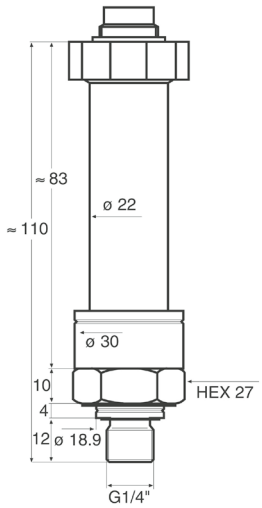
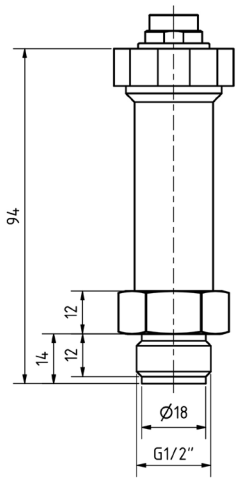
## High-precision pressure sensor FDAD33/35M

### 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) Up to 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 Network Technology).

**General features and accessories, ALMEMO® D6 sensors:**
see chapter Data Loggers and Measuring Instruments

## Technical data

| **Digital pressure sensor** (including A/D converter) | |
|---|---|
| Pressure range | up to 1000 bar, see under variants |
| Relative pressure | Zero-point at ambient atmospheric pressure, current |
| Overpressure | Zero-point at ambient atmosph. pressure, production |
| Absolute pressure | Zero-point, vacuum |
| Pressure connection | |
| FDAD33 | Outside thread G ¼“<br>Diaphragm, internal |
| FDAD35M | Diaphragm, flush with front<br>Outside thread G 1/2“<br>In pressure range 700/1000 bar<br>Outside thread G 3/4“ |
| Storage / operating temperature | -40 to +120 °C |
| Accuracy | valid from 0.3 bar (absolute vacuum): |
| FDAD33 | Error margin* at +10 to +40 °C<br>0.05 % of final value<br>Error margin* at -10 to +80 °C<br>0.1 % of final value |
| FDAD35M | Error margin* at -10 to +80 °C<br>0.1 % of final value |

For pressure ranges < 1 bar, all specifications apply to the final value of 1 bar.

*Linearity, hysteresis, reproducibility, temperature coefficients, zero-point

| | |
|---|---|
| Sampling rate, internal | 200 Hz |
| Material in contact with medium | Stainless steel, AISI 316L, Viton |
| Protection | IP65 |
| Dimensions | see dimensional drawings |
| Sensor connector | Built-in plug |
| ALMEMO® connecting cable | Coupling, 2-meter PVC cable, ALMEMO® D6 plug |
| **ALMEMO® D6 plug** | |
| Refresh time | 0.005 seconds for all channels |
| Output to the ALMEMO® device | With the conversion rate of the ALMEMO® device: max. 10 ... 100 Hz depending on the device and configuration |
| Delay after sleep mode | 1 second |
| Supply voltage | 8 to 13 VDC |
| Current consumption | approx. 11 mA |

10/2026 • We reserve the right to make technical changes.

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## 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 (including factory test certificate)

| Type | Reference Point Meas. Range | Meas. Range Start (in bar) | Meas. Range End (in bar) | Resolution (in bar) | Overload (in bar) | Order no. (Diaphragm, internal) |
|---|---|---|---|---|---|---|
| **Absolute** | Vacuum (in production) | 0.8 | 1.2 | 0.0001 | 3 | **FDAD3300A** |
| | | 0 | 1 | 0.0001 | 3 | **FDAD3301A** |
| | | 0 | 3 | 0.0001 | 9 | **FDAD3302A** |
| | | 0 | 6 | 0.0001 | 18 | **FDAD3323A** |
| | | 0 | 10 | 0.001 | 30 | **FDAD3303A** |
| | | 0 | 16 | 0.001 | 48 | **FDAD3334A** |
| | | 0 | 30 | 0.001 | 90 | **FDAD3304A** |
| | | 0 | 60 | 0.001 | 180 | **FDAD3345A** |
| | | 0 | 100 | 0.01 | 300 | **FDAD3305A** |
| **Relative** | Atmospheric Pressure | 0 | 0.3 | 0.0001 | 3 | **FDAD3310R** |
| | | 0 | 1 | 0.0001 | 3 | **FDAD3301R** |
| | | 0 | 3 | 0.0001 | 9 | **FDAD3302R** |
| | | 0 | 6 | 0.0001 | 18 | **FDAD3323R** |
| | | 0 | 10 | 0.001 | 30 | **FDAD3303R** |
| | | 0 | 16 | 0.001 | 48 | **FDAD3334R** |
| | | 0 | 30 | 0.001 | 90 | **FDAD3304R** |
| **Relative incl. vacuum** | Atmospheric Pressure | -0.3 | 0.3 | 0.0001 | 3 | **FDAD3310NR** |
| | | -1 | 1 | 0.0001 | 3 | **FDAD3301NR** |
| | | -1 | 3 | 0.0001 | 9 | **FDAD3302NR** |
| | | -1 | 10 | 0.001 | 30 | **FDAD3303NR** |
| | | -1 | 16 | 0.001 | 48 | **FDAD3334NR** |
| | | -1 | 30 | 0.001 | 90 | **FDAD3304NR** |
| **Overpressure (closed cell)** | Specified reference atmospheric pressure | 0 | 60 | 0.001 | 180 | **FDAD3345U** |
| | | 0 | 100 | 0.01 | 300 | **FDAD3305U** |
| | | 0 | 300 | 0.01 | 600 | **FDAD3306U** |
| | | 0 | 700 | 0.1 | 1100 | **FDAD3307U** |
| | | 0 | 1000 | 0.1 | 1100 | **FDAD3308U** |

**Diaphragm, flush with front on request!**

DAkkS accredited calibration or factory calibration KD9xxx pressure for digital sensor, see chapter „Calibration certificates“.
DAkkS accredited calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.