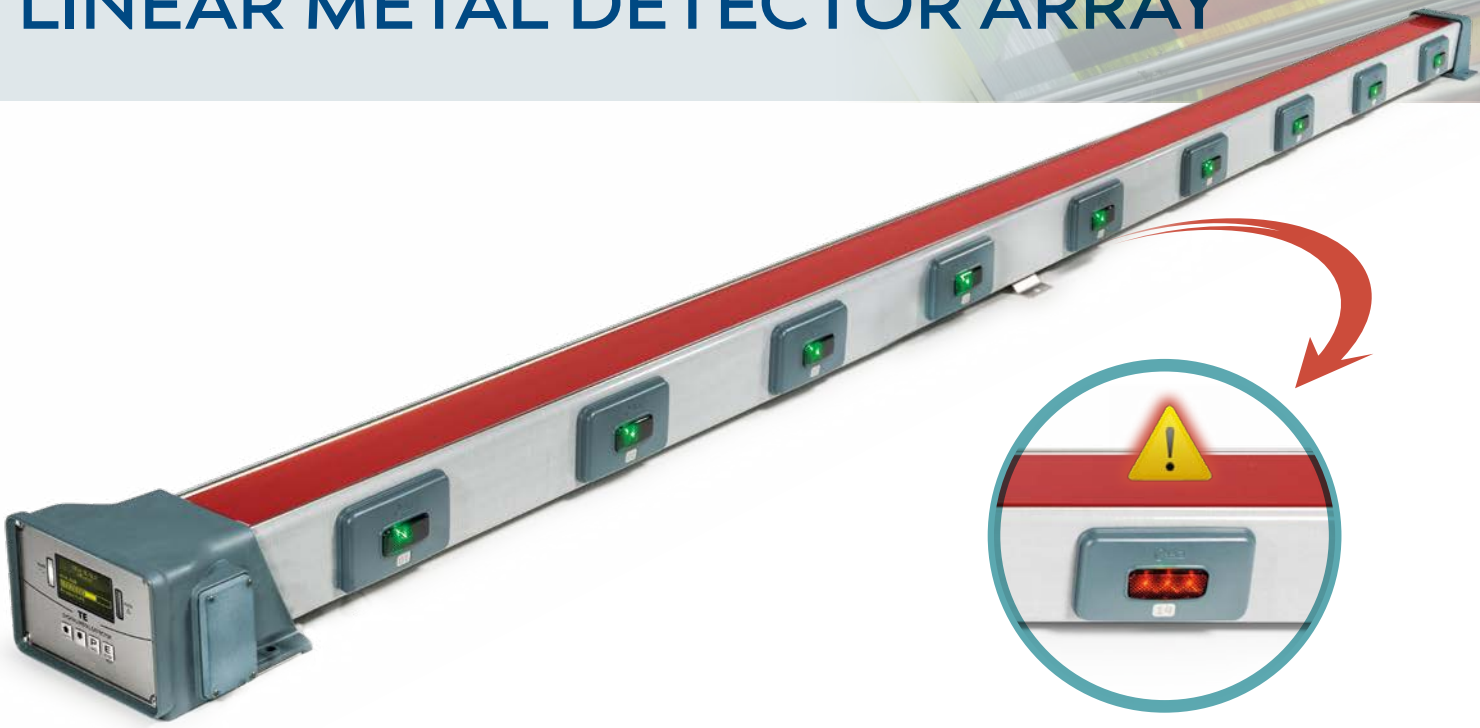
TE/MTZ

NEW

DIGITAL MULTI-ZONE LINEAR METAL DETECTOR ARRAY



- **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**

✓ **MULTI-ZONE INDICATION** OF METAL FRAGMENTS POSITION

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®

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ISO 9001 CERTIFIED

QUALITY CONTROL AT ITS FINEST

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

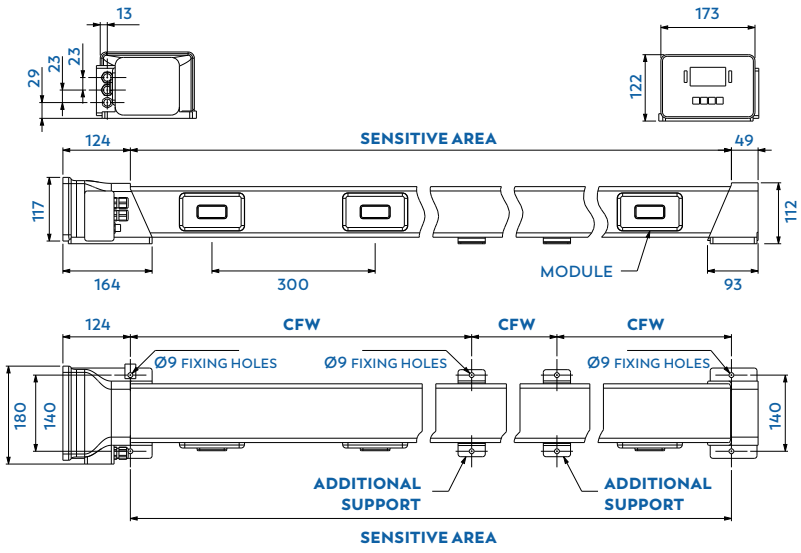
CEIA TE/MTZ detector is a new member of the CEIA family of textile industrial detectors which combines and enhances the exceptional performance of the TE model with the ability to identify and signal, with a 300 mm pitch, the transit zone of the contaminating metal.

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.

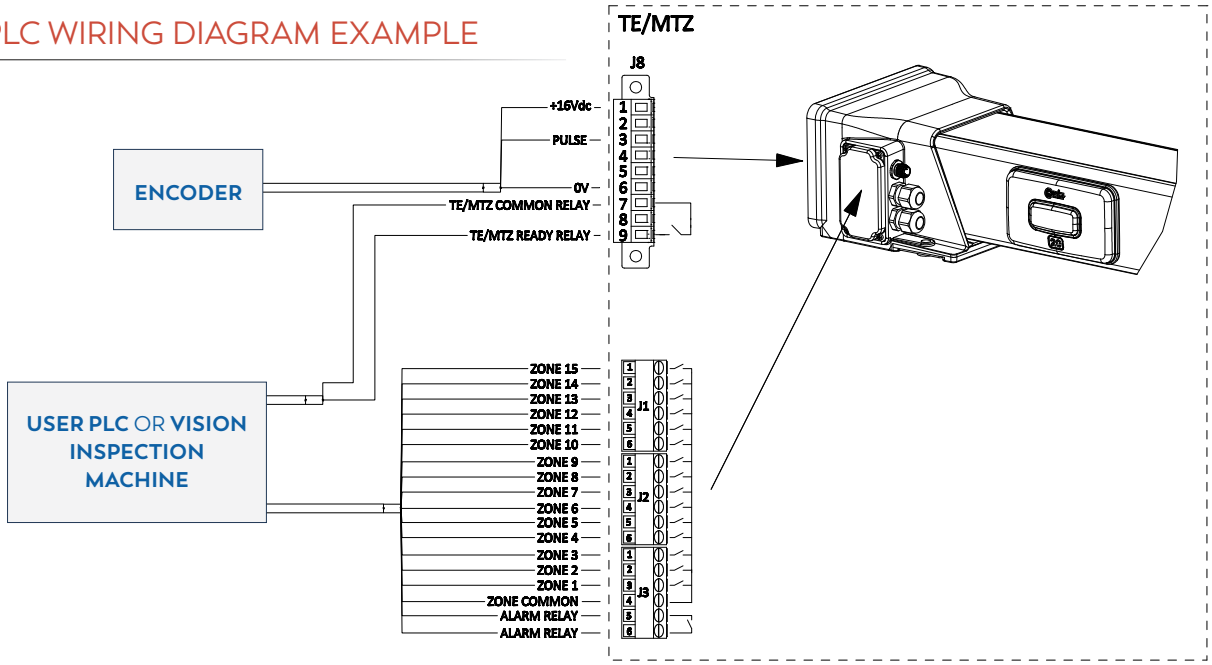
The TE/MTZ detector is **available in several versions, with sensitive area width spanning from 1300 mm to 4500 mm**. The power system allows input voltages between 100V and 240V, adapting to all worldwide electrical distribution standards.

TE/MTZ OVERALL DIMENSIONS (mm)

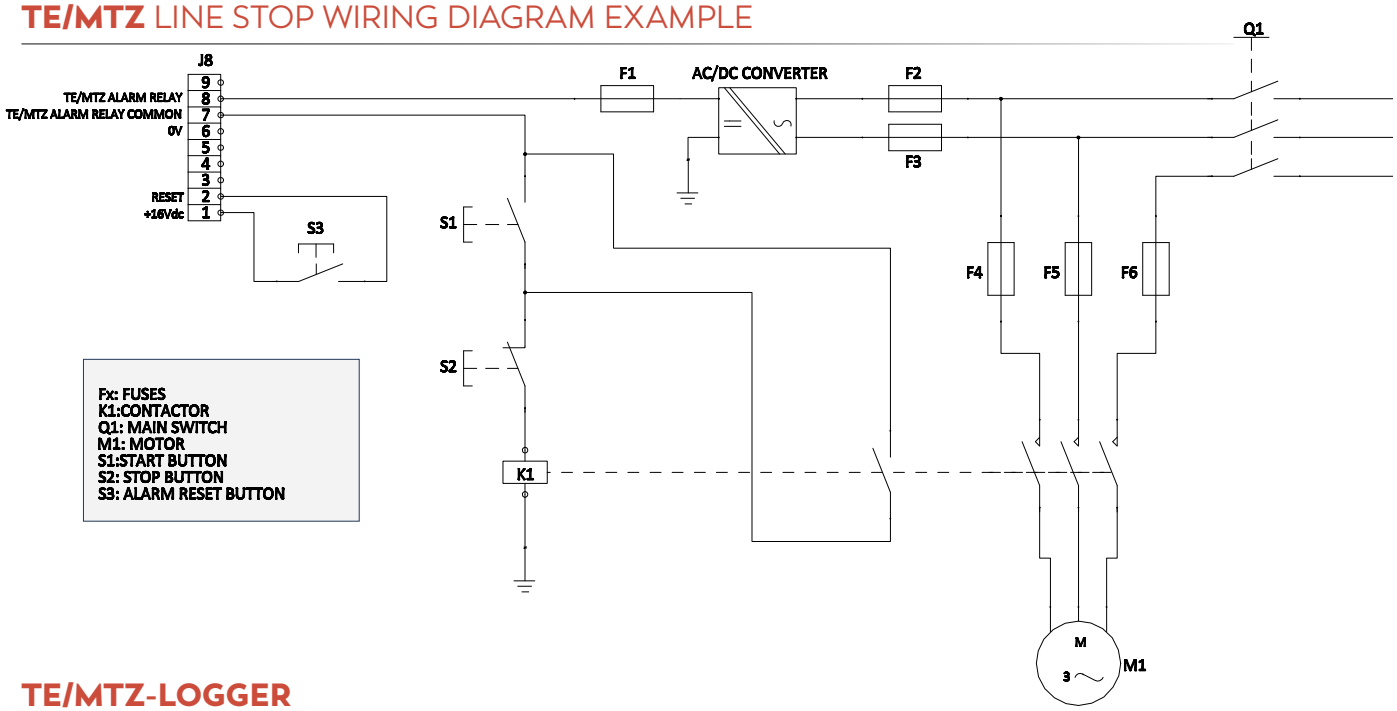


MODEL	SENSITIVE LENGTH	CENTRAL INSTALLATION BRACKETS	CFW DISTANCE (mm)	ALARM ZONES
TE/MTZ-**1300**	1300 mm	none	-	4
TE/MTZ-**1500**	1500 mm	none	-	5
TE/MTZ-**1700**	1700 mm	none	-	6
TE/MTZ-**1900**	1900 mm	none	-	6
TE/MTZ-**2100**	2100 mm	none	-	7
TE/MTZ-**2300**	2300 mm	none	-	8
TE/MTZ-**2500**	2500 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

TE/MTZ TO PLC WIRING DIAGRAM EXAMPLE



TE/MTZ LINE STOP WIRING DIAGRAM EXAMPLE



TE/MTZ-LOGGER

- **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

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

COMPACT AND ROBUST CONSTRUCTION

AUTOLEARN FUNCTION

WIDE DETECTION SPEED RANGE

MULTI-ZONE INDICATION OF METAL FRAGMENTS POSITION

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	Type	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		
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 (external AC/DC adapter)	Voltage	100-240 V~ 1ph – 50/60 Hz	
	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		
ENVIRONMENTAL DATA	Temperature	Operating	-10 to +50 °C
		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 61000-6-2:2005 + EN 61000-6-2:2005/AC:2005 Electromagnetic compatibility (EMC) -- Part 6-2: Generic standards - Immunity for industrial environments

MODERN, RUGGED AND USER FRIENDLY PROGRAMMING

- Industrial rate design
- Rapid data entry
- Easy to read, high-contrast graphic OLED display
- Rugged, antivandalic stainless steel keyboard

REMOTE CONTROL UNIT (RCU)

- Separate control unit available

QUALITY CONTROL SAMPLES

CEIA offers samples for quality assurance testing certified

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