

PRESSURE TRANSDUCER

DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
for gases and liquids, also vacuum	0 ... 50 mbar / 1000 bar	G1/8a - G1/2a	D1	13.02
for high temperature, accurate to 0.1%	0 ... 50 mbar / 1000 bar	G1/4m u. G1/2m	DA	13.04
for differential pressure, also vacuum	0 ... 6 mbar / 1 bar	G1/8	D3	13.05
elekt. signal with pressure indicator	-1 ... 1 mbar / 10 bar	G1/8a	DSB/DSC	13.06



Description

Media

Supply voltage

Electrical connector

Output signal

Repeatability

Temperature sensitivity

Ambient temperature

Media temperature

Shock resistance

Material

The operating pressure is converted into a proportional electrical signal by a stainless steel relative pressure sensor, amplified and reported as an analog current or voltage signal.
compressed air, natural gases or liquids

8-35 V DC

plug M12x1, 4-pin, with coupling socket

4-20 mA: max. power consumption 25 mW

$\leq \pm 0,2\%$ FS

$\leq \pm 1$ % FS

0 °C bis 80 °C

0 °C bis 80 °C

100 g (11 ms)

Body: Stainless steel 316L

Coupling socket: polyacrylamide 50% GF UL 94 V-0

with reverse voltage protection, max. current consumption 4 mA

Protection class IP65

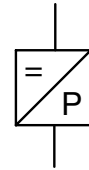
0-10 V: max. power consumption 8 mW

Long-term stability $\leq \pm 0,5\%$ FS

Vibration resistance 10 g

O-Ring: NBR

Measuring cell: Stainless steel 316L



**0,5% precise
Compr. air or liquids**

Dimensions			Under-pressure	Over-pressure	Measurement range	Order number
B	Ø	SW	max. bar	max. bar	bar	(4-20 mA)
mm	mm	mm				



Miniature Pressure Transducer

G1/4 male stainless steel, for compressed air, natural gases or liquids, with angular coupling socket

D1

47	29	27	-1	3.0	-1 ...	0 bar	D1A-V00
				3.0	-1 ...	1.5 bar	D1A-V015
				6.0	-1 ...	3 bar	D1A-V03
				10	-1 ...	5 bar	D1A-V05
				18	-1 ...	9 bar	D1A-V09
				30	-1 ...	15 bar	D1A-V15
				48	-1 ...	24 bar	D1A-V24
				3.0	0 ...	1 bar	D1A-01
				3.2	0 ...	1.6 bar	D1A-016
				5.0	0 ...	2.5 bar	D1A-025
				8.0	0 ...	4 bar	D1A-04
				12	0 ...	6 bar	D1A-06
				20	0 ...	10 bar	D1A-10
				32	0 ...	16 bar	D1A-16
				50	0 ...	25 bar	D1A-25
				80	0 ...	40 bar	D1A-40
				60	0 ...	60 bar	D1A-60
				200	0 ...	100 bar	D1A-D1
				400	0 ...	200 bar	D1A-D2
				600	0 ...	300 bar	D1A-D3
				800	0 ...	400 bar	D1A-D4
				1200	0 ...	600 bar	D1A-D6

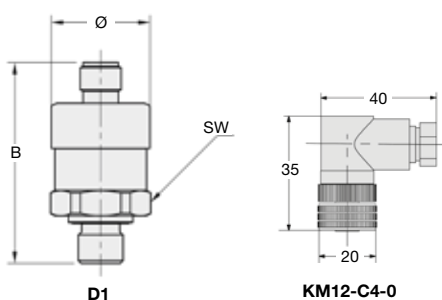


D1



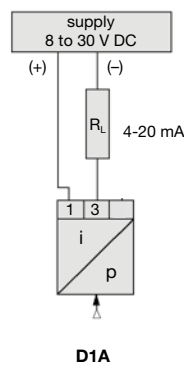
KM-A4-0

coupling socket / cable	
pin	colour
1	brown
2	white
3	blue
4	black

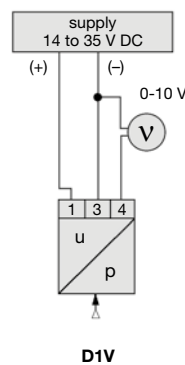


D1

KM12-C4-0



D1A



D1V



Top view

Description

Media

Supply voltage

Electrical connector

Output signal

Repeatability

Temperature sensitivity

Ambient temperature

Media temperature

Shock resistance

Material

The operating pressure is converted into a proportional electrical signal by a stainless steel relative pressure sensor, amplified and reported as an analog current or voltage signal.
compressed air, natural gases or liquids

8-35 V DC

plug M12x1, 4-pin, with coupling socket

4-20 mA: max. power consumption 25 mW

≤ ± 0,2% FS

≤ ± 1 % FS

0 °C bis 80 °C

0 °C bis 80 °C

100 g (11 ms)

Body: Stainless steel 316L

Coupling socket: polyacrylamide 50% GF UL 94 V-0

with reverse voltage protection, max. current consumption 4 mA

Protection class IP65

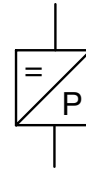
0-10 V: max. power consumption 8 mW

Long-term stability ≤ ± 0,5% FS

Vibration resistance 10 g

O-Ring: NBR

Measuring cell: Stainless steel 316L



**0,5% precise
Compr. air or liquids**

Dimensions			Under-pressure	Over-pressure	Measurement range	Order number
B	Ø	SW	max. bar	max. bar	mbar	(4-20 mA)
mm	mm	mm				



Miniature Pressure Transducer

G1/4 male stainless steel, for compressed air, natural gases or liquids, with angular coupling socket

D1

47	29	27	-0.2	0.2	-50 ...	50 mbar	D1A-B5V
			-0.2	0.2	-50 ...	0 mbar	D1A-VB5
			-0.2	0.2	-100 ...	0 mbar	D1A-VC16
			-1.0	1.0	-160 ...	0 mbar	D1A-VC25
			-1.0	1.0	-250 ...	0 mbar	D1A-VC3
			-1.0	1.0	-400 ...	0 mbar	D1A-VC4
			-1.0	3.0	-600 ...	0 mbar	D1A-VC6
			-0.2	0.2	0 ...	50 mbar	D1A-B5
			-0.2	0.2	0 ...	100 mbar	D1A-C1
			-1.0	1.0	0 ...	160 mbar	D1A-C16
			-1.0	1.0	0 ...	250 mbar	D1A-C25
			-1.0	1.0	0 ...	400 mbar	D1A-C4
			-1.0	3.0	0 ...	600 mbar	D1A-C6

Special options, add the appropriate letter or number

0-10 V output signal

deviant measurement range

on demand

Absolute pressure measuring range

Measuring range from 0 ... 25 bar

G½a

Connection thread

D1V ...

D1.-XX

D1.-...A

D1.-...04



D1



KM-A4-0

DMU



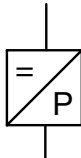
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Accessories, enclosed

coupling socket 4-pin	M12x1, straight	KM12-A4-0		
socket with cable	2 m, straight	KM12-A4-2	angular	KM12-C4-2
	5 m, straight	KM12-A4-5	angular	KM12-C4-5



Description	Pressure transducer in compact and robust stainless steel housing with piezo-resistive measuring element. Factory-made calibration of zero point and range is possible.	
Media	compressed air, non-corrosive gases or liquids	
Overpressure	max. 3x full scale, min. 3 bar, for DAA-D4/D6 max. 850 bar and DAA-E1 max. 1500 bar	
Supply voltage	9...33 V DC at current signal, 15...30 V DC at voltage signal, reverse voltage protection, short-circuit-proof	
ATEX version	only current signal 10...30 V DC, max. 1 W, as per EN 50.014 / EN 50.020: 1974 A1...A5, ATEX 2640-1	
Electrical connector	plug according to DIN 43650, with coupling socket	
Output signal	4...20 mA: max. power consumption 260 mW, 0...10 V: max. power consumption 50 mW	
Linearity/Hysteresis	< 0.1% FS	
Temperature sensitivity	Repeatability < 0.1% FS Long-term stability < 0.1% FS, < 0.5% FS at version up to 500 mbar	
Response time	< 0.02% FS per °C/K, < 0.06% FS at version up to 2 bar per °C/K, at range of 0 °C to 70 °C / 32 °F to 158 °F	
Vibration resistance	1 ms for 10...90% of pressure range	
Mounting position	any	
Material	Body/Diaphragm: stainless steel 316L, material no. 1.4435 O-rings: FKM, optionally EPDM	



SST

Ex

**-1...1000 bar, accurate to 0.1 %
compressed air or gases**

Dimensions	Accuracy	Measurement range	Order number	Measurement range	Order number
B Ø A/F	%	mbar/bar	4-20 mA	mbar/bar	4-20 mA
mm mm mm					

Pressure transducer			G½ male, SST, overpressure with angular coupling socket, 4-20 mA		DA	
73	24	27	0.1	0... 50 mbar	DAA-B5H	
				0... 100 mbar	DAA-C1H	
				0... 160 mbar	DAA-C2H	0... 10 bar DAA-10H
				0... 250 mbar	DAA-C3H	0... 16 bar DAA-16H
				0... 400 mbar	DAA-C4H	0... 25 bar DAA-25H
				0... 600 mbar	DAA-C6H	0... 40 bar DAA-40H
				0... 1.0 bar	DAA-01H	0... 60 bar DAA-60H
				0... 1.6 bar	DAA-02H	0... 100 bar DAA-D1H
				0... 2.5 bar	DAA-03H	0... 160 bar DAA-D2H
				0... 4.0 bar	DAA-04H	0... 250 bar DAA-D3H
				0... 6.0 bar	DAA-06H	0... 400 bar DAA-D4H
						0... 600 bar DAA-D6H
73	24	27	0.5			0... 1000 bar DAA-E1



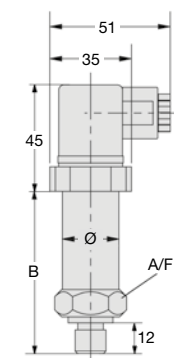
DAA-C1H



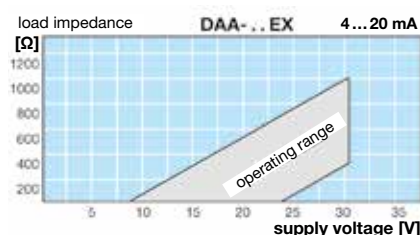
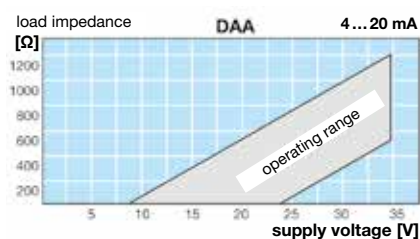
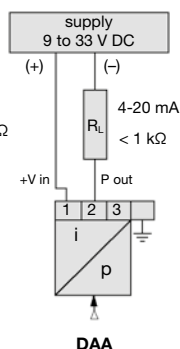
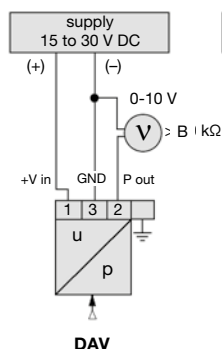
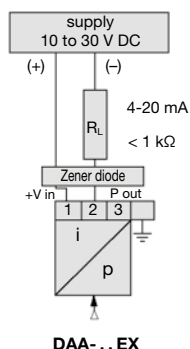
DA-..T

Special options, add the appropriate letter or number

0-10 V output signal	not for Ex ATEX version	DAV-..
deviant measurement range	to be indicated on order	DA-..XX
absolute pressure range	from 50 mbar on	DA-..A
vacuum	0...-1 bar	DA-..V
Ex-Atex version	Ex II 1G Ex ia IIC T6	DAA-..EX
0.25 % linearity	for 100 mbar up to 600 bar	DA-..G
	for 1000 bar	DA-..E1G
-25 to +100 °C/-13 to 212 °F	media temperature compensated up to 85 °C / 185 °F / T4	DA-..S
-25 to +150 °C/-13 to 302 °F	media temperature compensated up to 85 °C / 185 °F / T3	DA-..T
flush-mounted diaphragm	connection thread G½, also for vacuum, up to 600 bar	DA-..F
G½ male	connection thread	DA-..04
EPDM elastomer		DA-..E
silicone-free oil-refill		DA-..X32



version	B (mm)
standard	73
standard 150 °C	100
Ex	122
Ex, T3	149



* Product group

Test chart: see chapter "Technical information"

PDF CAD
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Order example:
DAA-B5H

Description

Media

Supply voltage

Electrical connector

Output signal

Input resistance/load

Current consumption

Linearity/Hysteresis

Long-term stability

Temperature sensitivity

Shock resistant

Vibration resistance

Media temperature

Material

The differential pressure between port P+ and P- is converted into a proportional electrical signal by a silicon pressure sensor, amplified and output as an analog current or voltage signal.

compressed air or non-corrosive gases

14-32 V DC

plug M12x1, 4-pin, with coupling socket

4-20 mA / 800 Ohm 2-wire, optional 0-10 V / 10 kOhm 3-wire

800 Ohm (4-20 mA); 10 kOhm (0-10 V)

Signal output current: max. 25 mA; signal output voltage: max. 7 mAA

$\leq \pm 0.35\%$ v.E. (at > 160 mbar); $\leq \pm 1.0\%$ v.E. (at 40-160 mbar); $\leq \pm 2.0\%$ v.E. (at < 40 mbar)

$\leq \pm 0.2\%$

$\leq \pm 0.3\%$ (10 K at < 10 mbar); $\leq \pm 0.25\%$ (10 K < 20 mbar); $\leq \pm 0.15\%$ (10 K at < 250 mbar);

$\leq \pm 0.08\%$ (10 K at > 250 mbar)

100 g (11 ms)

10 g by 20-2000 Hz

-25 ... 125 °C / -13 ... 257 °F

Body: aluminium (silver anodized)

Sensor: Silicon, RTV, Ceramic Al₂O₃

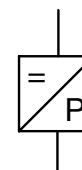
Protection class

IP67 according to DIN EN60529

Temperature range

-25 ... 85 °C

Sealing ring: PUR



**0,3% precise
compr. air or gases**

Dimensions			Overpressure on both connections max. mbar	Measurement range mbar / bar	Order number (4-20 mA)	E*
A	B	C				
mm	mm	mm				

Differential pressure transducer

G1/8, 2-wire, with angular
coupling socket

D3

40	56	5	100	0 ... 6 mbar	D3A-A6
				-6 ... 6 mbar	D3A-A6V
				0 ... 10 mbar	D3A-B1
				-10 ... 10 mbar	D3A-B1V
			200	0 ... 25 mbar	D3A-B25
				-25 ... 25 mbar	D3A-B25V
			350	0 ... 70 mbar	D3A-B7
				-70 ... 70 mbar	D3A-B7V
			1000	0 ... 350 mbar	D3A-C35
				-350 ... 350 mbar	D3A-C35V
			3000	0 ... 1 bar	D3A-01
				-1 ... 1 bar	D3A-V1

Special options, add the appropriate letter or number

0-10 V output signal

D3V-..

deviant measurement range on demand

D3.-XX

Accessories, enclosed

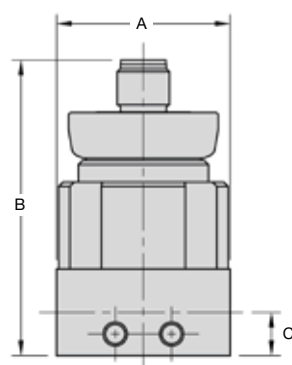
coupling socket 4-pin M12x1, straight **KM12-A4-0**

socket with cable 2 m, straight **KM12-A4-2**

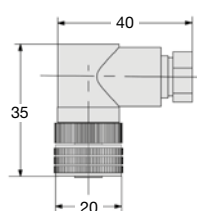
5 m, straight **KM12-A4-5**

angular **KM12-C4-2**

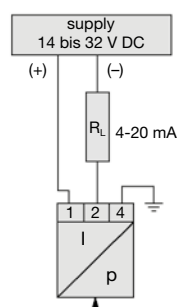
angular **KM12-C4-5**



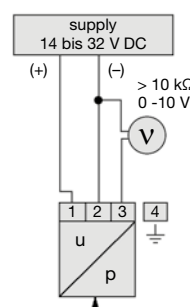
D3



KM12-C4-0

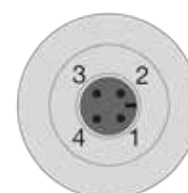


D3A



D3V

pin	colour
1	brown
2	white
3	blue
4	black



Top view

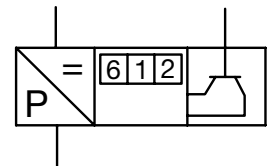
* Product group

PDF CAD
www.aircom.net



PROGRAMMABLE VACUUM AND PRESSURE SWITCH TRANSDUCER WITH DISPLAY DSB / DSC

Description	Pressure to the unit is continuously monitored by a piezo-resistive sensor and converted into a proportional voltage signal. The signal is then amplified and delivered as a PNP signal. dry, lubricated or unlubricated compressed air or non-corrosive gases		
Media			
Supply voltage	12 ... 30 V DC, reverse voltage protection, current consumption max. 30 mA, output current max. 250 mA		
Adjustment	DSB	Mode: hysteresis or window, switching point and hysteresis, NO or NC, closing or opening time, bar, psi, MPa, kg/cm ² etc. Display: current pressure, highest pressure, measurement errors	
Switching output	DSB	2x PNP freely programmable as NO or NC, max. contact load 250 mA, short-circuit-proof	
Switching output	DSC	1x PNP as at DSB and 1x analogue output signal 1...5 V, output impedance < 500 Ω adjustable from 0% to 100% of set switching point	
Hysteresis		adjustable from 0% to 100% of set switching point	
Repeatability		< 0.2% FS	
LED display		3-digit, red 7-segment display on DSB, no display on DSC	
Error display		via 7-segment display on DSB, via multicolour LED on DSC	
Certifications		CSA-compliant, UL-listed	
Temperature range		-1 °C to 50 °C / 30 °F to 122 °F	
Material		Body: ABS-PC plastic, shockproof	
		Linearity	< 1% FS
		Switching frequency	200 Hz
		Mounting position	any
		Shock resistance	10 g
		Protection class	IP 65
		Connection thread:	nickel-plated brass



**-1 ... 0/10 bar
output PNP/1-5V**

Dimensions	Digital display	Over-pressure	Output signal	Measurement	Order number
B	Ø		type	range	
mm	mm	max. bar	PNP/analog	max. mA	bar

Sensor pressure switch					connection thread G½ male, without coupling socket, M8x1, 4-pin		DS
57	16	with	2	2x PNP	250	0 ... -1	DSB-V1
			15			-1 ... +1	DSB-V2
						0 ... 10	DSB-10
						-1 ... 10	DSB-V10
						0 ... 12	DSB-12
44	16	without	2	1x PNP/1x analog	250	0 ... -1	DSC-V1
			15			-1 ... +1	DSC-V2
						-1 ... 10	DSC-V10



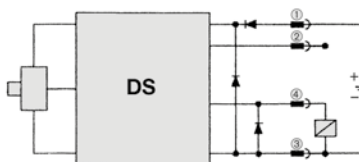
DSB with digital display



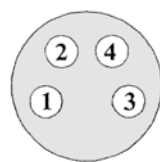
DSC

Accessories, enclosed

coupling socket	M8x1, 4-pin with 5 m cable	straight	KM8-A4-5
		angular	KM8-C4-5

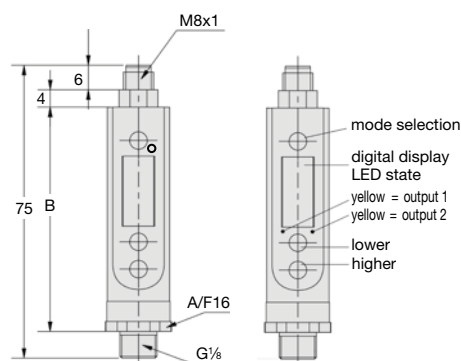
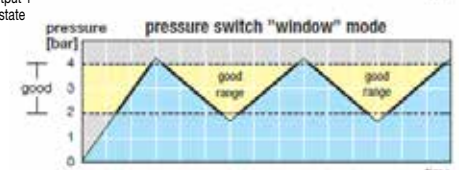
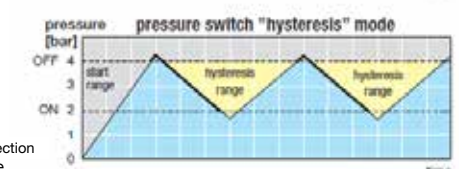
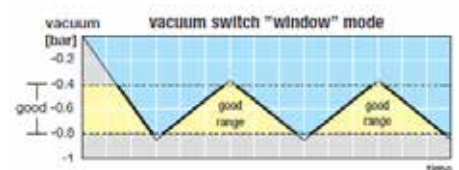
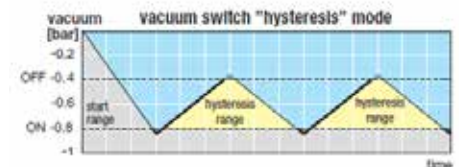


connection diagram

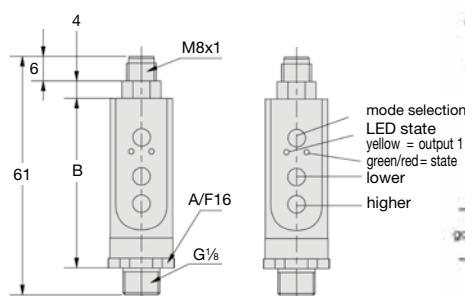


PIN configuration according to DIN EN 50044

pin	colour	configuration
1	brown	24 V DC (+)
2	white	outlet 2 / analog
3	blue	24 V DC (-)
4	black	outlet 1 / digital



DSB



DSC

* Product group

PDF CAD
www.aircom.net



Order example:
DSB-V1

YOU NEED HELP?

We have some videos on our YouTube channel for minor problems or for functionalities. For example, you want to know how to make your filter fit for use?

Then we have the right video for that!

You need help choosing the right repair kit - we will be happy to advise you!



YOUTUBE-CHANNEL

