

Analog to SDI-12 Converter

ECOMATIK dendrometers and temperature sensors (e.g. LAT-B3) are originally equipped with an analog output. The analog-to-SDI-12 converter converts their signal into digital form and transmits the data via the SDI-12 protocol. The converter can also be used with other sensors operating with a 2.5 V excitation voltage. The converter is fully SDI-12 version 1.3 compliant.

The converter is available in two different versions:



Integrated version



Stand-alone version

The integrated version is factory-integrated into the sensor cable and pre-programmed for the respective sensors. The output is provided in μm for dendrometers and in $^{\circ}\text{C}$ for the LAT-B3 and other ECOMATIK temperature sensors.

The stand-alone version of the SDI-12 converter is equipped with a terminal block. This allows customer to connect ECOMATIK dendro-meters or ECOMATIK temperature sensors, or sensors from third parties that operate with a 2.5 V excitation voltage.

Technical specification

Sensor protocol	SDI-12 Version 1.3
Power supply voltage	3.6 V to 24 V DC
Warming up duration	700 mSec
Power consumption	Sleep: 0.13 mA/ 5V Measurement: 4.8 mA (3 Sec.) /5 V
Noise free resolution	Better than 17 bits
Channels	2
Sensor Input type	Single ended
Supported SDI-12 commands	aM!, aMC!, aC!, aCC!, aD0!, aI!, aV!, ?!, aAb! (a, b=Address) and extended SDI commands
Cable assignment	Brown: Excitation 3.6-24 V DC (Vex) White: Power/Signal Ground (GND) Green: SDI-12 Signal
Protection	Integrated: Waterproof. Stand-alone: IP 66
Size/Weight	Integrated: Φ : 17 mm, L: 123 mm without cable Stand-alone: B 65 mm, H: 115 mm, T: 56 mm, weight: 167 g
Cable length	Standard 5 m (cable extension tested up to 100 m)