



Moulded Module Current Sensor

Rev 2.2

High performance, cable mounted current sensor for installation into rugged environments where a fully sealed product is required to assure reliability in a wash-down environment. The device is 1000A rated, cannot be damaged by overload and is compatible with computer systems with its single 5V supply requirement.

Maximum Ratings ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Operating temperature	T_A	-40 to +100	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +100	$^\circ\text{C}$
Supply voltage	V_s	8	V
Output sinking current	I_o	10	mA
Measured current	I_m	Limited only by conductor	A



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RAZFL-105FMLG

Characteristics

($T_A = 25^\circ\text{C}$, $V_S = 5\text{V}$)

Parameter	Symbol	Lower Limit	Typical	Upper Limit	Unit
Supply current	I_S		9.2	12	mA
Supply voltage	V_S	4.5	5.0	5.5	V
Current range for $<\pm 1\%$ error (-25 to $+85^\circ\text{C}$) **	I_m	± 1000			A
Null output	V_o	2.49	2.50	2.51	V
Transfer function (per turn)	$\Delta V/I$	1.96	2.0	2.04	mV/A
Combined non-linearity and hysteresis error ($\pm 100\text{A}$, -25 to $+85^\circ\text{C}$)			0.8	1.5	%
Output error due to 15mm diameter wire position			± 0.06	± 0.1	%
Hysteresis (0 to 400AT)	Hys		0.1		%
Null drift due to temperature change	$TC \Delta V_o/V_o$	-0.25		0.25	mV/k
Gain change due to temperature change	TC_G	-0.1	+0.1	0.18	%/K
Power on settling time to 99%	t_{po}		78		μs
Risetime (10% to 90% of full scale)	t_r		5.5		μs
Response time (90% primary to 90% output)	t_{RESPONSE}		7		μs
Frequency response	$f_{-3\text{dB}}$		50		kHz
Output resistance	R_o		1		Ω
Electrical isolation*	V_d	10,000			V (AC)
Creepage distance (pri.-sec.)	d_{cp}	46			mm
Noise	V_n		6.3		mV _{p-p}
Environmental		IP68K			

NOTES: For best accuracy, centre primary conductor in aperture

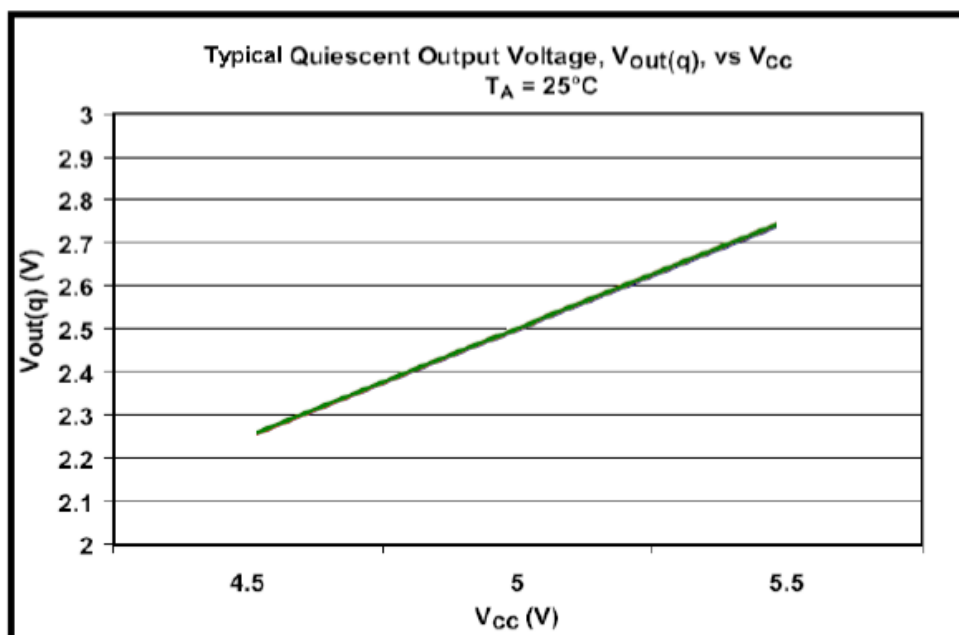
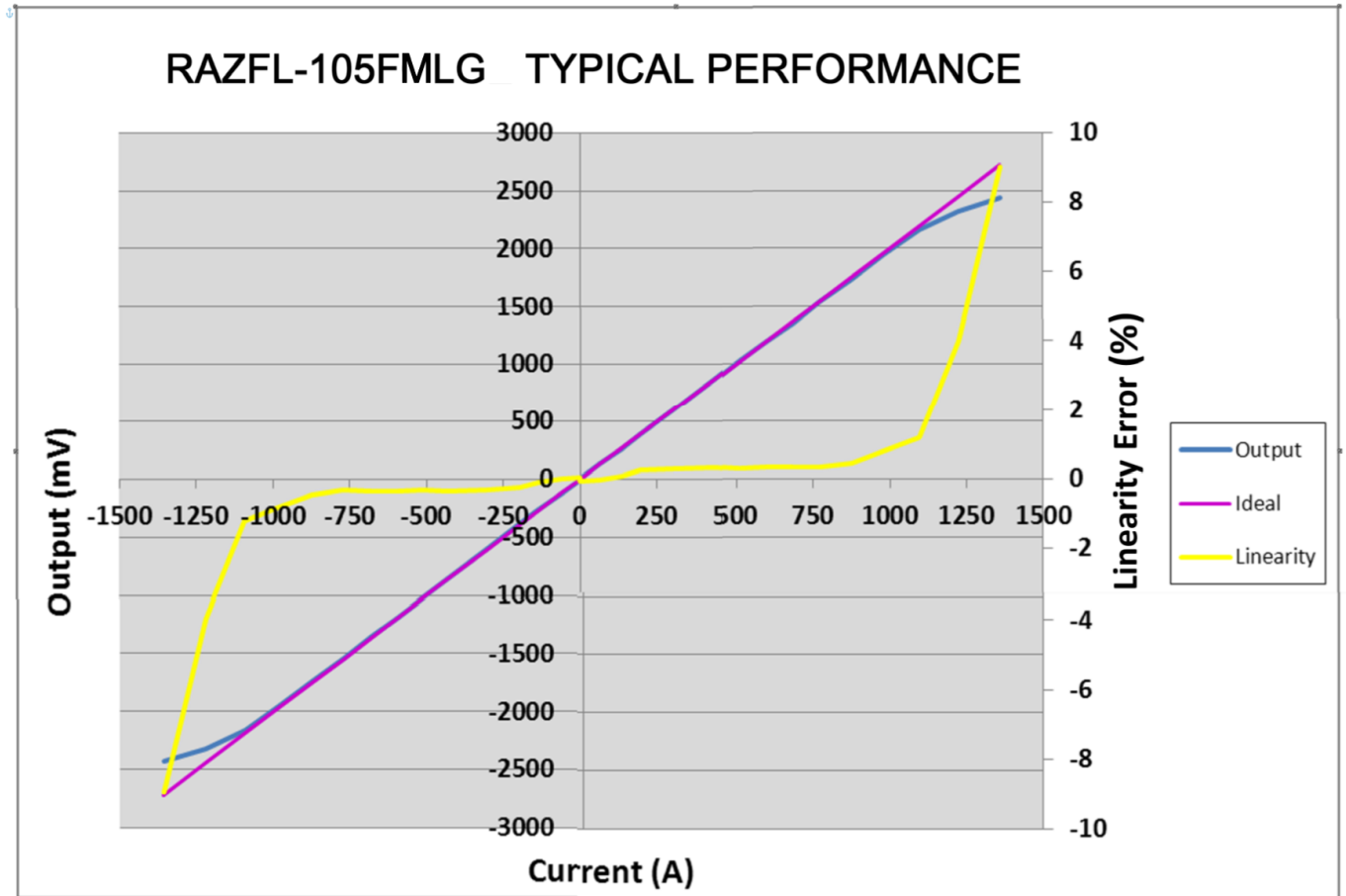
(*) Flexible cable does not have a voltage rating.

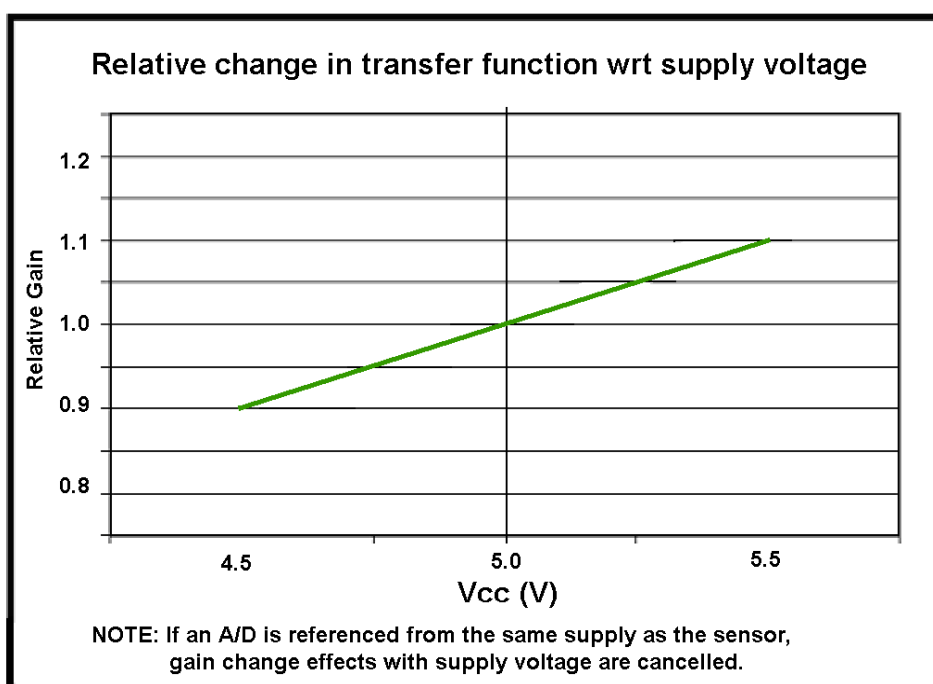
(**) Product available from 500A to 2000A



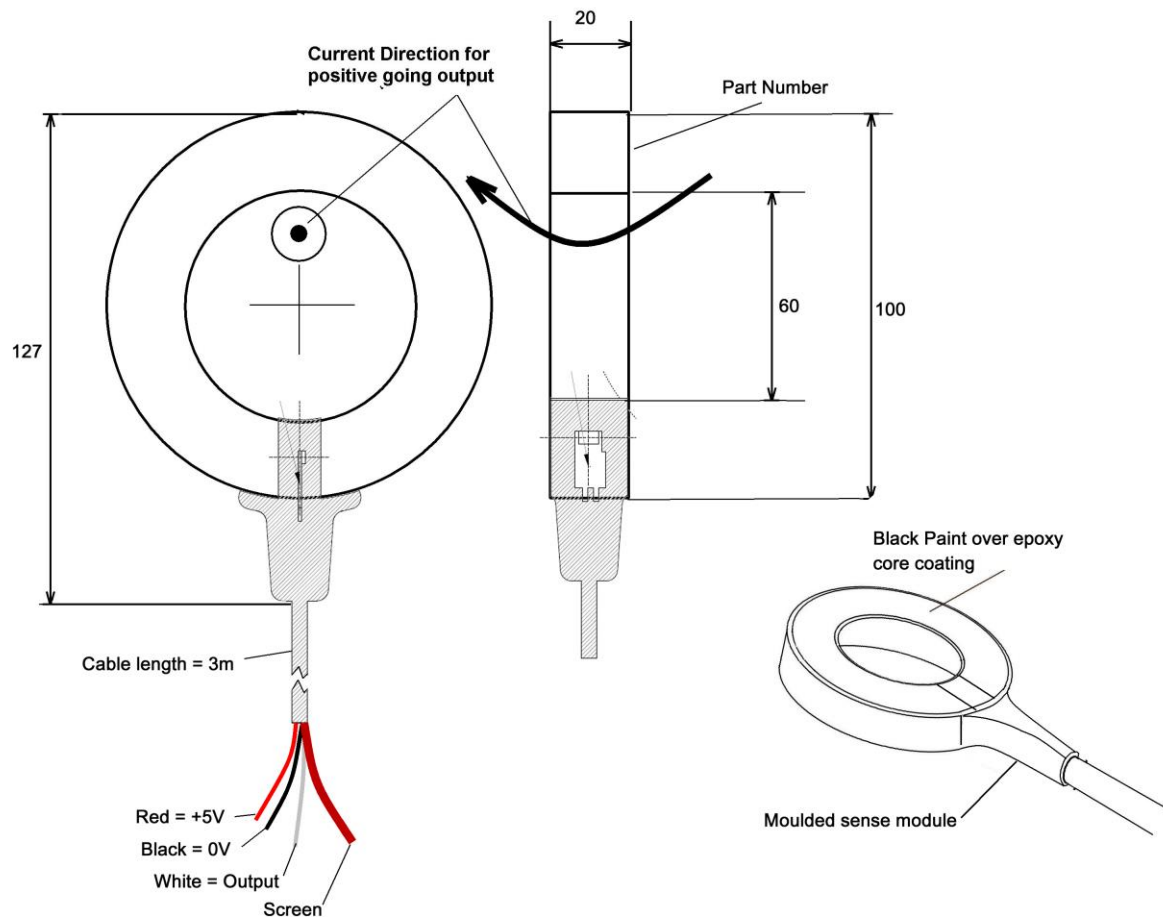
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Characteristics





Physical Properties



1000A CURRENT SENSOR



Raztec New Zealand Ltd operates a continuous product improvement program, therefore information contained in our datasheets may not reflect all current features. For clarification, please contact sales@raztec.co.nz



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Raztec Sensors was formed in 1992 and since then have been designing, manufacturing and supplying Hall Effect current transducers to some of the world's most critical and demanding users.

Over the past twenty-plus years many millions of our current transducers have been designed into failure intolerant applications where Raztec's refusal to accept anything other than the very highest standard of manufacturing excellence (ISO9001:2015 approved) has resulted in a reputation that is the envy of companies significantly larger and perhaps better known.

Who are our customers?

Raztec Sensors are recognized by many of our customers for our ability to provide top-quality performance at a very effective market price. Working with clients such as Dunkermotoren/AMETEK, Siemens, Wrightspeed, Komatsu, Panasonic Electric Works, Marincos, Techna-Tool, Metropolitan Pumps, Dynamic Controls, has provided us the opportunity to engineer solutions that are specific to our clients' application. This has resulted in a current transducer that provides exactly the output required for perfect control of the customer's specific application - at the most competitive price possible.

Need a custom solution?

Raztec are specialists in designing customised Hall Effect current sensors to suit almost any type of application. A large proportion of the products we sell are customised towards our customer's needs. If you have a particular need that an off-the-shelf sensor just can't meet, then contact us about designing a current sensor to meet your requirements.



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Custom Current Sensing Solutions