

HD POWER TRANSDUCER SERIES

Var TRANSDUCER

MODEL

HDK -

MODEL & SUFFIX CODE SELECTION

MODEL **HDK**

■ PHASE & WIRE

1	1 P 2 W
2	1 P 3 W
3	3 P 3 W
4	3 P 4 W

■ VOLTAGE & AMPERE

P × W	P.T ratio	CT	CODE
1P2W	110V	5A	A
	220V	5A	B
1P3W	110V	5A	A
	220V	5A	B
3P3W	380V/110V	5A	A
	440V/110V		
	3300V/110V		
	6600V/110V		
	154kV/110V		
	22900V/110V		
3P4W	208/√3V	5A	A
	380/√3/190/√3V	5A	A
	380/√3V	5A	B
	22900/√3/190/√3V	5A	C
		5A	D

■ OUTPUT

A	DC 4-20mA	1	DC 0-10mV
B	DC 0-1mA	2	DC 0-100mV
C	DC 0-10mA	3	DC 0-1V
D	DC 0-20mA	4	DC 0-10V
E	DC 1-5mA	5	DC 0-5V
O	Spec Order	6	DC 1-5V
		O	Spec Order

ORDERING INFORMATION

Specify code number and variables

* **Code number** : HDK-phase/wire-voltage/ampere-output
ex : HDK-4AA

* **polarity 선택사항시**

P	LEAD
N	LAG
A	절대치 Var Value

GENERAL SPECIFICATIONS

Construction : DIN housings Terminal access on front face

Housing material : plastic(black)

Wiring : 3.0M screw terminals

Isolation : AC input/DC output/power

Adjustments : zero and span ±5%

Over-range output = 0-120%



The VAR transducer Model HDK provides a DC output proportional to AC reactive power.

* Little ripple : stable output

* Input - output isolated

PERFORMANCE

Accuracy : 0.1% or 0.25%

Temp. coefficient : 0.03%/C

Insulation resistance : 100Mohm or more with 500V DC

Response time : 0.4sec(400ms)

Line Voltage effect : 0.1% with 10% change

Ripple : 0.25% p-p max. (100/120Hz)

Dielectric strength : 2000V AC 1minute

input/output/power

Surge withstand Voltage : 1.2/50µsec, ±5KV

(INPUT to OUTPUT to GROUND)

INSTALLATION

Operating temperature : -5 to +55C

Operating humidity : 20-80%RH(non-condensing)

Mounting : Wall or DIN rail

Power supply : AC 110V or 220V (-15/+10%)

50/60Hz,2VA

Size : W75 H150 D113mm

Weight :

INPUT & OUTPUT

■ INPUT

* Voltage Side (PT side)

Operational range : 0-110%

Permissible over range : 150% for 10 seconds
 120% continuously

* Current Side (CT side)

Operational range : 0-120%

Permissible over range : 1000% for 5 seconds
 150% for 10 seconds
 120% continuously

Frequency : 60 or 50Hz

■ output Calibration polarity

* Negative in LEAD

* Positive in LAG

1-PHASE/2-WIRE

MODEL CODE	INPUT	STANDARD RANGE	AVAILABLE RANGE	BURDEN (VA)	
				VOLTAGE	CURRENT
A	110V 1A	±50Var	25 - 60Var	0.22VA	0.5VA
	110V 5A	±250Var	125 - 300Var		
B	220V 1A	±100Var	50 - 120Var	0.44VA	0.5VA
	220V 5A	±500Var	250 - 600Var		

1-PHASE/3-WIRE

MODEL CODE	INPUT	STANDARD RANGE	AVAILABLE RANGE	BURDEN (VA)	
				VOLTAGE	CURRENT
A	110V 1A	±100Var	50 - 120Var	0.22VA /phase	0.5VA /phase
	220V 5A	±500Var	250 - 600Var		

3-PHASE/3-WIRE

MODEL CODE	INPUT	STANDARD RANGE	AVAILABLE RANGE	BURDEN (VA)	
				VOLTAGE	CURRENT
A	110V 1A	±100Var	50 - 120Var	0.22VA	0.5VA
	110V 5A	±500Var	250 - 600Var	/phase	/phase
B	220V 1A	±200Var	100 - 240Var	0.44VA	0.5VA
	220V 5A	±1000Var	500 - 1200Var	/phase	/phase
C	110V 1A	±116Var	58 - 139Var	0.22VA	0.5VA
	110V 5A	±579Var	289 - 694Var	/phase	/phase
D	110V 1A	±96Var	48 - 115Var	0.22VA	0.5VA
	110V 5A	±480Var	240 - 576Var	/phase	/phase

3-PHASE/4-WIRE

MODEL CODE	INPUT	STANDARD RANGE	AVAILABLE RANGE	BURDEN (VA)	
				VOLTAGE	CURRENT
A	190/√3V/ 1A	±200Var	100 - 240Var	0.22VA	0.5VA
	190/√3V/ 5A	±1000Var	500 - 1200Var	/phase	/phase
B	380/√3V/ 1A	±400Var	200 - 480Var	0.44VA	0.5VA
	380/√3V/ 5A	±2000Var	1000-2400Var	/phase	/phase
C	190/√3V/ 1A	±166Var	83 - 199Var	0.22VA	0.5VA
	190/√3V/ 5A	±833Var	416 - 999Var	/phase	/phase

HOW TO DETERMINE Var RANGE

Measuring Var Value(Var) = PT ratio × CT ratio × STANDARD RANGE [Var]

Check that the required calibration range is within the available range in the table, specify this range when ordering.

[example]

3-phase/3-wire, PT 3300/110V, CT 250/5A

Measuring Var Value = 3300/110 × 250/5 × ±500Var = ±75KVar

■ OUTPUT

DC Current : 0-20mA DC

Minimum span : 1mA

zero bias : max. 1.5 Times of span

LOAD resistance

OUTPUT	LOAD RESISTANCE	IMPEDANCE
4-20mA	0-600 Ω	5M Ω or more
0-20mA	0-600 Ω	
0-16mA	0-750 Ω	
0-10mA	0-1200 Ω	
0-1mA	0-12k Ω	
0-5mA	0-2400 Ω	

DC Voltage : 0-12V DC

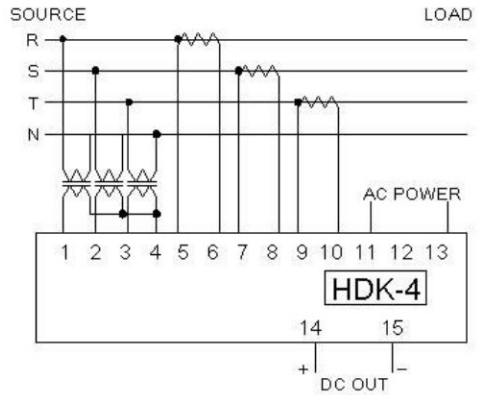
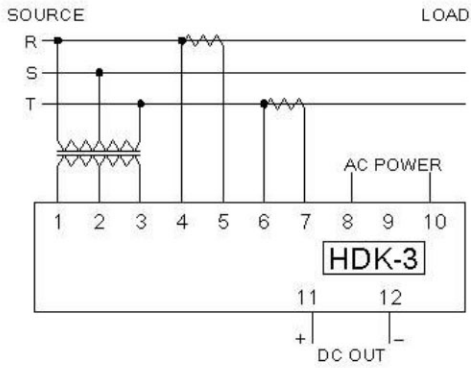
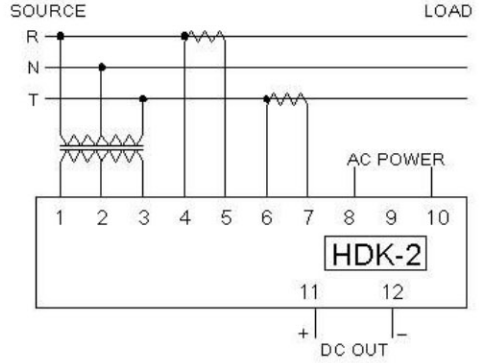
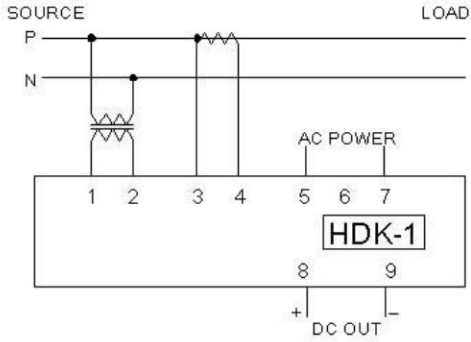
Minimum span : 5mV

zero bias : max. 1.5 Times of span

OUTPUT	LOAD RESISTANCE	IMPEDANCE
0-10mV	10k Ω or more	10 Ω
0-100mV	100k Ω or more	100 Ω
0-1V	1k Ω or more	1 Ω or less
0-10V	10k Ω or more	
0-5V	5k Ω or more	
1-5V		

* for other ranges within 0-12V, use equation
 $R = E/I$ where : R = load resistance (Ω)
 E = full-scale output (V)
 I = 1 mA

CONNECTION DIAGRAM



DEMENSION & INSTRUCTIONS

