

SD-01



Features

- / Display and F/I converter
- / Capable to simple dosing
- / No additional auxiliary power supply
- / Upgrade for sensors already supplied

Plug-In Display for Gear-Wheel Sensors

Description:

The SD-01 series is a universally applicable on-the-spot display for all gear-wheel volume sensors of Profimess GmbH provided with the plug connection as per DIN43650. The display is simply inserted between the plug and plug socket of the volume meter. Optionally, the display unit can display the flow as the current value or the accumulated volume as the sum. In the basic version, the SD-01 transmits the rectangular signal from the gear-wheel volume sensor without modifying it. In the next extended level, the device is equipped with a F/I converter which translates the rectangular signal into a freely parametrizable 0(4) to 20mA signal. Another method is to equip the display unit with two relay contacts which can be used for monitoring MIN/MAX parameters of a flow volume or to implement a simple dosing function. All necessary settings for the SD-01 are stored in an EEPROM and are preserved even in the event of a power failure. If previously supplied gear-wheel volume sensors need to be upgraded with the SD-01, the user can remove just the plug PCB of the sensor and mount the display unit without much effort.

Application:

In practice, use of impulse emitting volume sensors is widely popular. Often the user wishes, on the one hand, to process the measured value within his guide system but, on the other hand, also make it available on-the-spot so as to optically monitor maintenance work or regulating operations. Also, many controls are capable of processing only analogue inputs but not impulse signals or, for this purpose, an expensive impulse input card must be added. The SD-01 plug-in display offers an ideal and cost-effective solution to this problem. This version with the display of the accumulated volume and two relay contacts is moreover capable of dosing through the connected volume sensor by connecting one of the relay outputs to a magnetic valve and by utilizing the second as the START/STOP input. This feature turns the volume sensor/SD-01 unit into a practical dosing system.

Electrical Specifications:

Supply voltage /	10...19 VDC or 18...28 VDC
Power consumption /	120 mA max.
Display /	7-segment LED, 7.62 mm, red
Range /	0,000...9999 with floating point, overflow >9999 display 9999
Keypad /	two keys behind the front aperture
Protection class /	IP65
El. connection /	angled connector DIN43650 (4-pole), polarity-reversal-proof

Impulse output (incremental signal) /

Impulse amplitude:	approx. 0,8x Supply voltage, depends on load
Impulse form in symmetrical output signal:	rectangle, scan ratio for each channel 1:1, ± 15%
Impulse displacement between two channels:	90°, ± 30°
Output rating per channel:	0,3 W max., short-circuit-proof

Analogue output (Option) /

Output:	0(4)...20 mA, short-circuit-proof
Load:	≤ 250 Ohm at 18...28 VDC supply ≤ 50 Ohm at 10 VDC supply
Resolution:	10 Bit

Relay outputs /

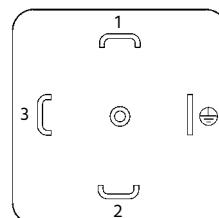
Load:	24 VDC, 1 A max.
-------	------------------

Technical Specifications:

Operating temp. /	0...60°C
Storage temp. /	-25...+85°C
Housing /	aluminium
Dimensions /	height w/o plug approx. 35 mm, width approx. 60 mm, depth approx. 60 mm
Weight /	approx. 0,12 kg

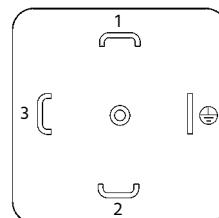
Electrical Connection:

Version: SD-01.1



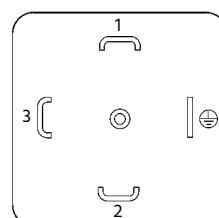
PIN 1 = 12/24 VDC
PIN 2 = GND
PIN 3 = channel 1
PIN \oplus = channel 2

Version: SD-01.2



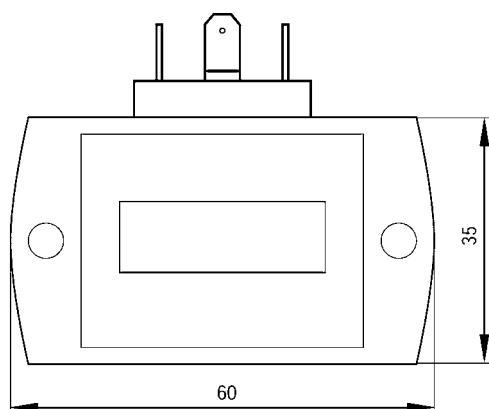
PIN 1 = 12/24 VDC
PIN 2 = GND
PIN 3 = 0/4-20 mA
PIN \ominus = -

Version: SD-01.3



PIN 1 = 12/24 VDC
PIN 2 = GND
PIN 3 = relay 1
PIN \ominus = relay 2

Dimensions in mm:



Ordering Codes:

Order number	SD-01.	2.	1.	1
SD-01 Plug-In Display				
Output signal /				
1 = rectangular signals 2 = analogue output 0(4)...20 mA 3 = 2 relay contacts 24 V DC 1 A				
Supply Voltage /				
1 = 24 VDC 2 = 12 VDC				
Display /				
1 = current flow value 2 = volume (sum of flow), not for SD-01.1				