P3DME

FLEXIBLE POST-PROCESS MEASUREMENT SYSTEM

MARPOSS

Description

Increased production and real-time quality control are key elements of any industrial process. The **P3Dme** electronic amplifiers connected to the Marposs measurement heads represent a flexible, practical and reliable solution for checking parts immediately after they have been worked.

P3Dme units enable users to check the state of the machining process and provide immediate compensation information to the machine tool. **P3Dme** is a very compact gauge, equipped with a cover lens touch screen, that can be easily installed on the machine or a dedicated measurement bench. The new user interface has been designed to be intuitive and user friendly in order simplify the day-to-day production operations.

P3Dme and Marposs measurement heads have been designed for use in working environments in contact with coolants and other aggressive coolants.

Benefits

- Guarantees that the processed parts are within the production tolerance limits
- Optimizes the cycle times
- Enables the machine tool compensation
- Immediate return on investment through increased productivity
- Possible interface with various industrial protocols
- Easy integration with the machine PC

Typical applications

- Post-process measurements on smooth and grooved parts
- Through-feed measurements (centerless or dual disc grinders)
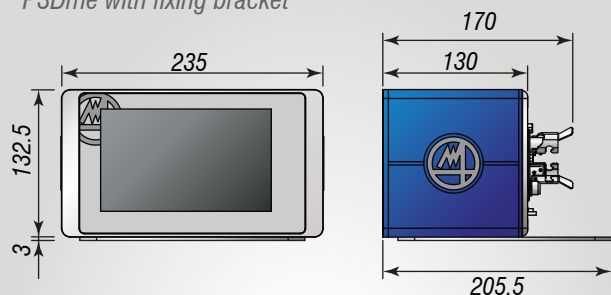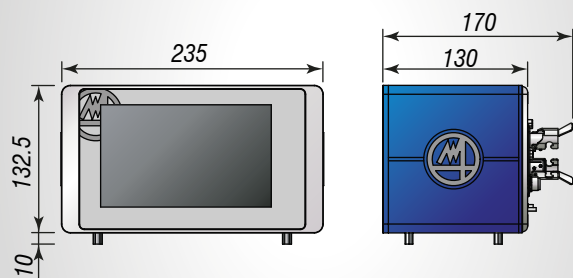- Upgrading of E3M applications

P3Dme units

Flexible, user-friendly and sturdy. These are the intrinsic features of P3Dme. The unit can be installed outside on the machine tool or integrated into a PC via dedicated Human Interface.
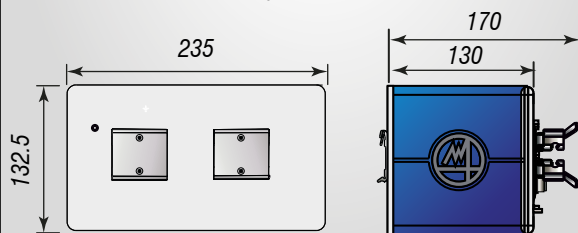

P3Dme with fixing bracket

235 · 132.5 · 3 · 170 · 130 · 205.5

P3Dme Stand Alone

235 · 132.5 · 10 · 170 · 130

P3Dme with Remote Panel

235 · 132.5 · 170 · 130

STRUCTURE	Stand alone or with remote panel
DISPLAY	7" (800 × 480) capacitive LCD
CHANNELS	2 or 4 channels *connect Marposs LVTD or HBT type heads*
OPTIONAL CHANNEL	Analogue current (4-20 mA) or voltage (±10 V DC) channel
MEASURING CYCLES	• Post-process • Centerless/Double Disk • Bars • Grooved parts
MEASUREMENT RANGE	Depending on the type of connected head: ±250 μm, ±500 μm, ±1000 μm, ±2000 μm Wide range (25.4 mm)
OPTIONS	Machine compensation Data log Pin-to-pin upgrade of E3μ «Human interface» for machine PC
POWER CONSUMPTION	Maximum 20 W without retraction option Maximum 75 W with retraction option
MACHINE LOGIC INTERFACE	24 Vdc opto-isolated (Sink, Source) I/O Profibus DP - Profinet Sercos III - Ethernet IP EterCAT - Others on request
PROTECTION DEGREE *(Standard IEC 60529)*	IP54 (front panel) IP40 (rear panel)
WEIGHT	approx. 2.7 kg
WORKING TEMPERATURE	5÷45 °C (41÷113 °F)
STORAGE TEMPERATURE	-20÷70 °C (-4÷158 °F)
ELECTRIC SAFETY STANDARDS	EN 61010-1
EMC STANDARDS	EN 61326-1

Front
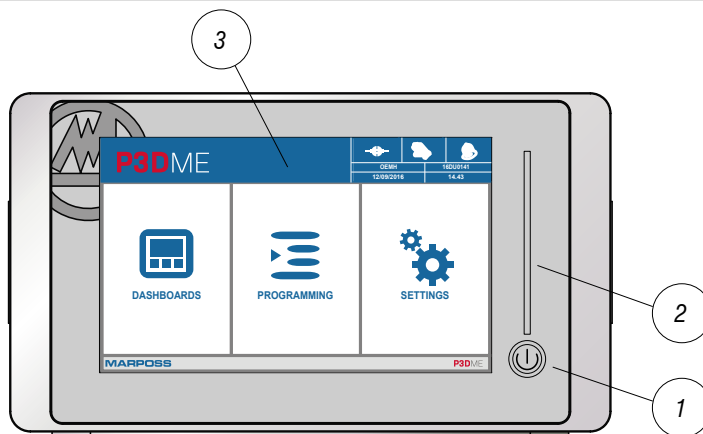
1	ON/OFF switch
2	LED status bar
3	7" touch-screen panel - user interface

Back
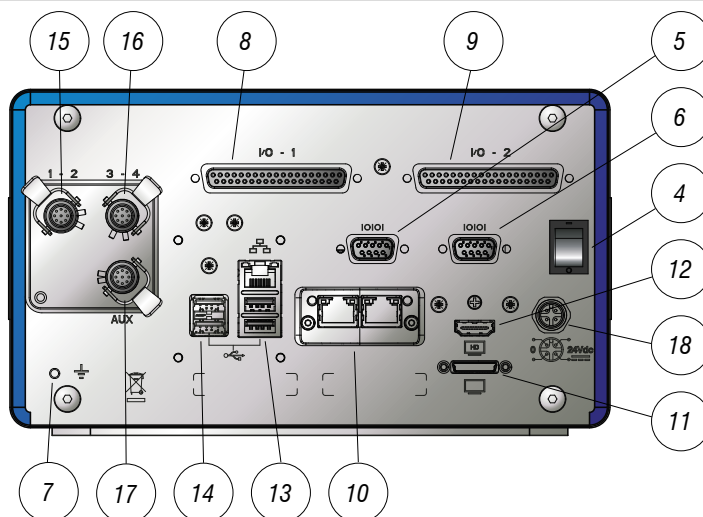
	Connector	Function
4	ON/OFF	ON/OFF switch
5	RS232 (lh)	Reserved
6	Serial Port (rh)	RS232 or RS485
7		Functional earth stud (M4 stud)
8	I/O - 1	Cannon 37 pin opto-isolated 24 Vdc connector
9	I/O - 2	Cannon 37 pin opto-isolated 24 Vdc connector
10	FIELDBUS	Connection to fieldbus I/O
11	Panel	Remote panel
12	HDMI	Reserved

	Connector	Function
13	NET 10/100	Ethernet HOST 10/100 Mbps via RJ45 connector
14	USB	USB connection ports N. 4 ports, Type A connector, 2.0 HS, Imax. = 500 mA, speed 480 M/bits/s, max. length of connection cable = 4.5 m
15	1 - 2	Head connector (1-2 transducers)
16	3 - 4	Head connector (3-4 transducers)
17	AUX	Analogue current (4-20 mA) or voltage ($\pm$10 V DC) input connector
18	M12	Power supply SELV type 24 V dc (-15% / +20%)