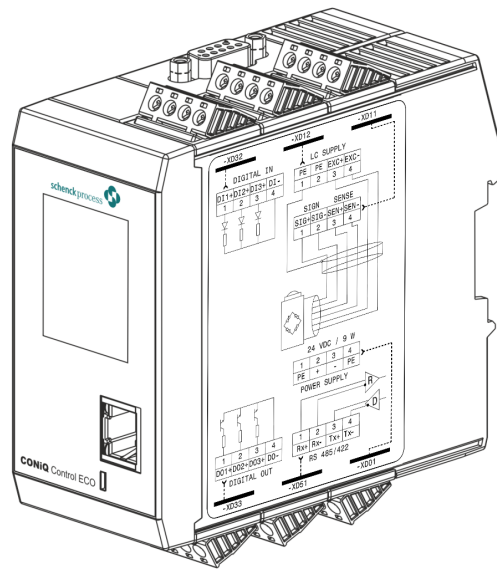


CONiQ Control ECO

Weighing transmitter

- Digital weighing transmitter
- For top hat rail assembly
- System-capable with fieldbus, serial interface, analog output as well as binary inputs and outputs
- Easy commissioning via web interface without special software
- 3 binary outputs 24 VDC
- 3 binary inputs 24 VDC
- Integrated weight display
- Barriers for connecting scales in hazardous areas available



Application

The CONiQ Control ECO weighing transmitter is a reasonably priced solution for many basic weighing tasks.

Its fieldbus, serial interface and analog output make it suitable for scales not operated on-site which are connected to supervising electronic data processing and PLC systems. The installed display also allows monitoring of weight values directly via the device.

Typical applications for the CONiQ Control ECO are:

- Weight sensor for weight monitoring and bin level measurement. Serial or analog transmission of data to an electronic data processing or PLC system
- Monitoring of containers' fill levels, indicating MIN and MAX values via parallel contacts

Model

The basic unit contains the following functions:

- Measuring circuit with A/D conversion
- 3 binary outputs, open collector
- 3 binary inputs, galvanically isolated
- 1 serial interface RS 485/422
- Ethernet connection for configuration

- TFT color touch display 1.77 in for weight display and basic weighing functions

The following additional interfaces are also available:

- PROFIBUS
- PROFINET
- Analog output

The CONiQ Control ECO is mounted on a standard DIN top hat rail in the control cabinet. There is a 19 in rack available that can hold up to 8 units specifically for modernizing existing systems.

The power supply is 24 VDC. Matching top hat rail power adapters are available as accessories.

For the intrinsically safe connection of load cells in hazardous areas (ATEX zones), suitable barrier assemblies are available. The barrier sets are also mounted directly onto the top hat rail.

Communication

The preferred connection of the CONiQ Control ECO to a control system or PLC is commonly realized via a fieldbus. Available protocols:

- PROFIBUS
- PROFINET

Serial protocols, also standardized:

- MODBUS-RTU
- SMA (Scale Manufacturers Association)

Especially when modernizing older installations or for connecting a display on-site in a hazardous area:

- Analog data output

Parallel signal exchange

The CONiQ Control ECO is equipped with the following inputs and outputs for control tasks:

- 3 opto-coupler inputs 24 V
The inputs can be used to control the basic functions of the scale: tared / zero setting.
- 3 open collector outputs indicate the status of the device (Tared, ADU fault) or provide the results of the three configurable weight comparators.

Configuration

The CONiQ Control ECO is configured through the web-based user interface directly in a browser of a service computer. All common browsers are supported. It is not necessary to install a configuration software or an APP.

This method allows:

- Configuration of all instrument parameters
- Adjustment of the device
- Exporting of device information and status information
- Access to technical documentation

Access is password-protected.

All parameters and adjustment data are stored in a persistent storage in the terminal also during power failure.

The main parameters of the scale and all adjustment values can be protected against overwriting using the calibration switch on the front panel. If necessary, they can be further secured with a safety seal.

Function

The main function of the CONiQ Control ECO is the cyclic transmission of weight values to an external control system.

Basic functions of the scale are for example:

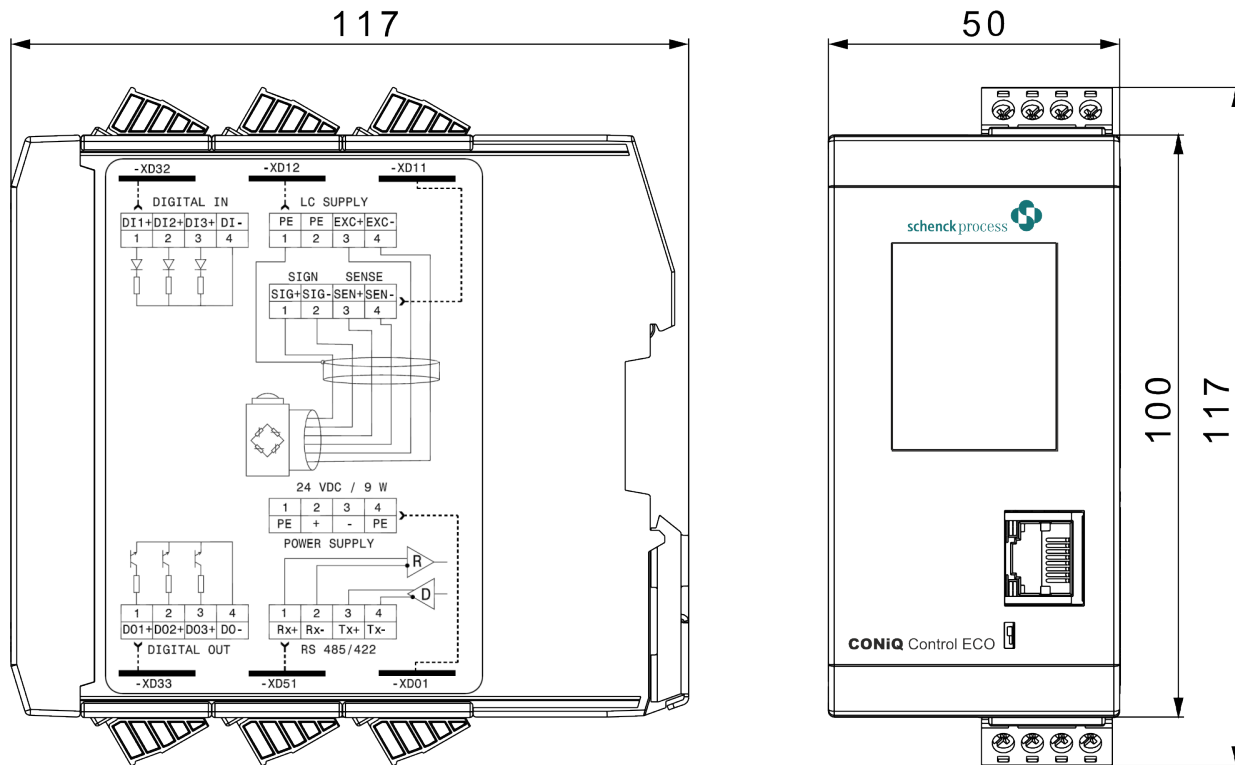
- Acquire and clear tare
- Zeroing

The scale can be controlled as follows:

- Via web interface
- Via touch display on the device
- Via fieldbus (depending on the version)

The device can also be used for level control. For this purpose, three switching thresholds with hysteresis can be configured. The switching state of these thresholds can be signaled in binary format through the output contacts as well as via the serial connection/fieldbus.

Dimensions



Technical Data

Supply voltage	$U_{DC} = 24 \text{ VDC}$	Tolerance: + 10 / - 15 %
Max. power consumption	9 W	—
Ambient temperature during operation	-10 ... + 55 °C	—
Activation temperature	> 0 °C	—
Storage/transport limit range	- 20 ... 70 °C	—
Moisture	< 90 % non-condensing	acc. to IEC 60068-2
Type of protection	IP20	—
Height level (above sea level)	< 2000 m	—
Vibrations	The device may not be exposed to heavy vibrations.	—
Load cell type	analog, strain gauge-based	6 or 4-wire technology possible
Load cell supply voltage	5 VDC	—
Total impedance of the weighing cells	$\geq 75 \Omega$	i.e. for example 4 weighing cells, each with 350 Ω
Accuracy*	$\leq 6,000 \text{ d}$	—
Linearity*	< 0.01 %	—
Zero point stability error (TK ₀)*	< 0.05 $\mu\text{V/K RTI}$; $\leq 0.01 \%$ / 10 K bei 1 mV/V	—
Span stability error (TK _{span})*	< $\pm 4.0 \text{ ppm/K}$	—
Sensitivity	0.5 $\mu\text{V/d}$ @ 6,000 d	—
Measurement input (measuring signal + dead-weight)	$\pm 20 \text{ mV}$	—
TFT color touch display	1.77 in	Display: 128 × 160 pixels

* for a measuring time of 160 ms

Equipment supplied

W094636.B01	CONIQ Control ECO PROFIBUS Weighing transmitter for top hat rail with PROFIBUS DB interface
W094636.B02	CONIQ Control ECO PROFINET Weighing transmitter for top hat rail with PROFINET interface
W094636.B03	CONIQ Control ECO Analog Weighing transmitter for top hat rail with an analog output 0(4) – 20 mA
W094636.B04	CONIQ Control ECO PROFIBUS + Analog Weighing transmitter for top hat rail with PROFIBUS DP interface and analog output 0(4) – 20 mA
W085513.B01	19-inch rack VNG 6000 for holding max. 8x CONIQ Control ECO

