

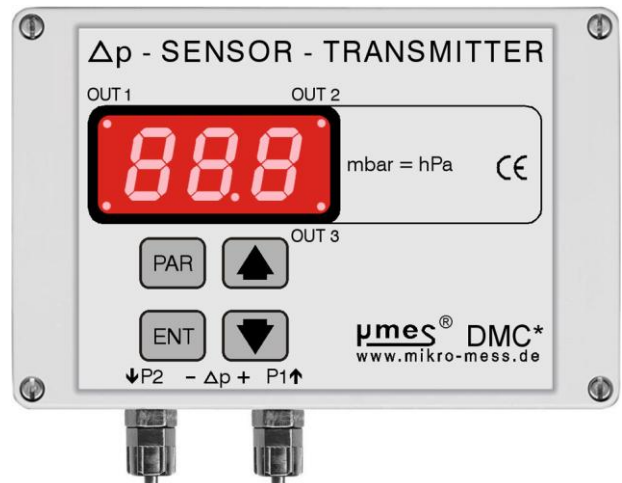
μ mes[®] Δp – SENSOR - TRANSMITTER TYPE: DMC-7Q- D(T)

Valid as of device no.: 10100000

Differential pressure, relative pressure (positive or negative pressure), programmable Δp measuring range



DMC*D



DMC*-DT mit Tasten im Deckel

DESCRIPTION

Robust, universal, industrial-grade Δp - SENSOR - TRANSMITTER for use worldwide with good long-time stability, with very low temperature drift and high single- or double-sided protection against overpressure and programmable Δp range, which the user can programme himself within the measuring span of a group. 10 linear short circuit-proof analogue outputs 0-5 V, 0-10 V, 2-10 V, 0-20 mA, 4-20 mA or inverse: 5-0 V, 10-0 V, 10-2 V, 20-0 mA and 20-4 mA are programmable. Universal on supply voltages: Can be connected to 110-120 VAC, 230-240 VAC and 24 VDC. Small IP65 housing in shapely design.

Examples: Ventilation and air-conditioning units, medical technology, clean room technology, filter control, fill level control and regulation, flow detection system, etc.

Compact, universal Δp -Sensor-Transmitter for the 3 indicators: overpressure, underpressure and differential pressure. The differential pressure (+ P1 \uparrow and P2 \downarrow -), the overpressure (+ P1 \uparrow) or the underpressure (P2 \downarrow -) are measured via the pressure connections which have integrated FT-P filters, displayed on the 3-digit digital display and output on the linear outputs.

Almost any kind of transmitter can be configured in one device with the 3 pressure indicators, the programmable measuring ranges and the 10 analogue outputs. This can reduce your costs for storage and servicing. Pressure measuring ranges from 0-0.4 mbar to 0-10 bar can be supplied.

For air-related applications with the ever-present turbulences, a programmable Δp damping of the switching points and the display is a necessary, functional advantage. 10 linear short circuit protected analogue outputs 0-5 V, 0-10 V, 2-10 V, 0-20 mA, 4-20 mA or inversely: 5-0 V, 10-0 V, 10-2 V, 20-0 mA and 20-4 mA are programmable and are available for pressure-proportional output signal for further process controls.

CHARACTERISTICS

- Universal electrical connection for 230-240 VAC and 110-120 VAC and 24 VDC in one device
- Pressure sensor highly overloadable and temperature compensated with manual zero-point calibration
- 9 device groups with user-programmable Δp measuring range within the measuring span of one group:
 - Group 1: 0 - 0.4 mbar to 0 - 2 mbar
 - Group 2: 0 - 1 mbar to 0 - 5 mbar
 - Group 3: 0 - 2 mbar to 0 - 10 mbar
 - Group 4: 0 - 10 mbar to 0 - 50 mbar
 - Group 5: 0 - 20 mbar to 0 - 100 mbar
 - Group 6: 0 - 100 mbar to 0 - 500 mbar
 - Group 7: 0 - 200 mbar to 0 - 1000 mbar
 - Group 8: 0 - 1 bar to 0 - 5 bar
 - Group 9: 0 - 2 bar to 0 - 10 bar
- Short circuit protected analogue output 0-5 V, 0-10 V, 2-10 V, 0-20 mA, 4-20 mA programmable, also inversely e.g. 20-4 mA
- Programmable Δp damping: Approx. 1 s to 240 s
- Option „S“ : 3 switch points, output: 3x open collector, 24 VDC, 25 mA, short circuit protected
- Option „H“ : - Sample and hold function by means of which the Δp measuring value can be held
- Extreme ambient temperature range -20°C to +60°C
- Housing protection type IP 65. Housing also with membrane keypad in the lid and can be supplied for Ex areas according to ATEX
- Machinery directive 98/37/EC, low voltage directive 73/23/EEC and EMC directive 89/336/EEC are fulfilled
- Universal device for the lowest need for storage space, with meaningful functions required in practice
- High reliability via "burn in"

The translation of this document is from the original German document and is for informative purposes only. Errors / omissions not excluded. Solely the original German document is binding.

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TECHNISCHE DATEN / TECHNICAL DATA

Gruppe - max. Messbereich: / Group - max. range:

Messbereiche Δp	:	0-0.4 - 0-2	Messspanne / measuring range	mbar.....	1 - 2.....ORDER-INDEX: mbar-
Gruppe 1-9	:	0-1 - 0-5	Messspanne / measuring range	mbar.....	2 - 5.....ORDER-INDEX: mbar-
Pressure ranges Δp	:	0-2 - 0-10	Messspanne / measuring range	mbar.....	3 - 10.....ORDER-INDEX: mbar-
Group 1-9	:	0-10 - 0-50	Messspanne / measuring range	mbar.....	4 - 50.....ORDER-INDEX: mbar-
	:	0-20 - 0-100	Messspanne / measuring range	mbar.....	5 - 100.....ORDER-INDEX: mbar-
	:	0-100 - 0-500	Messspanne / measuring range	mbar.....	6 - 500.....ORDER-INDEX: mbar-
	:	0-200 - 0-1000	Messspanne / measuring range	mbar.....	7 - 1000.....ORDER-INDEX: mbar-
	:	0-1b - 0-5b	Messspanne / measuring range	bar.....	8 - 5b.....ORDER-INDEX: bar -
	:	0-2b - 0-10b	Messspanne / measuring range	bar.....	9 - 10b.....ORDER-INDEX: bar -

**Wählen Sie eine Gruppe aus für die Messbereiche, die im Gerät verfügbar sein sollen.
Please choose out of one group for the ranges, which should be integrated in the unit.**

Anzeige, Display	:	Digital, 3-stellig, 7-Segment- LED rot, 14 mm hoch, ohne Tasten im Deckel :.....	ORDER-INDEX: -D-
Tasten, buttons	:	Digital, 3-digit, 7-segment - LED (red), 14 mm high, without buttons. Digital, 3-stellig, 7-Segment- LED rot, 14 mm hoch, mit Tasten im Deckel :.....	ORDER-INDEX: -DT-
	:	Digital, 3-digit, 7-segment - LED (red), 14 mm high, with buttons into the cover. Digital, 3-digit, 7-segment - LED (red), 14 mm high. Ohne Anzeige / without display...ORDER-INDEX: -0-	

Δp -Dämpfung, Damping Programmierbar / programmabel: ca. 1 s bis / till 240 s

Überlastbarkeit	:	Statischer Gleichdruck einseitig / Static balanced pressure on one side:
Overload capacity	:	Messbereich / range, bis / up to: 0.4 - 10 mbar: pmax = 250 mbar
	:	Messbereich / range, bis / up to: 10 - 100 mbar: pmax = 750 mbar
	:	Messbereich / range, bis / up to: 100 - 1000 mbar: pmax = 4 bar
	:	Messbereich / range, bis / up to: 1b - 10b bar: pmax = 20 bar
	:	Statischer Gleichdruck beidseitig / Static balanced pressure on two sides:
	:	Messbereich / range, bis / up to: 0.4 - 10 mbar: pmax = 0,6 bar
	:	Messbereich / range, bis / up to: 10 - 100 mbar: pmax = 5 bar
	:	Messbereich / range, bis / up to: 100 - 1000 mbar: pmax = 10 bar
	:	Messbereich / range, bis / up to: 1b - 10b bar: pmax = 20 bar

Gesamtfehler	:	Linearität + Hysterese + Reproduzierbarkeit : \pm 1% F.S. ab / from \geq 3 mbar Messbereich / range
Total error	:	Linearität + Hysterese + Reproduzierbarkeit : \pm 2% F.S. bis / to \leq 2 mbar Messbereich / range
	:	Linearity + hysteresis + reproducibility : \pm 4% F.S. bis / to \leq 0,5 mbar Messbereich / range

Langzeitstabilität	:	0,1 % F.S. / Jahr ab / from \geq 3 mbar Messbereich / range (F.S. = vom Messbereich / Full Scale)
Long term stability	:	0,25 % F.S. / Jahr bis / to \leq 2 mbar Messbereich / range
	:	0,5 % F.S. / year bis / to \leq 0,5 mbar Messbereich / range

Temperaturfehler	:	+10°C bis +50°C : 0,025 % F.S. / K (K = Kelvin)
Temperature error	:	+50°F up to +122°F : 0.025 % F.S. / K
Betriebstemperatur	:	-20°C bis +60°C.
Operating temperature	:	-4°F to +140°F.

Druckmedium	:	Nicht brennbare Gase, Luft, die Polyamid, Polyetherimide, POM, PVC, Silizium, Silicon, Edelstahl, Messing, Aluminium und Gold nicht angreifen.
Pressure media	:	Not flammable gases, air, not corroding polyamide, polyetherimide, POM, PVC, silicon, silicone, stainless steel, brass, aluminum and gold.

Signalausgänge	:	Analogausgang, linear, programmierbar / Analogue output, linear, programmable:
Signal outputs	:	0 - 5 V, Bürde / load = min. 5 k Ω . 0 - 10 V, Bürde / load = min. 10 k Ω , 0-20 mA, Bürde / load = max. 500 Ω . 2 - 10 V, Bürde / load = min. 10 k Ω , 4-20 mA, Bürde / load = max. 500 Ω .
	:	Analogausgang, linear, invers programmierbar / Analogue output, linear, reverse programmable:
	:	5 - 0 V, Bürde / load = min. 5 k Ω . 10 - 0 V, Bürde / load = min. 10 k Ω , 20-0 mA, Bürde / load = max. 500 Ω . 10 - 2 V, Bürde / load = min. 10 k Ω , 20-4 mA, Bürde / load = max. 500 Ω .

Signalausgänge	:	Digital: 3 Schaltausgänge Open-Kollektor, 24 VDC, 25 mA, kurzschlussfest, Schaltpunkte programmierbar.....	ORDER-INDEX: -S-
Signal outputs	:	Digital: 3 switchoutputs, open-collector, 24 VDC, 25 mA, short-circuit safe, setpoints programmable	

Signaleingänge	:	Digital: Sample and Hold Funktion durch externen, potentialfreien Kontakt, der 5 mA bei 5 VDC , zuverlässig.....	ORDER-INDEX: -H-
Signal inputs	:	Digital: Sample and hold function with external, potentialfree relay contact, which can switch 5 mA, 5 VDC , dependable or with external voltage 24 VDC, 10 mA. With sample and hold function, the measured value can be stored.	

Stromversorgung	:	Universell: 230 - 240 V\approx, 50 - 60 Hz umschaltbar auf / changeable to: 110 - 120 V\approx, 50 - 60 Hz
Power supply	:	und / and 24 VDC in einem Gerät realisiert / in one unit realised. Bei M12-Steckeranschluß nur in 24 VDC lieferbar. Only available for main power 24 VDC with M12-plugs.

Nennleistung, Nom.Power:	:	5 VA; 3,3 W
Elektr. Anschluss	:	Schraubklemmen, max. Drahtquerschnitt 2,5 mm 2 , alternativ: schraubenlose Klemmen
Electric connection	:	Screw terminal, max cross section of wire AWG 14, alternative: screw less terminals

Druckanschluss	:	2x POM-Kunststoff-Schlauchverschraubungen mit Überwurfmutter / 2x POM-plastic-tube connectors with connector nut:	
Pressure connection	:	Schlauchgrößen / size of tube: Da/OD = 6 mm, Di/ID = 4 mm:.....	ORDER-INDEX: -64-

Gehäuse 1	:	Abmessungen / dimensions : 120 x 80 x 55 mm, B x H x T (Width x Height x Depth). Zwei Kabeleinführungen, blind, M16x1,5 / Two cable inputs, blind, M16x1,5 Material / material : ABS. Farbe / colour: grau / grey. Gewicht / weight : 450 g Schutzart / protection class : IP 65.....	ORDER-INDEX: -AB-
Housing 1	:		
Gehäuse 2	:	Abmessungen wie Gehäuse 1. Der elektrische Anschluss erfolgt über einen außen angebauten M12-Stecker. Nur für eine Versorgung von 24 VDC lieferbar. Dimensions like case 1. For the electrical connection the unit has one M-12 plug mounted outside. Available only for main power 24 VDC. Schutzart / protection class : IP 65.....	ORDER-INDEX: -ABM12P-
Housing 2	:		

Option für Gehäuse	:	Gehäuse auf Normschienenhalter montiert. Der Halter ist abschraubbar. Passend für Normschiene TS35. Housing mounted at a holder for normrail TS35. It is possible to demount the holder. Material / material : ABS. Farbe / colour: grün / green.....	ORDER-INDEX: -TS35-
Option for housing	:		

Vorschriften / Rules : EN 60 204.1. EN 55011. EN 50 014:2000, EN 50281-1-1:1999, EN 50021. EN 61000-4-ff. EN 61010. IEC 60079-15. BGV A2.

Bestell-Nr.	:	DMC-7Q Gruppe-Messbereich - Anzeige - Schalt - - Hold - Volt -AC - Anschluss - Gehäuse- Norm - CE
ORDER-INDEX	:	DMC-7Q Group-range of group - Display - Digital out - Hold - Volt -DC- - Connection- Case - Normrail - CE
Beispiel 1 / example 1 :	:	DMC-7Q- 1 - 2 - D - S - H - 24DC - 64 - ABM12P - CE
Beispiel 2 / example 2 :	:	DMC-7Q- 9 - 10b - D - S - H - 24DC-240AC - 64 - AB - TS35 - CE
Beispiel 3 / example 3 :	:	DMC-7Q- 5 - 100 - DT - S - H - 24DC-240AC - 64 - AB - CE

Änderungen vorbehalten / alterations reserved Z 0884001_009_DMC_7Q_D(T)_GB

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