

Technology Comparison

Allegro ACS730 vs. Crocus Technology CT428 Magnetic Sensors

Allegro ACS730 vs Crocus Technology CT428 Magnetic Sensors

Feature	Allegro-Micro ACS730	Crocus Technology CT428
Technology	Hall Effect	Tunnel Magnetoresistance (TMR)
External field immunity	No	Yes
Response time (1MHz)	700ns	300ns
Noise	40 mA	10 mA
Output type	non-ratiometric	non-ratiometric
Linearity	±0.5%	±0.2%
Operating temperature range	-40°C to +125°C	-40°C to +125°C
Package	SOIC-8	SOIC-8

Key Differences of the two sensors

The Crocus Technology CT428 and Allegro ACS730 are both high-bandwidth current sensors, delivering 1MHz bandwidth.

The CT428 uses Crocus Technology's patented XtremeSense® TMR technology. It achieves a total output error of less than ±0.5% full-scale FS(typ) over voltage and the full temperature range, whereas Allegro ACS730's total output error is ±4%. This makes the CT428 a better choice for applications where high accuracy is required.

Contrary to Allegro's ACS730, Crocus Technology CT428 features two integrated TMR sensors for differential sensing to eliminate external magnetic field disturbance. This makes the CT428 the obvious choice for compact power electronic designs or any electromagnetically noisy environment.

The CT428's 65A peak current rating is higher than the ACS730's 30A continuous (50A peak). This makes the CT428 a better choice for applications where high currents are present, such as motor control or power distribution.