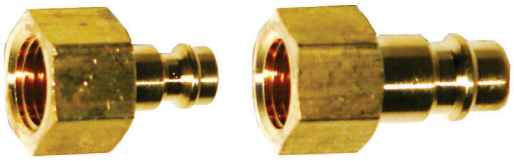
Pressure Transducer FDA 602 L

- Compact pressure sensors for industrial applications in liquid and gaseous substances.
- Piezo-resistive, flexibly suspended silicone measuring cell in an oil-filled, all-welded special steel enclosure.
- The stable mechanical construction provides a reliable protection for the measuring cell against the test substance and immunes it against pressure peaks and vibrations.
- Available with three calibrations. Relative pressure: Pressure related to the environmental press. Absolute pressure: Pressure related to vacuum (0 bar) Overpressure: Pressure related to atm. pressure at manufacturing (approx. 1bar).

Technical Data:

Overload	Two times final value
Output signal	0.2 to 2.2 V
Accuracy class (linearity + hysteresis + reproducibility)	±0.5 % of final value
Total error range	
0 to +50 °C	±1.0 % of final value
-10 to +80 °C	±1.5 % of final value
(linearity + hysteresis + reproducibility + temperature coefficients + zero-point + range tolerance)	
Response time (0 to 99 %)	<5 ms
Nominal conditions	22°C ±2 K, 10 to 90 % RH, non-condensing

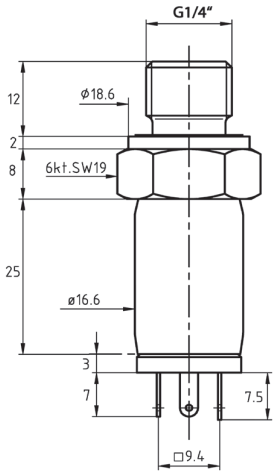
Power supply	6.5 to 15 VDC, consumption <4 mA via ALMEMO® connector
Operating temperature	-40 to +100 °C
Pressure terminal	male thread G1/4" membrane not flush with front
Material in contact with medium	Stainless steel DIN 1.4404/1.1135 External seal Viton
Weight	approx. 50 g
Protective class	IP 65



Quick-release coupling

nominal width 5
internal thread G1/4"

nominal width 7,2
internal thread G1/4"



Other version: Pressure transducer with digital ALMEMO® D7 measuring plug, see page 10.03.
Digital sensor, can be calibrated without measuring device.
Measurement of rapid pressure changes (pressure peaks).

Accessories

	Order no.
PTFE sealing tape, -200 to +260 °C, width 10 mm, thickness 0.1 mm, roll of 12 meters	ZB9000TB
Quick-release coupling, nominal width 5, up to 35 bar Connection internal thread G1/4", brass	ZB9602N5
Quick-release coupling, nominal width 7.2, up to 35 bar connection internal thread G1/4", brass	ZB9602N7

Types: including ALMEMO® cable 1.5m long

Measuring ranges relative pressure:

2.5 bar	**FDA602L3R**
5 bar	**FDA602L4R**
10 bar	**FDA602L5R**

Measuring ranges absolute pressure:

2.5 bar	**FDA602L3A**
5 bar	**FDA602L4A**
10 bar	**FDA602L5A**

Measuring ranges overpressure:

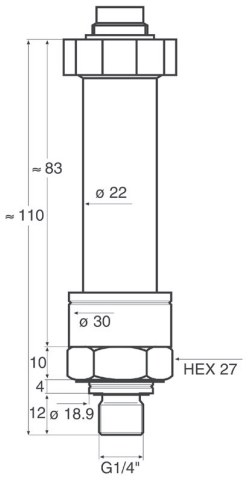
25 bar	**FDA602L2U**
50 bar	**FDA602L3U**
100 bar	**FDA602L4U**
500 bar	**FDA602L6U**

Pressure transducer for measuring the temperature of refrigerants see page 10.08.

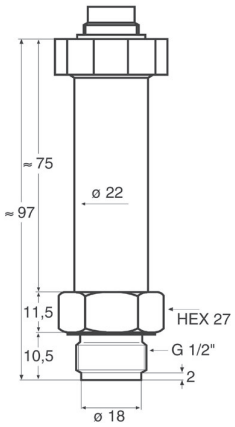
DAkkS or factory calibration KD9xxx pressure for sensor or measuring chain (sensor + device) (see chapter Calibration certificates).
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

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 ALMEMO® "Network technology").

General features and accessories, ALMEMO® D6 sensors:
see page 01.08

Technical data

Digital pressure sensor (including A/D converter)	
Pressure range	1 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" Diaphragm, internal
FDAD35M	Diaphragm, flush with front Outside thread G 1/2" In pressure range 700/1000 bar Outside thread G 3/4"
Storage / operating temperature	-40 to +120 °C
Accuracy	
Error margin* at +10 to +40 °C	0.05 % of final value
Error margin* at -10 to +80 °C	0.1 % of final value
*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

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 Diaphragm, internal	Order no. Diaphragm, flush with front	Order no.
Relative pressure				
1 bar	0.0001 bar	2 bar	**FDAD3301R**	**FDAD35M01R**
3 bar	0.0001 bar	5 bar	**FDAD3302R**	**FDAD35M02R**
10 bar	0.001 bar	20 bar	**FDAD3303R**	**FDAD35M03R**
30 bar	0.001 bar	60 bar	**FDAD3304R**	**FDAD35M04R**
Special ranges -1 ... 1 / 3 / 10 bar on request				
Overpressure				
100 bar	0.01 bar	200 bar	**FDAD3305U**	**FDAD35M05U**
300 bar	0.01 bar	400 bar	**FDAD3306U**	**FDAD35M06U**
700 bar	0.1 bar	1000 bar	**FDAD3307U**	**FDAD35M07U**
1000 bar	0.1 bar	1000 bar	**FDAD3308U**	**FDAD35M08U**
Absolute pressure				
0,8 to 1,2 bar	0.0001 bar	2 bar	**FDAD3300A**	**FDAD35M00A**
1 bar	0.0001 bar	2 bar	**FDAD3301A**	**FDAD35M01A**
3 bar	0.0001 bar	5 bar	**FDAD3302A**	**FDAD35M02A**
10 bar	0.001 bar	20 bar	**FDAD3303A**	**FDAD35M03A**
30 bar	0.001 bar	60 bar	**FDAD3304A**	**FDAD35M04A**

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.

Pressure Sensors FD 8214

- Compact pressure sensors for liquid and gaseous substances.
- Piezo-resistive measuring cell with temperature compensation.
- Pressure membrane and enclosure made from special steel.
- As the pressure is transmitted to the pressure membrane through a small hole in the thread part, the liquids should not be prone to crystallise and gases should not be heavily contaminated with dust. There are sensors with front-flush membranes for critical applications
- Available with three calibrations. Relative pressure: Pressure related to the environmental pressure, Absolute pressure: Pressure related to vacuum (0bar). Overpressure: Pressure related to atm. pressure at manufacturing (approx. 1bar).

Other version:
Pressure transducer with digital ALMEMO ® D7 measuring plug, see page 10.03.
Digital sensor, can be calibrated without measuring device. High measured value resolution or measurement of rapid pressure changes (pressure peaks).

Options	Order no.		Order no.
Linearity 0.1% (for ranges 0.6 bar to 600 bar)	OR8214G1	Food compliant version	
Substance temperature –25 to +100°C	OR8214T1	with Oil filling Anderol Food	OR8214ML
Substance temperature –25 to +150°C		Throttle against excess pressure	OR8214DS
(version with cooling fins)	OR8214T2	Output 0 to 10V	OR8214V
Process connection, small flange		Output 0 to 20mA	OR8214A
(for FD8214xxA absolute pressure)		Output 4 to 20mA	OR8214R4
KF16	OR8214KF16		

Accessories	Order no.		Order no.
Coupler socket with 2m cable		Coupler socket 6-pin Straight version	ZB9030RB
and ALMEMO® connector	ZA8214AK	Coupler socket 6-pin Angled version	ZB9030RBW

Types

Order no.

FD 8214:
Standard version, inside membrane with G¼" internal thread. External thread G½" available on request

FD 8214 M:
Membrane (welded with end of thread) flush with front, external thread G½", can be sterilised (important for food and pharmaceutical industry)

	inside membrane	front flush membrane
Measuring ranges relative pressure:		
100 mbar	**FD821401R**	**FD8214M01R**
160 mbar	**FD821402R**	**FD8214M02R**
250 mbar	**FD821403R**	**FD8214M03R**
400 mbar	**FD821404R**	**FD8214M04R**
600 mbar	**FD821405R**	**FD8214M05R**
800 mbar	**FD821406R**	**FD8214M06R**
1 bar	**FD821407R**	**FD8214M07R**
1.6 bar	**FD821408R**	**FD8214M08R**
2.5 bar	**FD821409R**	**FD8214M09R**
4 bar	**FD821410R**	**FD8214M10R**
6 bar	**FD821411R**	**FD8214M11R**
10 bar	**FD821412R**	**FD8214M12R**

Types

Order no.

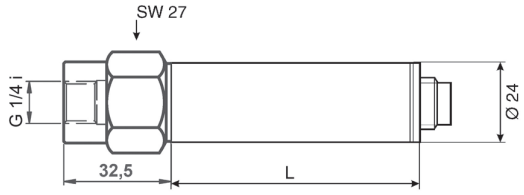
	internal membrane	front flush membrane
Measuring ranges absolute pressure:		
Option: Process connection. small flange (see under Options)		
1 bar	**FD821407A**	**FD8214M07A**
1.6 bar	**FD821408A**	**FD8214M08A**
2.5 bar	**FD821409A**	**FD8214M09A**
4 bar	**FD821410A**	**FD8214M10A**
6 bar	**FD821411A**	**FD8214M11A**
10 bar	**FD821412A**	**FD8214M12A**
Measuring ranges overpressure:		
10 bar	**FD821412U**	**FD8214M12U**
16 bar	**FD821413U**	**FD8214M13U**
25 bar	**FD821414U**	**FD8214M14U**
40 bar	**FD821415U**	**FD8214M15U**
60 bar	**FD821416U**	**FD8214M16U**
100 bar	**FD821417U**	**FD8214M17U**
160 bar	**FD821418U**	**FD8214M18U**
250 bar	**FD821419U**	**FD8214M19U**
400 bar	**FD821420U**	**FD8214M20U**
600 bar	**FD821421U**	**FD8214M21U**
1000 bar	**FD821422U**	**FD8214M22U**

other measuring ranges on request

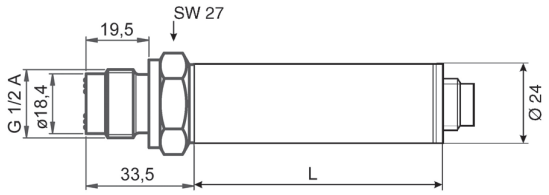
DAkkS or factory calibration KD9xxx pressure for sensor or measuring chain (sensor + device) (see chapter Calibration certificates).
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

Technical Data

Measuring cell:	piezo-resistive
Overload	Ranges 600 bar, i.e. 3 times the final value (minimum 3 bar, maximum 850 bar) Ranges >600 bar, 1500 bar
Output signal, power supply :	Standard 0 to 2 volts, feed 6.5 to 13 volts (from ALMEMO® device), current <4 mA Option : 0 to 10 volts, feed 15 to 30 volts, load >10 kilohms, current <4 mA Option : 0 to 20 mA, feed 9 to 33 volts, (>18 volts at load 500 ohms), current <25 mA Option : 4 to 20 mA, 2 conductors, feed 9 to 33 volts, (>20 volts at load 500 ohms), current <25 mA
Response time:	typical 1 ms / 10 to 90 % nominal pressure
Linearity:	Standard ±0.25 % of final value Option : ±0.1 % of final value for ranges 0.6 bar and up to 600 bar
Media temperature:	-25 to +100°C, temperature comp.: 0 to +70°C option: –25 to +100°C, temperature comp.: –25 to +85°C –25 to +150°C, temperature comp.: –25 to +85°C
Temperature drift:	Zero-point <±0.08 % of final value / °C for ranges >0.5 bar span <±0.02 % of final value / °C for all ranges
Nominal temperature: Operating temperature:	22°C ±2 K, 10 to 90% rH non-condensing Electronics: -25 to +85 °C
Material:	housing, pressure connector: special steel 1.4404, membrane: special steel 1.4435, seal: Viton.
Operat. environment/Sealing:	IP 67
Dimensions:	see drawing
Connecting threads:	Type 8214: internal thread G1/4“, wrench SW 27 Option for absolute pressure: small flange KF16 Type 8214 M: external thread G1/2“, wrench SW 27
Electrical connection	Flush-mounting connector, binder coupling 723, 5-pin
Weight:	approx.. 180 g



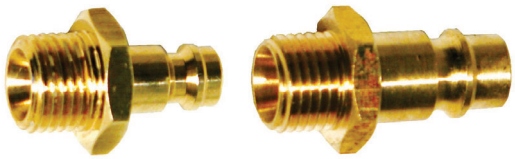
Type **FD 8214** standard version, inside membrane with internal thread G1/4“
L = 45 mm (L = 72 mm with option of medium temperature up to 150 °C with cooling ribs)



Type **FD8214M** membrane flush with front (welded with end of thread), external thread G1/2“ can be easily sterilized
L = 45mm
(L = 72 mm with option of medium temperature up to 150 °C with cooling ribs)

Accessories	Order no.		Order no.
PTFE sealing tape, -200 to +260 °C, width 10 mm, thickness 0.1 mm, roll of 12 meters	ZB9000TB		
Quick-release coupling, nominal width 5, up to 35 bar Connection G1/4“ external thread, brass	ZB8214N5	Quick-release coupling, nominal width 7.2, up to 35 bar Connection 1/4“ external thread, brass	ZB8214N7

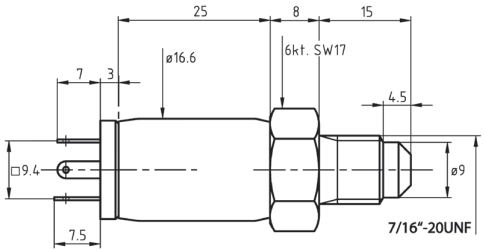
Quick-release coupling nominal width 5 external thread G1/4”



Quick-release coupling nominal width 7.2 external thread G1/4”

Pressure transducer for measuring the temperature of refrigerants FDA 602 LxAK

- Compact pressure sensors for industrial applications in liquid and gaseous substances.
- Piezo-resistive, flexibly suspended silicone measuring cell in an oil-filled, all-welded special steel enclosure.
- The stable mechanical construction provides a reliable protection for the measuring cell against the test substance and immunes it against pressure peaks and vibrations.
- Absolute pressure: pressure related to vacuum (0 bar).



Technical Data:

Overload	Two times final value
Output signal	0.2 to 2.2 V
Accuracy class (linearity + hysteresis + reproducibility)	±0.5 % of final value
Total error range 0 to +50 °C -10 to +80 °C (linearity + hysteresis + reproducibility + temperature coefficients + zero-point + range tolerance)	 ±1.0 % of final value ±1.5 % of final value
Response time (0 to 99 %)	<5 ms
Nominal conditions	22°C ±2 K, 10 to 90 % RH, non-condensing

Power supply	6.5 to 15 VDC, consumption <4 mA via ALMEMO® connector
Operating temperature	-40 to +100 °C
Pressure terminal	male thread 7/16“ membrane not flush with front
Material in contact with medium	Stainless steel DIN 1.4404/1.1135 External seal, Viton
Weight	approx. 50 g
Protective class	IP 65

Calculation of the refrigerant temperature with device special version SB0000R2
(LINEARIZATIONS FOR OTHER REFRIGERANTS ON REQUEST)

The ALMEMO® Version V6 devices, (2590-2/-3S/-4S, 2690, 2890, 8590, 8690, 5690) can be used a for continuous temperature measurement (resolution 0.1K) with absolute pressure sensors (resolution 0.001 bar compulsory !). Both, pressure and temperature can be selected or continuously indicated and recorded.

Technical data for ALMEMO® option SB0000R2:

Refigerant:	**R22**	**R23**	**R134a**	**R404a**	**R404a**
Pressure Range:	0 to 36 bar	0 to 49 bar	0 to 40,5 bar	0 to 32 bar	0 to 32 bar
Temperature Range:	–90°C to +79°C *	–100°C to +26°C *	–75°C to +101°C *	–60°C to +65°C *	–60°C to +65°C *
Operation point	dew-point	dew-point	dew-point	dew-point	boiling point

Refigerant:	**R407C**	**R407C**	**R410A**	**R417A**	**R507**
Pressure Range:	0 to 46 bar	0 to 46 bar	0 to 49 bar	0 to 27 bar	0 bis 37 bar
Temperature Range:	–50°C to +86°C *	–50°C to +86°C *	–70°C to +70°C *	–50°C to +70°C *	–70°C to +70°C *
Operating point	dew-point	boiling point	dew-point	dew-point	dew-point

*) The final temperature is obtained from the data of the refrigerant.
For pressure transducer with smaller pressure ranges, the specified final temperature changes. (Linearizations for other refrigerants on request)

Special design refrigerant temperature for ALMEMO® devices V6
(Please order when buying new devices or send it to upgrade existing device) **Order no. SB0000R2**

Types

Order no.

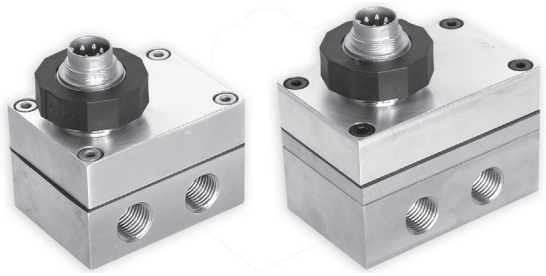
including ALMEMO® connecting cable, 1.5 m, and programming of a refrigerant measuring channel
Measuring ranges Absolute pressure (resolution 0.001 bar)

up to 10bar	**FDA602L5AK**
up to 30bar	**FDA602L6AK**
up to 50bar	**FDA602L7AK**

new: Measuring range up to 100 bar and up to 150 bar on request

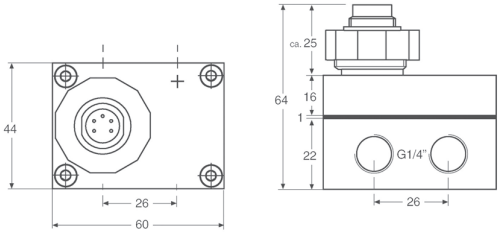
DAkkS or factory calibration KD9xxx pressure for sensor or measuring chain (sensor + device) (see chapter Calibration certificates).
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

Differential pressure transmitter FDA 602 D

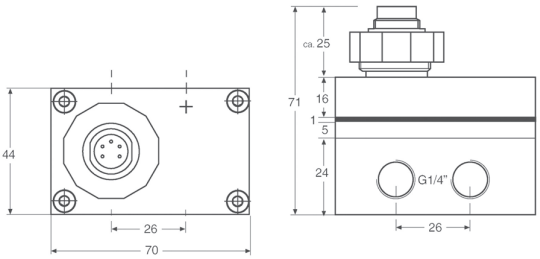


- This measures the differential pressure in liquid and gaseous media indirectly using two absolute pressure sensors.
- This makes it less expensive but more robust with respect to asymmetrical overload.
- The differential pressure range should be at least 5% of the standard pressure range.
- Each side of the sensor incorporates two pressure connections. The transmitters can thus be used easily and conveniently in pressure pipes.
- It incorporates a high-speed, high-precision microprocessor.
- All reproducible errors affecting the pressure sensors, i.e. involving non-linearity and temperature dependency, can be completely eliminated by means of mathematical error compensation.

Low-pressure version



Medium-pressure version



Technical Data:

Standard pressure range (maximum measurable pressure per pressure connection), overload, differential pressure range.	See versions listed below.
Storage / operating temperature	-40 to +100 °C
Compensated standard range	-10 to +80 °C
Error margin (linearity + hysteresis + reproducibility + temperature error)	≤0.05% typical, ≤0.1% max. of final value to standard pressure range
Pressure connections	G1/4“ thread, female (2 per side)
Material in contact with medium	Stainless steel, 316L, DIN 1.4435

Power supply	6 to 15 VDC via ALMEMO® connector
Output	0 to 2 V
Electrical connection	Binder plug, including ALMEMO® connecting cable, 2 meters
CE conformance	EN61000-6-1 to 4 with shielded cable
Protective class	IP 65
Weight	
Low-pressure version	475 grams
Medium-pressure version	750 grams

Types

Differential pressure transmitter, including ALMEMO® cable, 2 meters

Standard pressure range Absolute pressure	Overload	Differential pressure range Please indicate final value	Order no.
Low-pressure version			
3 bar	10 bar	Final value 0.2 to 3 bar	**FDA602D01**
10 bar	20 bar	Final value 0.5 to 10 bar	**FDA602D02**
25 bar	30 bar	Final value 1.25 to 25 bar	**FDA602D03**
Medium-pressure version			
100 bar	200 bar	Final value 5 to 100 bar	**FDA602D10**
300 bar	450 bar	Final value 15 to 300 bar	**FDA602D11**

DAkkS or factory calibration KD9xxx pressure for sensor or measuring chain (sensor + device) (see chapter Calibration certificates).
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

Digital atmospheric pressure sensor FDAD 12 SA, for barometric pressure Integrated in ALMEMO® D6 plug

General features and accessories, ALMEMO® D6 sensors

see page 01.08

Special features

- Digital atmospheric pressure sensor with temperature compensation
- Very accurate over a wide temperature range
- The value measured for atmospheric pressure can also be used to compensate other sensors on the ALMEMO® device (programming comment *P).
- Compact design, without pressure connection sleeve
- Can be connected directly to the measuring instrument.
- One measuring channel is programmed (at our factory).
- Atmospheric pressure (mbar, AP, p)

Technical Data

Digital atm. pressure sensor (integrated in ALMEMO® D6 plug)	
Measuring range	300 to 1100 mbar
Accuracy	±2.5 mbar in the range 700 to 1100 mbar at 23 °C ±5 K
Operating range	-10 to +60 °C 10 to 90 % RH non-condensing
Dimensions	62 x 20 x 7.6 mm

ALMEMO® D6 plug	
Refresh rate	1 second for all channels
Supply voltage	6 to 13 VDC
Current consumption	4 mA

Variants (including manufacturer's test certificate)	**Order no.**
Digital atmospheric pressure sensor for barometric pressure, integrated in ALMEMO® D6 plug	**FDAD12SA**

DAkkS or factory calibration KD92xx atmospheric 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.

Pressure measuring connector for barometric pressure FDA 612 SA

- Compact design - can be plugged directly onto measuring instrument.
- Piezo-resistive pressure sensor - ensures high measuring accuracy.

Technical Data:

Measuring range	700 to 1050 mbar (total range 0 to 1050 mbar)
Overload capacity	Maximum 1.5 times final value
Accuracy	±0.5 % of final value
Nominal temperature	25 °C
Temperature drift	<±1 % final value at 0 to +70 °C
Hose terminals	Ø 5 mm, 12 mm long

Sensor material	aluminum, nylon, silicone, silica gel, brass
Operating range	-10 to +60 °C, 10 to 90% RH, non-condensing
Dimensions	90 x 20 x 7,6 mm

Accessories	**Order no.**		**Order no.**
Connecting cable, 0.2 meters	ZA9060AK1	Extension cable, 4 meters	ZA9060VK4
Extension cable, 2 meters	ZA9060VK2		

Variants (including manufacturer's test certificate)	**Order no.**
Pressure measuring connector for barometric pressure with pressure terminal sleeve	**FDA612SA**

DAkkS or factory calibration KD9xxx pressure for sensor or measuring chain (sensor + device) (see chapter Calibration certificates).
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

Pressure measuring connector for differential pressure FDA 612 SR, FDA 602 S2K

- New compact design - can be plugged directly onto measuring instrument.
- Piezo-resistive pressure sensor - ensures high meas. accuracy.

! Advisory note when used in conjunction with ALMEMO® 2890, 5690, 5790, 8590, 8690: The new ALMEMO® pressure measuring connector is very slightly higher (8.8 mm). As a result adjacent input sockets on the ALMEMO® device may be partly covered. However, the 1st input socket can always be used without restriction. Or, alternatively, the ALMEMO® pressure measuring connector can be plugged in at any input socket using connecting cable ZA9060AK1.

Technical Data

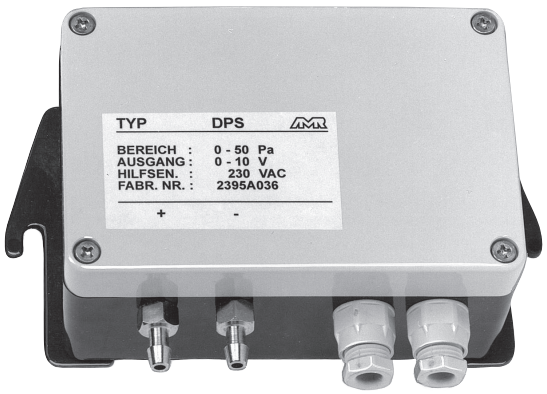
Overload capacity	
FDA612SR	max. 1.5 times final value
FDA602S2K	maximum 250 mbar
Accuracy (zero-pt adjusted)	±0.5% of final value in range 0 to positive final value
Common mode pressure	FDA602S2K max. 700 mbar FDA612SR max. 3 bar
Nominal temperature	25 °C
Temperature drift	
FDA612SR	< ±1.5 % of final value
compensated temperature range	0 to +70 °C
FDA602S2K	< ±2 % of final value
compensated temperature range	-25 to +85 °C
Operating range	-10 to +60 °C, 10 to 90% RH, non-condensing
Dimensions	74 x 20 x 8.8 mm
Hose terminals	Ø 5 mm, 12 mm long
Sensor material	aluminum, nylon, silicone, silica gel, brass

Accessories	Order no.		Order no.
Connecting cable, 0.2 meters	ZA9060AK1	Extension cable, 4 meters	ZA9060VK4
Extension cable, 2 meters	ZA9060VK2		

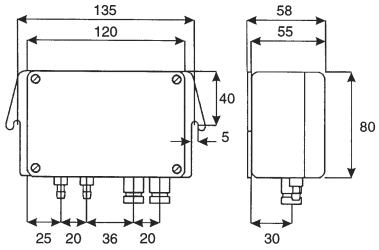
Variants (including manufacturer's test certificate)	Order no.
(including one set of silicone hoses, 2 meters) Pressure measuring connector for differential pressure	
Range ±1000 mbar	**FDA612SR**
Range ±250 Pa (independent of position)	**FDA602S2K**
Range ±1250 Pa see chapter 09 Flow measurement: Pitot tube measurement	**FDA602S1K**
Range ±6800 Pa see chapter 09 Flow measurement: Pitot tube measurement	**FDA602S6K**

DAkkS or factory calibration KD9xxx pressure for sensor or measuring chain (sensor + device) (see chapter Calibration certificates).
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

Pressure Sensors for Wall Mounting FD 8612 DPS / APS



- Suitable for use in the laboratory, as well as for use in harsh industrial environments, e.g. HEVAC applications, clean room technology, medical technology, filter technology and finishing pass technology.
- The robust mechanics guarantees long term stability, linearity and good reproducibility.
- Temperature drift reduced to a minimum by specific compensation of the sensors.
- Operation is almost maintenance-free, as a result of the free-from-wear inductive measuring system.
- As standard, the integrated electronics provide a pressure proportional voltage signal from 0 to 2V as output.



Technical Data:

Linearity:	±1% of final value, option: ±0.2% or ±0.5%
Hysteresis:	±0.1% of final value
Nominal temperature:	23°C
Overload capacity:	up to 400 mb: 5-fold, from 500 mb: 2-fold
Max. common mode pressure:	1 bar (at differential measurement)
Power supply:	6 ... 12 VDC, option: 230V 50/60Hz
Power consumption:	approx. 3.5mA
Output:	0 to 2V, option: 0 to 10V/0(4) to 20mA
Connection:	electrical: screw terminals, screwed cable gland PG 7, pressure: 6.5mm hose connection

Rise time:	T_{90} approx. 0.02s
Temperature drift: Zero point range	 0.03% of final value / K, 0.03% of final value / K
Operative range:	+10 to +50°C , air humidity 10 to 90% non-condensing
Storage temperature:	–10 to +70°C
Housing:	material ABS 120 x 80 x 55mm (L x H x D) Safety class: 0
Protection system:	IP 54
Weight:	approx. 300g
Sensor capacity:	approx. 3ml
Volume increase:	approx. 0.2ml at nom. press.k

Optionen	Order no.		Order no.
Linearity 0.2% (DPS from final value / APS from range) with DPS only in ranges ≥ 2.5 mbar with APS only in range ≤ 100 mbar	OD8612L2	Power supply : 230 V	OD8612N
		Output 0 to 10 V (voltage supply 19 to 31 V DC)	OD8612R2
Linearity 0.5% (DPS from final value / APS from range) with DPS only in ranges ≥ 1 mbar with APS only in range ≤ 200 mbar	OD8612L5	Output 0 to 20 mA (voltage supply 19 to 31 V DC)	OD8612R3
		Output 4 to 20 mA (voltage supply 19 to 31 V DC)	OD8612R4

Accessories	Order no.		Order no.
Connecting cable 2m long mounted with connector for connection to ALMEMO® devices	ZA8612AK2	Silicone hose black per m	ZB2295SSL
1 set silicone hoses 2m long black/colourless	ZB2295S	Silicone hose colourless per m	ZB2295SFL

Types	Order no.		Order no.
Measuring ranges relative and differential pressure: Pressure transducer type DPS Measuring range 2.5 to 1000 mbar		**Measuring ranges absolute pressure:** Pressure transducer type APS Measuring range 1000 mbar, 900 to 1100 mbar, 800 to 1200 mbar	
Please specify measuring range	**FD8612DPS**	Please specify measuring range	**FD8612APS**
Range 1 mbar (100 Pa), additional charge	**OD8612P10**		
Range 0.5 mbar (50 Pa), additional charge	**OD8612P05**		

DAkkS or factory calibration KD9xxx pressure for sensor or measuring chain (sensor + device) (see chapter Calibration certificates).
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.