



Moulded Current Sensor

High performance, compact cable mounted current sensor for installation into rugged environments where a fully sealed product is required to assure reliability. The device is 500A rated, cannot be damaged by overload and is compatible with computer systems with its single 5V supply requirement.

Maximum Ratings (TA = 25 °C)

Parameter	Symbol	Value	Unit
Operating temperature	TA	-40 to +100	°C
Storage temperature	Tstg	-65 to +110	°C
Supply voltage	Vs	6	V
Output sinking current	Io	10	mA
Measured current	Im	Limited only by conductor	A



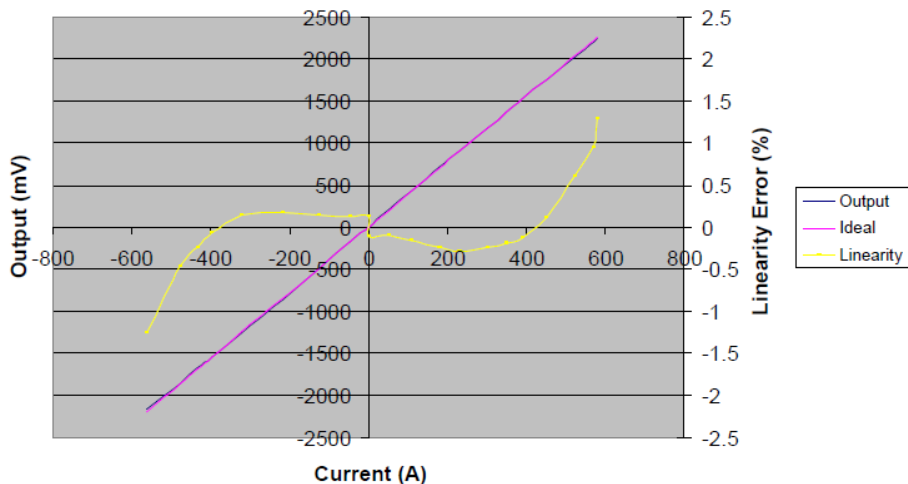
RAZFL-504MMCG

Characteristics

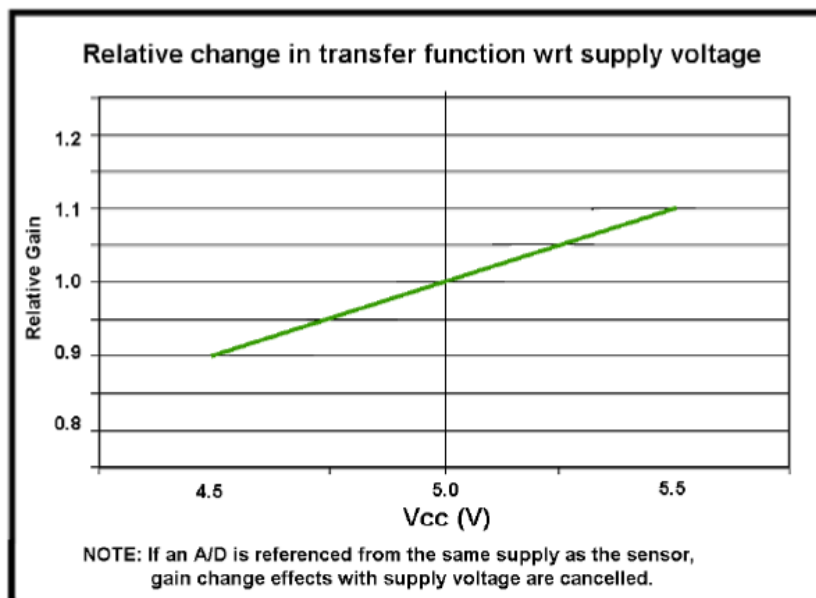
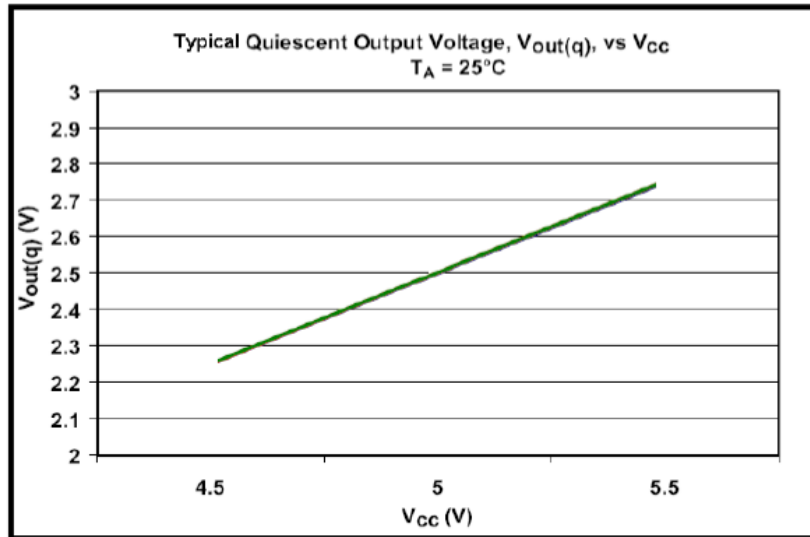
($T_A = 25^\circ\text{C}$, $V_S = 5\text{V}$)

Parameter	Symbol	Lower Limit	Typical	Upper Limit	Unit
Supply current	I_S		10	15	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	± 500			A
Null output	V_o	2.49	2.50	2.51	V
Transfer function (per turn)	$\Delta V/I$	3.92	4.0	4.08	mV/A
Combined non-linearity and hysteresis error ($\pm 100\text{A}$, -25 to $+85^\circ\text{C}$)			0.5	1.5	%
Output error due to 5mm diameter wire position			± 0.5	± 1.0	%
Hysteresis (0 to 1000AT)	Hys		0.1		%
Null drift due to temperature change	TC $\Delta V_o/V_o$			± 0.25	mV/k
Gain change due to temperature change	TCG	-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		3.6		μs
Response time (90% primary to 90% output)	t_{RESPONSE}		3.7		μs
Frequency response	f-3dB		120		kHz
Output resistance	R_o		9		Ω
Electrical isolation	V_d	600			V

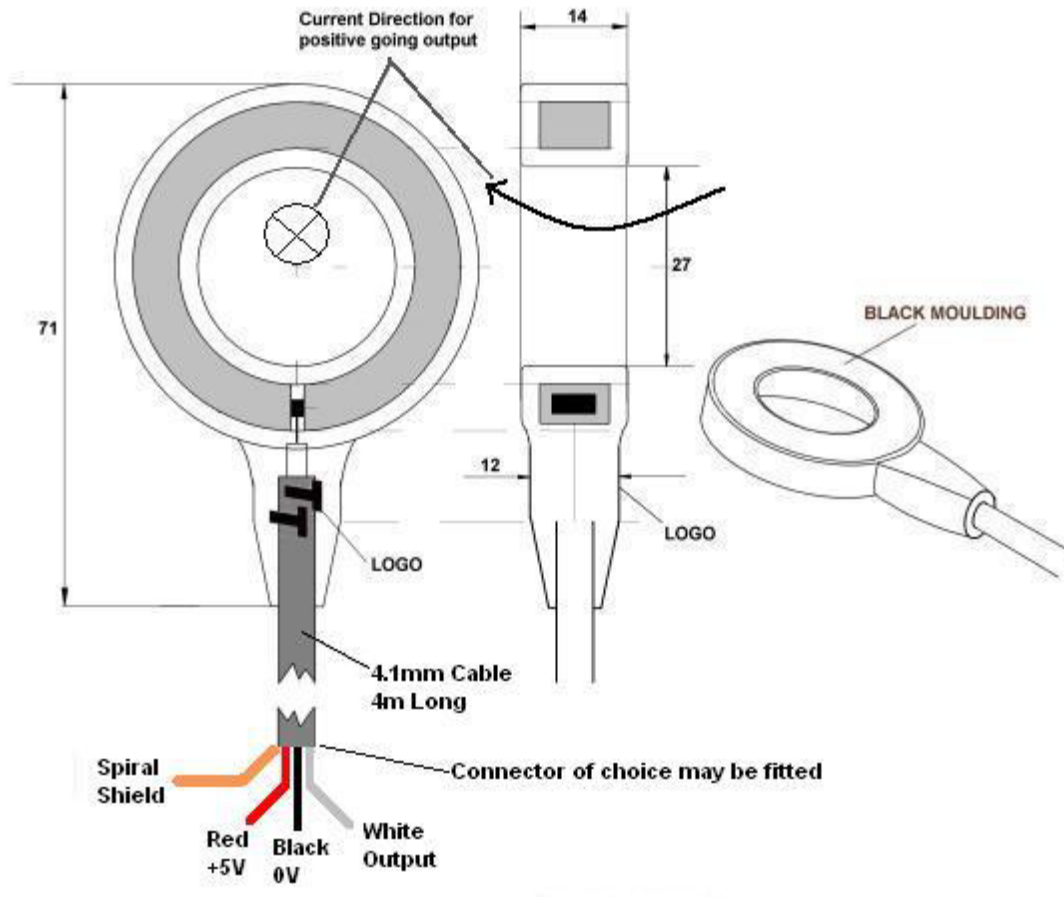
RAZFL-504MMCG TYPICAL PERFORMANCE



Characteristics



Physical Properties



NB: For best accuracy centre primary conductor in aperture

WARNING: Keep this product away from harsh chemical substances including cold cleaning agents, methylated spirits, FAM test spirits and battery acid.



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



Raztec Sensors
NEW ZEALAND LTD

About Raztec

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, Marince, 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.

