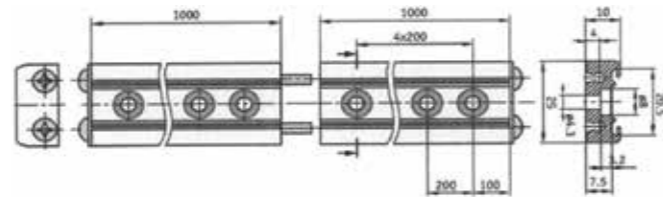


## PROFILE RAIL PS

Length of one module (standard)	1 m
Length	1 ... 50 m (pitch 1 m)
Width and height	25x10 mm
Material	aluminium

Profile rail PS with protective band SB is used for support of magnetic band with width 10 mm. Profile rail is easy mounted and has not adhesive joints. The lengths of more than 1 m are obtained by joining together several rail modules.

**Warning:** To get the best accuracy distance d must be the lowest possible (in the indicated range)



## PROTECTIVE BAND SB

Length (standard)	1 m
Length	profile rail + 36 mm
Adhesive tape	not required with PS
Material	stainless steel

## MAGNETIC BAND MODIFICATIONS

MAGNETIC BAND	MP100	MP200/MP200Z	MP500/MP500Z
Pole pitch	1+1 mm	2+2 mm	5+5 mm
Reference mark position	-	on request from left or right at pitches of 4 mm or multiples	on request from left or right at pitches of 10 mm or multiples
	<i>Note: With MP100 magnetic band, it is not possible to use any protective cover (CV or SF)</i>	<i>Note: Magnetic band MP200Z is used only with reading head xMTxxxxZ</i>	<i>Note: Magnetic band MP500Z is used only with reading head xMTxxxxZ</i>

## COLOR OF CABLE WIRES AND OUTPUT SIGNALS

	PCMT-F	PCMT-AV
Green	U1	A
White	U2	B
Red	(5...28)V	(5...28)V
Blue	0V	0V
Brown	U0	R
Orange	U1	Ȧ
Light-blue	U2	Ḃ
Yellow	U0	R
Shield	Shield	Shield

$a=0,25T \pm 0,125T$

360° el  
90° el  
360° el

A and B amplitude 0,6 V...1,2 V (~ 1V)  
R amplitude 0,25...0,6V (useful part)  
A and B phase shift 90° ± 10° el.  
Reference voltage U0 2,5 V  
Amplitudes of signals are referred to measurement made with 120 Ω impedance and power supply voltage of reading head 5V±5%.

## ACCESSORIES

<b>CONNECTORS FOR CABLE</b>	B12 12-pin round connector	C12 12-pin round connector	D9 9-pin flat connector	D15 15-pin flat connector	RS10 10-pin round connector	ONC 10-pin round connector
<b>DIGITAL READOUT DEVICES</b>	CS3000		CS5500			

## ORDER FORM

PCMT X - XXXX - X - XX / XX - XX / XX - X - XX / XXX

READING HEAD VERSION:	OUTPUT SIGNALS AND RESOLUTION:	REFERENCE MARKS:	MAGNETIC BAND:	PROTECTIVE STEEL COVER:	OR ALUMINIUM PROTECTIVE SUPPORT:	EXTERNAL REFERENCE MARK ACTUATOR SME:	CABLE LENGTH:	CONNECTOR TYPE:
P - PCMTF M - PCMTM H - PCMTH	AV - sine wave F05 - 0,5µm F10 - 1µm F50 - 5µm F100 - 10µm F250 - 25µm F500 - 50µm F1000 - 100µm F5000 - 500µm F10000 - 1000µm	C - standard, without reference mark; E - with external reference mark actuator; Z/L - made on magnetic band by order at any place. L - distance in mm from begin of ML	MP100/01 - 1m ... MP200/01 - 1m ... MP200Z/01 - 1m ... MP500/01 - 1m ... (20m max for MP500)	W - without PS CV/01 - 1m CV/02 - 2m CV/03 - 3m ...	W - without PS PS/01 - 1m PS/02 - 2m PS/03 - 3m ...	0 - without SME 1 - with SME	01 - 1m 02 - 2m 03 - 3m ...	W - without connector B12 - round, 12 pins C12 - round, 12 pins D9 - flat, 9 pins D15 - flat, 15 pins RS10 - round, 10 pins ONC - round, 10 pins

ORDER EXAMPLE: 1) PCMTH-F50-C-MP100/01-0-02/W

## 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.

# PCMT-F

MAGNETIC LINEAR ENCODER



The encoder is used to convert linear displacements of key machine components into electrical signals containing information about the value and direction of the displacement. The encoder is intended to use in particular heavy conditions. It is protected against products of technological processes and mechanical actions. Encoder consists of metal based magnetic band MP, reading head and profile rail PS with protective band. The length of magnetic band could be up to 50 m (MP500 up to 20 m). Encoder could be supplied with external zero signal actuator (magnet), which allows usage one of many reference marks made on magnetic band. Zero signal actuator is not necessary if the magnetic band with reference marks made according customer requirements (MP200Z) is used. The reading head has LED, which indicates the reference mark passage through head. In encoder PCMT the compressed air (P = 600 kPa) is blown into case of head to clean the rail surface from small fragments. Two versions of output signals are available:

- PCMT-F - Square-wave signals, with integrated subdividing electronics for interpolation.
- PCMT-AV - Sinusoidal signals, with amplitude approx. 1 Vpp, which require external subdividing electronics.



Žirmūnų str. 139, LT-09120 Vilnius, Lithuania

sales@precizika.lt

Tel.: +370 (5) 236 3683

Fax.: 370 (5) 236 3609

www.precizika.lt

