3..20 A

Current Transducer HAW 03 .. 20-P

For the electronic measurement of currents: DC, AC, pulsed, mixed, with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).

Preliminary

Electrical data					
Primary nomina r.m.s. current I _{PN} (A)	al Primary current measuring range I _P (A)	Primary Conductor Diameter (mm)	Туре		
3	± 7.5	0.8	HAW 03-	Р	
5	± 13	0.9	HAW 05-	Р	
10	± 25	1.1	HAW 10-	Р	
15	± 38	1.4	HAW 15-	Р	
20	± 50	1.6	HAW 20-	P	
V _c I _c	Supply voltage (± 5 %) Current consumption		± 15 <± 18	V mA	
Ŭ _d	R.m.s. voltage for AC isolat	tion test, 50/60Hz, 1 m	n 2.0	kV	
R _{IS}	Isolation resistance @ 500	VDC	> 500	MΩ	
V _{OUT}	Output voltage @ $\pm I_{PN}$, $\mathbf{R}_{I} = 10 \text{ k}\Omega$, $\mathbf{T}_{A} = 25^{\circ}\text{C}$		±4	V	
R _{OUT}	Output internal resistance	~	100	Ω	
R	Load resistance		>10	kΩ	

Acc	uracy-Dynamic performance data		
Х	Accuracy @ I_{PN} , $T_{A} = 25^{\circ}C$ (without offset)	<±1	% of I _{PN}
e	Linearity (0 $\pm I_{PN}$)	<±1	% of I _{PN}
V _{OF}	Electrical offset voltage, $\mathbf{T}_{A} = 25^{\circ}$ C	< ± 40	mV
V _{OH}	Hysteresis offset voltage $\textcircled{0}{0}$ $I_{p} = 0;$		
0.1	after an excursion of 1 x I_{PN}	< ± 20	mV
V _{ot}	Thermal drift of V _{OE} max.	± 1.5	mV/K
TC C	Thermal drift of the gain (% of reading)	± 0.1	%/K
t, Č	Response time @ 90% of I_{P}	< 3	μs
f	Frequency bandwidth (- 3 dB) ¹⁾	DC 50	kHz

Ge	General data				
T₄	Ambient operating temperature	- 10 + 75	°C		
T _s	Ambient storage temperature	- 15 + 85	°C		
m	Mass	12	g		

Notes : EN 50178 approval pending

¹⁾ Derating is needed to avoid excessive core heating at high frequency.



Features

I_{PN}

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 2000 V
- Low power consumption
- \bullet Extended measuring range(2.5x $\mathbf{I}_{_{\mathrm{PN}}})$

Advantages

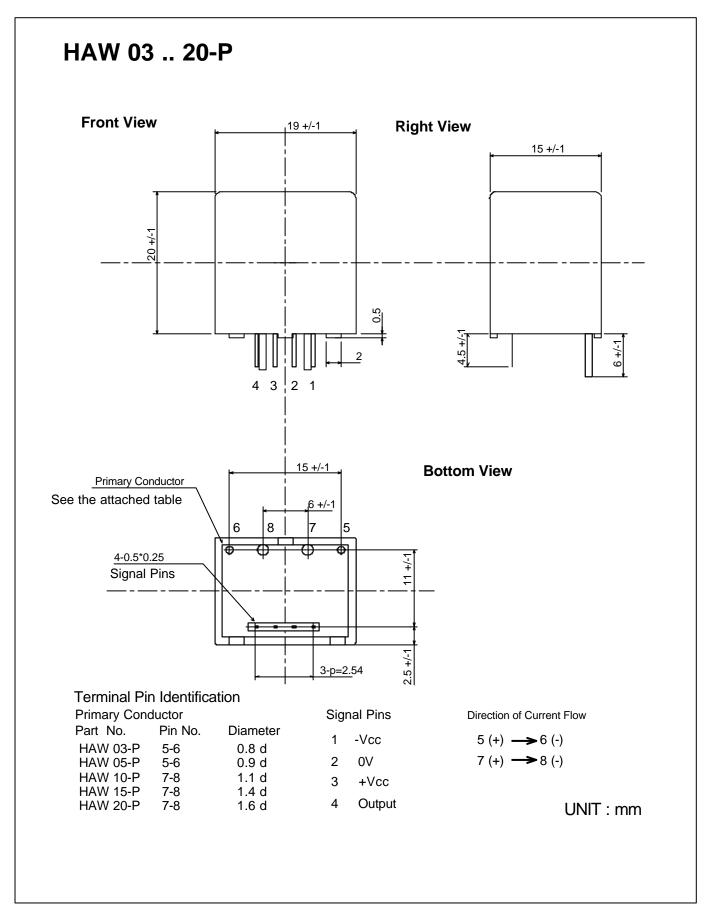
- Easy mounting
- Small size and space saving
- Only one design for wide current ratings range
- High immunity to external interference.

Applications

- DC motor drives
- Switched Mode Power Supplies (SMPS)
- AC variable speed drives
- Uninterruptible Power Supplies (UPS)
- Battery supplied applications
- Inverters

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LEM reserves the right to carry out modifications on its transducers, in order to improve them, without previous notice.