



CONDOR™

The One-Box-Solution

Controller Solutions for multi-sensor CMMs



CONDOR™

The CONDOR™ product family offers a comprehensive package of controllers for all kinds of multi-sensor CMMs and applications. Whether for machine builders or retrofitters, the CONDOR™ controller family stands for an integrated one-box solution consisting of either 3 or 4 main axes, 2 secondary axes and LED driver for 20 independent, individually programmable and dimmable LED sectors. This results in fewer cable connections, compactness and plug& play installation, while still offering the highest speed, exceptional machine throughput and accurate results. 20 years of experience in metrology and some 15,000 Pantec-controlled CMMs installed worldwide mean a very high level of a secure investment, and assure you of maximum benefits.

CONDOR™ basic



CONDOR™ pro series



CONDOR™ basic

Reduced to the max. Pantec's CONDOR™ basic fulfills the requirements of medium profile, multi-sensor CMMs, focusing on touch trigger probe applications and optical systems at the highest performance level. Equipped with three main and two secondary axes, interfaces to all established CMM softwares, LED drivers and integrated power supply, all in a space saving slim housing, CONDOR™ basic is the choice for standard applications. All CONDOR™ controllers are available for 115 or 230 V input voltage.

CONDOR™ pro series

CONDOR™ pro/3 The CONDOR™ pro series are high-end controller systems with very high flexibility, unlimited measuring volume and additional RS232 interface.

CONDOR™ pro/3Scan The addition of a scan option board extends this controller's functionality to scan applications.

CONDOR™ pro/4 Equipped with a fourth main axis for all machine types, CONDOR™ pro /4 is the ideal solution for complex metrology applications.

CONDOR™ pro/4Scan The addition of a scan option board extends this controller's functionality to scan applications.

APPLICATIONS AND HIGHLIGHTS

PLUG AND PLAY DEVICE

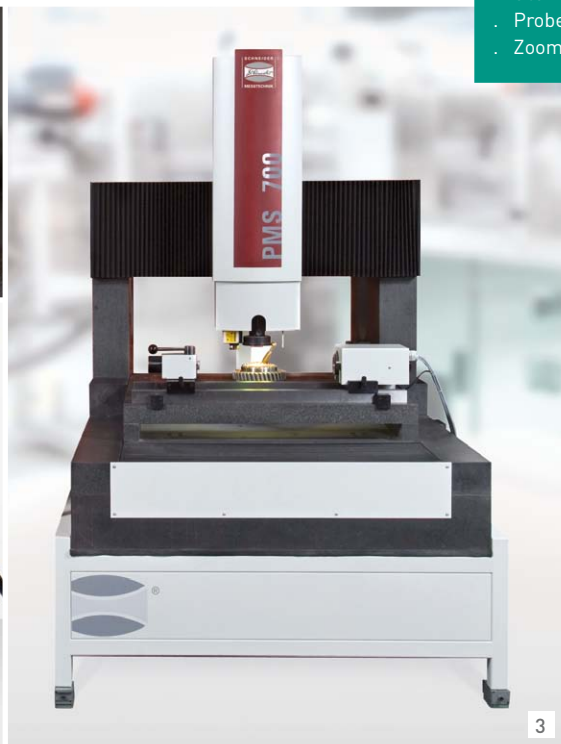
The plug-and-play design of the controller gives immediate installation capability without needing any preparations. Just plug in, tune and measure. This also greatly reduces service effort.

EASY TO TUNE

The Pantec Support Tool with integrated Wizard makes machine tuning delightfully fast and easy, and ensures optimum handling. Guided processes, dynamic adaption of system parameters, and menu-guided operation result in higher operating safety. The Pantec Support Tool is easily upgradable and provides continuous performance improvement to meet evolving requirements.

APPLICATIONS

- Rotary Table (1)
- LED Ring (2)
- Multisensor (3)
- Scanning Probe (4)
- Probehead (5)
- Zoom (6)



WORKS WITH ANY SYSTEM, HIGHLY VERSATILE

CONDOR™ controls any kind of multi-sensor CMMs. The variety of applications is almost limitless - rotary table, probe head, scanning probe, zoom, LED ring and illumination. CONDOR™ is compatible with almost any software and drivers. It supports established touch trigger probes, laser scanning systems, motor types and many scanning and probe head interfaces.

OUTSTANDING REPEATABILITY, REPRODUCIBILITY AND HIGH SPEED

The high-end DSP technology ensures perfectly smooth machine movements and a very high sampling rate for reproducible, repeatable and accurate results at extraordinary speed. The fully digital T-Bus™ temperature monitoring, incorporated Geometric Error Compensation and sub-count interpolation for increased position resolution leave nothing to be desired.

OPERATING UNITS

EAGLE™ Pad

- . Robust and reliable
- . Economical standard solution
- . Proven technology
- . Ergonomic design, intuitive operation



SmartPad™

- . Openly programmable
- . Wireless connection
- . Touchscreen with all important information at a glance



The EAGLE™ Pad and SmartPad™ operating units are intended for use with the entire Pantec controller range. Enclosed in a rugged yet lightweight housing, these operating units offer exceptional performance, ergonomic design and high functionality – even under challenging operating conditions like the shop floor.

EAGLE™ Pad – hand terminal for CMMs

Unquestionably in Command. With the robust and reliable EAGLE™ Pad units. With its proven technology, ergonomic design and intuitive operation, EAGLE™ Pad is the economical standard solution for CMM operations.

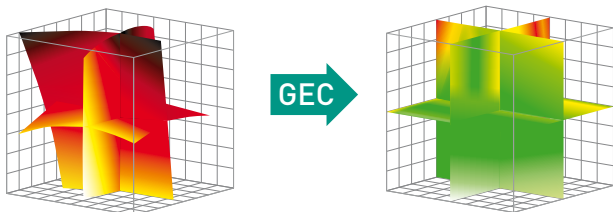
SmartPad™ – remote control for CMMs

In Command. Easily. With the new SmartPad™ units from Pantec. These devices provide multi-functional and comprehensive CMM operation with user-friendly wireless connection. Thanks to the open programmability of the SmartPad™ you can program the user interface, functions and interactions with the CMM software to meet your individual needs. The capacitive 4.3" color LCD display shows all information at a glance, and features single touch technology that ensures smooth and easy operation, even with gloves on. With optimal functionality, SmartPad™ ensures ideal measurement processes.

CONDOR™ TECHNICAL DATA

	CONDOR™ basic	CONDOR™ pro/3	CONDOR™ pro/3 Scan	CONDOR™ pro/4	CONDOR™ pro/4 Scan
General Specifications					
▪ Configured for direct CNC controlled CMMs	✓	✓	✓	✓	✓
▪ Number of CMM axes controlled	3+2	3+2	3+2	4+2	4+2
▪ Communications link with PC	Ethernet	Ethernet and RS232	Ethernet and RS232	Ethernet and RS232	Ethernet and RS232
▪ Software integration	EAGLE.driver	EAGLE.driver	EAGLE.driver	EAGLE.driver	EAGLE.driver
▪ Integrated motor power supply	✓	✓	✓	✓	✓
▪ Touch-trigger probing function	✓	✓	✓	✓	✓
▪ TP200 interface	✓	✓	✓	✓	✓
▪ Measurement volume	X + Y = 3800 mm and Z = 800mm	unlimited	unlimited	unlimited	unlimited
▪ Pantec Support Tool	✓	✓	✓	✓	✓
▪ Emergency stop	✓	✓, extended	✓, extended	✓, extended	✓, extended
▪ Temperature sensor inputs (T-Bus™)	-	16	16	16	16
▪ SP600 interface	-	-	✓	-	✓
▪ SP25M interface	-	-	✓	-	✓
▪ SP80 interface	-	-	✓	-	✓
▪ Geometric Error Compensation	✓	✓	✓	✓	✓
Main Axis					
▪ Number of main axis	3	3	4	4	4
▪ Drive power	4 A / 60V	5 A / 60V	5 A / 60V	5 A / 60V	5 A / 60V
▪ Digital scale input RS422	✓	✓	✓	✓	✓
▪ Feedback	Encoder/Tachometer	Encoder/Tachometer	Encoder/Tachometer	Encoder/Tachometer	Encoder/Tachometer
▪ Motor Types	DC-Brush	DC-Brush	DC-Brush	DC-Brush	DC-Brush
Secondary Axis					
▪ Number of secondary axis	2	2	2	2	2
▪ Drive power	2 A / 24V	2 A / 24V	2 A / 24V	2 A / 24V	2 A / 24V
▪ Feedback	Encoder/ Tachometer/Hall	Encoder/ Tachometer/Hall	Encoder/ Tachometer/Hall	Encoder/ Tachometer/Hall	Encoder/ Tachometer/Hall
▪ Motor types	DC-Brush/ Brushless/Stepper	DC-Brush/ Brushless/Stepper	DC-Brush/ Brushless/Stepper	DC-Brush/ Brushless/Stepper	DC-Brush/ Brushless/Stepper
LED Driver					
▪ Number of mid current LED	16	16	16	16	16
▪ Number of high current LED	4	4	4	4	4
▪ Total LED power	20 W	20 W	20 W	20 W	20W
Electrical Data					
▪ Nominal input power	550 VA	550 VA	550 VA	550 VA	550 VA
▪ Input voltage	115 VAC / 230 VAC	115 VAC / 230 VAC	115 VAC / 230 VAC	115 VAC / 230 VAC	115 VAC / 230 VAC
Physical Data					
▪ Dimension (L x H x D)	490 x 100 x 380 mm	490 x 135 x 380 mm	490 x 135 x 380 mm	490 x 135 x 380 mm	490 x 135 x 380 mm
▪ Weight	11 kg	20 kg	20 kg	20 kg	20 kg
▪ Rack mounting	19"	19"	19"	19"	19"

GEOMETRIC ERROR COMPENSATION (GEC)



GEC involves the compensation of inherent geometric and thermal errors of CMMs. To actively maintain CMM accuracy,

GEC adds dynamic temperature monitoring and compensation into the Pantec controller. For convenience and ease of use, the entire compensation procedure is done through the Pantec Support Tool tuning and analysis software. The GEC Wizard incorporates the calibration laser and the machine type to add optimum flexibility in error capture, correction, and validation of results. An efficient design with minimal clicks offers a high level of operational convenience, while ensuring that the 21 or 23 parameterized compensation values cover virtually all possible scenarios. Understanding the importance of this feature, Pantec has chosen to include and standardize the GEC software package as an added-value benefit of the EAGLE™ controller.

PRODUCT RANGE

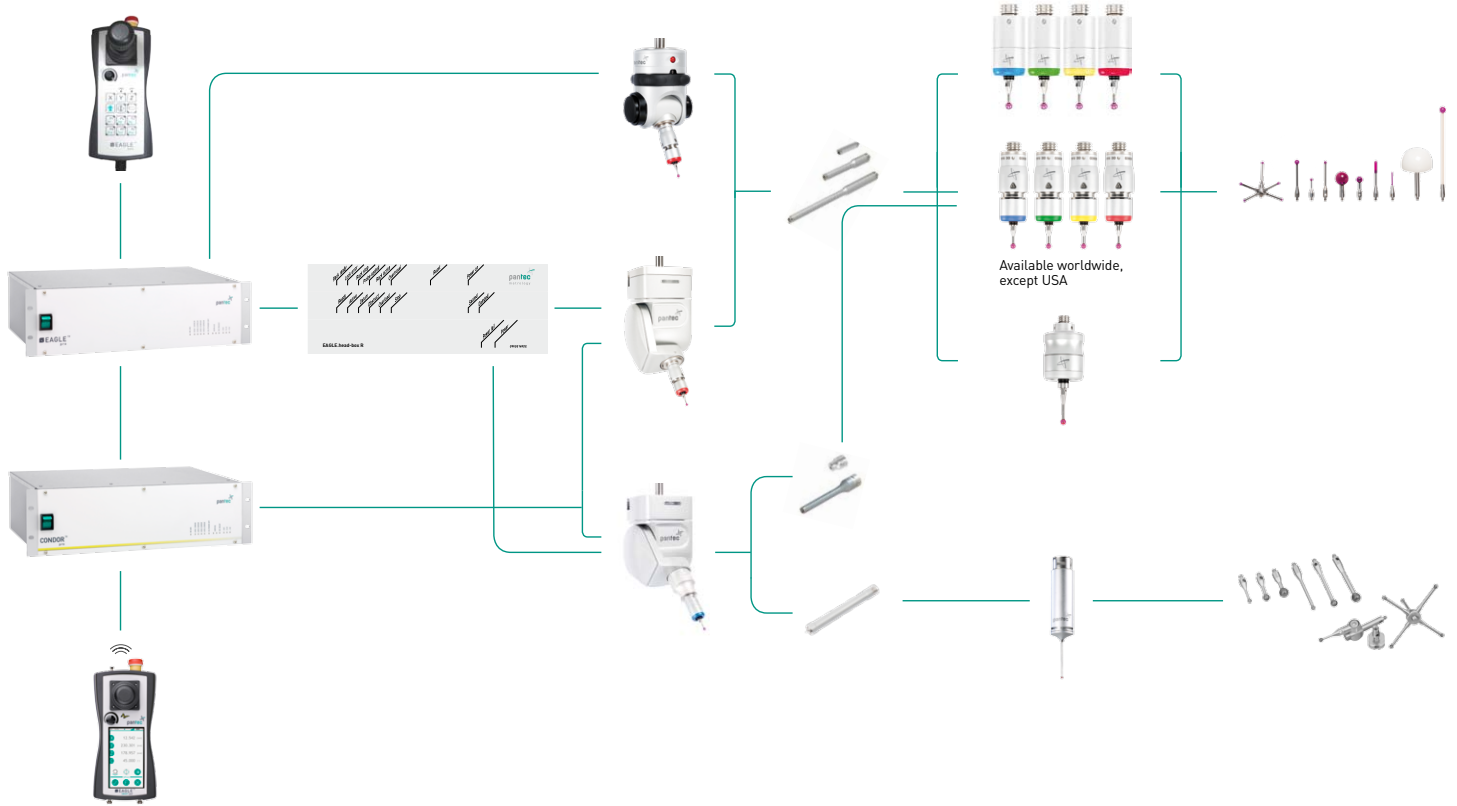
Controller
Hand Terminals

Probeheads M8/PKJ

Extensions

Bodies

Styli



Pantec Metrology, located in Ruggell, Liechtenstein, develops technologies that make CMM and vision systems more competitive. With an installed base of more than 12,000 CMM controllers worldwide, the company plays a leading role in the field of CMM machine control. Pantec Metrology is a Business Unit of Pantec Engineering AG.

Pantec Engineering AG provides solutions in automation and mechatronics for the mechanical engineering and medical device industries worldwide. Through its rigorous focus on niche strategies and high degree of service orientation, the company has become a world leader in its five primary markets.

HQ/International
Pantec Engineering AG
Industriering 21
9491 Ruggell
Principality of Liechtenstein
Phone +423 377 13 33
Fax +423 377 13 34

Germany
Pantec GmbH
Siemensstraße 12
63755 Alzenau
Germany
Phone +49 60 23 320 03 89
Mobile +49 170 320 70 49

China
Pantec (Shanghai) Co., Ltd.
128 Shenfu Road; Building Nr. 18
Xinzhuang, Industry Park
201108 Shanghai, China
Phone +86 21 517 60 282
Fax +86 21 517 60 281

Switzerland
Pantec GS Systems AG
Heldswilerstrasse 13
9214 Kradolf
Switzerland
Phone +41 71 644 98 98
Fax +41 71 644 98 99

info@pantec.com
www.pantec-metrology.com

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