

MAIN EXPORT COUNTRIES:



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.

AP58

PROGRAMMABLE PHOTOELECTRIC
INCREMENTAL ROTARY ENCODER



The programmable photoelectric incremental rotary encoder AP58 is used to establish an informational link between the key machine components, industrial robots, comparators and NC or DRO units.

The encoder is used in automatic control, on-line gauging, process monitoring systems, etc.

The AP58 programmable incremental encoder can be programmed to set desired pulse number per revolution from 1 to 65536. This function makes it an universal incremental encoder that perfectly suits specific needs in many applications and machines.

The programming tool consists of a USB cable and Windows compatible software.

The program is supplied for free and can be found on Precizika Metrology web-site and installed in any PC fitted with a Windows operating system (Windows XP or later).



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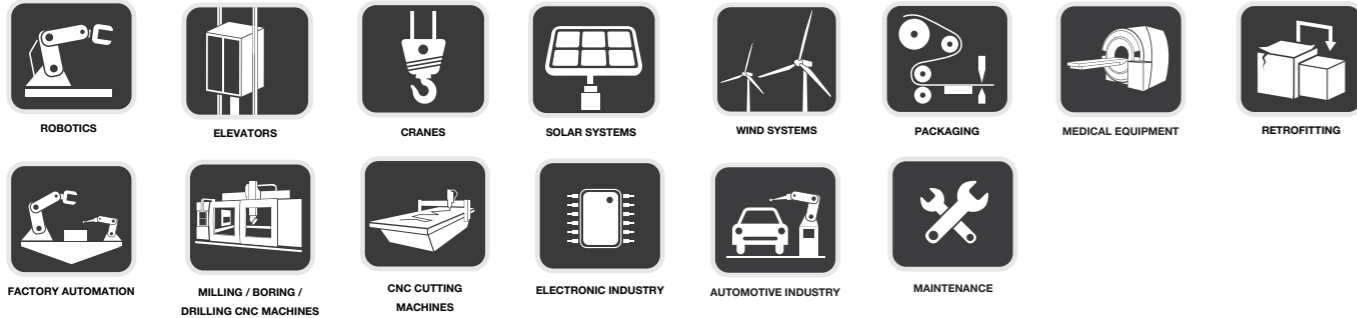
Fax.: 370 (5) 236 3609

www.precizika.lt



AP58

RECOMMENDED APPLICATIONS

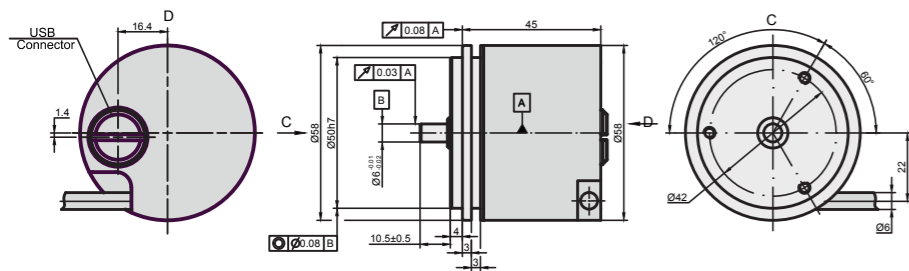


MECHANICAL DATA

Pulse number per shaft revolution	from 1 to 65536
Maximum shaft speed:	12000 rpm
Maximum shaft load:	
- axial	10 N
- radial (at shaft end)	20 N
Accuracy (T1-period of lines on disc in arc. sec.)	$\pm 0.1T_1$ arc. sec
Starting torque at 20°C	≤ 0.01 Nm
Rotor moment of inertia	< 15 gcm
Protection (IEC 529)	IP64

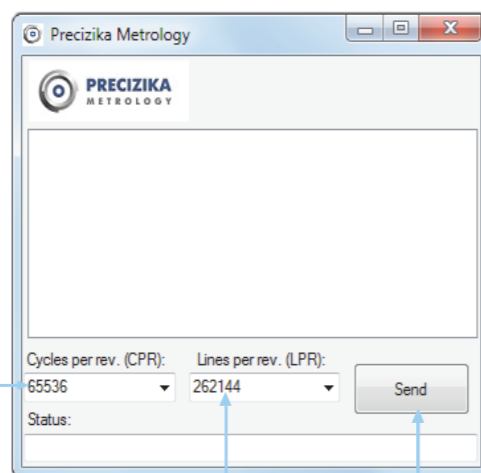
Maximum weight without cable	0.25 kg
Operating temperature	-10...+70 °C
Storage temperature	-30...+80 °C
Maximum humidity (non-condensing)	98 %
Permissible vibration (55 to 2000 Hz)	≤ 100 m/s ²
Permissible shock (11 ms)	≤ 1000 m/s ²

AP58



Encoder type	L1	Other dimensions
A58M	45 mm	See A58 series data sheet
A58B	48,5 mm	See A58 series data sheet
A58C	51 mm	See A58 series data sheet
A58C2	48,5 mm	See A58 series data sheet
A58C3	54 mm	See A58 series data sheet
A58D	41,5 mm	See A58 series data sheet

SOFTWARE



Number of Cycles Per Revolution (CPR) in the drop-down menu

Cycles per rev. (CPR): 65536
Lines per rev. (LPR): 262144

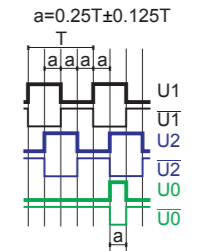
Number of Lines Per Revolution (LPR) in the drop-down menu

Program the encoder according to desired parameters

Download official software at Precizika Metrology website.

ELECTRICAL DATA

Version	AP58-F TTL; HTL
Supply voltage (U_p)	+5 V $\pm 5\%$; +(10 to 30) V
Max. supply current (without load)	120 mA
Light source	LED
Incremental signals	Differential square-wave $U1/U1$ and $U2/U2$. Signal levels at 20 mA load current: - low (logic "0") ≤ 0.5 V at $U_p=+5$ V - low (logic "0") ≤ 1.5 V at $U_p=10$ to 30 V - high (logic "1") ≥ 2.4 V at $U_p=+5$ V - high (logic "1") $\geq (U_p-2)$ V at $U_p=10$ to 30 V
Reference signal	One differential square-wave $U0/U0$ per revolution.
Direction of signals	$U2$ lags $U1$ for clockwise rotation (viewed from shaft side) < 0.5 μ s
Maximum rise and fall time	< 2 MHz
Maximum operating frequency (depends on pulse number per revolution)	1 m, without connector
Standard cable length · Maximum cable length	25 m



Note:

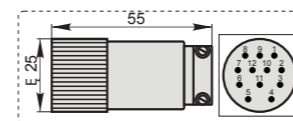
- Maximum working rotation speed (with proper encoder counting) is limited by maximum operating frequency and maximum mechanical rotation speed.
- If cable extension is used, power supply conductor cross-section should not be smaller than 0.5 mm².

ACCESSORIES

Connectors

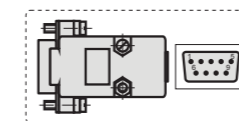
C12

12-pin round connector



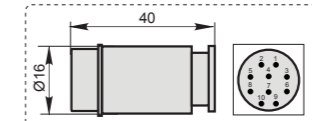
D9

9-pin flat connector



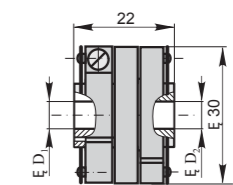
RS10

10-pin round connector



Coupling

SC30



D ₁	D ₂
E 4H7, E 5H7 E 6H7,	
E 8H7, E 10H7, E 1/4 ² ,	
E 5/16 ² , E 3/8 ²	

ORDER FORM

AP58X - XXXXXX - XX X - XXX / X - X

TYPE:	PULSE NUMBER PER REVOLUTION:	SUPPLY VOLTAGE:	CABLE LENGTH:	CONNECTOR TYPE:	COUPLING:
M - A58 B - A58B C - A58C C2 - A58C2 C3 - A58C3 D - A58D	1...65536	05V - +5V 30V - +(10 to 30) V* <small>*only for AP58M with HTL output</small>	AR 01 - 1m AR 02 - 2m AR 03 - 3m ...	W - without connector D9 - flat, 9 pins C12 - round, 12 pins RS 10 - round, 10 pins	0 - without coupling 1 - with coupling

ORDER EXAMPLES: AP58-1024-05V-AR01/W-0;
AP58B-2500-05V-AR03/W-1;
AP58-16384-30V-AR01/W-1