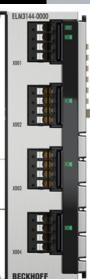
Measurement

ELM3144-0000





i ELM3144-0000 | 4-channel analog input, ±10...±1.25 V, ±20 mA, 24 bit, 1 ksps

The 2-, 4-, 6- or 8-channel ELM314x EtherCAT Terminals in the Economy line can be set to current or voltage measurement channel by channel, offering sampling rates of up to 1 ksps per channel. Analog signals in the ranges from \pm 1.25 to \pm 10 V, 0 to 10 V, \pm 20 mA or 0/4 to 20 mA can be processed. The settings for U or I measurement mode and the desired measuring ranges can be selected via the control system and TwinCAT in the CoE interface. Here it is also possible to select the extensive diagnostics features for unattended long-term use. The 2-, 4- or 6-pin push-in connectors can be removed for maintenance purposes; they enable a direct supply of connected sensors. The power contacts on the side simplify the potential distribution directly on the DIN rail. The typical EtherCAT features are available: distributed clocks functionality with timestamp and the familiar data features of the basic line such as filtering, true RMS calculation and more. Variants with factory calibration certificate and recalibration service on request are in preparation for the ELM measurement modules.

Features	ELM314x
Voltage measurement	±10/5/2.5/1.25 V, 05/10 V
Current measurement	±20 mA, 0/420 mA, NAMUR NE43

	ELM3144-0000
lumber of channels	4
echnology	voltage or current measurement, configurable for each channel
ignal type	differential
connection technology	2-/3-/4-wire
connection type	push-in, service plug 4-pin
lax. sampling rate	max. 1 ms/1 ksps (per channel, multiplex)
oversampling factor	n = 110 selectable
nternal resistance	$> 4 M\Omega$ (voltage), typ. 200 Ω (current)
leasuring error	typ. ± 100 ppm/ ± 0.01 % relative to the respective full scale value @ 23 ± 15 °C
unctional diagnostics	yes
connection diagnostics	broken wire/short-circuit
Distributed clocks	yes, accuracy << 1 µs
Current consumption power ontacts	load-dependent
urrent consumption E-bus	typ. 250 mA
Veight	approx. 350 g
perating/storage temperature	0+55 °C/-25+85 °C
hermal dissipation	typ. 2 W
pecial features	ExtendedRange 107 %, free numeric filter, TrueRMS, integrator/differentiator, non-linear scaling, PeakHold, service plug, Timestamp
pprovals/markings	CE, UL

Accessories	
ZS9100-0002	

