



DIFFERENTIAL PRESSURE TRANSMITTERS

984M

FUNCTION

Monitoring differential gaseous pressure, non-aggressive media.
Possible areas of applications are:

- air-conditioning and clean rooms;
- building automation;
- valve and flap control;
- fluid and level monitoring;
- control of air flows.

Transduction in voltage and current values.

Each transmitter can be set with two pressure ranges using the jumper "Range". The factory setting is for range 1 (jumper inserted). To choose range 2, remove the jumper.

The response time of output signal can be configured. The factory setting is for slow response 1 s (useful for suppressing pressure peaks), jumper "Response inserted". To increase fast response remove the jumper.

The output level of 3-wire models can be configured in 0...10 Vdc (factory setting, jumper "Output" inserted) or 4...20 mA by removing this jumper.

TECHNICAL DATA

Power supply:	see order selection table
Sensor:	piezoresistive pressure transducer
Measuring range:	see order selection table
Overload:	see order selection table
Rupture press.:	see order selection table
Accuracy:	< ± 0,2 % of end of scale
Long term stability:	< ± 0,5 % to ± 2,5 % of end of scale/year
Outputs / load:	0...10 Vdc (max 10 mA) 4...20 mA < 20...500 Ohm
Supply current:	max 30 mA for AC (0...10 Vdc), max 20 mA for DC (0...10 Vdc), max 30 mA (4...20 mA) for 2-, 3- wire

Working temp.:	-20...+70 °C
Storage:	-20...+70 °C
Humidity:	0...95 % r.h., without condensing
Response time:	100 ms or 1 sec., selectable
Housing:	housing with process connection P2 made of ABS, mounting part with process connection P1 made of POM can be mounted in any position
Installation:	IP54 (with cover), class I
Protection:	EN60770, EN61326
Standards:	Ø 118 x h 57,5 mm
Max dimensions:	135 g
Weight:	

TYPE	RANGE 1	RANGE 2	OUTPUT SIGNAL	DISPLAY
984M.323204	0...100 Pa (1.0 mbar)	0...250 Pa (2.5 mbar)	4...20 mA	No
984M.343304	0...500 Pa (5.0 mbar)	0...1.000 Pa (10 mbar)	4...20 mA	No
984M.343714	0...500 Pa (5.0 mbar)	0...1.000 Pa (10 mbar)	0...10 Vdc	Yes
984M.353704	0...1 kPa (10 mbar)	0...2.5 kPa (25 mbar)	0...10 Vdc	No
984M.353D04	0...1 kPa (10 mbar)	0...2.5 kPa (25 mbar)	4...20 mA	No
984M.3X3204	-50...+50 Pa (-0,5...+0,5 mbar)	-	4...20 mA	No
984M.3X3114	-50...+50 Pa (-0,5...+0,5 mbar)	-	0...10 Vcc	Yes

Code selection table

	984M.3	*	3	*	*	4
<i>Range 1</i>						
<i>Range 2</i>						
<i>Overload</i>						
Pressure range	0...100 Pa (1.0 mbar)	0...250 Pa (2.5 mbar)	60 kPa	2		
	0...250 Pa (2.5 mbar)	0...500 Pa (5.0 mbar)	60 kPa	3		
	0...500 Pa (5.0 mbar)	0...1.000 Pa (10 mbar)	75 kPa	4		
	0...1 kPa (10 mbar)	0...2.5 kPa (25 mbar)	85 kPa	5		
	0...5 kPa (50 mbar)	0...10 kPa (100 mbar)	85 kPa	7		
	0...25 kPa (250 mbar)	0...50 kPa (500 mbar)	200 kPa	9		
	0...50 kPa (500 mbar)	0...100 kPa (1000 mbar)	200 kPa	A		
	-50...+50 Pa (-0,5...+0,5 mbar)	--	60 kPa	X		
	-100...+100 Pa (-1,0...+1,0 mbar)	--	60 kPa	W		
Pressure unit	mbar			3		
Output signal and supply voltage	0...10 Vdc	24 Vac/dc, with open collector NPN output, 3-wire cable			1	
	4...20 mA	24 Vdc, without open collector NPN output, 2-wire cable			2	
	4...20 mA	24 Vac/dc, with open collector NPN output, 3-wire cable			3	
	0...10 Vdc	24 Vac/dc, without open collector NPN output, 3-wire cable			7	
	4...20 mA	24 Vac/dc, without open collector NPN output, 3-wire cable			D	
Display	None					0
	With LED-display, 3.5 digits (not for output 4...20 mA, 2-wire)					1
Electrical connection	Screw terminal block					4

Accessories on request

Article	Description
DBZ-06	Connection set with 2 PVC duct connectors, 2 m flexible PVC pipe and 4 screw
DBZ-14A	Metal mounting bracked S-shaped
DBZ-14B	Metal mounting bracked L-shaped
104552	Test certificate

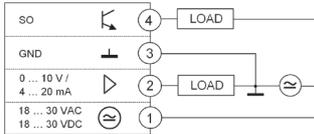
DIFFERENTIAL PRESSURE TRANSMITTERS

984M

WIRING DIAGRAM

984M.3x31x4
984M.3x37x4

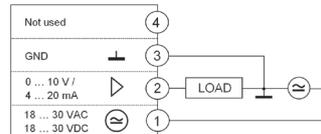
3- cavo con uscita di commutazione



4	Uscita a collettore aperto (SO)
3	Ground (GND)
2	Uscita (0...10 V / 4...20 mA)
1	Alimentazione di tensione (18...30 VAC / VDC)

984M.3x32x4

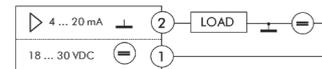
3- cavo senza commutazione di uscita



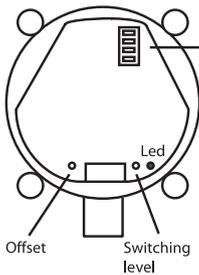
4	Non utilizzare
3	Ground (GND)
2	Uscita (0...10 V / 4...20 mA)
1	Alimentazione di tensione (18...30 VAC / VDC)

984M.3x33x4
984M.3x3Dx4

2- cavo



2	Uscita (4...20 mA)
1	Alimentazione di tensione (18...30 VDC)



	scala 1	scala 2
Range (scala)	scala 1	scala 2
Response (risposta)	lento	veloce
Mode (modo)	lineare	rad. quad.
Output (uscita)	0...10 V	4...20 mA

■ Jumper yes
□ Jumper no

P1: misura pressione positiva
P2: misura depressione
P1 + P2: misura pressione differenziale

* Only for 3-wire model without display and only on request.

VERSION WITHOUT DISPLAY

Setting of switching output:

Apply a differential pressure corresponding to the transistor commutation point required. Then press the key "Switching output" for 5 s until led flashes (= value is saved). The led lights when the pressure set is reached or exceeded.

Offset calibration:

In order to correct zero-point deviation of output signal in depressurized state (ex: to 0 Vdc / 4 mA at 0 Pa), disconnect the unit from pressure by opening both hoses, then press the "Offset" button for 5 s.

VERSION WITH DISPLAY

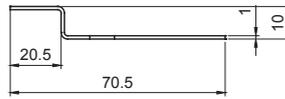
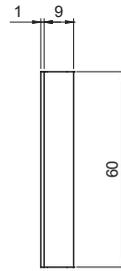
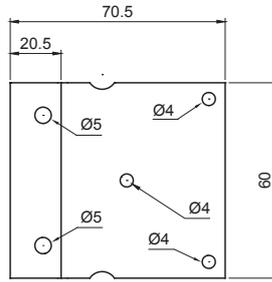
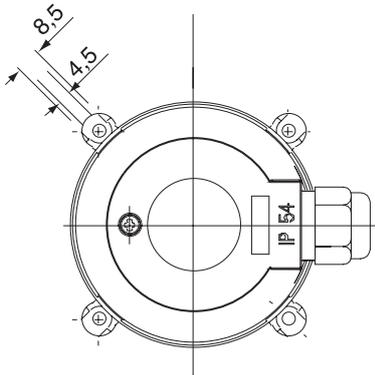
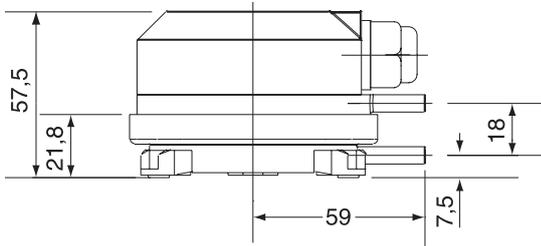
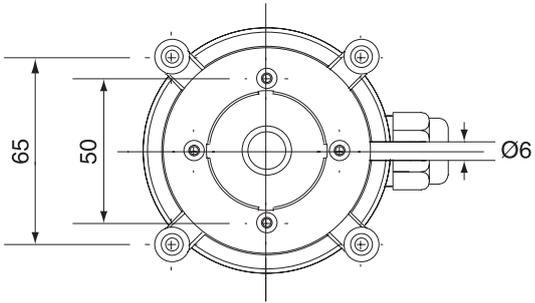
Commutation point setting:

Press the key "M" two times, the message "SP" appears on display. Press the key "S" to visualize the current point of commutation. To change the point of commutation value press the key "S" for 5 seconds then press the key "M" to memorize it. Press the key "M" several times until the measured value appears on the display.

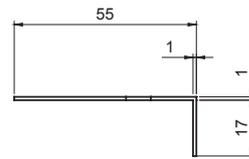
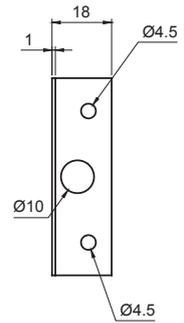
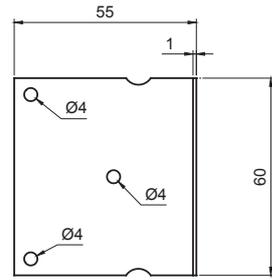
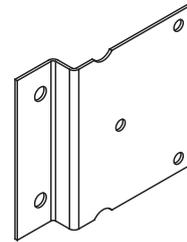
Offset calibration:

Press the key "M" two times, the message "OFFS" appears on display. Press the key "S" one time to see the current value of Offset. To change Offset value press the key "S" for 5 seconds then press the key "M" to memorize it. Press the key "M" several times until the measured value appears on display.

DIMENSIONS (mm)



DBZ-14A



DBZ-14B

