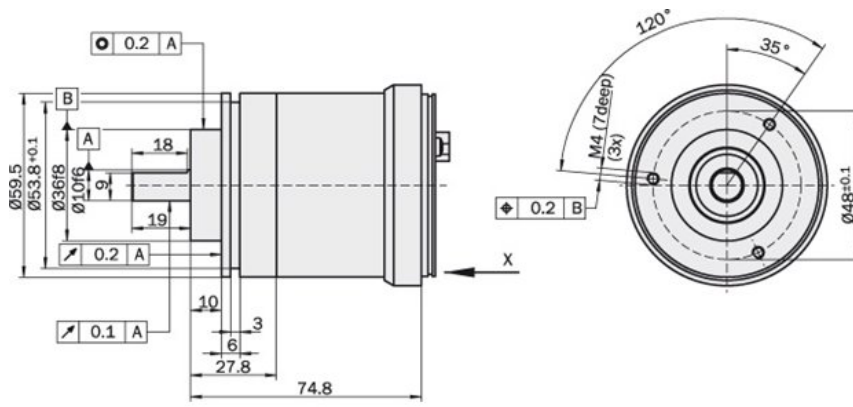
Electrical interface:	Bus adaptor with cable screw fixings or connector ¹⁾
SET (electronic adjustment):	Via PRESET push button or protocol
Bus:	Profibus DP
Bus interface:::	RS-485 ^{2) 3) 4)}
Data protocol:	Profile for encoders (07hex) - Class 2
Address setting:	0 ... 127, DIP-switches or protocol
Data transmission rate (baud rate):	9.6 kBaud/12 MBaud/automatic detection
Status information:	LED green (operation), LED red (bus activity)
Bus termination:	DIP switch

¹⁾ Please order the Profibus adaptor separately ²⁾ EN 50 170-2 ³⁾ DIN 19245 part 1-3 ⁴⁾ DC isolated via opto-couplers

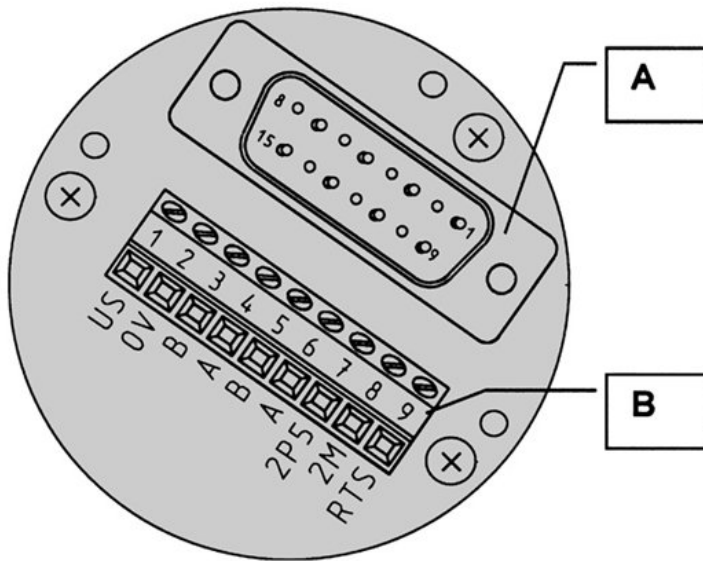
Ambient data

EMC:	According to EN 61000-6-2 and EN 61000-6-3
Enclosure rating:	IP 67, according to IEC 60529, with shaft seal 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
Permissible relative humidity:	98 %
Working temperature range:	-20 °C ... 80 °C
Storage temperature range:	-40 °C ... 125 °C, without package
Resistance to shocks:	6 g (according to EN 60068-2-27)
Resistance to vibration:	20 g, 10 Hz ... 2,000 Hz (according to EN 60068-2-6)

Dimensional drawing



PIN assignment



Australia

Phone +61 3 9497 4100
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +852-2763 6966
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-999-0590
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7 495 775 05 30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82-2 786 6321/4
E-Mail info@sickkorea.net

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 216 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com