# Stress of reinforcing bars arranged

## **KSAT-A** Reinforcing Bar Meter

Civil engineering design

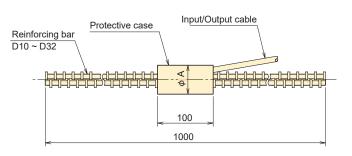


The KSAT-A are used to measure stress applied to structural reinforcing bars, and are normally welded at both ends to form part of the reinforcement arrangement. And the meters are with built-in temperature sensor, making possible simultaneous measurement of stress and temperature. The KSAT-A has a thermocouple that can be used to measure actual temperature.

Protection ratings: IP68 equivalent

Temperature measuring function to measure real temperature

Long-term stable measurement Capable of measuring thermal stress



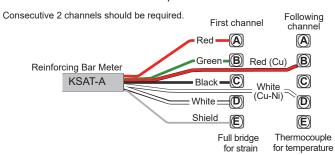
#### ■ SPECIFICATIONS

TYPE	φΑ	Арр	lical bar	Viold point		
		Name	Class	Yield point		
KSAT-10A	33	D10				
KSAT-13A	36	D13		345~440N/mm²		
KSAT-16A	42	D16				
KSAT-19A	47	D19	SD345			
KSAT-22A	47	D22	SD345			
KSAT-25A	53	D25				
KSAT-29A	53	D29				
KSAT-32A	62	D32				

Other bar with different size is avilable. Consult TML.

### **■**CONNECTION TO DATA LOGGER

KSAT-A with built-in thermocouple



Stranded cables of Red, Green, Black and White to the first channel for strain measurement. Thermocouple of single core Red (Cu) and White (Cu-Ni) should be connected directly to the following channel for temperature measurement.

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TYPE	KSAT-10A	KSAT-13A	KSAT-16A	KSAT-19A	KSAT-22A	KSAT-25A	KSAT-29A	KSAT-32A			
Capacity	300 N/mm²										
Rated output	2.2mV/V (4400x10 <sup>-6</sup> strain)										
Non-linearity	1%RO										
Temperature sensor	KSA-A : Strain gauge $350\Omega$ Quarter bridge with 3-wire (Approx. $50x10^{-6}$ strain/°C) in relative temperature										
	KSAT-A: Thermocouple T in real temperature										
Allowable temperature range	-20 ~ +80°C										
Input/Output resistance	$350\Omega$										
Recommended exciting voltage	6V or less										
Allowable exciting voltage	10V										
Weight	0.9 kg	1.3 kg	1.9 kg	2.6 kg	3.4 kg	4.3 kg	5.4 ka	6.6 ka			

Input/Output cable :

KSAT-10A  $\sim$  16A  $\phi$  9mm 0.3mm<sup>2</sup> 4-core shielded T-thermocouple compound cable 2m KSAT-19A  $\sim$  32A  $\phi$  11.5mm 0.5mm<sup>2</sup> 4-core shielded T-thermocouple compound cable 2m