

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).



Žirmūnų str. 139, LT-09120 Vilnius, Lithuania

sales@precizika.lt

Tel.: +370 (5) 236 3683

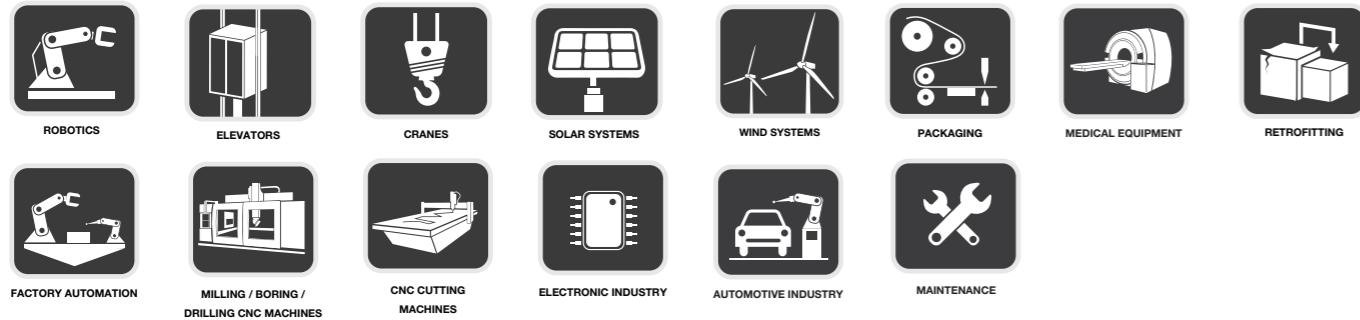
Fax.: 370 (5) 236 3609

www.precizika.lt



AP58

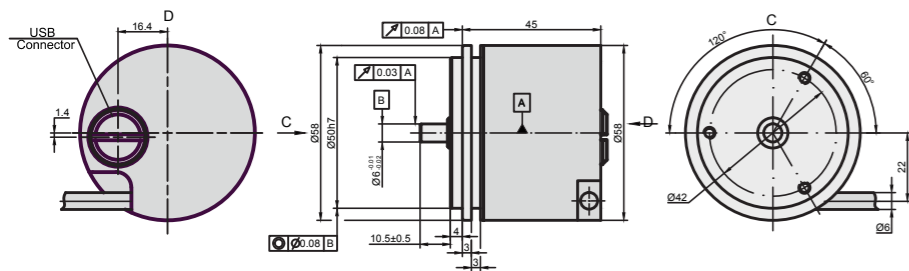
RECOMMENDED APPLICATIONS



MECHANICAL DATA

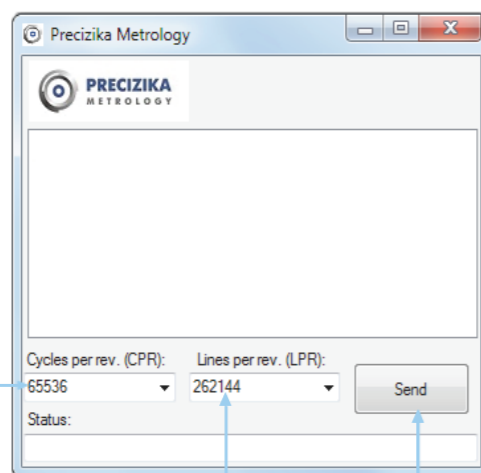
Pulse number per shaft revolution	from 1 to 65536	Maximum weight without cable	0.25 kg
Maximum shaft speed:	12000 rpm	Operating temperature	-10...+70 °C
Maximum shaft load:		Storage temperature	-30...+80 °C
- axial	10 N	Maximum humidity (non-condensing)	98 %
- radial (at shaft end)	20 N	Permissible vibration (55 to 2000 Hz)	≤ 100 m/s ²
Accuracy (T1-period of lines on disc in arc. sec.)	±0.1T, arc. sec	Permissible shock (11 ms)	≤ 1000 m/s ²
Starting torque at 20°C	≤ 0.01 Nm		
Rotor moment of inertia	< 15 gcm		
Protection (IEC 529)	IP64		

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

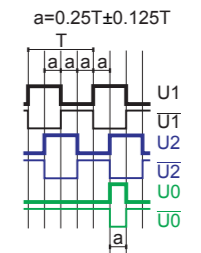
Download official software at Precizika Metrology website.

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

Program the encoder according to desired parameters

ELECTRICAL DATA

Version	AP58-F TTL; HTL
· Supply voltage (U _p)	+5 V ±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") ≥ (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 μs
· 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	Coupling								
C12 12-pin round connector	D9 9-pin flat connector	RS10 10-pin round connector	SC30						
			<table border="1"> <thead> <tr> <th>D₁</th> <th>D₂</th> </tr> </thead> <tbody> <tr> <td>⌀ 4H7, ⌀ 5H7, ⌀ 6H7,</td> <td>⌀ 8H7, ⌀ 10H7, ⌀ 1/4",</td> </tr> <tr> <td>⌀ 5/16", ⌀ 3/8"</td> <td></td> </tr> </tbody> </table>	D ₁	D ₂	⌀ 4H7, ⌀ 5H7, ⌀ 6H7,	⌀ 8H7, ⌀ 10H7, ⌀ 1/4",	⌀ 5/16", ⌀ 3/8"	
D ₁	D ₂								
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⌀ 5/16", ⌀ 3/8"									

ORDER FORM

AP58X	XXXXXX	XXX 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