



LEM CURRENT TRANSDUCERS

Modules HAL300-S/SP4

Definition - Principle

The LEM type HAL300-S/SP4 are transducers employing the Hall Effect to measure DC and complex waveform AC currents in a non invasive manner. Galvanic isolation is provided between the primary (measured) and the analogue output (control) signal.

Electrical Data

Nominal current I_N	: 300 Amps RMS
Measuring range	: 0 to ± 675 Amps
Overload capacity	: 25,000 Ampere Turns
Output sensitivity	: $\pm 4V$ at I_N
Output Burden	: 10mA maximum.
Power supply	: ± 13 Volts $\pm 2V$
Overall Accuracy (at 25°C)	: $\pm 1\%$ of I_N
Dielectric strength	: 3kV RMS 50Hz for 1 minute
Insulation resistance	: 500M Ω minimum at 500V DC

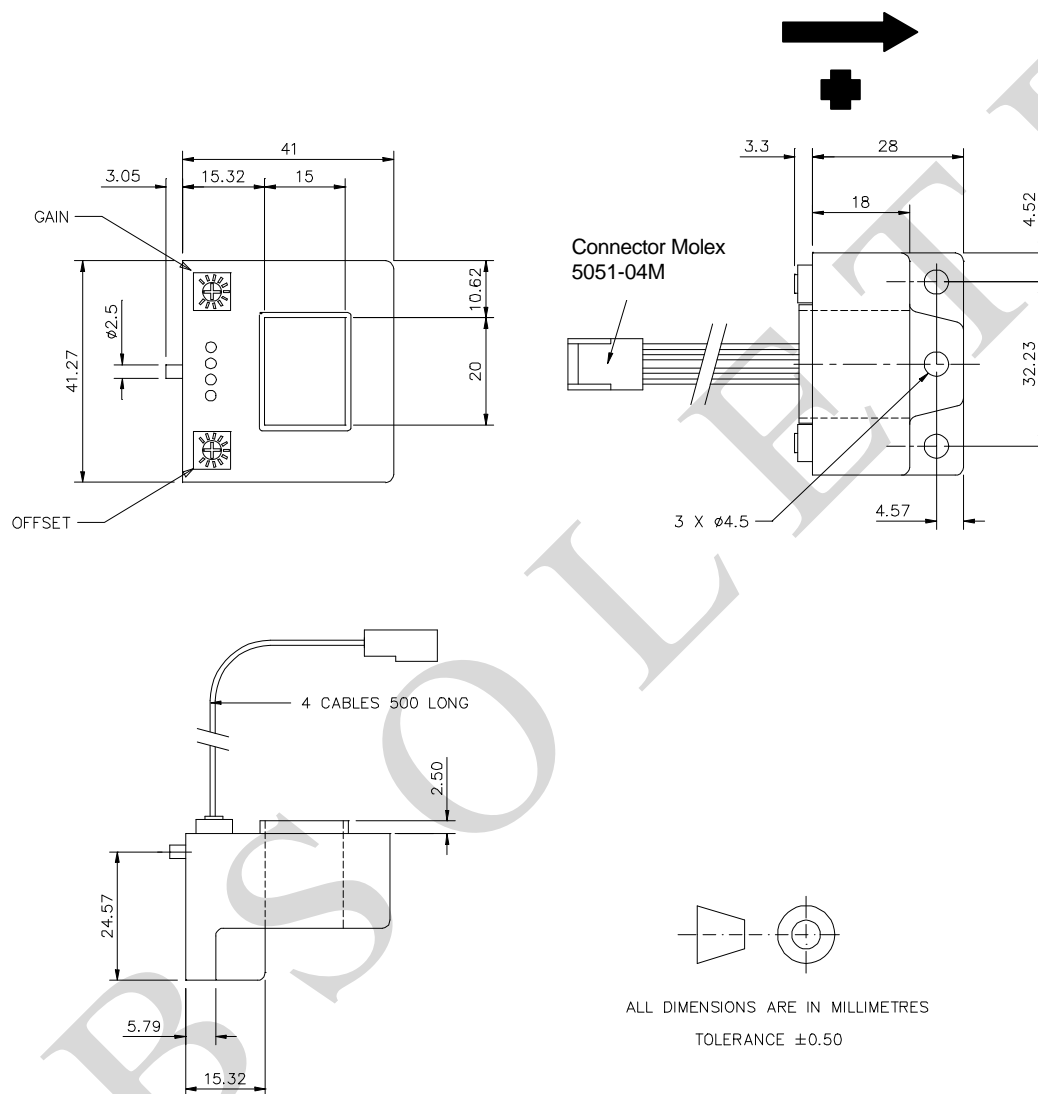
Accuracy - Dynamic Performance

Zero Offset (at 25°C)	: $\pm 10mV$
Zero offset Drift	: $\pm 1mV/^\circ C$ maximum
Gain variation	: $\pm 0.05\%$ of reading per $^\circ C$
Response time	: 3 microseconds maximum
di/dt followed accurately	: > 50 Amps per microsecond
Frequency range	: DC to 25kHz (small signal)
Core eddy current heating is produced when - (RMS current x frequency) > 400,000	

General Data

Operating temperature	: 0°C to +70°C
Storage temperature	: -25°C to +85°C
Current Consumption	: 25mA maximum
Enclosure	: UL94-VO self extinguishing plastic
Mounting	: see drawing overleaf
Weight	: 75g
Connections	Primary Circuit : Through hole 20mm x 15mm
	Secondary Circuit : Flying Leads 500mm long terminated with Molex connector 5051-04M
Polarity Markings	: To obtain a positive output signal the primary current has to flow in the direction of the arrow on the LEM module.
Secondary Terminals	(RED) : Supply Voltage +
	(BLUE) : Supply Voltage -
	(WHITE) : Output
	(BLACK) : 0 Volts

DIMENSIONS: HAL 300-S/SP4



SECONDARY TERMINALS:

Red - Supply Voltage + Vcc
 Blue - Supply Voltage - Vcc
 White - Output
 Black - 0V