

## DC Current transducer DF-C10

For the electronic measurement of low DC currents, with galvanic isolation between the primary (High power) and the secondary circuits (Electronic circuit)

$$I_{PN} = 10..500\text{mA}$$

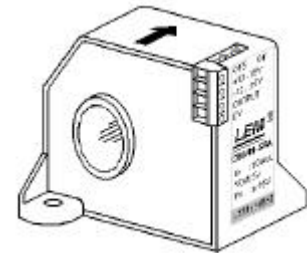
**Preliminary**

### Electrical data

Primary nominal current	Primary current range	Analogue Output signal	Type
$I_{PN}$ (mA.t)	$I_p$ (mA.t)	$V_{OUT}$ (V)	
10	16	0-10	<b>DF 0.01 C10</b>
20	38	0-10	<b>DF 0.02 C10</b>
50	80	0-10	<b>DF 0.05 C10</b>
100	160	0-10	<b>DF 0.1 C10</b>
300	480	0-10	<b>DF 0.3 C10</b>
500	800	0-10	<b>DF 0.5 C10</b>

$I_{OC}$	Overload capacity	30	A.t
$V_{OUT}$	Analog Output signal @ $\pm I_{PN}$	$\pm 10$	V
$V_c$	Supply voltage	$\pm 12...15$	VDC
$I_c$	Current consumption (max)	20	mA
$R_L$	Load resistance	$\geq 2$	k $\Omega$
$V_d$	Isolation test voltage <sup>1)</sup>	5000	VAC



### Features

- DC Measurement
- Low current transducer
- Panel mounting
- Bipolar voltage supply
- Extended measuring range

### Advantages

- Large aperture
- Good performances in harsh EMC environment
- High isolation between primary and secondary circuits
- Easy to mount
- Bipolar
- No insertion losses

### Accuracy-Dynamic performance data

X	Accuracy <sup>2)</sup> of reading @ $\pm 12\text{V}$ , $T_A = 25^\circ\text{C}$	$\pm 4$	%
$\epsilon_L$	Linearity <sup>2)</sup> of $I_{PN}$	$\pm 0.8$	%
$V_{OE}$	Electrical Offset Voltage @ $T_A = 25^\circ\text{C}$ @ $I_p = 0$	$\pm 50$	mV
$V_{OT}$	Thermal drift of $V_{OE}$ @ $0..+70^\circ$	$\pm 100$	mV
$t_r$	Response time @ 90% of $I_{PN}$	$< 140$	mS

### General data

$T_A$	Ambient operating temperature	$0..+70$	$^\circ\text{C}$
$T_S$	Ambient storage temperature	$-25..+85$	$^\circ\text{C}$
m	Mass	140	g
	Standard	TBD	

### Applications

- DC leakage current measurement
- Differential current measurement in DC applications
- Low DC current measurement

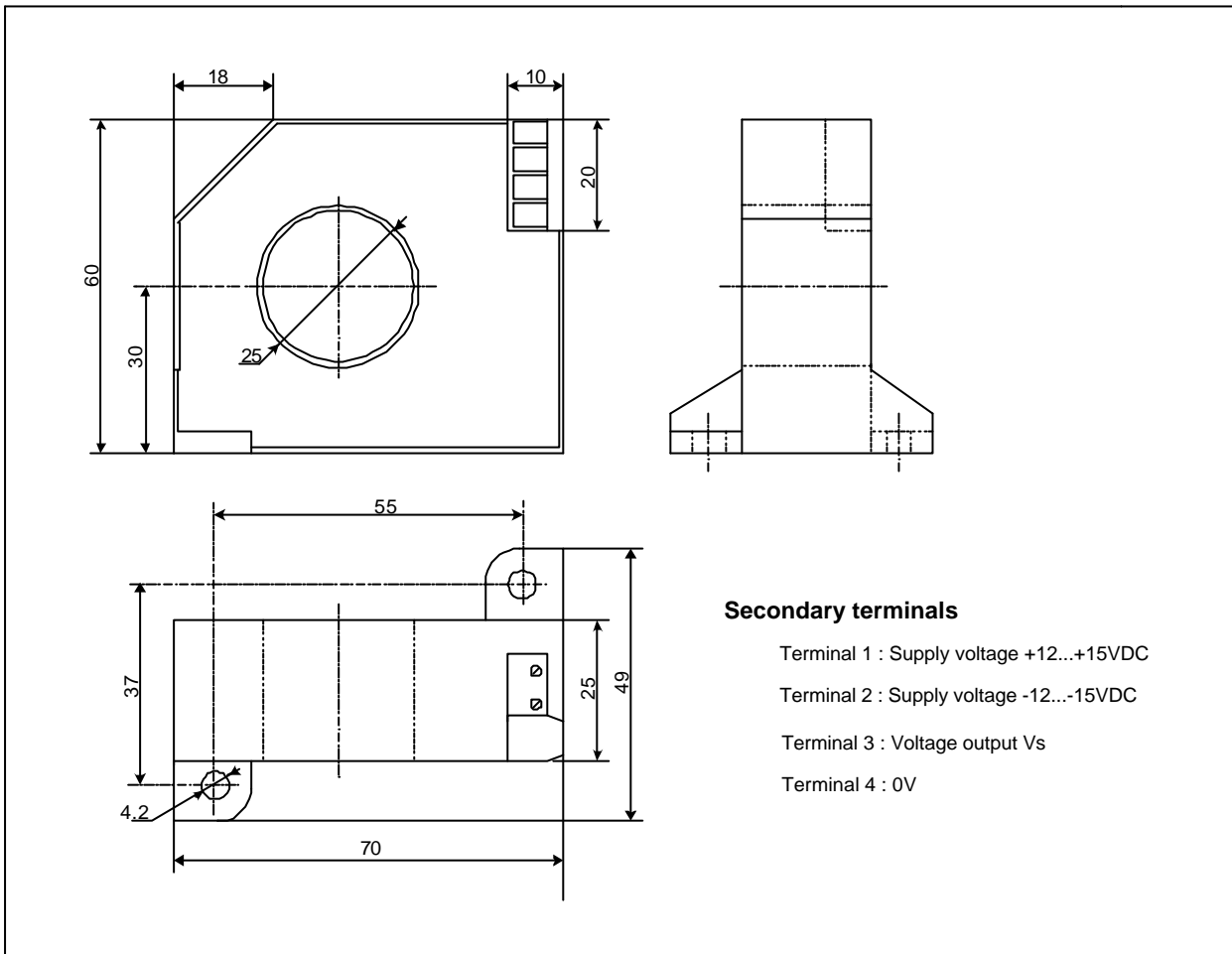
### Options on request

- DIN mounting

**Notes:** <sup>1)</sup> Between primary and secondary  
<sup>2)</sup> Excludes the electrical offset

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**Dimensions DF-C10** (unit : mm, 1mm = 0.0394 inch)



**Secondary terminals**

- Terminal 1 : Supply voltage +12...+15VDC
- Terminal 2 : Supply voltage -12...-15VDC
- Terminal 3 : Voltage output Vs
- Terminal 4 : 0V

**Mechanical characteristics**

- General tolerance  $\pm 1$  mm
- Primary aperture  $\varnothing 25$  mm
- Secondary connection Finger safe terminals
- Panel mounting 2 holes  $\varnothing 4.2$  mm  
(Distance between holes 38 mm x 55mm)

**Remarks**

- The temperature of the primary bar can not exceed 90°C.

**Output Voltage / Primary Current**

