



KL3356 | 1-channel accurate resistor bridge evaluation

The KL3356 analog input terminal permits direct connection of a resistor bridge. An improved input circuit makes the KL3356 significantly more accurate than the KL3351. The ratio between the bridge voltage U_D and the supply voltage U_{REF} is determined in the input circuit. In order to achieve good long-term stability, the complete circuit is re-calibrated at least every three minutes. This procedure can be synchronised by the control in order to prevent the calibration leading to a delay in the production process.

Technical data	KL3356 KS3356
Number of inputs	2, for 1 resistor bridge
Power supply	via the K-bus
Signal voltage	U_D : -20...+20 mV U_{REF} : -12...+12 V
Signal voltage U_D , U_{REF}	-20...+20 mV, -12...+12 V
Technology	DMS connection
Internal resistance	> 200 k Ω (U_{REF}), > 1 M Ω (U_D)
Power supply U_v	via power contacts
Conversion time	< 250 ms, configurable
Filter	50 Hz, configurable
Resolution	16 bit
Measuring error	< ± 0.01 % (relative to full scale value)
Current consumption power contacts	only load
Current consumpt. K-bus	typ. 85 mA
Bit width in the process image	input: 2 x 16 bit data (2 x 8 bit control/status optional)
Special features	increased measuring accuracy, self-calibration
Weight	approx. 75 g
Operating/storage temperature	0...+55 °C/-25...+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. class/installation pos.	IP 20/variable
Pluggable wiring	for all KSxxxx Bus Terminals
Approvals	CE, UL, Ex