Gönnheimer Elektronic GmbH

Options for the D122 series



For the digital indicator series D122 the following function and performance enhancements are available as an option

External reset and current flow signal pulse output for totalizers D122.Z

The hardware configuration of the totalizer D122 with I/O-Terminals increases its usability considerably

Alternative to the known option of two digital outputs for external limit monitoring, a control input and a digital output for the D122 series are available. An active intrinsically safe signal (Low < 2V, High > 5V) on the control input sends a reset command to the totalizer.

The digital output port can be configured by software in two different modes: As a setpoint-reached signal when the totalizer sum reaches its limit or as a pulse output for the current flow signal. In this case, the D122 measures the present flow rate and converts it into a digital signal.

The resolution of the digital signal is directly coupled with the scale configuration of the totalizer: each increment of the least significant digit generates a pulse. The pulse width is about 7 ms, by a maximum output frequency of 68 Hz.

To order the option digital input and output use the following type code:

D122.Z.□.3.□

Curve and Square root fitting

The standard digital indicator D122 has a linear relation between measured and displayed current value - the option special software offers the possibility to program any monotone function between measured current and displayed value!

The *curve fitting* software indicates the measure current in a non-linear way. Consider an application of a filling-level meter for a spherical tank. The measure current is linear to the filling-height of the liquid, but the function between the filling-height and the volume is non-linear. To get the correct quantity indication you require a **list of points**, which shows the connection between measure current and associated quantity inside the tank. The curve fitting software of the D122.XS interpolates the curve between these points with a first (linear) or a second (square) order polynom. The **linear interpolation** requires a list of **17 points** - the **square interpolation** needs **33 points**.

Square root fitting: To program a square root-function, e.g., to display the flow through an aperture, a special square root-fitting feature is available. For this option it is not necessary to enter a long list of points, but just a start and an end value (associated flow by 4 and by 20mA measure current). The indicator calculates automatically the selected points for interpolation. The measure error is less than 0,1 % full scale, if measure current is more than 5 mA.

To order the special software option use the following type code:

D1	22.	□S.	П.	П.	

Internal zener barrier option

To operate the indicator or totalizer in **non intrinsically safe** 4..20 mA current circuits

The standard digital indicator D122 works exclusively in intrinsically safe 4..20 mA current circuits (EEx i). If the concerned measure current circuit is **not** intrinsically safe, an extra zener barrier or an isolated interface and a long additional cable to the interface outside the hazardous area and back is needed.

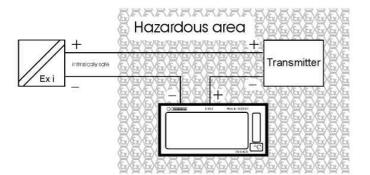
In those cases the option integrated zener barrier is very practical, because the interface is build in. A further advantage of an indicator with this option is that the **intrinsical safety proof is not required**. The ignition protection is *EEx m* [ib] *IIC T6* at ambient temperature of 50°C, *E Ex m* [ib] *IIC T4* at 65 °C respectively. The terminal voltage in the measure circuit with internal zener barrier option is about 2 V.

This option is available for all housings, excluding the small control panel housing (48x96x62 mm). The depth of the field housing is increased from 64 to 82 mm. A combination with the option integrated transmitter is not possible.

To order the integrated zener barrier option use the following type code:

D122.□.□.□.BM

Wiring D122 standard device



Integrated 2-wire transmitter option

Using the integrated 2-wire transmitter for head mounting option, a sensor e.g. a PT 100 can be connected directly

The digital indicator series with field housing can be equipped with a customised intrinsically safe 2-wire transmitter for head mounting, according to DIN 43729 type B (max. height = 30 mm). With this option it is possible to connect a sensor, e.g., a PT 100 directly to the digital indicator D122.

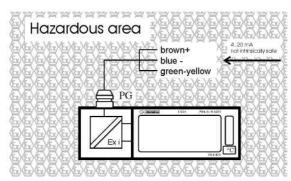
By ordering, the desired transmitter must be specified or delivered.

This option is only available for indicators with field housing. The depth of the field housing is increased from 64 to 82 mm. A combination with the internal zener barrier option is not possible.

To order the integrated transmitter option use the following type code:

D122.□.□.□.MU

Wiring D122.x.x.x.BM



The D122 has a connection cable with 1,5 m length. Remember, for connection inside hazardous area an EEx e terminal box must be used.





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