

Current Transducer NNC-10..40GFP

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).

$I_{PN} = 50 ... 600 A$



Electrical data				
Primary nomina DC current I _{PN} (A)	al Primary current measuring range I _P (A)	Type		
100	± 300	NNC-10GFP		
200	± 600	NNC-20GFP		
300		NNC-30GFP		
400	± 1000	NNC-40GFP		
$\mathbf{v}_{_{\mathrm{C}}}$	Supply voltage (±5 %)	±15	V	
I _C	Current consumption	<±18	mΑ	
$\ddot{\mathbf{V}}_{d}$	R.m.s. voltage for AC isolation test, 50/60 Hz, 1 mr	2.5	kV	
R _{IS}	Isolation resistance @ 500 VDC	> 1000	$M\Omega$	
V _{OUT}	Output voltage @ $\pm I_{PN}$, $R_L = 10 \text{ k}\Omega$, $T_A = 25^{\circ}\text{C}$	±4	V	
R _{OUT}	Output internal resistance	< 100	Ω	
R _L	Load resistance	10	$k\Omega$	

Accuracy - Dynamic performance data				
X	Accuracy @ $\mathbf{T}_{A} = 25^{\circ}\text{C}$ (without offset)	<±1	% of I _{PN}	
$\mathbf{e}_{\scriptscriptstyle \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$	Linearity ¹⁾ $(0 \pm I_{PN})$	<±1	% of I _{PN}	
V _{OE}	Electrical offset voltage, T _A = 25°C	<±30	mV	
V _{OH}	Hysteresis offset voltage $@ \mathbf{I}_p = 0;$			
3	after an excursion of 1 x I _{PN}	<±35	mV	
V_{OT}	Thermal drift of V _{OF} NNC-10GFP	<±2	mV/K	
0.	NNC-2040GFP	<±1	mV/K	
TC e	Thermal drift of the gain (% of reading)	<±0.1	%/K	
t,	Response time @ 90% of $I_{\scriptscriptstyle P}$	< 7	μs	

General data						
$T_{_{A}}$	Ambient operating temperature	-10 +80	°C			
T _s	Ambient storage temperature	-15 +85	°C			
m	Mass	50	g			

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 2500V
- Low power consumption
- Extended measuring range (3 x I_{PN})

Advantages

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

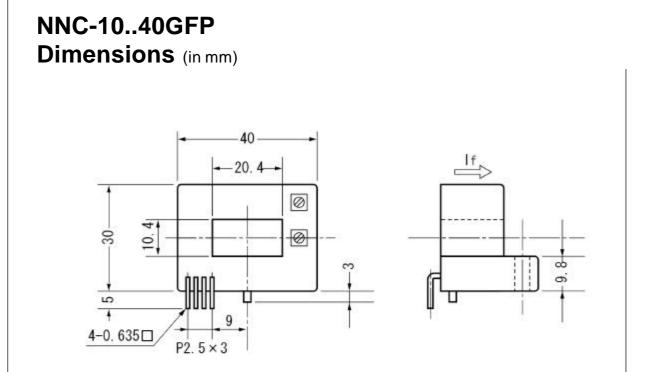
Applications

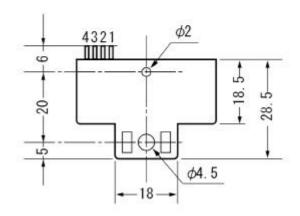
- AC variable speed drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- DC motor drives
- Switched Mode Power Supplies(SMPS)
- Power supplies for welding applications

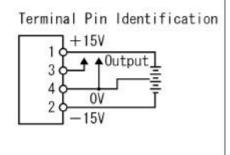
Notes: 1) Linearity data exclude the electrical offset.

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