



Description:

The SD2100 is suitable for nearly every industrial weighing and process control application. Accurate weighing, dosing and handling recipes, it is 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.

Main features:

- A weighing amplifier and PLC combined
- Freely programmable integrated PLC
- Very accurate: e10000 class III
- Fast conversion rate adjustable up to 1250Hz
- Multifunctional
- Dosing/recipe module
 - o 100 recipes
 - o 200 components
- Flow module
 - o Manual fill detection
 - o Filling system control
 - o Loss in weight (LIW)
- Digital filtering
- FIR
- Moving average
- Log function
- Network capability
 - o TCP/IP
 - o USB
 - o CANbus
 - o RS485/232
 - o Profibus (optional)
- With powerful PC configuration software
- DIN rail mounting



WEIGHING CONTROLLER TYPE SD2100

Applications:

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

Network options

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

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) ensures that any unwanted vibrations and interfering frequencies will be filtered out from the load cell 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)

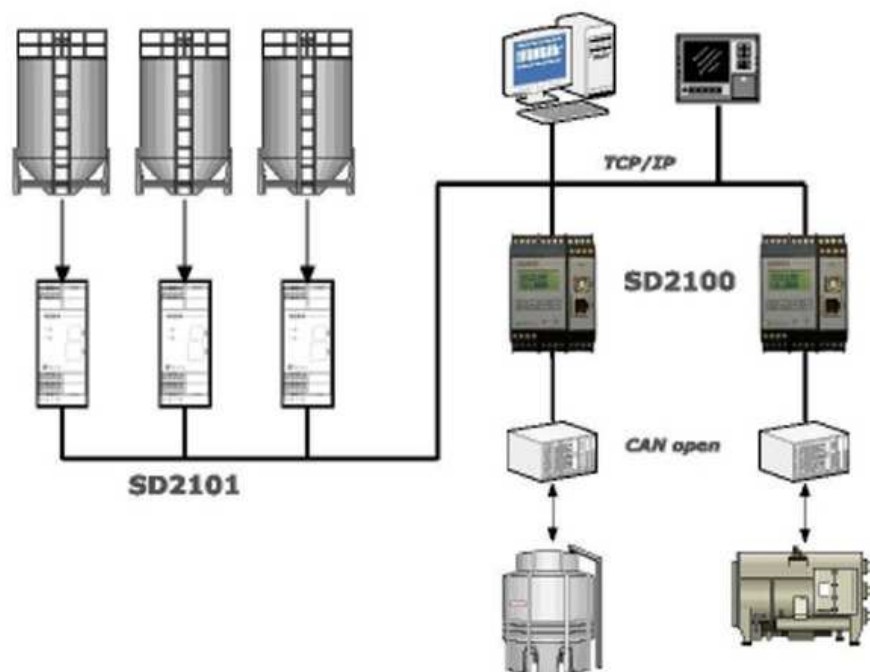
The SD2100 can be used in applications with weight gain or weight loss.

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.



Load cell input:

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

Approval:

Standard	OILM R076-2-e93; EN45501	
Certification number	TC7553	
Certification class	III	
Divisions	≤10000	
Temp. range	0°C – 40°C	

Power supply:

Supply voltage	20....30 Vdc
Max. consumption	5.2 W

Digital inputs:

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

Communication:

Ethernet TCP/IP Protocol	10/100 Mbps FTB, Modbus TCP
USB Protocol	1.1 /2.0 SD-Config
RS232 or RS485 Protocol	1200....115200 Bd Modbus RTU, ASCII, ASCII logmode
CANbus Protocol	62,5.....500kBd CANOpen
Profibus-DP	Optional (SD2100-PB)



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Digital outputs:

Number	3
Type	Relay with 1 common
Contact rating	3A/30 VDC; 3A/250 VDC
Contact type	Normally open

Temperature range:

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

Mechanical:

Mounting	35mm DIN rail
Dimensions SD2100	(L)99 x (W)68 x (H)114 mm
Dimensions SD2100-PB	(L)99 x (W)90,5 x (H)114 mm
Protection class	IP20
Connectors	Removable screw terminals
Weight standard	365g
Weight with profibus	445g

Standard SD2100
SD2100 with profibus-DP
Calibration sealing set (labels for sealing in certified applications)