

SD2100 WEIGHING CONTROLLER



Applications

The SD2100 is suitable for nearly every industrial weighing and process control application. Accurate weighing, dosing and handling recipes, it's all made easy with the SD2100. The SD2100 can function as a standalone control unit and can also function in a network with other devices using one of the many communication ports that are available. The SD2100 is a real all-in-one device: a unique weighing amplifier / PLC Hybrid.

Network options

The SD2100 can be used in various industrial networks, such as Ethernet, RS485 or CANbus. The SD2100 can also be used in a network with multiple SD2101 or SD2102 weighing amplifiers. The SD2100 can also optionally be equipped with a PROFIBUS or PROFINET interface.

Programmable PLC

Thanks to its integrated and freely programmable PLC, the SD2100 is often the first choice in industrial weighing and control processes. The PLC can operate independently, but it can also be used in combination with other externally connected PLCs.

Digital filtering

Two adjustable digital filters (FIR and Moving average) ensure that any unwanted vibrations and interfering frequencies will be filtered out from the loadcell input signal.

Log function

The log function can be very useful to visualise the effect of the digital filters on to the load cell input signal. This information can be stored into a CSV formatted file and can be easily imported into other PC applications.

Recipe module

The recipe module can hold up to 100 recipes. These recipes can contain multiple components. A total of 200 components can be stored. The recipe module is equipped with consumption registration and automatic in-flight correction.

Flow module

The flow module measures and registers the product flow and is equipped with a manual fill detection and automatic filling system control.

Loss in Weight (LIW)

The SD2100 can be used in applications with weight gain or weight loss.

I/O

The SD2100 is equipped with three digital inputs and three relay outputs. The number of inputs and outputs can easily be expanded by means of standard CANopen I/O modules. This enables the SD2100 to process and control a virtually unlimited amount of analog or digital sensors and actuators.

Diagnostic functions

Various diagnostic functions for an easy readout of the communication status and other useful information.



"All in one"

A weighing amplifier and PLC combined

Freely programmable

Integrated PLC

Very accurate

E10000 class III
24 bits

Certified to

EN45501 / OIMLR76

Fast

Conversion rate adjustable up to 1250Hz

Multifunctional

Dosing/recipe module

100 recipes
200 components

Flow module

Manual fill detection
Filling system control

Loss in Weight (LIW)

Digital filters

FIR
Moving average

Digitale filters

FIR
Moving average

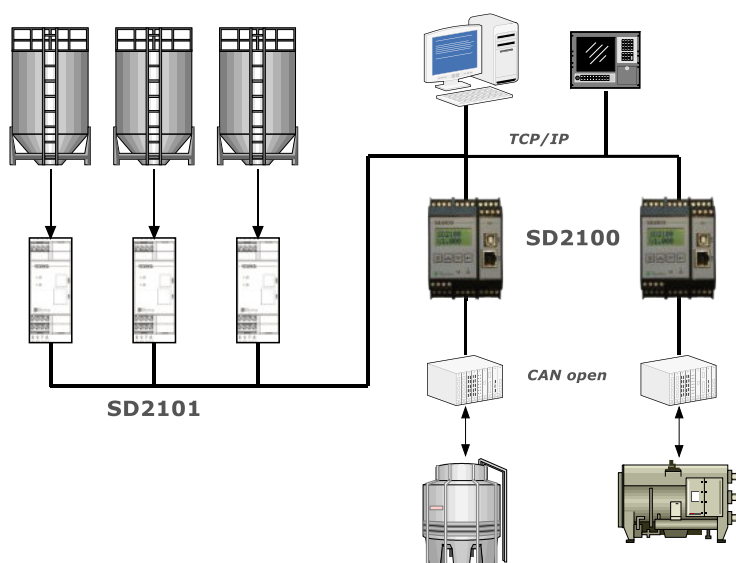
Log function

Network capability

Ethernet
CANbus
RS485 or RS232
USB
PROFIBUS (optional)
PROFINET (optional)

With powerful
configuration software

DIN-rail mounting



Applications

- Machine engineering
- Process industry
- Asphalt- and concrete processing
- Heavy-duty transport
- Bulk cargo industry
- Poultry processing
- Dairy industry
- Synthetics processing
- Pharmaceutical industry

Load cell input

Number of inputs	1
Type	1, 2, 4, 8 mV/V
Connection	4 or 6 wire
Minimum impedance	87 Ω
Excitation voltage	5 Vdc
Max. excitation current	(square wave) 5 Vac
Resolution	80 mA
Conversion rate	24 bits
Digital filtering	53, 100, 250, 500, 750, 1000, 1250 Hz Moving average, FIR

Approval

Standard	OIML R076-2-e93, EN45501
Certification number	TC7553
Certification class	III
Divisions	≤ 10000
Temperature range	0 ... 40 °C

Power supply

Supply voltage	20 ... 30 Vdc
Max consumption	5,2 W

Digital inputs

Number of inputs	3
Type	Isolated with 1 common
Range	0 ... 35 Vdc

Digitale uitgangen

Number of outputs	3
Type	Relais met 1 common
Contact rating	3A/30Vdc 3A/250Vac
Contact type	Normally open

Communication

Ethernet	10/100 Mbps
Protocol	FTP, Modbus TCP
CANbus	62,5 ... 500 kBd
Protocol	CANOpen
RS485 or RS232	1200 ... 115200 Bd
Protocol	Modbus RTU, ASCII, ASCII Log
USB	1.1 / 2.0
Protocol	SD-Config
PROFIBUS (optional)	PROFIBUS-DP (Slave)
PROFINET (optional)	PROFINET-IO (Device)
Class	CC-A

Temperature range

Storage	-20 ... 70 °C
Operating (non-certified)	-10 ... 40 °C
Operating (certified)	0 ... 40 °C

Mechanical

Mounting	35mm DIN-rail
Dimensions SD2100	L99 x B68 x H114 mm
Dimensions SD2100-PB	L99 x B90,5 x H114 mm
Dimensions SD2100-PN	L99 x B90,5 x H114 mm
Protection class	IP20
Connectors	Removable screw terminals
Weight SD2100	365 g
Weight with PROFIBUS	445 g
Weight with PROFINET	445 g

Order numbers

95002000	SD2100
95002004	SD2100 with PROFIBUS-DP
95002007	SD2100 with PROFINET-IO
95100003	Calibration sealing set (labels for sealing in certified applications)