

# Technical Datasheet



## FAS 100

Panel Mount Displays  
with analog and frequency output

## Description

The FAS 100 are intelligent panel mount displays for all flow meters with frequency output.

They can be adjusted to any flow meter, as the K- factor is freely settable. The selectable dimensions include virtually all worldwide used dimensions.

As an option the FAS 100 can be used to display other measuring values like frequency, rpm, temperature, pressure and so on, as long, as these values are available as a frequency signal.

The frequency input is a 24 V digital input according to IEC946.

With the built in 4 to 20 mA output the FAS 100 can be used as frequency to current converters with settable frequency response as well.

The 20 point linearization of the input signal (FAS 111) provides the possibility to display also strongly nonlinear signals with high accuracy.

The RS485 interface (FAS 111) makes the implementation in an automatic system easy.

For fast test setups in the lab and easy setup of individual parameters, the PC based control SW EasyControl for WINDOWS® XP and VISTA is available free of charge.

## Applications

- Remote display for process parameters
- Translation of frequency signals into 4 - 20 mA
- Normalizing of frequency signals
- Limit control with up to 2 limits
- Batching

## Features

- 20 point linearization
- RS485 interface
- Intuitive user interface

## Technical Data

### Input

Input Signal	Frequency
Frequency Range	1 Hz - 5 kHz
Input Level	< 5V / > 13 V at 24 V supply
Input Resistance	≥ 10 kΩ

### Display and Manual Control

Display	Grafic, 132 x 32 dots
Viewing Area	15 mm * 50 mm
Backlight	Yellow/green
Status Indicators	2 LED for operation and error
Programming	4 softkeys

### Analog Output

Type	4 - 20 mA, active
Error Signal	3 mA/21 mA
Resolution	5 μA
Temperature Drift	0.05 % per 10K
Load	< 800 Ω (at 24 V supply)
Output Signal	Flow rate

**Digital Outputs A and B**

Type	Push pull, short circuit prove, (IEC946)
Frequency Range	0.5 - 10,000 Hz (input frequency) 1.2 - 1,000 Hz (normalized frequency)
Output Levels	< 2 V / > 22 V (at 24 V supply, no load)
Output Resistance	220 Ω
Output Current	20 mA max, internally limited
Output Signal (A, FAS101)	Input frequency
Output Signal (A, FAS111)	Input frequency, normalized frequency,
Total Count, Flow Limit, Batch Limit	< 100 ppm/K
Output Signal (B)	Flow limit, batch limit

**Control Input**

Type	24 V digital (IEC946)
Min Pulse Duration	25 ms
Input Level	< 5V / > 13V at 24V supply
Input Resistance	≥ 10 kΩ

**Interface**

Type	RS485 (FAS 111)
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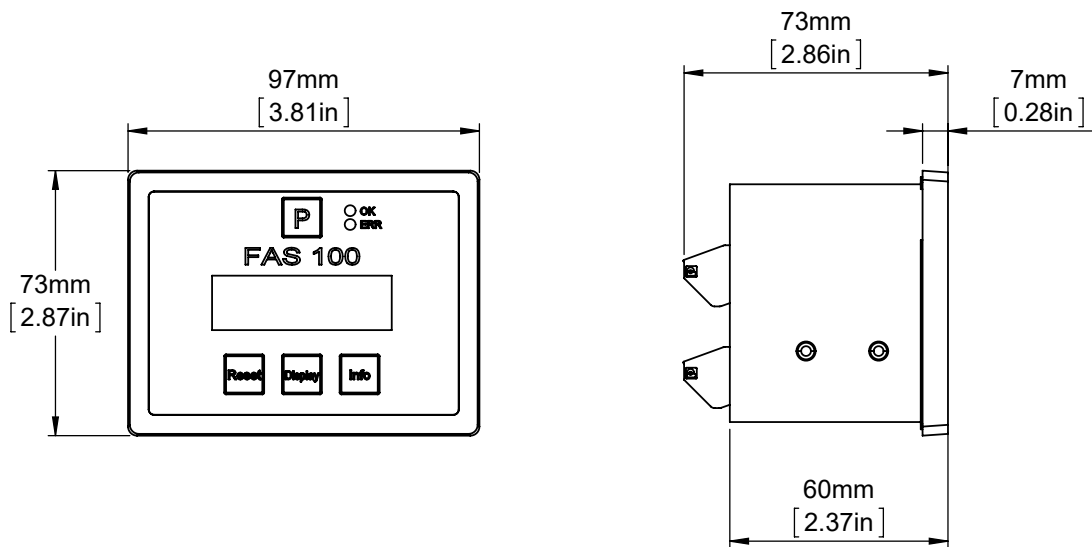
**General**

Supply Voltage	24 V DC nominal, operating range: 11 - 30 V
Supply Current	< 20 mA (at 24 V supply, without pickup and load)
Sensor Supply	Applied supply voltage minus 1 V
Reaction Time	< 250 ms @ input frequency > 5 Hz
Connections	Cage clamp terminals for 0.14 to 1.5 mm <sup>2</sup>
EMC	According to EN 50 081-2 and EN 50 082-2
Temperature	Operation: 0 °C up to 50 °C [+32 °F up to 122 °F]

**FAS 100**

Dimensions:	72 mm x 96 mm x 70 mm (h * w * d)
Material	Noryl
Weight	Approx. 500 g
Protection Class:	Front: IP40 (IP65 with IPS7-9), rear: IP30

## Dimensional Drawing



## Ordering Code

FAS 101	Panel mount display with digital input for 24 V signals, 24 V DC supply
FAS 111	FAS 101 with RS485 interface and linearization
Accessories	
Ordering Code	Description
HSA 72	DIN rail adaptor for FAS 100
IPS 7-9	Protective front cover IP65 for FAS 100
EWS*	Intrinsically safe pickup supply with isolation amplifier



Küppers Elektromechanik GmbH

[www.kem-kueppers.com](http://www.kem-kueppers.com)

[info@kem-kueppers.com](mailto:info@kem-kueppers.com)

### KEM Headquarters

Liebigstraße 5  
85757 Karlsfeld  
Germany

T. +49 8131 59391-0  
F. +49 8131 92604

[info@kem-kueppers.com](mailto:info@kem-kueppers.com)

### KEM Manufacturing Center

Wetzeller Straße 22  
93444 Bad Kötzing  
Germany

T. +49 9941 9423-0  
F. +49 9941 9423-23

[production@kem-kueppers.com](mailto:production@kem-kueppers.com)

### KEM Sales

Liebigstraße 5  
85757 Karlsfeld  
Germany

T. +49 8131 59391-100  
F. +49 8131 92604

[sales@kem-kueppers.com](mailto:sales@kem-kueppers.com)

### KEM Service & Repairs

Wetzeller Straße 22  
93444 Bad Kötzing  
Germany

T. +49 9941 9423-37  
F. +49 9941 9423-24

[service@kem-kueppers.com](mailto:service@kem-kueppers.com)

*More distributors & partners can be found at:  
[www.kem-kueppers.com](http://www.kem-kueppers.com)*