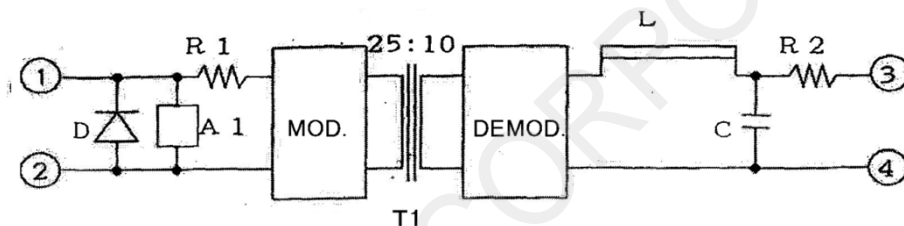


PRODUCT STANDARD

Document Number	ADR 9406-04
Title	SPECIFICATIONS OF ISOLATED VOLTAGE SENSOR Model Name: DCPT2516

Descriptions

1. DCPT2516 is a part of AIKOH ELECTIRC' Isolated Voltage sensors
2. Parameters: as per page of 2/4
3. External Dimensions: as per page of 4/4
4. Block Diagrams



5. Operation

The above Resistors (R1 & R2) are for circuit protection, and for adjustment of conversion ratio. Input signal enters the above MOD. and is being amplitude modulation at 60KHz. The modulating wave enters through Transmission Transformer (T1) to output circuit then demodulated by the above DEMOD. This output signal is carrier-containing then reduced under 100mVp-p by LC filter. The unipolar of Input-Output is ranged DC to 3KHz as passband. And the above A1 is linearity correcting circuit, corrects 3% for transmission signal.

Model Name: DCPT2516

Parameter	Conditions	Unit	Value
Rating			
Primary absolute max. Peak forward voltage		V	30 V
Peak inverse voltage		V	-0.3 V
Peak inverse current		A	-0.5 A
Withstand voltage			
Primary - Secondary	1 minute (Terminal 1, 2) to (Terminal 3, 4)	AckV	5.5
	continuance (Terminal 1, 2) to (Terminal 3, 4)	AckV	1.8
Corona discharge			
Corona inception voltage	(CSV) at <10pC	KV	5.5 (not less)
Corona extinction voltage	(CEV) at <10pC	KV	5.0 (not less)
Floating capacitance			
Input - Output		pF	10 (not less)
Temperature and Humidity range			
Performance assurance		°C	-10 ~ + 70
Operating ambient temperature		°C	-25 ~ + 85
Storage temperature		°C	-30 ~ + 85
Operating ambient humidity		% RH	90 (less or equal)
Maximum load current			
Maximum output current	load resistance = 2KΩ at Rin = 0Ω Vin = 25V (output voltage will be dropped about 10 %)	mA	4.5
Short-circuit protection	In case of load short, input impedance will be dropped to 1.4KΩ)		
Maximum output current	short-circuit output	mA	50
Characteristics			
Input impedance		KΩ	5
Input voltage		V	25
Input current	load resistance = 10KΩ, output 10V	mA	5
Conversion ratio	Primary, Secondary	:	25 : 10
Output voltage accuracy		%	± 1.5 (less or equal)
Offset voltage	Output voltage (more than 0.6V)	mV	± 50 type
Output ripple frequency	Oscillating frequency x 2	KHz	100 ~ 130
Output ripple voltage		mVp-p	100
Output voltage rising time	0 ~ 90%	μS	200 (less or equal)
Overshoot	0 ~ 25V (20% → 2%)	mS	20% 1 (less or equal)
Internal power consumption	Output voltage 10V	mW	125
Performance			
Linearity of output voltage	-10 ~ + 70 °C Output voltage ≥ 1.5V	%	± 1 (less or equal)
	Output voltage ≤ 1.5V	%	+1, -2 (less or equal)
Temperature characteristics	at 25°C	%	± 1 (less or equal)
Frequency response	-3dB	KHz	DC ~ 3
Step response	10% ~ 90% swing	μS	200 (less or equal)
Weight		gram	about 300

PRODUCT STANDARD

Document Number	ADR 9406-04
Title	SPECIFICATIONS OF ISOLATED VOLTAGE SENSOR Model Name: DCPT2516

Definition of step response

DCPT2516 is provided operational electricity and signal transmission output by limited impedabce of signal source which basically depebds on circuit volatge. Thus, especially conditions of step response are define as it follows:

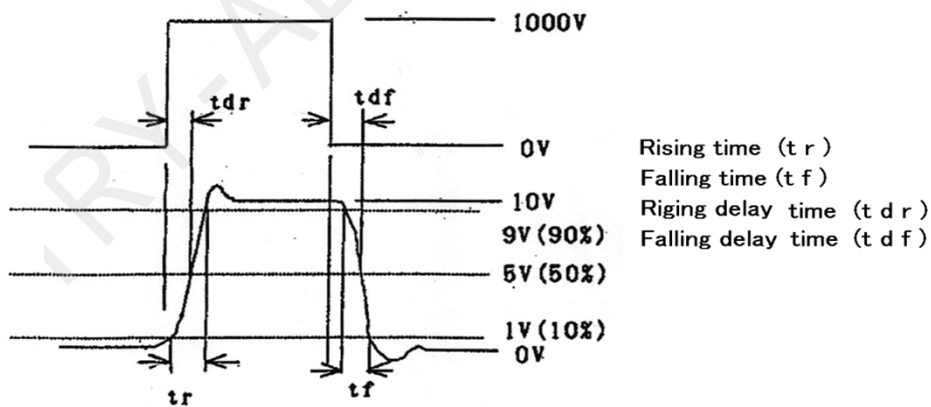
1. Input conditions

- 1) Input wave : Suare wave 1000V 0~P (0~ + 1000 V swing)
- 2) Input resistance : 195 kΩ
- 3) Input wave rising : 200V/μ S (not less)
- 4) Input recurrence : 100Hz (less or equal) , (pulse 1~5 mS)

2. Output load conditions

- 1) Load capacitance : less or equal 25pF (capacitance of measuring prove)
- 2) Load resistance : 10kΩ ± 1%

3. Measuring standard



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Dimensions (mm)

