

Technical Datasheet



FAW 100 Series

Remote Wall Mount Display for pickups with frequency output

Description

The FAW100 are compact, intelligent wall 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 FAW100 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 24v digital input according to IEC946.

With the built in 4 to 20 mA output the FAW100 can be used as frequency to current converters with settable frequency response as well.

The 20 point linearization of the input signal (FAW111, 151) provides the possibility to display also strongly nonlinear signals with high accuracy.

The RS485 interface (FAW111, 151) makes the implementation in an automatic system easy.

Additionally to the standard 24V DC power supply, also a wide input range 100 – 240V AC mains supply is available (FAW141, 151).

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
- 24V Sensor Supply from the mains
- Normalizing of frequency signals
- Limit control with up to 2 limits
- Batching

Features

- 20 point linearization
- RS 485 interface
- 100 to 240 V mains supply built in

Technical Data

Input

Input Signal	Frequency
Frequency range	1 Hz - 5 kHz
Input level	< 5V / > 13V at 24V Supply
Input Resistance	≥ 10 kΩ

Display and Manual Control

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

Analog Output

Type	4-20 mA, active
Error Signal	3mA / 21mA
Resolution	5 µA
Temperature drift	0.05% per 10K
Load	< 800 Ω (at 24V 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 – 1000 Hz (normalized frequency)
Output Levels	<2 V / > 22 V (at 24V 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	24V digital (IEC 946)
Min pulse duration	25 ms
Input level	< 5V / > 13V at 24V Supply
Input Resistance	≥ 10 kΩ

Interface

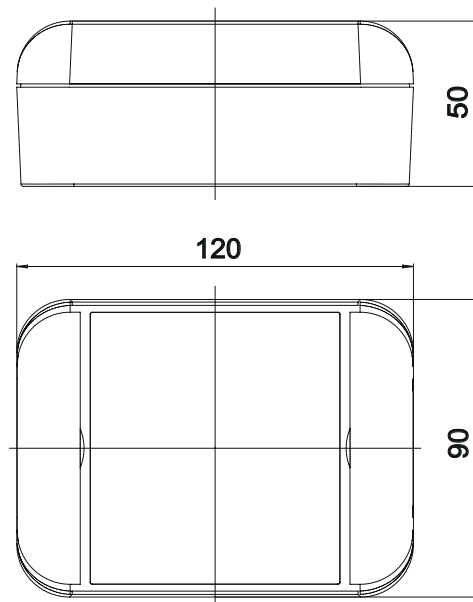
Type	RS 485 (FAW111, 151)
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General

Supply voltage DC	24 V DC nominal, operating range: 11 – 30V
Supply Current DC	< 20 mA (at 24V supply, without pickup and load)
Sensor Supply (with DC supply)	Applied supply voltage minus 1V
Supply voltage AC	100 – 240V AC nominal, operating range: 90 – 264V AC
Supply Current AC	< 20 mA (at 230V supply, without pickup and load)
Sensor Supply (with AC supply)	24V DC
Reaction time	< 250ms @ input frequency > 5Hz
Connections	Cage Clamp Terminals for 0.14 to 1.5 mm ²
EMC	according to EN 50 081-2 and EN 50 082-2
Temperature	operation: 0 to 50°C storage and transport: -20 up to 70°C

FAW 100

Dimensions:	120mm x 90mm x 50mm (h * w * d)
Material	Noryl
Weight	approx. 500g
Protection class:	IP 65

Dimensional Drawing (mm)**Ordering Code**

FAW101	Wall mount display with digital input for 24V signals, 24V DC supply
FAW111	FAW101 with RS485 interface and linearization
FAW141	FAW101 with additional 100 – 240V AC mains supply
FAW151	FAW111 with additional 100 – 240V AC mains supply

KEM Headquarter

Liebigstraße 5
85757 Karlsfeld
Deutschland

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

info@kem-kueppers.com

KEM Service & Repairs

Wetzeller Straße 22
93444 Bad Kötzing
Deutschland

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

info@kem-kueppers.com

*More distributors & partners can be found at:
www.kem-kueppers.com*