



DPT* with supply 24 VDC

DPT* with supply 110-120/230-240 VAC and 24 VDC

DESCRIPTION

Universal electronic Δp – FILTER - CONTROL with programmable Δp range, which the user can programme himself within the measuring span of a group by using the Parameter rAn. The device has 2 relay outputs, 1x threshold value max and 1x threshold value min.

4 linear analogue outputs 0-20 mA, 4-20 mA, 0-10 V and 2-10 V are programmable. Available for universal supply voltage 110-120 VAC, 230-240 VAC and 24 VDC with ABS-Housing 160x80x55 mm or only with 24 VDC with ABS-Housing 120x80x55 mm or as an alternative with ALU-Housing 125x80x57 mm.

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

The differential pressure (+ P1↑ and P2↓ -), the overpressure (+ P1↑) or the underpressure (P2↓ -) are measured via the pressure connections and displayed on the 3-digit digital display. The Δp set points can be displayed, too. So a precise adjustment of the set points is possible.

The both Δp set points with parameter ALL (ALARM min) and Parameter ALH (ALARM max) can be adjusted by push-buttons. The ALARM appears, if the Δp pressure is below the set point ALARM min or if the Δp pressure exceeds the set point ALARM max. After each Power ON, the set points can be suppressed with the parameters ALS and AHS for an adjustable time to avoid a wrong ALARM signal. This makes sense, if e.g. the operating pressure must raise up for a certain time after Power ON.

For air ventilation applications with the almost always present turbulences, the programmable Δp-damping with parameter dPd of the set points, the display and the analogue output represents a further advantage. 4 linear short circuit-safe analogue outputs 0-20 mA, 4-20 mA, 0-10 V and 2-10 V are programmable and are available as output signals, proportionally with the pressure, for further process controlling.

FEATURES

- Universal power voltage input: 230-240 VAC and 110-120 VAC and 24 VDC in one unit or only 24 VDC
- Robust, tried and tested pressure sensor
- Pressure sensor overload-safe and temperature compensated and manual zero point calibration,
- Pressureconnectors protected with replaceable filters FT-P-X-CE and emergency filter in addition for applications with air containing dust
- Programmable Δp-ranges by the user are possible, with 9 unit-groups:
 - 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
- Analogue output, shot circuit proof, 0-20 mA, 4-20 mA, 0-10 V und 2-10 V programmable
- Programmable Δp-Damping: approx. 0 s till 240 s
- Relay output 1, threshold contact, Alarm max., programmable
- Relay output 2, threshold contact, Alarm min., programmable
- All relays with changeover contacts, gold plated, potential-free, safety circuit - false safe, for test: manual switching mode possible
- Extreme range of ambient temperature -20°C to +60°C
- Housing protection class IP 65
- Universal device for the lowest need for storage space, with meaningful functions required in practice
- Machinery directive 2006/42/EC, low voltage directive 2006/95/EC and EMC directive 2004/108/EC are fulfilled
- High reliability via "burn in"

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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 :.....	ORDER-INDEX: -D-
	:	Digital, 3-digit, 7-segment - LED (red), 14 mm high.	
Δp-Dämpfung, Damping	:	Programmierbar / programmable: ca. 0 s bis / to 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 2% F.S. ab / from \geq 1 mbar Messbereich / range	
Total error	:	Linearity + hysteresis + reproducibility : \pm 4% F.S. bis / to \leq 0,5 mbar Messbereich / range	
Langzeitstabilität	:	0,5 % F.S. / Jahr ab / from \geq 1 mbar Messbereich / range (F.S. = vom Messbereich / Full Scale)	
Long term stability	:	1 % F.S. / year bis / to \leq 0,5 mbar Messbereich / range	
Temperaturfehler	:	+10°C bis/to + 50°C: 0,05 % F.S. / K, ab / from \geq 1 mbar Messbereich / range	
Temperature error	:	+10°C bis/to + 50°C: 0,1 % F.S. / K, ab / from \leq 0,5 mbar Messbereich / range	
Betriebstemperatur	:	-20°C bis + 60°C.	
Operating temperature	:	- 4°F to +140°F.	
Druckmedium	:	Nicht aggressive und nicht brennbare Gase, Luft, die Polyamid, POM, PVC, Silizium, Silicon, Epoxydharz, Edelstahl und Gold nicht angreifen.	
Pressure media	:	Not aggressive and not flammable gases, air, not corroding polyamide, POM,PVC, silicon, silicone, epoxy resin, stainless steel and gold.	
Signalausgänge	:	1: Digital: Relais / relay, 1x potentialfreier Wechsler: min. 5 mA, max. 1 A, 24 VDC.	
Signal outputs	:	Leuchtdiode für ALARM max / LED ALARM max	
	:	2: Digital: Relais / relay, 1x potentialfreier Wechsler: min. 5 mA, max. 1 A, 24 VDC.	
	:	Leuchtdiode für ALARM min / LED ALARM min	
	:	All relay contacts 1x change-over switch : min. 5 mA, max. 1 A, 24 VDC.	
Signalausgänge	:	Analogausgang, linear, programmierbar / Analogue output, linear, programmable:	
Signal outputs	:	0-20 mA, 4-20 mA, Bürde /load = max. 500 Ω ; 0-10 V, 2-10 V, Ri = 500 Ω	
Stromversorgung	:	Universell: 230 - 240 V\approx , 50 - 60 Hz umschaltbar auf / changeable to: 110 - 120 V\approx , 50 - 60 Hz und / and 24 VDC	
Power supply	:	in einem Gerät verfügbar / in one unit available:..... ORDER-INDEX: -24DC-240AC -	
	:	Nur/only 24 VDC :..... ORDER-INDEX: -24DC-0 -	
Nennleistung	:	Nominal power: 5 VA; 2.5 W	
Elektr. Anschluss	:	Schraubklemmen, max. Drahtquerschnitt 2,5 mm ²	
Electric connection	:	Screw terminal, max cross section of wire AWG 14	
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: -64POM-	
Druckanschluss	:	2x POM-Kunststoff-Schlauchverschraubungen mit Überwurfmutter / 2x POM-plastic-tube connectors with connector nut:	
Pressure connection	:	Schlauchgrößen / size of tube: Da/OD = 8 mm, Di/ID = 6 mm:..... ORDER-INDEX: -86POM-	
Druckanschluss	:	2x POM-Kunststoff-Schlauchtülle ohne Überwurfmutter / 2x POM-plastic-tube connectors without connector nut:	
Pressure connection	:	Schlauchgrößen / size of tube: Di/ID = 6 mm, ORDER-INDEX: -T6POM-	
Druckanschluss	:	2x POM-Kunststoff-Schlauchtülle ohne Überwurfmutter / 2x POM-plastic-tube connectors without connector nut:	
Pressure connection	:	Schlauchgrößen / size of tube: Di/ID = 8 mm, ORDER-INDEX: -T8POM-	
Gehäuse 1	:	Abmessungen / dimensions : 80 x 160 x 55 mm, Drei Kabeleinführungen, blind, M16x1,5 / Three cable inputs M16x1,5	
Housing 1	:	Material / material : ABS. Farbe / colour: grau / grey. Gewicht / weight : 350 g	
	:	Schutzart / protection class : IP 65..... ORDER-INDEX: -AB1-	
Gehäuse 2	:	Abmessungen / dimensions : 80 x 120 x 55 mm, Zwei Kabeleinführungen, blind, M16x1,5 / Three cable inputs M16x1,5	
Housing 2	:	Material / material : ABS. Farbe / colour: grau / grey. Gewicht / weight : 300 g	
	:	Schutzart / protection class : IP 65..... ORDER-INDEX: -AB2-	
Vorschriften / Rules	:	EN 60 204-1, EN 61010, EN 61326-1, EN 61326-2-3, BGV A2.	

Bestell-Nr.	:	DPT Gruppe-Messb. - Anzeige - Volt-AC - Anschluss - Gehäuse - CE
	:	mbar / bar - - - - -
ORDER-INDEX	:	DPT Group - range - Display - Volt-DC - Connection - Case - CE
Beispiel 1 / example 1	:	DPT- 4 - 50 - D - 24DC-240AC - 64POM - AB1 - CE
Beispiel 2 / example 2	:	DPT- 5 - 100 - D - 24DC - 0 - T8POM - AB2 - CE

Anderungen vorbehalten / subject to change Z1186001_002_DPT_GB

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