

# Flow Converter UNICON-DF®



- Measuring range programmable from  $\pm 99999$  Digit
- Unit programmable
- Totalizer programmable
- Output 4..20 mA, loop powered
- Impulse output for external evaluation
- 2 alarm outputs electronic, voltage free

## Characteristics

The Flow-Converter UNICON-DF is used in food technology, chemical and pharmaceutical industry and water technology. In connection with any type of pulse flow sensor the flow rate can be measured, displayed and converted in a 4..20 mA signal. An additional feature is the summation function (totalizer). Using the alarm outputs a quantity dosage can be realized. The overall totalizer is zero voltage protected and can only be reset by a special code (password protection).

## Technical data

### Power supply

Loop voltage : 12..30 V DC, 2-wire  
 Operating temperature : -10..+55 °C  
 CE-conformity : EN 61326-1:2013

### Measuring input

Type : Inductive transmitter (coil),  
 Namur sensor or e.g. Hall-Sensor  
 (rectangular pulse) programmable  
 alternatively external pulses 0/5..24 V DC.

- Coil : switching level from  $\pm 5.. \pm 1000$  mV  
 programmable

- NPN sensor : switching level < 0.9 V low, > 2.1 V high  
 pull-up-resistance 20 k $\Omega$

- PNP sensor : switching level < 0.9 V low, > 2.1 V high  
 pull-down-resistance 20 k $\Omega$

- Namur : switching level < 1.4 mA low,  
 > 1.8 mA high, hysteresis approx. 0.4 mA

Frequency : 0.1/10..2000 Hz  
 (depends on the measuring interval)

### Outputs

Signal : 4..20 mA  
 Burden :  $RA \leq (U_B - 14 \text{ V}) \div 0,02 \text{ A}$   
 Accuracy :  $\pm 0.1 \%$  measuring value  $\pm 2$  Digit  
 Impulse output : Transistor  $\leq 5$  Hz, load max. 60 mA,  
 short-circuit-proof  
 impulse width 100 ms,  
 quantity / volume per impulse  
 programmable from 1..99999 Digit

### Alarm outputs

Transistor : max. 30 V DC, 60 mA,  
 short-circuit-proof

Voltage drop : < 2V

Display : LCD-dot matrix, 4.9 mm character height  
 2 lines 16 character each

Flow : -99999..0..99999 Digit,  
 max. 3 decimal digits

- Unit : l/s, l/min, l/h, m<sup>3</sup>/s, m<sup>3</sup>/min, m<sup>3</sup>/h,  
 (US)gal/s, (US)gal/min, (US)gal/h,

bar(rel)/s, : bar(rel)/min, bar(rel)/h

Totalizer : -999999..0..999999 Digit,  
 max 3 decimal digits

- Unit : l, m<sup>3</sup>, (US)gallon, barrel

- Storage : daily totalizer, not voltage safe  
 total totalizer, voltage safe

Case : field mounting

Material : Case Polyamide with fiber glass  
 PA6-GF/GK 15/15, Front foil Polyester

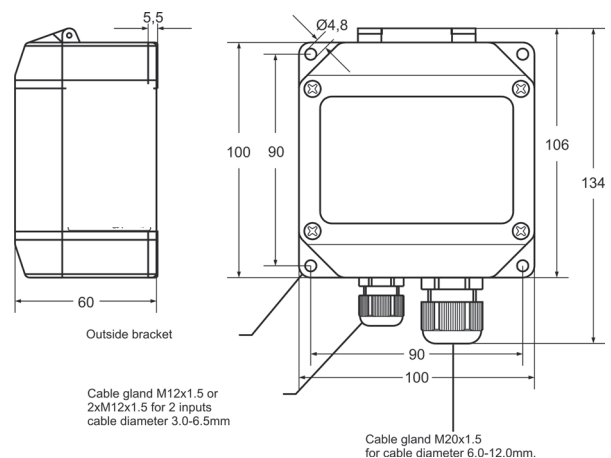
Dimensions : 100 x 100 x 60 mm (WxHxD)

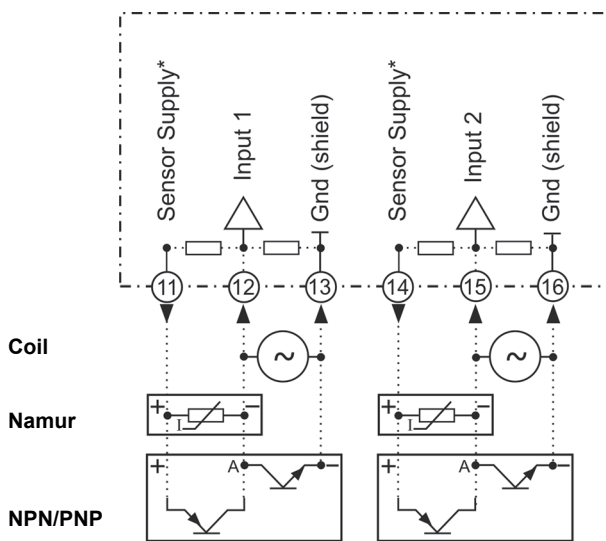
Weight : max. 360 g

Connection : screw terminal with pressure plate,  
 2,5 mm<sup>2</sup> flexible, 4 mm<sup>2</sup> single wire

Protection class : IP65, terminals IP20 acc. to BGV A3

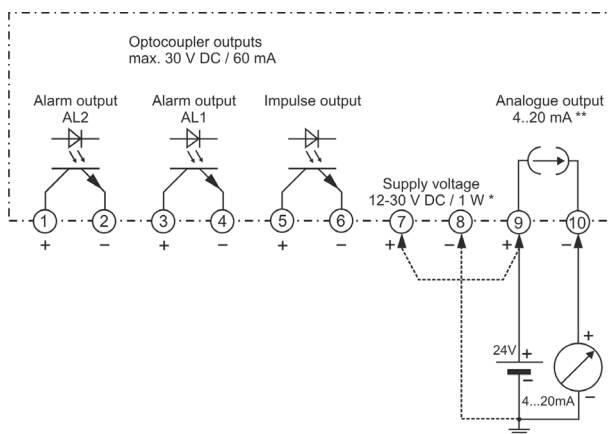
## Dimensions



**Connection diagrams**
**Terminal strip sensor input**

**Ordering code**

 UNICON-DF -  1. -  2. -  3.

1. Type	
1	inductive sensor (coil), Namur sensor, NPN and PNP sensor (Impulse), analog output 4...20 mA, 1 Impulse output for ext. evaluation, 2 electronic alarm outputs
2	as 1, but additional input for addition / subtraction, incl. 2nd cable gland
2. Mounting	
02	field mounting, connection of the flow sensor with separate cable
3. Options	
00	without option

**Terminal strip in-/outputs**


\* Separate supply voltage over the terminals 7 and 8 only when using Namur sensors (according to DIN EN60947) or sensors with NPN- or PNP output with power demand  $U_b > 5 \text{ V} / > 2 \text{ mA}$ .

\*\* For supplying the converter use terminals (9) and (10) as shown. If the converter is used for monitoring only, terminals (9) and (10) must be connected direct to the supply voltage.