

TENSIOTRON® TE 510 N

Precision Carrier Frequency Amplifier



The **TENSIOTRON® TE 510 N** carrier frequency amplifier is especially designed for use in industrial applications of stationary tension measurement.

Best temperature stability, long-term stability and high accuracy are guaranteed by using modern technology.

Built as 19" plug-in-type subassembly the amplifier is suitable for use with all **HONIGMANN** capacitive tension sensors.

Special features:

- Great noise immunity and service reliability for use in rough industrial operation
- Compact design, 19" slide-in card, 3U / 6 HP
- Quartz stabilized carrier frequency, temperature stabilized sensor supply voltage
- Four, independent of each other and simultaneous usable signal outputs
 - Voltage output, pure tension
 - damped voltage output, i.e. for use with a digital panel meter
 - Output for use with analog meter
 - Current output 0-20 / 4-20mA (Option)
- Front panel elements:
 - multiple-turn potentiometer for adjusting gain and zero
 - round plug connection for sensor
 - additional output plug socket
 - Power-on LED

Technical Data TE 510 N

Designation		Tensiotron® TE 510 N
Design		19"-slide-in card
Accuracy class		0,1
Measuring ranges (configuration via DIP switch)	% of F_N	100, 50, 25
Calibration range referenced to G_{nom}	%	60 to 100 to 140
Adjustment range zero @ G_{nom}	% ¹	approx. ± 90
Sensor supply		
- Voltage amplitude	V_{pp}	30
- Carrier frequency	kHz	50
Outputs		
- direct voltage output U_A	V	0 to ± 10 , max. 5 mA
- damped voltage output U_{AF}	V	0 to ± 10 , max. 5 mA, approx. 2 s @ -3 dB
- for use with analog meter	mA	0 to 1, $R_i =$ approx. 10 k Ω
- OPTION: current output	mA	0 / 4 to +20, admissible load 0 to 500 Ω
Auxilliary voltage to supply ext. Devices	V	± 15 , max. 35 mA
Nominal temperature range	$^{\circ}C$	0 to + 60
Operation temperatur range	$^{\circ}C$	0 to + 60
Storage temperature range	$^{\circ}C$	- 25 to + 75
Power supply		
- Voltage	V	230 / 115 ± 10 %
- Frequency	Hz	45 to 60
- Power consumption	W	max. 3
Connection		
- Amplifier		blade contact connector, 32 poles, to DIN 41612 D
- Sensor		round plug connection in the front panel
Dimensions		
- PCB	mm	100 x 160
- front panel		3 U / 6 HP
Weight	g	approx. 600

¹ of final value

Explanation of grammalogue:

G_{nom} \Rightarrow nominal gain

F_N \Rightarrow nominal load of sensor

Technical execution subject to change without prior notice.

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