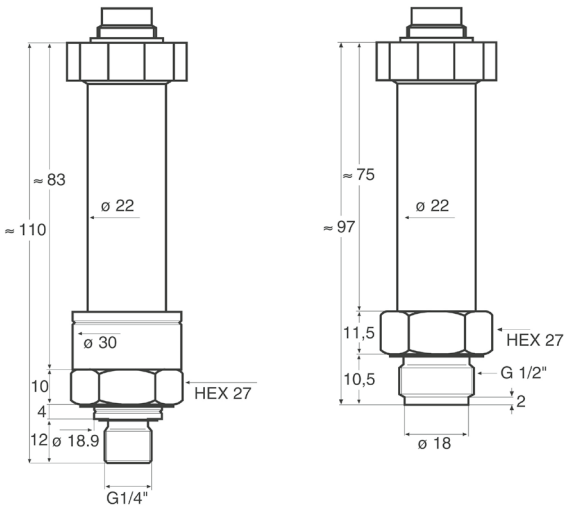


High-precision pressure sensor FDAD33/35M

Very accurate over a wide temperature range, digital sensor with ALMEMO® D6 plug



FDAD 33

FDAD 35M

- Stable piezo-resistive transducer with integrated A/D converter and signal processor
- Temperature-dependence and non-linearity are eliminated by means of mathematical compensation; this ensures a high level of accuracy.
- Digital output of measured value
- The current value is measured at the sensor’s high sampling rate.
- To acquire transitory pressure fluctuations and pressure peaks the maximum value, minimum value, and average value are calculated from the current values in the ALMEMO® D6 plug and output in three function channels.
- One measuring channel is programmed (at our factory): Pressure (bar,p) Upto three function channels can also be activated (via LMEMO® device V6): Maximum value, minimum value, average value. A complete configuration can be carried out either on the ALMEMO® V7 measuring instrument or directly on the PC with the USB adapter cable ZA 1919 AKUV (see chapter ALMEMO® “Network technology”).

General features and accessories, ALMEMO® D6 sensors:
see page 15

Technical data

Digital pressure sensor (including A/D converter)		Sampling rate, internal	200 Hz
Pressure range	1 to 1000 bar see under variants	Material in contact with medium	Stainless steel, AISI 316L, Viton
Relative pressure	Zero-point at ambient atmospheric pressure, current	Protection	IP65
Overpressure	Zero-point at ambient atmosph. pressure, production	Dimensions	see dimensional drawings
Absolute pressure	Zero-point, vacuum	Sensor connector	Built-in plug
Pressure connection		ALMEMO® connecting cable	Coupling, 2-meter PVC cable, ALMEMO® D6 plug
FDAD33	Outside thread G 1/4“ Diaphragm, internal	ALMEMO® D6 plug	
FDAD35M	Diaphragm, flush with front Outside thread G 1/2“ In pressure range 700/1000 bar Outside thread G 3/4“	Refresh time	0.005 seconds for all channels
Storage / operating temperature	-40 to +120 °C	Output to the ALMEMO® device	With the conversion rate of the ALMEMO® device: max. 10 ... 100 Hz depending on the device and configuration
Accuracy		Delay after sleep mode	1 second
FDAD33	Error margin* at +10 to +40 °C 0.05 % of final value Error margin* at -10 to +80 °C 0.1 % of final value	Supply voltage	8 to 13 VDC
FDAD35M	Error margin* at -10 to +80 °C 0.1 % of final value	Current consumption	approx. 11 mA
*Linearity, hysteresis, reproducibility, temperature coefficients, zero-point			

05/2024 • We reserve the right to make technical changes.

Options	Order no.
Connecting cable Total length = 5 m	OD0D33L05
Connecting cable Total length = 10 m	OD0D33L10
Greater lengths up to 100 meters on request.	

Variants				
Digital pressure sensor, plug connection, 2-meter connecting cable with ALMEMO® D6 plug, factory test certificate				
Pressure range	Resolution	Overload	Order no. Diaphragm, internal	Order no. Diaphragm, flush with front
Relative pressure			On request!	
1 bar	0.0001 bar	2 bar	FDAD3301R	
3 bar	0.0001 bar	5 bar	FDAD3302R	
10 bar	0.001 bar	20 bar	FDAD3303R	
30 bar	0.001 bar	60 bar	FDAD3304R	
Special ranges -1 ... 1 / 3 / 10 bar on request				
Overpressure				
100 bar	0.01 bar	200 bar	FDAD3305U	
300 bar	0.01 bar	400 bar	FDAD3306U	
700 bar	0.1 bar	1000 bar	FDAD3307U	
1000 bar	0.1 bar	1000 bar	FDAD3308U	
Absolute pressure				
0.8 to 1.2 bar	0.0001 bar	2 bar	FDAD3300A	
1 bar	0.0001 bar	2 bar	FDAD3301A	
3 bar	0.0001 bar	5 bar	FDAD3302A	
10 bar	0.001 bar	20 bar	FDAD3303A	
30 bar	0.001 bar	60 bar	FDAD3304A	

DAkKS or factory calibration KD9xxx pressure for digital sensor, see chapter „Calibration certificates“.

DAkKS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.