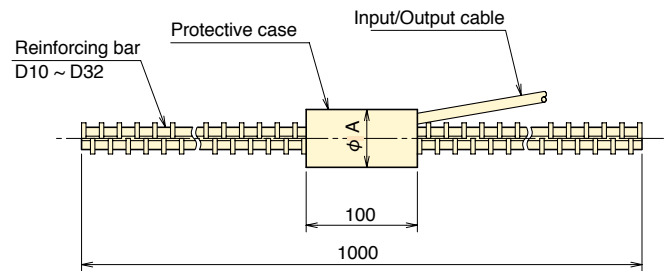
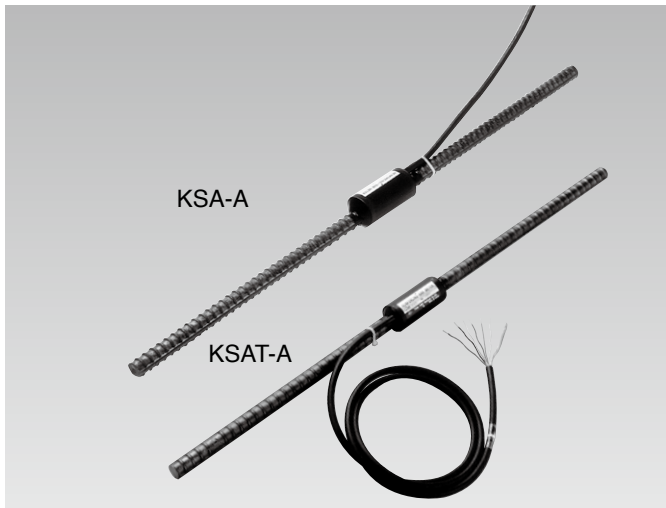


Stress of reinforcing bars arranged

KSA-A/KSAT-A Reinforcing Bar Meter

Civil engineering design



The KSA-A and 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 KSA-A has strain gauge type temperature sensor, while 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 (KSAT-A)

Long-term stable measurement

Capable of measuring thermal stress

SPECIFICATIONS

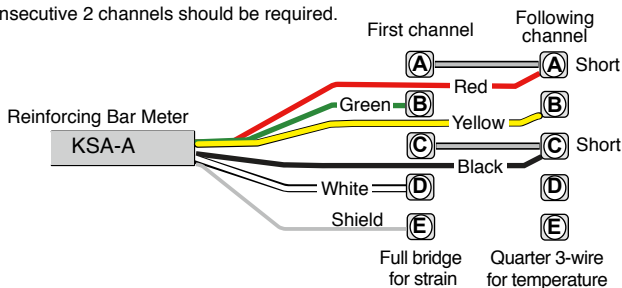
TYPE	φ A	Applical bar		Yield point
		Name	Class	
KSA-10A KSAT-10A	33	D10	SD345	345~440N/mm ²
KSA-13A KSAT-13A	36	D13		
KSA-16A KSAT-16A	42	D16		
KSA-19A KSAT-19A	47	D19		
KSA-22A KSAT-22A	47	D22		
KSA-25A KSAT-25A	53	D25		
KSA-29A KSAT-29A	53	D29		
KSA-32A KSAT-32A	62	D32		

Other bar with different size is available. Consult TML.

CONNECTION TO DATA LOGGER

KSA-A with built-in strain gauge type temperature sensor

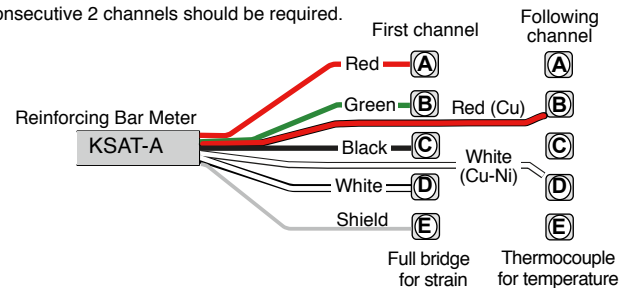
Consecutive 2 channels should be required.



Stranded cables of Green, White and shield are connected directly to the first channel. Remaining cables of Red, Yellow and Black should be connected directly to the following channel for temperature measurement, making short-circuit between A-A and C-C with copper cable for strain measurement.

KSAT-A with built-in thermocouple

Consecutive 2 channels should be required.



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.

SPECIFICATIONS

TYPE	KSA-10A KSAT-10A	KSA-13A KSAT-13A	KSA-16A KSAT-16A	KSA-19A KSAT-19A	KSA-22A KSAT-22A	KSA-25A KSAT-25A	KSA-29A KSAT-29A	KSA-32A KSAT-32A
Capacity	300 N/mm ²							
Rated output	2.2mV/V (4400x10 ⁻⁶ strain)							
Non-linearity	1%RO							
Temperature sensor	KSA-A : Strain gauge 350Ω 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	350Ω							
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 kg	6.6 kg

Input/Output cable :

- KSA-10A ~ 16A φ9mm 0.3mm² 5-core shielded chloroprene cable 2m
- KSAT-10A ~ 16A φ9mm 0.3mm² 4-core shielded T-thermocouple compound cable 2m
- KSA-19A ~ 32A φ11.5mm 0.5mm² 5-core shielded chloroprene cable 2m
- KSAT-19A ~ 32A φ11.5mm 0.5mm² 4-core shielded T-thermocouple compound cable 2m