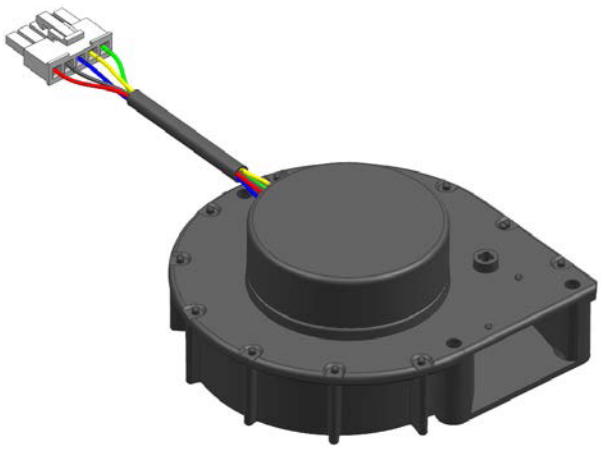
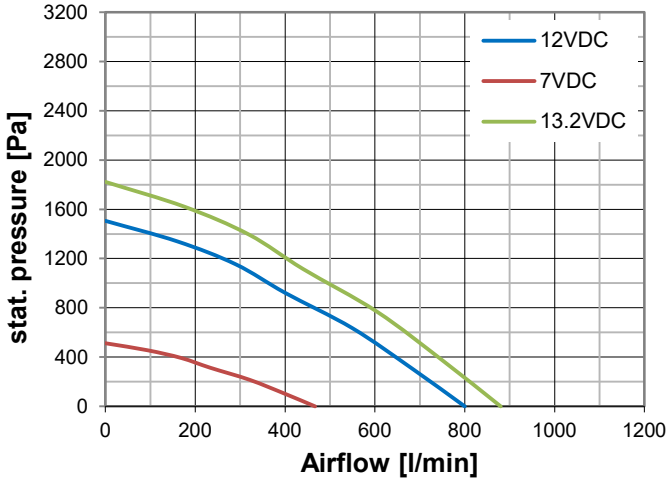
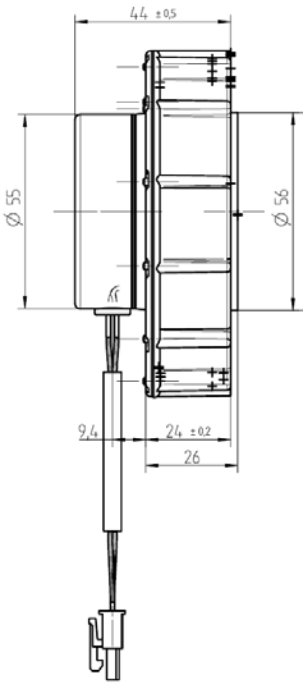
Baureihen / Series **U97**

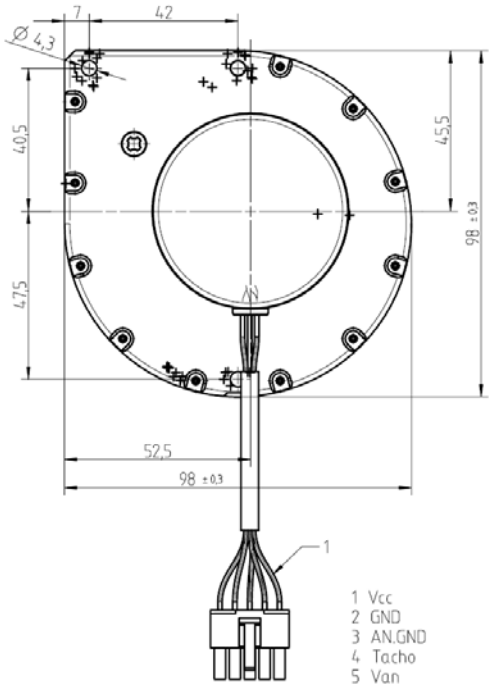
Miniatur Radial Gebläse
Miniature radial blower

explosion proof









U97DX-012KX-9
Umax. 13.2VDC Imax. 3A
CE Ex II 3 G
Ex nC IIC Gc U
IP67 ISOL.Kl. F
-40°C ≤ Ta ≤ +85°C
0346 462888 25

Technische Daten

Allgemeine Beschreibung
Der Radiallüfter ist mit einem bürstenlosen Flachmotor mit integrierter Elektronik ausgerüstet.
Eigenschaften: Material: Gehäuse: PPS, Flügelrad: PPS.

Feature:
- Tacho
- analoger Spannungseingang

Technical data

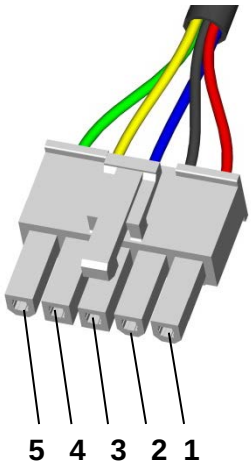
General description
The radial is equipped with a brushless motor, with integrated electronic
Features: Material: Housing: PPS, Impeller: PPS

Feature:
- Tacho
- analog voltage input

		U97DX-012KX-9
U_N	VDC	**12**
U	VDC	7 - 13.2
$I_{N\ freeblowing}$	mA	2’130
$I_{N\ work.\ point}$	mA	2’020
$I_{N\ static}$	mA	1’400
$P_{N\ work.\ point}$	W	24.4
$n_{\ freeblowing}$	min^{-1}	14’000
$n_{\ work.\ point}$	min^{-1}	14‘010
$n_{\ static}$	min^{-1}	15‘700
$V_{\ freeblowing}$	l/min	800
$V_{\ work.\ point}$	l/min	400
$p_{\ work.\ point}$	Pa	920
$p_{\ static}$	Pa	1‘505
LpA	dB(A)	
T	°C	-20 - +85
m	gr	240
Leads	mm	210 (AWG24)
Housing Material		PPS UL94V-1
Ball Bearing		•
Tacho		•
Van		•

Data’s at Density: 1.2kg/m^3

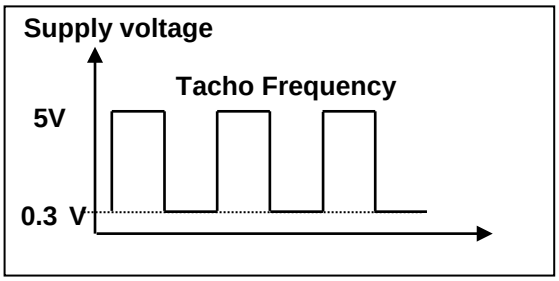
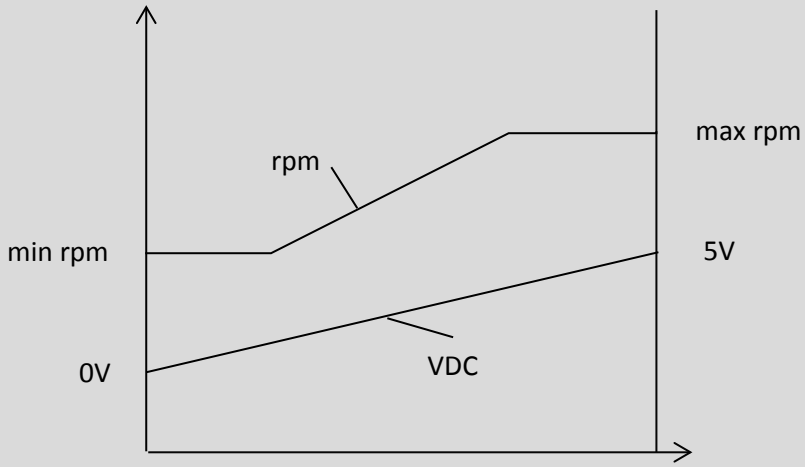
	U97DX-012KX-9
Power supply	**Any available power supply can be used, as long as it meets the minimum requirements set out below.** **Power supply requirements** Output voltage: Vcc min. 7 VDC 12V type: Vcc max. 13,2 VDC Ripple < 5 % → external 470µF / 35 V capacitor is necessary startup current minimum 3A; startup current maximum 7A Maximal Blower operating current free blowing: 2,13A **→ for other current limitation by different working conditions see detailed information in the product specification file " U97DX-012KX-9_Spezifikation.pdf "**
Electrical circuit	**Connector Blower:** MOLEX Series 5557 Mini Fit Jr. (39-01-4051)



1	**VP**	**red**
2	**GND**	**black**
3	**AN.GND**	**blue**
4	**Tacho**	**yellow**
5	**Van**	**green**

Connector Customer:

Wire to Board: MOLEX Series 5566vs Mini Fit Jr. (39-30-2050)
Wire to Wire: MOLEX Series 5559s Mini Fit Jr. (39-01-4056)

VP	7 – 13,2 startup current minimum 3A startup current maximum 7A 470µF / 35 V capacitor is necessary Pin 1 to Pin 2
Tacho	Open drain output: pull-up resistor (22kΩ) to 5V is **integrated**. (max. 10mA, no direct connection to GND and +VP) fTacho [Hz] * 5 = rpm [1/min] (8 pol. Motor) 
Van	**Analog speed control Input: 0…5 VDC** Potentiometer 100kΩ to be connected with AN. GND (Pin 3). $U_{V5V} = 5V$ $PWM\ U_{Motor} = \frac{U_{V5V} * R_{VanPoti} * 8.75}{(15\,k\Omega + R_{VanPoti})}$ R 15 kΩ is integrated. (pull-up resistor to 5V) **speed regulation by analog voltage**  **U Motor = U Pin Van * 8.75 (Independent of supply voltage)** Without Pin 5 connection: motor rotate with 100 % speed
	**Exceeding the blower limits during continuous operation may cause permanent damage!** **Handle only in currentless condition!** **No polarity protection!**

Info	**Specifications are subject to change without notice.** **Specifications on this Datasheet are for reference.** Version: 08.01.2016 / DH Doc: U97EX.docx