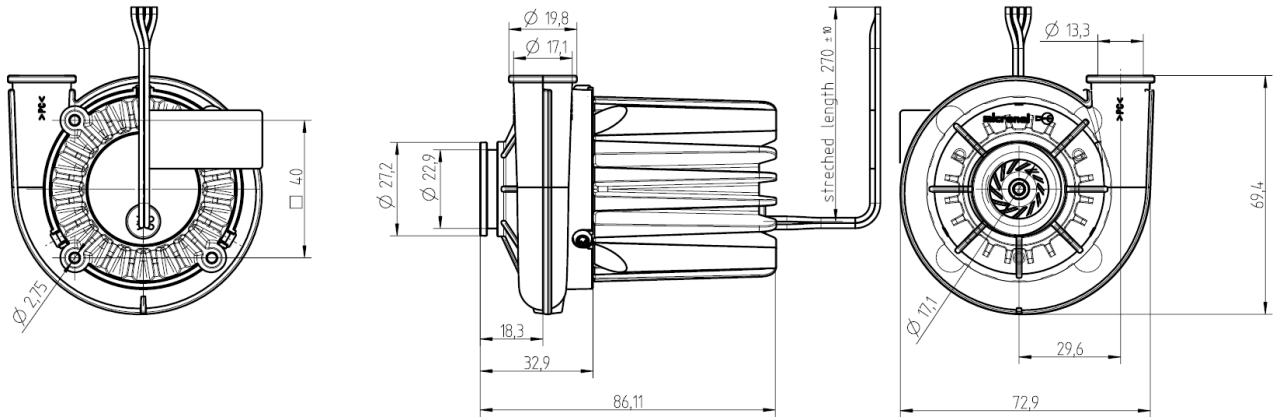
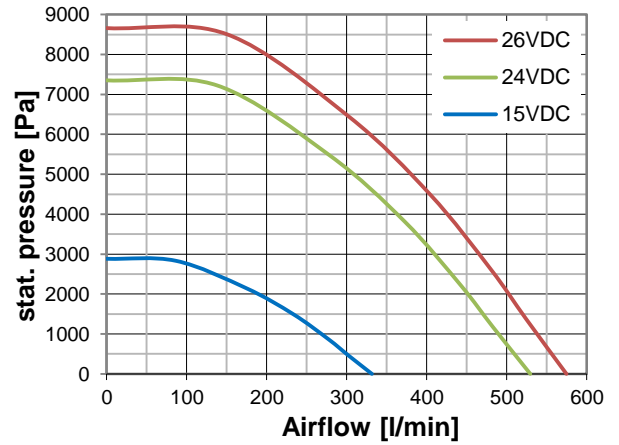
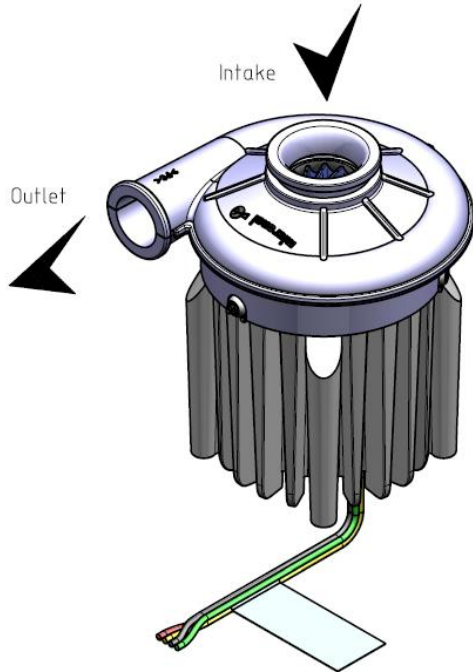


**Miniatur Radial Gebläse mit integrierter Elektronik**  
**Miniature Radial Blower with integrated electronic**



Direction of rotation CCW



## Technische Daten

### Allgemeine Beschreibung

Kompakter Lüfter mit effizientem Motor. Eigenschaften: Gehäuse: PC, Flügelrad: PA. Bürstenloser und sensorloser 3-Phasen Motor mit integrierter Treiber Elektronik. Anschluss über Einzelleitungen (AWG24).

## Technical data

### General description

Compact blower with an efficient motor. Features: housing: PC, impeller: PA. Brushless and sensorless 3-Phase motor with integrated driver electronic. Connection via single leads AWG 24.

		U71HL-024KM-4
$U_N$	VDC	24
U	VDC	15 - 26
$I_N$ freeblowing	mA	2'900
$I_N$ typ. work. point	mA	2'300
$I_N$ static	mA	1'200
$P_N$ typ. work. point	W	56
$n$ freeblowing	min <sup>-1</sup>	37'600
$n$ typ. work. point	min <sup>-1</sup>	39'000
$n$ static	min <sup>-1</sup>	41'300
$V$ freeblowing	l/min	530
$V$ typ. work. point	l/min	280
$p$ work. point	Pa	5'500
$p$ static	Pa	7'400
$LpA$ (WP)	dB(A)	62.7 dB(A) at 1000 Pa (10 mbar) and 1m distance
T	°C	-20...+45
m	gr	358
Leads	mm	270 (AWG24)
Housing material		PC
Impeller material		PA6
Sleeve Bearing		N/A
Ball Bearing		•
Tacho		•
Speed control SP		•

Data's at Density: 1.2kg/m<sup>3</sup>

**U71HL-024KM-4**

**Electrical connection**

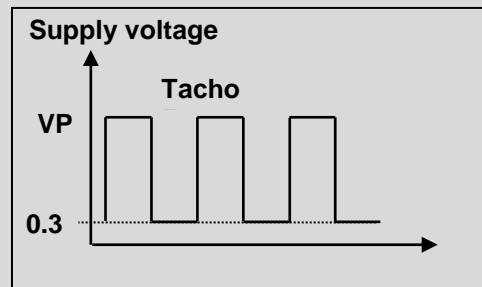
	Description	Lead wire	Diagram
FG	Frequency Generator (output)	yellow	
SP	Set speed (input)	Green	
V <sub>CC</sub>	+ Power	Red	
GND	Ground	Black	

**Blower Features**

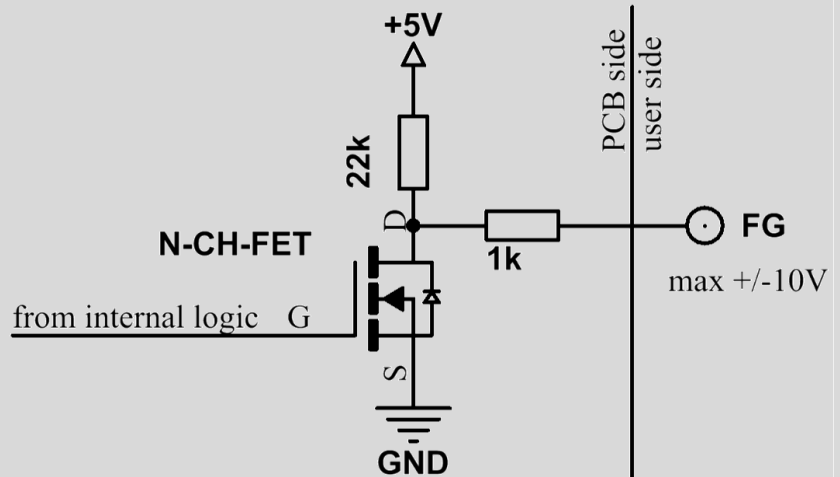
- Integrated speed control input
- FG frequency signal output
- ON / OFF control by logic signal
- Locked rotor protection
- Power supply overvoltage protection: maximum 28VDC
- ESD Protection 16 kV
- SURGE and burst protection 600W 10/1000 µm
- Polarity protection

**FG Frequency signal (yellow wire)**

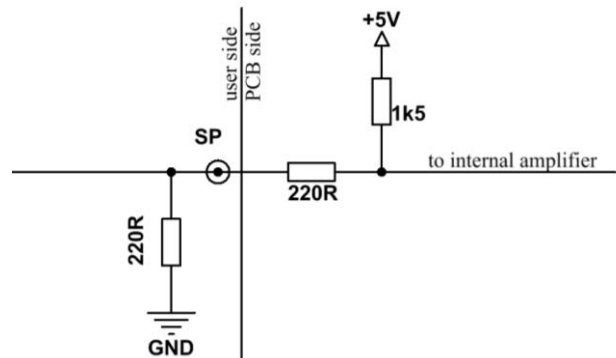
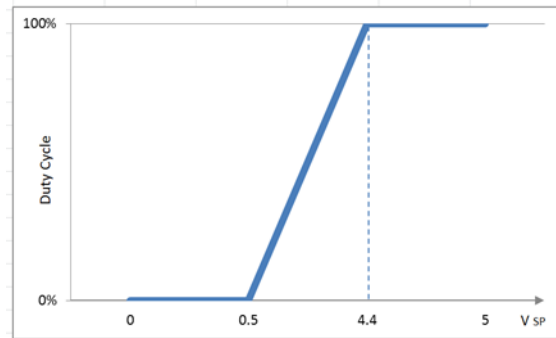
Speed calculation **f \* 20 = rpm (3 pulse / rotation)**  
 f = FG Frequency Generator [Hz]  
 rpm = Rotation speed [min-1]



Pull-up resistor (22kOhm) to 5 V is integrated.  
 Do not connect to Vcc!



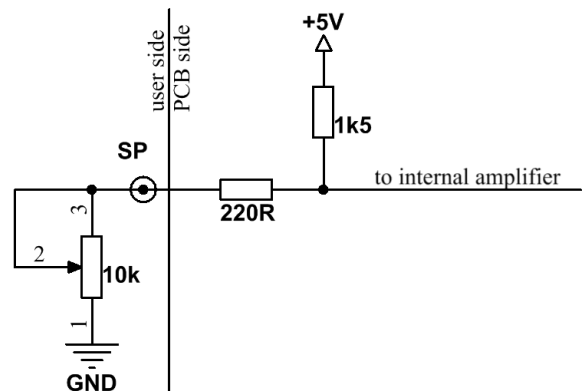
**SP Set speed  
(green wire)**



**Input voltage**

- 0 – 0.5 VDC → Stop
- 0.5 – 2.0 VDC → Starting (not guaranteed)
- 2.0 – 4.4 VDC → Fan is running compare to VDC
- 4.4 – 5.0 VDC → Fan is running with 100% speed

>> or >>



**Input resistor**

- Connect between SP (green) and GND (black)
- < 0.4 kΩ → Stop
- 0.4 – 1.2 kΩ → Starting (not guaranteed)
- 1.2 – 7.5 kΩ → Fan is running compare to VDC
- > 7.5 kΩ → Fan is running with 100% speed

**SP not connected  
SP to GND**

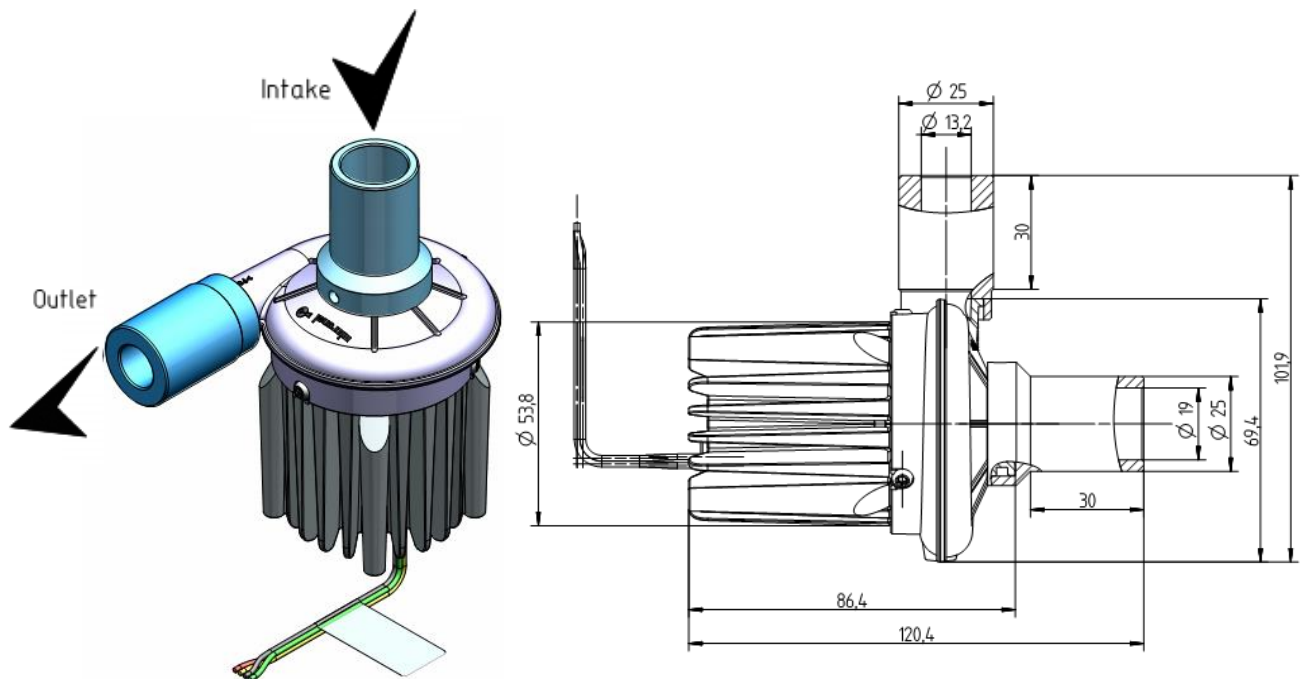
- Blower operates at 100% Speed
- Speed zero → Stop

<b>Blower limits during continuous operation and warning</b>	- Max. allowed temperature on heat sink surface:	65° C
	- Maximum speed	45'000 1/min
	<b>- Handle only in currentless condition</b>	

**Power supply requirement**      Ripple voltage < 5%  
**4000 mA**

<b>Info</b>	<b>Specifications are subject to change without notice. Specifications on this Datasheet are for reference.</b>	
	Version:	13.08.2015 / CP
	Doc:	U71HL-024KM-4 with integrated electronics.doc

**Options for intake and outlet connections\***



Product no. incl. option / Product Nr. inkl. Option	Intake / Einlass	Outlet / Auslass	Description / Beschreibung
U71HL-024KM-4			Without intake / without outlet Ohne Einlass / ohne Auslass
U71HL-024KM-41	•		With intake / without outlet Mit Einlass / ohne Auslass
U71HL-024KM-42		•	Without intake / with outlet Ohne Einlass / mit Auslass
U71HL-024KM-43*	•	•	With intake / with outlet Mit Einlass / mit Auslass

\* The drawings show intake and outlet connections. Both options are independent of each other.  
Die Zeichnungen stellen beide Anschlussmöglichkeiten (Ein-und Auslass) dar.