

Current Transducer NNC-10..40GFP

$$I_{PN} = 50 \dots 600 \text{ A}$$

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).



Electrical data

Primary nominal DC current I_{PN} (A)	Primary current measuring range I_P (A)	Type
100	± 300	NNC-10GFP
200	± 600	NNC-20GFP
300	± 900	NNC-30GFP
400	± 1000	NNC-40GFP

V_C	Supply voltage ($\pm 5\%$)	± 15	V
I_C	Current consumption	$< \pm 18$	mA
V_d	R.m.s. voltage for AC isolation test, 50/60 Hz, 1 mn	2.5	kV
R_{IS}	Isolation resistance @ 500 VDC	> 1000	M Ω
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 Ω

Features

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

Advantages

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

Accuracy - Dynamic performance data

X	Accuracy @ $T_A = 25^\circ\text{C}$ (without offset)	$< \pm 1$	% of I_{PN}
e_L	Linearity ¹⁾ ($0 \dots \pm I_{PN}$)	$< \pm 1$	% of I_{PN}
V_{OE}	Electrical offset voltage, $T_A = 25^\circ\text{C}$	$< \pm 30$	mV
V_{OH}	Hysteresis offset voltage @ $I_P = 0$; after an excursion of $1 \times I_{PN}$	$< \pm 35$	mV
V_{OT}	Thermal drift of V_{OE} NNC-10GFP	$< \pm 2$	mV/K
	NNC-20..40GFP	$< \pm 1$	mV/K
TCE_G	Thermal drift of the gain (% of reading)	$< \pm 0.1$	%/K
t_r	Response time @ 90% of I_P	< 7	μs

General data

T_A	Ambient operating temperature	$-10 \dots +80$	$^\circ\text{C}$
T_S	Ambient storage temperature	$-15 \dots +85$	$^\circ\text{C}$
m	Mass	50	g

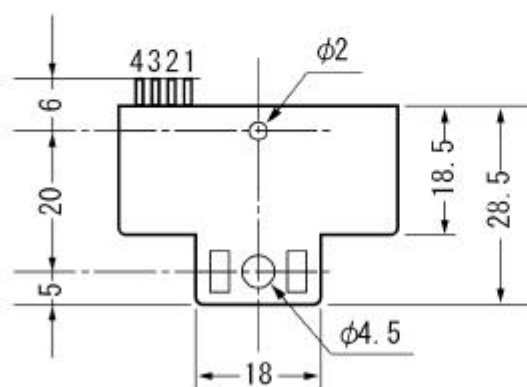
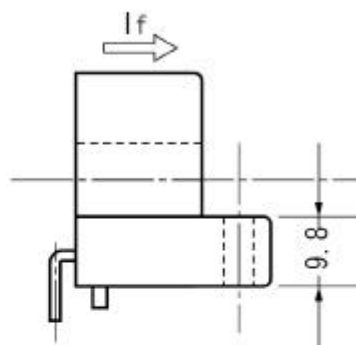
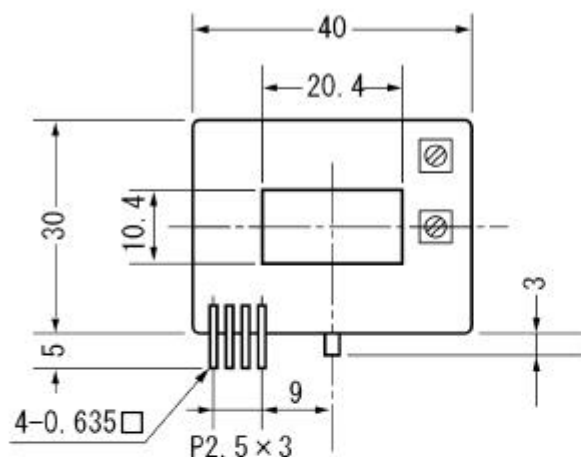
Applications

- 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.

NNC-10..40GFP

Dimensions (in mm)



Terminal Pin Identification

