PRECIZIKA METROLOGY

The company under the name JSC "Precizika Metrology" began work after the change of name of the Lithuanian - American Joint Venture "Brown & Sharpe - Precizika". The company has a proud history of old traditions in the leadership of design and production of metrological equipment. Its workforce has been involved for over fifty years in the supply of measuring technology and systems to automate factories as well as in the development of optical scale manufacturing technology.
In 2000, the production process was certified to fully meeting the requirements of EN ISO 9002:1994, in 2003 – EN ISO 9001:2000.
The company's goal is to consistently supply high quality products and services to meet customer demands on a timely basis. The company's main products are linear and angular glass scale gratings, and the linear and rotary displacement measuring systems.
JSC "Precizika Metrology" represents worldwide known companies and suppliers of measuring equipment, CNC centers, executes installation and services of them, trains the users, and executes upgrading of used CMM and manual cutting machine-tools.

AK36

ABSOLUTE ROTARY ENCODER

Absolute singleturn and multiturn (battery buffered) solid shaft rotary encoders are used for generation of coded output signals which provide information about controlled object absolute position.

In singleturn version rotary encoder AK36 has resolution from 9 up to 21 bit per revolution. Output signals interface is BiSS C or SSI. Operating principle is photoelectrical.

In multiturn version AK36 has singleturn resolution from 9 up to 21 bit per revolution with 12/16/20/24 bit resolution of multiturn counter on BiSS C interface. With SSI interface the encoder AK36 has resolution from 9 up to 21 bit per revolution with 9 up to 40 bit resolution of multiturn counter. Battery is placed inside of encoder. Operating principle is photoelectrical and magnetic.

Absolute encoder is intended to use in robotics industry, automated and automatizated lines in industry, control devices of equipment and machines, various control systems, precise machine tools and others.

HD µm BiSS SSI

50 YEARS OF EXPERIENCE

TÜV International Certification
TÜV THÜRINGEN CERT ISO 9001:2008 15 100 74491 TIC

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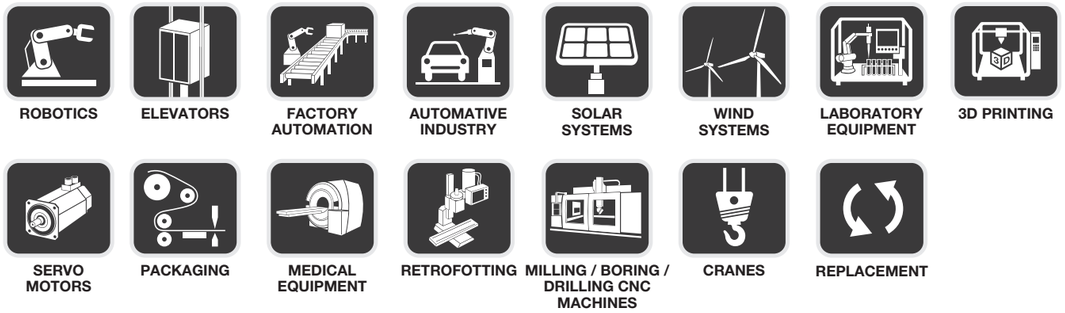
AK36

RECOMMENDED APPLICATIONS

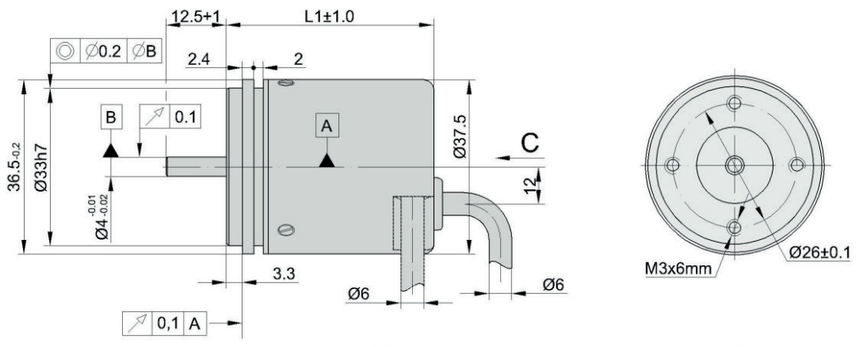


MECHANICAL DATA

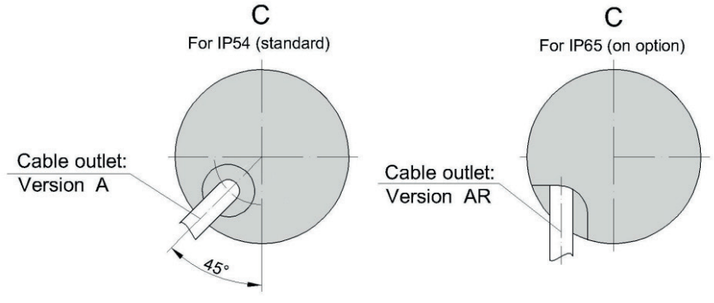
Maximum shaft speed	10000 rpm
Maximum shaft load: - axial - radial (at shaft end)	 5N 10N
Starting torque at 20°C	≤ 0.002 Nm
Rotor moment of inertia	< 2 gcm²
Protection (IEC 529) - Standart - Optional	 IP54 IP64
Maximum weight without cable	0.1 kg

Operating temperature: - singleturn version - multiturn version	 -20...+80 °C -10...+70 °C
Storage temperature: - singleturn version - multiturn version	 -30...+90 °C -20...+80 °C
Maximum humidity (non-condensing)	98 %
Permissible vibration (55 to 2000 Hz)	≤ 100 m/s²
Permissible shock (11 ms)	≤ 300 m/s²

AK36



	Cable outlet	Cable axial (ver. A)	Cable axial - radial (ver. AR)
Singleturn	L1	39	39
Multiturn	L1	55	60

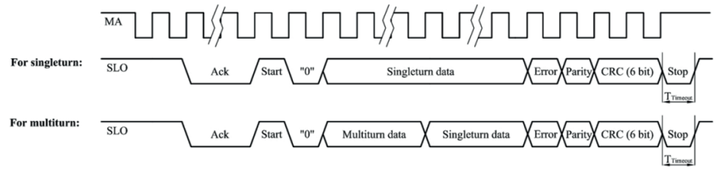


ELECTRICAL DATA

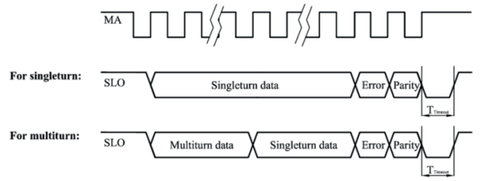
Resolution:	
Singleturn version:	
- with interface BiSS C	9... 21 bit
- with interface SSI	9... 21 bit
Multiturn version:	
- single turn resolution with BiSS C	9... 21 bit
- multiturn resolution with BiSS C	12/16/20/24 bit
- single turn resolution with SSI	9 ... 21 bit
- multiturn resolution with SSI	9 ... 40 bit
Output code	Gray, binary
Data interface	SSI, BiSS C

Accuracy	± 30 arc sec
Supply voltage	+5V ± 5%
Light source	LED
Maximum operating frequency: - with interface BiSS C - with interface SSI	 10 MHz 4 MHz
Cable length (standard)	1 m
Standard cable length	1 m, without connector
Maximum cable length	25 m

BiSS C serial interface



SSI serial interface



Interface	*BISS C*
Ttimeout	1,2 µs - 26 µs
Clock frequency	62,5 kHz - 10 MHz

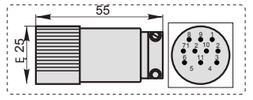
Interface	*SSI*
Ttimeout	1,2 µs - 26 µs
Clock frequency	62,5 kHz - 4 MHz

Note:
1. Error and parity bits should be deteminated during order.

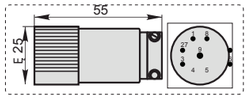
ACCESORIES

CONNECTORS

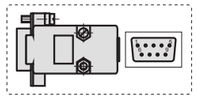
C12
12 -pin round connector



C9
9-pin round connector

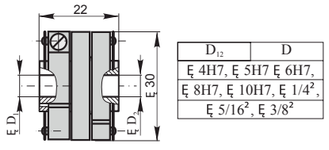


D9
9-pin flat connector



COUPLING

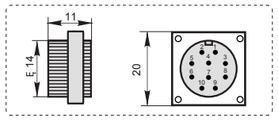
SC30



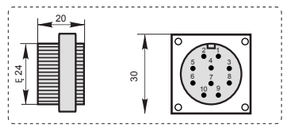
D_{12}	D
Ę 4H7, Ę 5H7 Ę 6H7, Ę 8H7, Ę 10H7, Ę 1/4², Ę 5/16², Ę 3/8²	

FLANGE SOCKETS

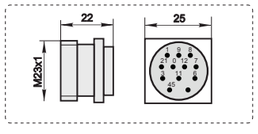
RS 10
Round 10- pins flange socket



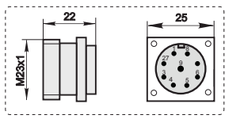
ONC
Round 10- pins flange socket



C12
Round 12 -pins flange socket



C9
Round 9-pins flange socket



AK36 - XX - X - XX/XX - X - XX/XX - X

VERSIONS:	OUTPUT SIGNALS INTERFACE (SERIAL):	SINGLETURN BIT NUMBER*:	MULTITURN BIT NUMBER*:	OUTPUT CODE:	CABLE LENGTH:	CONNECTOR TYPE:	COUPLING:
ST - singleturn MT -multiturn	S - SSI B -BiSS C	B9 - 9 B10 -10 B11 - 11 B12 - 12 ...-... B20 -20 B21 - 21	M0 - 0 (for singleturn version) M9 - 9 M10 -10 M11 - 11 M12 - 12 ...-... M40 -40	B -Binary G - Gray	A01 - 1m (A - axial cable) A02 - 2m ...-... AR 01 - 1m (AR- universal cable outlet) AR02 - 2m AR03 - 3m ...-...	W - without connector C9 -round, 9 pins C12 - round, 12 pins D9 - flat, 9 pins RS10 - round, 10 pins ONC - round, 10 pi	0 - without coupling 1 - with coupling

* See electrical data for possible bit selection with specific interface

ORDER EXAMPLES:	1) AK36-ST-S-B9/M0-B-AR02/W-0 2) AK36-MT-B-B20/M12-G-AR01/C12-1

Please confirm configuration options before ordering or contact Customer Service for assistance.