

	CUSTOMER	CUSTOMER CODE	PART DESCRIPTION HALL EFFECT CURRENT SENSOR CLOSED LOOP 6A		
	INTERNAL CODE HCT-DS5	DATE 28/10/10	EDITION 2	DOCUMENT NAME HCT-DS5_2.doc	PAGE 1/17

HCT-06DS5 SERIES HALL EFFECT CURRENT SENSOR CLOSED LOOP

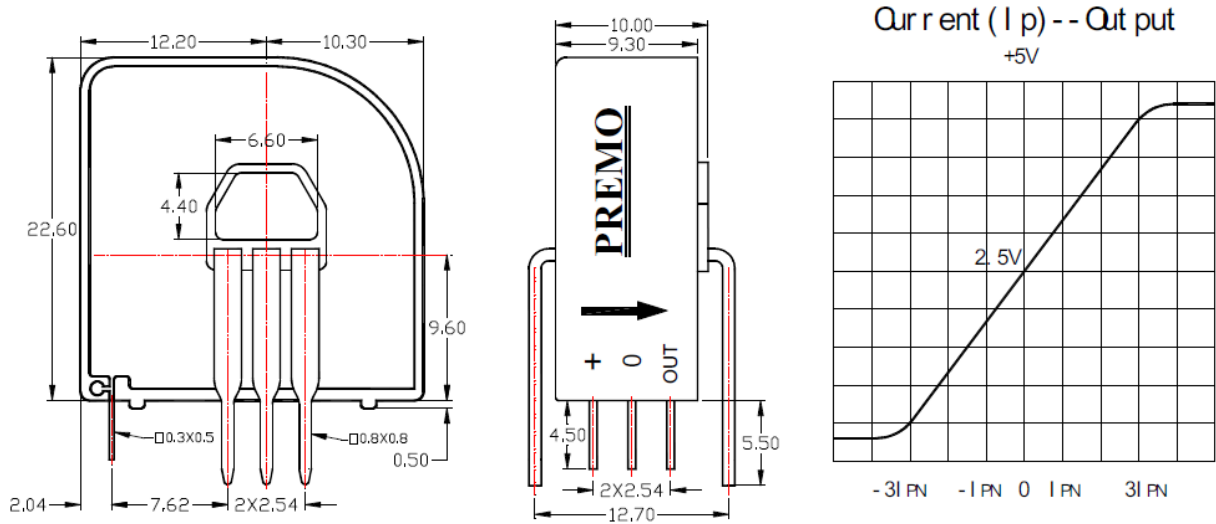
NOTES



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1.- DIMENSIONS AND PINS CONFIGURATION



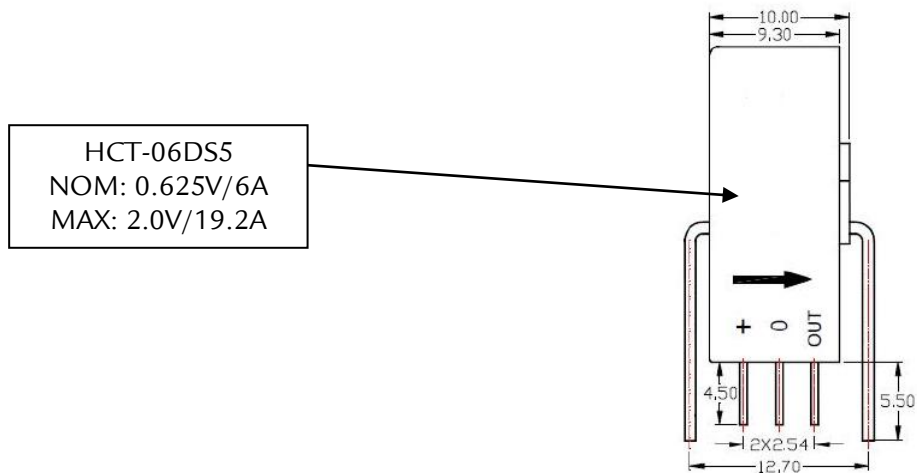
All dimensions are in mm.

General Tolerance ± 0.5 mm.

All dimensions and mechanical fixations are subjected to change depending on the customer necessities and PREMO Transducer Development.

Marking

Component is marked as follows:



NOTES

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2.- ELECTRICAL PARAMETERS

Primary Nominal Current	6 A DC	I_{pn}
Measuring Range	19.2 A	I_p
Reference voltage	2.5±0.5% V	V_o
Turns	960±1	N
Supply Voltage	+5±5% V	V_{cc}
Rated output (V)	0.625±0.5%	
Sample resistance inside	100±0.1% Ω	R_{IN}

3.- ACCURACY

Linear Error	< 0.1 % Full Scale	e_{LLR}
Total precision	±0.7	
Offset Current Drift	<± 0.5 % mV/°C	K_{los}
Time Response (di/dt>50 A/μS)	< 500ns	T_R
Frequency Bandwidth	DC to 200kHz (-1dB)	F_c

4.- GENERAL DATA

Operating Temperature	-40 to +85 °C	T_A
Storage Temperature	-40 to +125 °C	T_s

5.- ISOLATION CHARACTERISTICS

Galvanic isolation (50 Hz, 1min)	2.5 KV	V_i
Impulse withstand voltage 1.2/50μs	>8 KV MIN	V_w
Creepage distance	15.5 mm	d_{Cp}
Clearance distance	6.35 mm	d_{Cl}

STANDARDS

	EN 50178	UL 508C
Rating isolation voltage	600V	600V
Pollution degree	2	2
CTI	III	III

Notes:

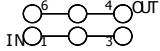
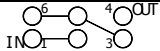
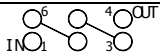
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6.- MOUNTING DIMENSIONS (FOR REFERENCE ONLY)

Turns	Primary rated current IPN[A]	Rated putout voltage VOUT[V]	Primary resistance [mΩ]	Primary Inductance [uH]	Connect point
1	±6	2.5±0.625	0.18	0.013	
2	±3	2.5±0.625	0.81	0.05	
3	±2	2.5±0.625	1.62	0.12	

7.- EDITION CONTROL

Edition	Date	Change description	Made by
1 st	25/08/10	First Edition	Marta Escolar
2 nd	28/10/10	Added the isolations characteristics and standards and marking, updated mounting dimensions	Marta Escolar

NOTES

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HCT-15DS5 SERIES HALL EFFECT CURRENT SENSOR CLOSED LOOP

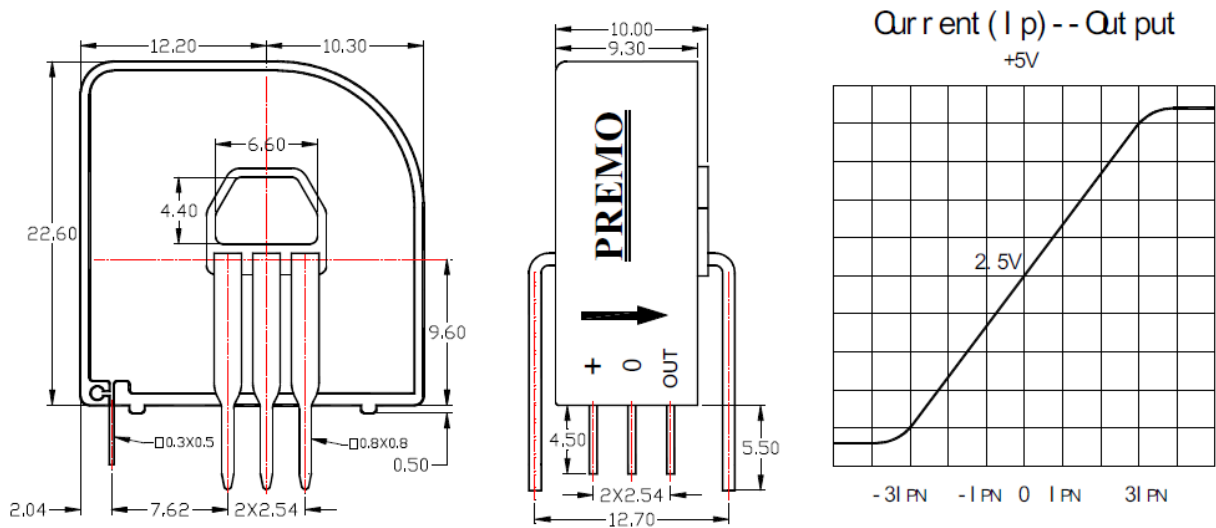
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1.- DIMENSIONS AND PINS CONFIGURATION



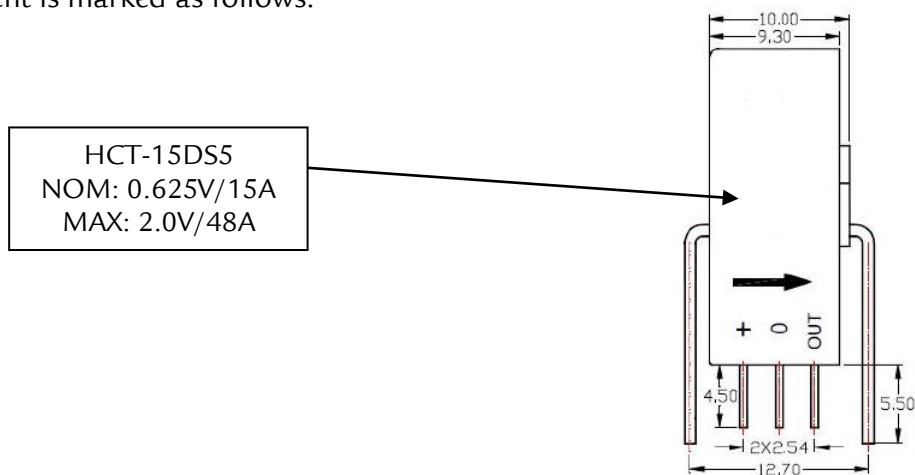
All dimensions are in mm.

General Tolerance ± 0.5 mm.

All dimensions and mechanical fixations are subjected to change depending on the customer necessities and PREMO Transducer Development.

Marking

Component is marked as follows:



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2.- ELECTRICAL PARAMETERS

Primary Nominal Current	15 A DC	I_{pn}
Measuring Range	48 A	I_p
Reference voltage	2.5±0.5% V	V_o
Turns	1200±1	N
Supply Voltage	+5±5% V	V_{cc}
Rated output (V)	0.625±0.5%	
Sample resister inside	100±0.1% Ω	R_{IN}

3.- ACCURACY

Linear Error	< 0.1 % Full Scale	e_{LLR}
Total precision	±0.7	
Offset Current Drift	<± 0.5 % mV/°C	K_{Ios}
Time Response (di/dt>50 A/μS)	< 500ns	T_R
Frequency Bandwidth	DC to 200kHz (-1dB)	F_c

4.- GENERAL DATA

Operating Temperature	-40 to +85 °C	T_A
Storage Temperature	-40 to +125 °C	T_s

5.- ISOLATION CHARACTERISTICS

Galvanic isolation (50 Hz, 1min)	3 KV	V_i
Impulse withstand voltage 1.2/50μs	>8 KV MIN	V_w
Creepage distance	15.5 mm	d_{Cp}
Clearance distance	6.35 mm	d_{Cl}

STANDARDS

	EN 50178	UL 508C
Rating isolation voltage	600V	600V
Pollution degree	2	2
CTI	III	III

Notes:

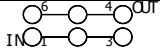
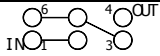
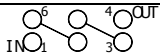
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6.- MOUNTING DIMENSIONS (FOR REFERENCE ONLY)

Turns	Primary rated current IPN[A]	Rated putout voltage VOUT[V]	Primary resistance [mΩ]	Primary Inductance [uH]	Connect point
1	±15	2.5±0.625	0.18	0.013	
2	±7.5	2.5±0.625	0.81	0.05	
3	±5	2.5±0.625	1.62	0.12	

7.- EDITION CONTROL

Edition	Date	Change description	Made by
1 st	25/08/10	First Edition	Marta Escolar
2 nd	29/10/10	Added the isolations characteristics, marking and standards, updated mounting dimensions	Marta Escolar

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HCT-25DS5 SERIES HALL EFFECT CURRENT SENSOR CLOSED LOOP

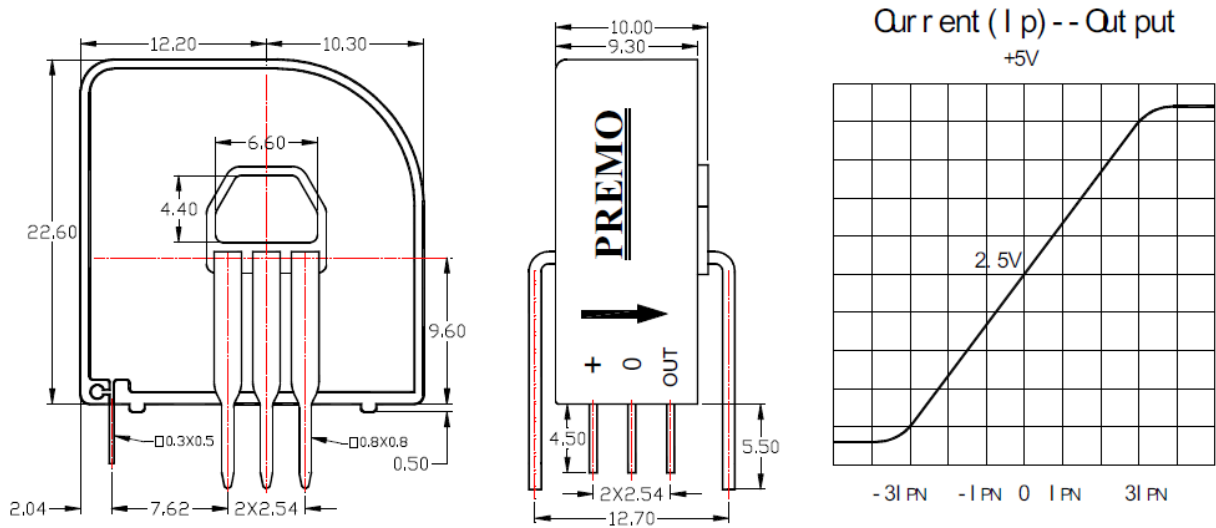
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1.- DIMENSIONS AND PINS CONFIGURATION



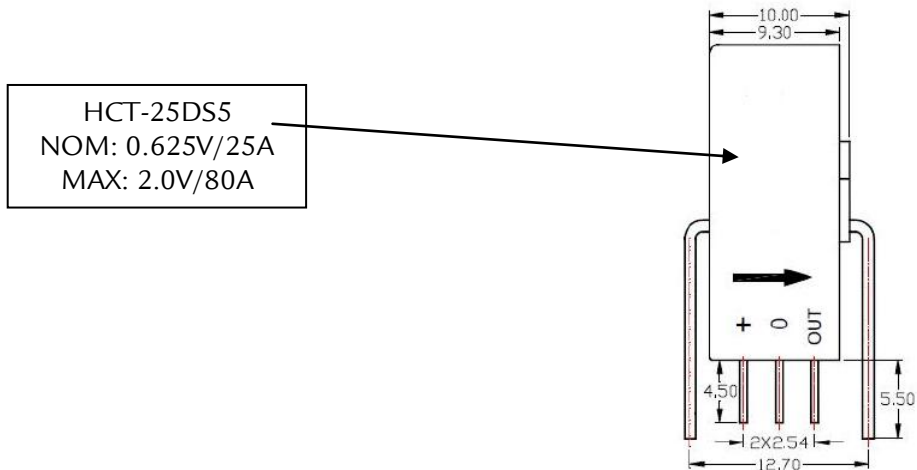
All dimensions are in mm.

General Tolerance ± 0.5 mm.

All dimensions and mechanical fixations are subjected to change depending on the customer necessities and PREMO Transducer Development.

Marking

Component is marked as follows:



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2.- ELECTRICAL PARAMETERS

Primary Nominal Current	25 A DC	I_{pn}
Measuring Range	80 A	I_p
Reference voltage	$2.5 \pm 0.5\% V$	V_o
Turns	2000 ± 1	N
Supply Voltage	$+5 \pm 5\% V$	V_{cc}
Rated output (V)	$0.625 \pm 0.5\%$	
Sample resistance inside	$50 \pm 0.1\% \Omega$	R_{IN}

3.- ACCURACY

Linear Error	< 0.1 % Full Scale	e_{LLR}
Total precision	± 0.7	
Offset Current Drift	$< \pm 0.5\% mV/^\circ C$	K_{Ios}
Time Response ($di/dt > 50 A/\mu S$)	< 500ns	T_R
Frequency Bandwidth	DC to 200kHz (-1dB)	F_c

4.- GENERAL DATA

Operating Temperature	-40 to +85 °C	T_A
Storage Temperature	-40 to +125 °C	T_s

5.- ISOLATION CHARACTERISTICS

Galvanic isolation (50 Hz, 1min)	3.0 KV	V_I
Impulse withstand voltage 1.2/50 μs	>8 KV MIN	V_w
Creepage distance	15.5 mm	d_{Cp}
Clearance distance	6.35 mm	d_{CI}

STANDARDS

	EN 50178	UL 508C
Rating isolation voltage	600V	600V
Pollution degree	2	2
CTI group	III	III

Notes:

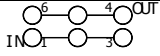
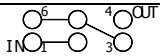
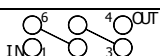
- To be certificated
- The transducer is also designed according to EN-60974-1:2004

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5.- MOUNTING DIMENSIONS (FOR REFERENCE ONLY)

Turns	Primary rated current IPN[A]	Rated putout voltage VOUT[V]	Primary resistance [mΩ]	Primary Inductance [uH]	Connect point
1	±25	2.5±0.625	0.18	0.013	
2	±12.5	2.5±0.625	0.81	0.05	
3	±8.3	2.5±0.625	1.62	0.12	

6.- EDITION CONTROL

Edition	Date	Change description	Made by
1st	25/08/10	First Edition	Marta Escolar
2nd	15/10/10	Update galvanic isolation Include general standards	Marta Escolar
3rd	29/10/10	Include marking, standards and isolations characteristics and updated mounting dimensions	Marta Escolar

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HCT-50DS5 SERIES HALL EFFECT CURRENT SENSOR CLOSED LOOP

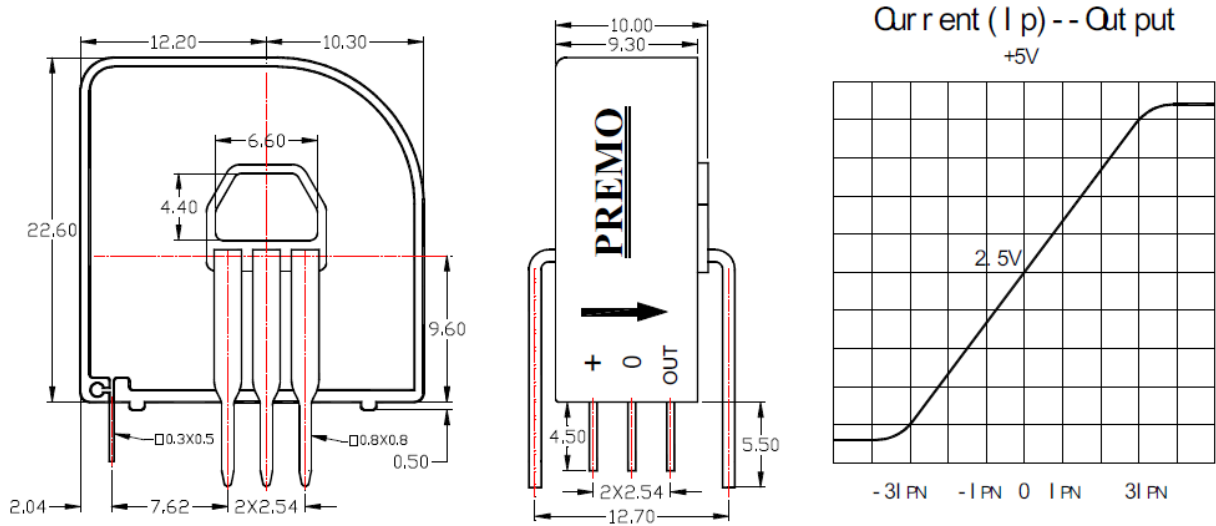
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1.- DIMENSIONS AND PINS CONFIGURATION



All dimensions are in mm.

General Tolerance ± 0.5 mm.

All dimensions and mechanical fixations are subjected to change depending on the customer necessities and PREMO Transducer Development.

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2.- ELECTRICAL PARAMETERS

Primary Nominal Current	50 A DC	I_{pn}
Measuring Range	150 A	I_p
Galvanic isolation (50 Hz, 1min)	3 KV	
Turns	2000±1	
Supply Voltage	+5±5% V	V_{CC}
Rated output (V)	0.625±0.5%	
Sample resistor inside	25±0.1% Ω	
Reference voltage	2.5±0.5% V	

3.- ACCURACY

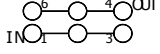
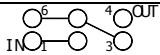
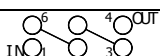
Linear Error	< 0.1 % Full Scale	e_{LLR}
Total precision	±0.7	
Offset Current Drift	<± 0.5 % mV/°C	K_{Ios}
Time Response ($di/dt > 50 \text{ A}/\mu\text{S}$)	< 500ns	T_R
Frequency Bandwidth	DC to 200kHz (-1dB)	F_c

- * Electrical Parameters and frequency response to be checked with samples.

4.- GENERAL DATA

Operating Temperature	-40 to +85 °C	T_A
Storage Temperature	-40 to +125 °C	T_s

5.- MOUNTING DIMENSIONS (FOR REFERENCE ONLY)

Turns	Primary rated current $I_{PN}[A]$	Rated putout voltage $V_{OUT}[V]$	Primary resistance [mΩ]	Primary Inductance [uH]	Connect point
1	±6(±15,±25,±50)	2.5±0.625	0.18	0.013	
2	±3(±7.5,±12.5,±25)	2.5±0.625	0.81	0.05	
3	±2(±5,±8.3,±16.6)	2.5±0.625	1.62	0.12	

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5.- EDITION CONTROL

Edition	Date	Change description	Made by
1 st	25/08/10	First Edition	Marta Escolar
2 nd	15/10/10	Updated the Galvanic isolation value	Marta Escolar

NOTES

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