





- ULTRA HIGH SENSITIVITY to all magnetic and non-magnetic metals, including stainless steel
- HIGH PRECISION ZONING with 300 mm step
- WIDE DETECTION SPEED RANGE: from 1 up to 1500 m/min
- DURABLE DETECTION SURFACE
- **COMPLETE CONNECTION** to data recording systems (external vision inspection devices)
- INTERNAL DATA LOGGING with data and timestamp for Quality Control
- **COMPACT** and **ROBUST CONSTRUCTION**
- Very high electrical and mechanical IMMUNITY
- Remote display and keyboard unit available (RCU)
- **CONTINUOUS AUTOTEST** on each individual zone
- Automatic measurement of the INSTALLATION QUALITY and ENVIRONMENTAL COMPATIBILITY
- WIDE OPERATING TEMPERATURE RANGE



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Quality control at its finest

MULTI-ZONE INDICATION OF METAL FRAGMENTS POSITION

NEW

BENEFITS

- QUALITY CONTROL
- **PROTECTION OF** MACHINERY
- MINIMUM PRODUCT REJECT

APPLICATIONS

- PAPER AND BOARD
- **TEXTILE AND GARMENT**
- PLASTICS AND RUBBER
- RECYCLING
- NON WOVEN
- FIBER GLASS FILM

CEIA TE/MTZ detector is a new member of the CEIA family of textile industrial detectors

which combines and enhances the exceptional performance of the TE model with the ability to identify and signal, with a 300 mm pitch, the transit zone of the contaminating metal.

The new detector **complies with the requirements of Industry 4.0**, allowing the increase of the plant productivity and the improvement of the product quality.

CEIA TEXTILE QUALITY CONTROL

CEIA began the design and production of solid state metal detectors for textile machinery protection right from its foundation, in the 1960s, offering since then top performances in terms of sensitivity and immunity to environmental interference. To date, tens of thousands of CEIA TE devices, installed all over the world, protect textile machineries from possible damage caused by the presence of metal contaminants, with uninterrupted reliability and constant performance.

Metal fragments, in the form of small objects, such as pins, needles, or staples, accidentally present in the fabric in the various processing phases, can cause scratches, dents, or gouges in the machinery, for instance on the calenders roller surfaces, leading to compromised fabric quality and permanent damage. In these cases, the loss of production and the repair operations involve significant costs.

By utilizing CEIA metal detectors, textile manufacturers can safeguard their machinery from metal contamination. CEIA TE detectors enable early detection of the metal contaminants and automatic shutdown of the machine, halting the roller rotation to prevent further contact with the metal object. This not only protects the machinery but also ensures fabric quality and uninterrupted operation of the textile production process.

CEIA TE/MTZ

CEIA TE/MTZ detector is a new member of the CEIA family of textile industrial detectors which combines and enhances the exceptional performance of the TE model with the ability to identify and signal, with a 300 mm pitch, the transit zone of the contaminating metal.

The detection area covers the entire fabric width and the **process transit speed spans from 1 to 1500 m/min**. Each section of the TE/MTZ detector is independent from the others and corresponds, in itself, to a complete enhanced single-zone TE detector.

The new detector complies with the requirements of Industry 4.0, allowing the increase of the plant productivity and the improvement of the product quality. To this end, it is equipped with data logging capabilities and communication with external production PLCs and IT systems.

The TE/MTZ detector is **available in several versions, with sensitive area width spanning from 1300 mm to 4500 mm**. The power system allows input voltages between 100V and 240V, adapting to all worldwide electrical distribution standards.



TE/MTZ	OVERALL	DIMENSIONS	(mm)
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MODEL	SENSITIVE LENGTH	CENTRAL INSTALLATION BRACKETS	CFW DISTANCE (mm)	ALARM ZONES
TE/MTZ- 1300	1300 mm	none	-	4
TE/MTZ -1500	1500 mm	none	-	5
TE/MTZ -1700	1700 mm	none	-	6
TE/MTZ -1900	1900 mm	none	-	6
TE/MTZ- 2100	2100 mm	none	-	7
TE/MTZ-2300	2300 mm	none	-	8
TE/MTZ -2500	2500 mm	none	-	8
TE/MTZ- 2700	2700 mm	none	-	9
TE/MTZ- 2900	2900 mm	none	-	10
TE/MTZ- 3100	3100 mm	1	1550±3	10
TE/MTZ- 3300	3300 mm	1	1650±3	11
TE/MTZ- 3500	3500 mm	1	1750±3	12
TE/MTZ- 3700	3700 mm	1	1850±3	12
TE/MTZ- 3900	3900 mm	1	1950±3	13
TE/MTZ- 4100	4100 mm	1	2050±3	14
TE/MTZ-4300	4300 mm	2	1433±3	14
TE/MTZ- 4500	4500 mm	2	1500±3	15

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CEIA reserves the right to make changes, at any moment and without notice, to the models (including programming), their accessories and options, to the prices and conditions of sale.

TE/MTZ - DIGITAL MULTI-ZONE LINEAR METAL DETECTOR ARRAY



TE/MTZ LINE STOP WIRING DIAGRAM EXAMPLE



MANAGEMENT OF ROLLS

- Start set
- End
- Data clear
- REAL TIME VISUALIZATION
 OF THE FOLLOWING ROLL DATA
 - Current Length
 - Number of Alarms on each section and zone
 - Amplitude and position of the last alarm.
- DATA REPORT CREATION FOR EACH ROLL SECTION
 - Roll Name
 - Section name
 - Roll length
 - Date and time of roll start and end
 - Position and amplitude of each alarm

24/05/23 14:24:5 Roll: 230524142443 Product: COTONE Current Length: 7461 Start Time: 14:24:43 Stop Time: --:--:-Section A Section alarms: 0 Zone 6 Alarms: Θ 1 8.7 dB 5227 Start: Lenght: 144 START END CLEAR SAVE TO USB

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COMPACT AND ROBUST CONSTRUCTION AUTOLEARN FUNCTION WIDE DETECTION SPEED RANGE -

MULTI-ZONE INDICATION OF METAL FRAGMENTS POSITION

Industrial rate designRapid data entry

steel keyboard

Easy to read, high-contrast graphic OLED display
Rugged, antivandalic stainless

DETECTOR

REMOTE CONTROL UNIT (RCU)

(Eela

CEIA offers

samples for

quality assurance testing certified

Separate control unit available
 QUALITY CONTROL SAMPLES

Cela

MODERN, RUGGED AND USER FRIENDLY PROGRAMMING

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SPECIFICATIONS

KEY FEATURES	Sensitivity area length: from 1300 mm to 4500 mm				
	Detection speed:	from 1 up to 1500 m/min			
	Detection capability:	ultra high Sensitivity to magnetic and non-magnetic metals, including stainless steel			
	Detection zones:	from 4 to 15 zones, step 300 mm			
	Immunity:	high Immunity to mechanical & electrical interferences			
	Applicable to:	all type of fabrics and materials			
SIGNALLING	Audible	Internal buzzer			
	Visual	Graphic display with bar-graph indication			
		Bright indicators on Control Panel: RED (alarm or fault) WHITE (power supply)			
		RGB indicator on each zone			
PROGRAMMING	Туре	Local: through built-in keyboard			
		Remote: wireless BT or RS232			
	Data capabilities	Internal memory: 1000 events, 20 products			
	Programming access	2 access levels: Operator and Supervisor			
INTERFACES	RS232 (2 ports) and BT wireless				
	Range of Fieldbus available as option	Ethernet/IP • Profinet • Profibus • EtherCAT Modbus-TPC • Profinet-OPC-UA			
INPUTS	Connection for	Alarm reset and Encoder input			
OUTPUTS	Solid state relay programmable 30 V 0.5A max	1 Alarm relay (on SCD board)			
		1 Ready relay (on SCD board)			
		1 Alarm relay (on SCN board)			
		15 Zone alarm relay (on SCN board)			
POWER SUPPLY	Voltage 100-240 V~ 1ph – 50/60 Hz				
(external AC/DC adapter)	Current	0.85A max			
SAFETY	Galvanic isolation of line voltage				
	Low operating voltage No danger for the operator				
	Compliant with international standards of safety and radio interference				
ENVIRONMENTA	L Temperature	Operating -10 to +50 °C			
DATA		Storage -25 to +60 °C			
		Higher product temperature on demand			
	Relative humidity	5 to 90 %, without condensation			
CERTIFICATION AND CONFORMITY	 Low Voltage (LVD) Directive 2014/35/EU EN 60204-1:2018 Safety of machinery - Electrical equipment of machines Part 1: General requirements Electromagnetic Compatibility (EMC) Directive 2014/30/EU EN 61000-6-4:2007 +EN61000-6-4:2007/A1:2011 Electromagnetic compatibility (EMC) Part 6-4: Generic standards - Emission standard for industrial environments EN 61020 - 2020 EN 61000 - 6 - 2020 Electromagnetic 				

 EN 61000-6-2:2005 + EN 61000-6-2:2005/AC:2005 Electromagnetic compatibility (EMC) -- Part 6-2: Generic standards -Immunity for industrial environments



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