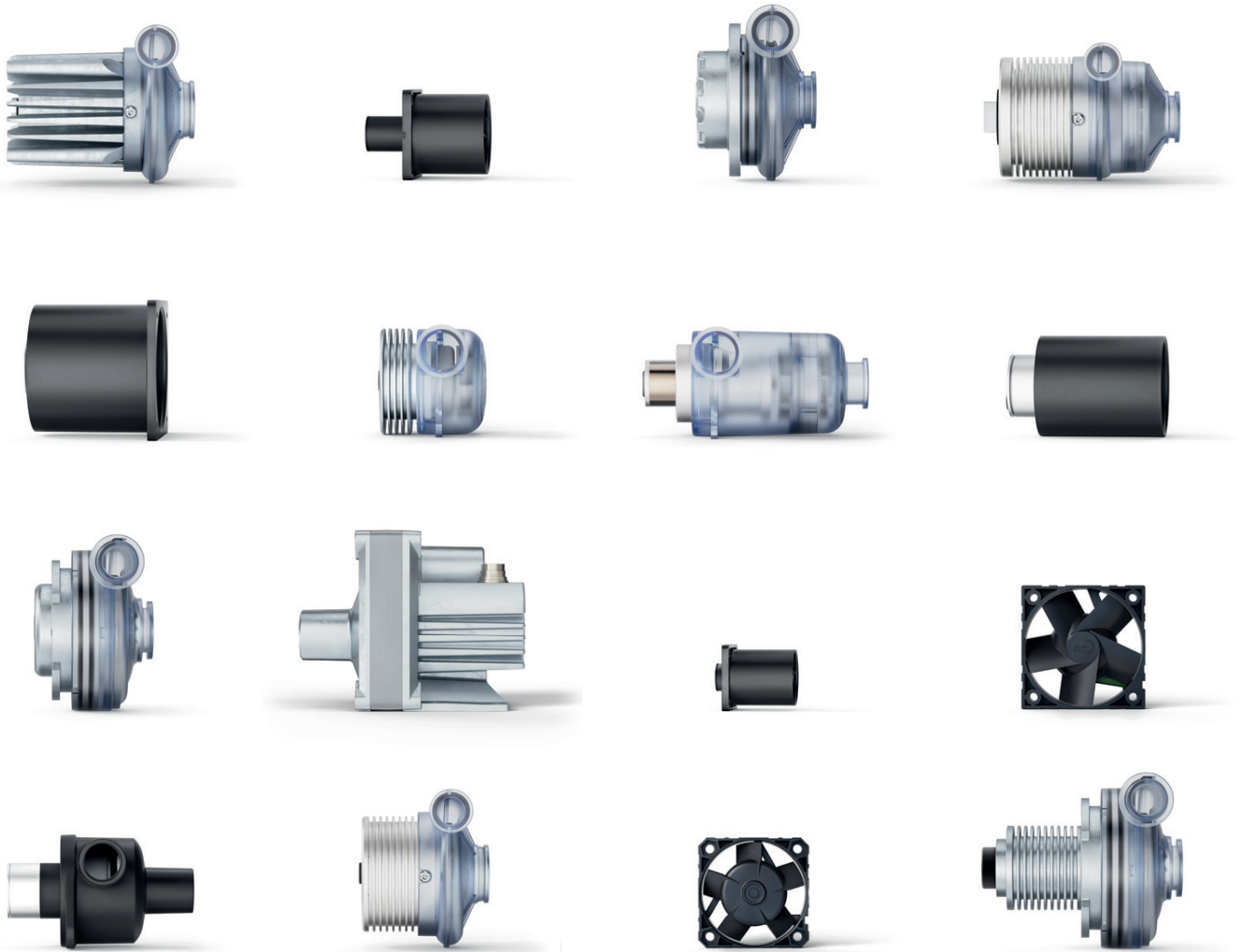# PRODUCT
OVERVIEW

micronel

WE MOVE AIR

micronel

Our acoustics laboratory

We provide worldwide, perfectly engineered miniature high-performance fan and blower solutions for demanding air pressure, vacuum and flow applications.
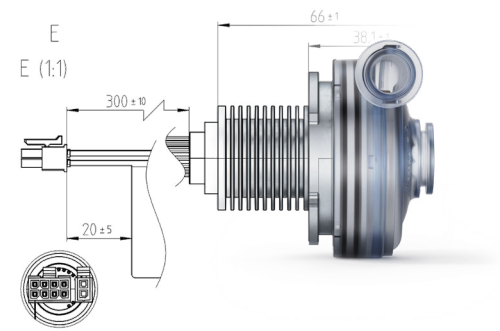
We Are Micronel

The family business started small in 1968: At that time, Peter Meier Senior, a gifted inventor with a great entrepreneurial spirit, founded Micronel.
Remarkable pioneering achievements, such as the development of the world's smallest fan or the smallest high-pressure blowers, continue to shape and strengthen our innovation power. Today, as a Swiss company, we are an international leader in the development of high-quality fans and blowers for a wide range of applications. Our powerful miniature products are used in medical technology, industry and for personal protection. With our company name **Micro**nel we have always vouched for smallest, durable, quiet and dynamic air moving solutions.

Peter Meier
CEO / Chairman of the Board

Product Overview
Versatile Product Range

Customized Developments

Our application experience and engineering competence make us the ideal project partner for customer-specific challenges.


Radial Blowers | U-Line

Our radial blowers are Micronel's hallmark and known for highest pressure and suction power in the smallest of space. Quiet, efficient, robust and long-lasting. Specifically designed for medical breathing but also perfectly suited for various industrial applications.

Tube Fans | D-Line

Our powerful and compact tube fans provide high air flow rates with consistently high pressure behavior. The ideal solution for suction, ventilation and cooling applications of all kinds.
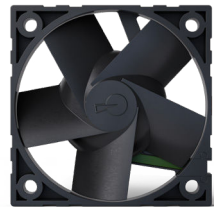

Flat Fans | F-Line

Our world renowned flat fans are known for cooling electronics or dissipating heat and odors. The F-Line ensures long-lasting and reliable air transport for ruggedized environments.

Individual Solutions
Customized Developments

Our goal is to develop technologies that ideally fit the needs of our clients, since 1968. In our in-house laboratories, applications can be simulated and optimally tested.

Overview

Custom

Radial

Tube

Flat

Markets

El. & Acc.
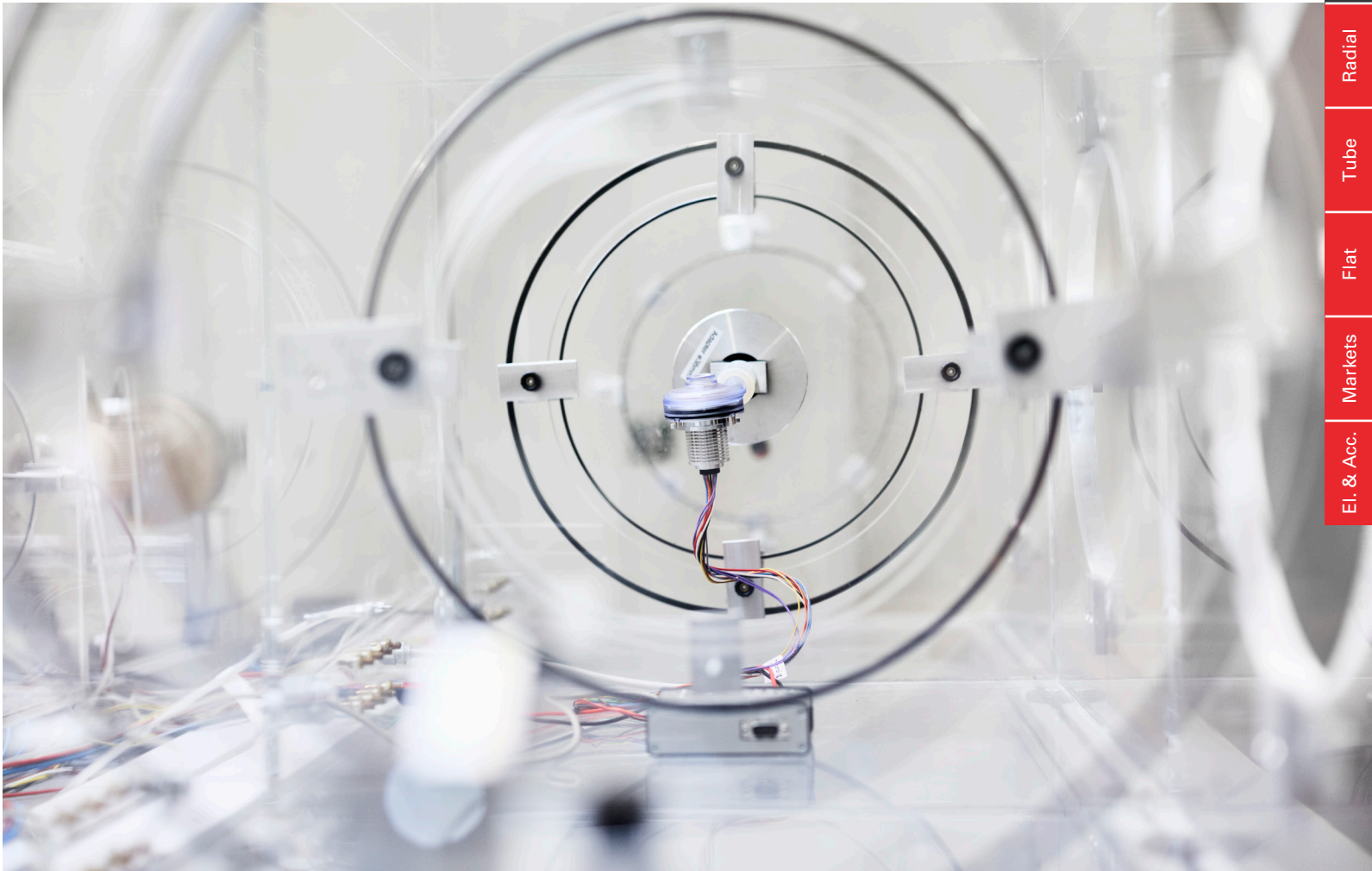
Our flow laboratory

With our range of fan and blower solutions, we become an integral part of your system. Our strength lies in identifying the perfect product, assisting in seamless integration, and making any necessary individual adaptations to ensure a perfect fit, both on a mechatronic and electronic level. Moreover, it's our commitment to guarantee the delivery timeline of our fan and blower solutions throughout the entire lifecycle of your end product.

We differentiate between product modifications and fully customized solutions. Product modifications may include adjustments to sealings, cables and connectors, motors, fasteners, electronics optimizations, inlet and outlet adapters, labels, or fan impellers.

Listening to our customers, understanding their needs, and collaboratively implementing optimal solutions is our standard practice. Solution-oriented, creative, reliable.

Where Pressurized Flow Is Needed
Radial Blowers I U-Line

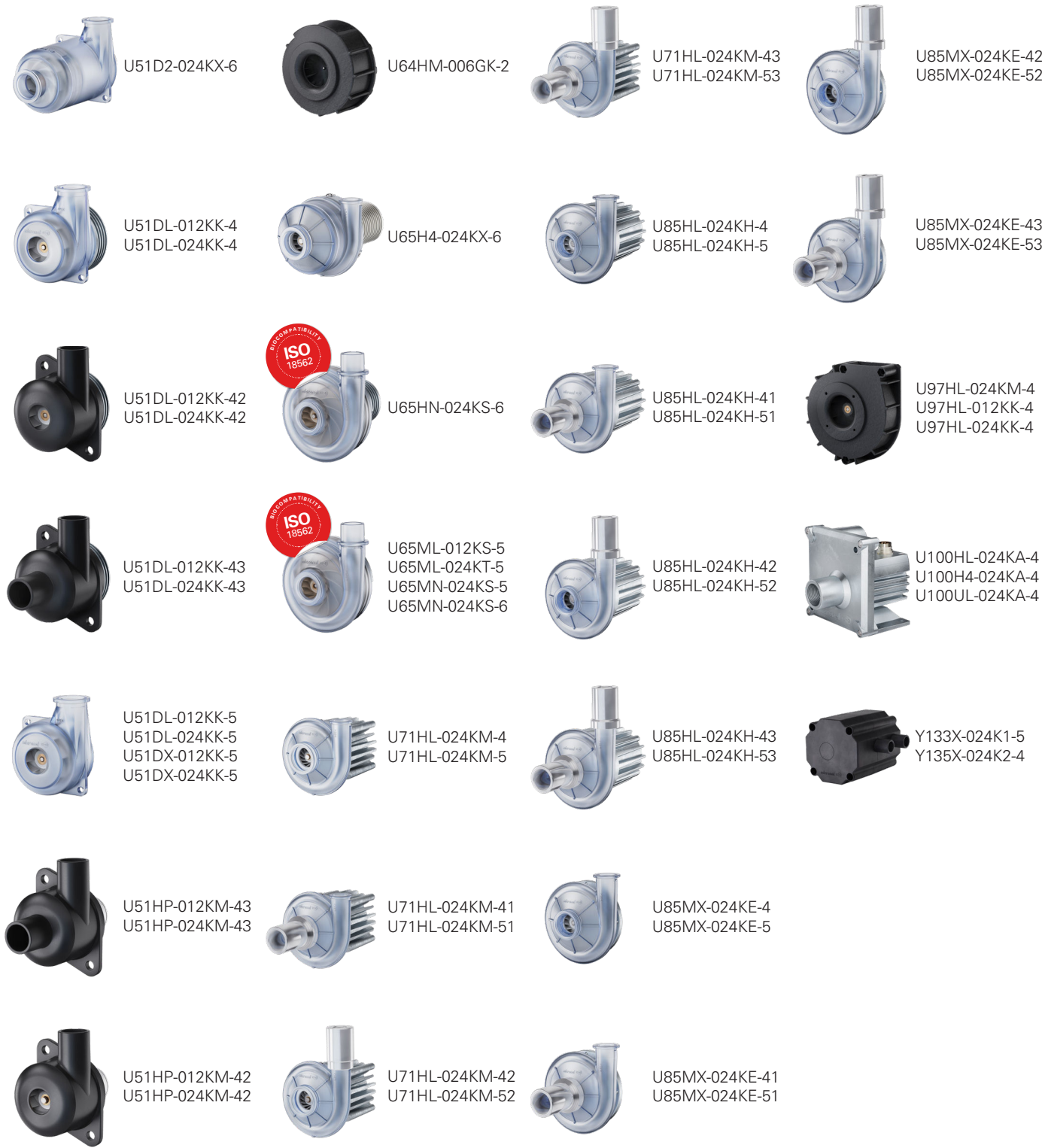| Part Number	Static Pressure	Freeflow	Size	Voltage	Max. Power Consumption	Electronic Motor Driver	For Medical Breathing Biocompatible	O2 Resistance	Acceleration
	Pa	l/min	mm	VDC	W				
U51D2-024KX-6	8 400	590	Ø 51	24	73	Not included	Yes	100%	Mid
U51DL-012KK-4 [1]	4 200	440	Ø 51	12	32.8	Integrated	Yes	Ambient Air	Low
U51DL-012KK-5	5 200	410	Ø 51	12	35	Not included	Yes	Ambient Air	Mid
U51DL-024KK-4 [1]	5 400	500	Ø 51	24	41	Integrated	Yes	Ambient Air	Low
U51DL-024KK-5	4 500	460	Ø 51	22	32	Not included	Yes	Ambient Air	Mid
U51DX-012KK-5	5 000	440	Ø 51	12	41	Not included	Yes	Ambient Air	Mid
U51DX-024KK-5	5 100	460	Ø 51	24	45	Not included	Yes	Ambient Air	Mid
U51HP-012KM-43 [1]	2 600	380	Ø 51	12	27	Integrated	No	Ambient Air	Low
U51HP-024KM-43 [1]	2 600	380	Ø 51	24	28	Integrated	No	Ambient Air	Low
U64HM-006GK-2	415	295	Ø 64	6	2.5	Brushed Motor	No	Ambient Air	Low
U65H4-024KX-6	6 950	330	Ø 65	18	60	Not included	Yes	100%	Mid
U65HN-024KS-6	9 500	435	Ø 65	24	90	Not included	Yes, ISO 18562	100%	High
U65ML-012KS-5	3 600	260	Ø 65	12	24	Not included	Yes, ISO 18562	Ambient Air	High
U65ML-024KT-5	4 300	295	Ø 65	24	35	Not included	Yes, ISO 18562	Ambient Air	High
U65MN-024KS-5	5 400	340	Ø 65	24	45	Not included	Yes, ISO 18562	Ambient Air	High
U65MN-024KS-6	5 400	340	Ø 65	24	45	Not included	Yes, ISO 18562	100%	High
U71HL-024KM-4 [1]	6 900	470	Ø 71	24	63	Integrated	No	Ambient Air	Low
U71HL-024KM-5 [1]	6 900	470	Ø 71	24	63	Not included	No	Ambient Air	Mid
U85HL-024KH-4 [1]	12 900	880	Ø 85	24	190	Integrated	No	Ambient Air	Low
U85HL-024KH-5 [1]	12 900	880	Ø 85	24	190	Not included	No	Ambient Air	Mid
U85MX-024KE-4 [1]	12 300	860	Ø 85	21	183	Integrated	Yes	Ambient Air	Low
U85MX-024KE-5 [1]	12 300	860	Ø 85	21	183	Not included	Yes	Ambient Air	Mid
U97HL-024KM-4	2 480	990	Ø 97	24	36	Integrated	No	Ambient Air	Low
U97HL-012KK-4	1 400	730	Ø 97	12	18	Integrated	No	Ambient Air	Low
U97HL-024KK-4	1 700	800	Ø 97	24	19.3	Integrated	No	Ambient Air	Low
U100HL-024KA-4	11 400	865	106 x 106	24	161	Integrated	No	Ambient Air	Low
U100UL-024KA-4	11 400	865	106 x 106	24	161	Integrated	No	Ambient Air	Low
U100H4-024KA-4	18 000	860	106 x 106	24	250	Integrated	No	Ambient Air	Low
Y133X-024K1-5 [2]	7 300	330	Ø 65	18	41	Not included	Yes	100%	Mid
Y135X-024K2-4 [3]	6 500	460	Ø 71	24	70	Integrated	No	Ambient Air	Low

[1] These products are available with option articles: with nozzles at in-, outlet or both. The products on page 7 show all available options.
[2] Silent Unit with integrated blower U65H4-024KX-6 (for evaluation purposes only)
[3] Silent Unit with integrated blower U71HL-024KM-4

Following product pictures are indicative only. For detailed views or further technical documentation please visit www.micronel.com.

U51D2-024KX-6

U64HM-006GK-2

U71HL-024KM-43
U71HL-024KM-53

U85MX-024KE-42
U85MX-024KE-52

U51DL-012KK-4
U51DL-024KK-4

U65H4-024KX-6

U85HL-024KH-4
U85HL-024KH-5

U85MX-024KE-43
U85MX-024KE-53

U51DL-012KK-42
U51DL-024KK-42

ISO 18562

U65HN-024KS-6

U85HL-024KH-41
U85HL-024KH-51

U97HL-024KM-4
U97HL-012KK-4
U97HL-024KK-4

U51DL-012KK-43
U51DL-024KK-43

ISO 18562

U65ML-012KS-5
U65ML-024KT-5
U65MN-024KS-5
U65MN-024KS-6

U85HL-024KH-42
U85HL-024KH-52

U100HL-024KA-4
U100H4-024KA-4
U100UL-024KA-4

U51DL-012KK-5
U51DL-024KK-5
U51DX-012KK-5
U51DX-024KK-5

U71HL-024KM-4
U71HL-024KM-5

U85HL-024KH-43
U85HL-024KH-53

Y133X-024K1-5
Y135X-024K2-4

U51HP-012KM-43
U51HP-024KM-43

U71HL-024KM-41
U71HL-024KM-51

U85MX-024KE-4
U85MX-024KE-5

U51HP-012KM-42
U51HP-024KM-42

U71HL-024KM-42
U71HL-024KM-52

U85MX-024KE-41
U85MX-024KE-51

Where Forced Flow Is Needed
Tube Fans I D-Line

Part Number	Static Pressure	Freeflow	Size	Voltage	Max. Power Consumption	Electronic Motor Driver	For Medical Breathing Biocompatible	O2 Resistance	Acceleration
	Pa	l/min	mm	VDC	W				
D241P-006KH-4 [1]	282	120	Ø 24	6	1.7	Integrated	No	Ambient Air	Low
D301P-006KH-4 [1]	337	310	Ø 30	6	3.3	Integrated	No	Ambient Air	Low
D341P-012KM-4 [1]	641	480	Ø 34	12	5	Integrated	No	Ambient Air	Low
D341P-024KM-4 [1]	669	490	Ø 34	24	5.2	Integrated	No	Ambient Air	Low
D481P-012KM-4 [1]	890	1 060	Ø 48	12	19.1	Integrated	No	Ambient Air	Low
D481P-024KM-4 [1]	930	1 080	Ø 48	24	19.6	Integrated	No	Ambient Air	Low
D601P-012KM-4 [1]	840	1 930	Ø 60	12	31.5	Integrated	No	Ambient Air	Low
D601P-024KM-4 [1]	820	1 910	Ø 60	24	32.3	Integrated	No	Ambient Air	Low
D801P-012KM-4 [1]	450	2 920	Ø 80	12	25.6	Integrated	No	Ambient Air	Low
D801P-024KM-4 [1]	530	2 840	Ø 80	24	31.5	Integrated	No	Ambient Air	Low

[1] These products are available with two option-articles: with a flange at outlet and with a flange at inlet. The product pictures on page 9 show all these options.
For example:
D241P-006KH-4 Basic article without flange
D243P-006KH-4 Option with flange at outlet
D244P-006KH-4 Option with flange at inlet

Following product pictures are indicative only. For detailed views or further technical documentation please visit www.micronel.com.

D241P-006KH-4

Option outlet flange
D243P-006KH-4

Option inlet flange
D244P-006KH-4

D301P-006KH-4

Option outlet flange
D303P-006KH-4

Option inlet flange
D304P-006KH-4

D341P-012KM-4
D341P-024KM-4

Option outlet flange
D343P-012KM-4
D343P-024KM-4

Option inlet flange
D344P-012KM-4
D344P-024KM-4

D481P-012KM-4
D481P-024KM-4

Option outlet flange
D483P-012KM-4
D483P-024KM-4

Option inlet flange
D484P-012KM-4
D484P-024KM-4

D601P-012KM-4
D601P-024KM-4

Options outlet flange
D603P-012KM-4
D603P-024KM-4

Option inlet flange
D604P-012KM-4
D604P-024KM-4

D801P-012KM-4
D801P-024KM-4

Option outlet flange
D803P-012KM-4
D803P-024KM-4

Option inlet flange
D804P-012KM-4
D804P-024KM-4

Overview

Custom

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Where Primarily Flow Is Needed
Flat Fans I F-Line

Part Number	Static Pressure Pa	Freeflow l/min	Size mm	Voltage VDC	Max. Power Consumption W	Electronic Motor Driver	For Medical Breathing Biocompatible	O2 Resistance	Acceleration
C4010H05BPLB2a-7	36	160	40 x 40	5	0.75	Integrated	No	Ambient Air	Low
C4010H12BPLB2a-7	36	160	40 x 40	12	0.74	Integrated	No	Ambient Air	Low
C4010H24BPLB2a-7	66	230	40 x 40	24	1.3	Integrated	No	Ambient Air	Low
C5010H05BPLB2a-7	46	380	50 x 50	5	1.4	Integrated	No	Ambient Air	Low
C5010H12BPLB2a-7	46	380	50 x 50	12	1.6	Integrated	No	Ambient Air	Low
C5010H24BPLB2a-7	46	380	50 x 50	24	1.4	Integrated	No	Ambient Air	Low
C6025H12BPLB2a-7	87	690	60 x 60	12	2.9	Integrated	No	Ambient Air	Low
C6025H24BPLB2a-7	87	690	60 x 60	24	3	Integrated	No	Ambient Air	Low
C7025H12BPLB2a-7	48	1 020	70 x 70	12	2.2	Integrated	No	Ambient Air	Low
C7025H24BPLB2a-7	48	1 020	70 x 70	24	2.2	Integrated	No	Ambient Air	Low
C8025H12BPLB2a-7	35	1 120	80 x 80	12	1.8	Integrated	No	Ambient Air	Low
C8025H24BPLB2a-7	35	1 120	80 x 80	24	1.8	Integrated	No	Ambient Air	Low
C9225H12BPLB2a-7	41	1 580	92 x 92	12	2.6	Integrated	No	Ambient Air	Low
C9225H24BPLB2a-7	41	1 580	92 x 92	24	2.9	Integrated	No	Ambient Air	Low
R1238Y12BPLB2a-7	177	4 750	120 x 120	12	15.2	Integrated	No	Ambient Air	Low
R1238Y24BPLB2a-7	177	4 750	120 x 120	24	13.9	Integrated	No	Ambient Air	Low

Following product pictures are indicative only. For detailed views or further technical documentation please visit www.micronel.com.

C4010H05BPLB2a-7
C4010H12BPLB2a-7
C4010H24BPLB2a-7

C6025H12BPLB2a-7
C6025H24BPLB2a-7

C8025H12BPLB2a-7
C8025H24BPLB2a-7

R1238Y12BPLB2a-7
R1238Y24BPLB2a-7

C5010H05BPLB2a-7
C5010H12BPLB2a-7
C5010H24BPLB2a-7

C7025H12BPLB2a-7
C7025H24BPLB2a-7

C9225H12BPLB2a-7
C9225H24BPLB2a-7

Applications and Markets
Worldwide in Use

Micronel fans, blowers and modifications are encountered in various applications - worldwide and spread over 26 market segments. More than 100 international companies rely on our powerful innovations and appreciate the cooperation with Micronel and our premise „Made in Switzerland".

Medical

Surgery	Laboratory & Pharma
ICU & Clinical Care	Veterinary
Transport & Emergency	Therapy & Home Care
Optometry	Skin & Beauty
Dental	Recreation & Sports
Neonatal Ventilation	

Industry

Defense & Aerospace	Packaging & Printing
Energy & Power	Automotive
Transportation	Test & Measurement
Construction & Building	Computing & Data
Farming & Food	Gastronomy & Entertainment
Automation	Home Appliances
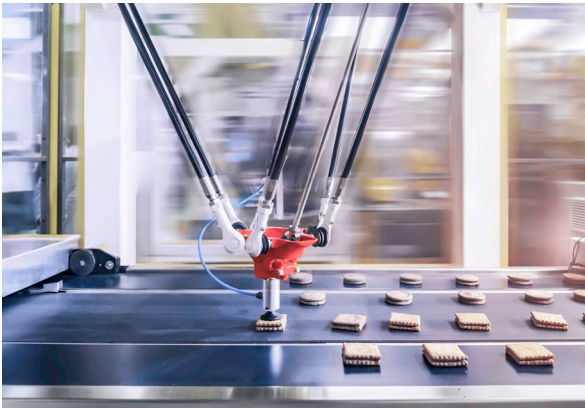
Personal Protection

Defense	Industrial
First Responders	Laboratory

Overview

Custom

Radial

Tube

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Markets

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Climate Control
Fresh, heated air supply for harsh environments

Cabin Ventilation
Fresh air supply for cabin cooling

Suit Pressurizing
Purified air-inflated full body suits

Spraying
Pressurized aerosol spraying

Medical Breathing
Life critical, intensive care lung ventilation

Mattress Inflation
Smooth air mattress operation for comfortable patient care

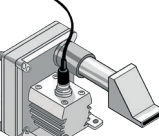**Gas Mask Respiration**
Powered, purified air supply

Dental Suction
Spittle and secretion suction

Lamp Cooling
Solarium UV lamp cooling

Smoke Aspiration
Electrosurgical smoke evacuation

Clean Blowing
In-line air cleaning and drying for food processing

Hand Dryer
Powerful air stream for hand drying

Electronic Cooling
Silent cooling of infotainment system

Fuel Cell Gas Circulation
Continuous, high density air flow

Air Cushion Inflation
Instant, on-site packaging inflation
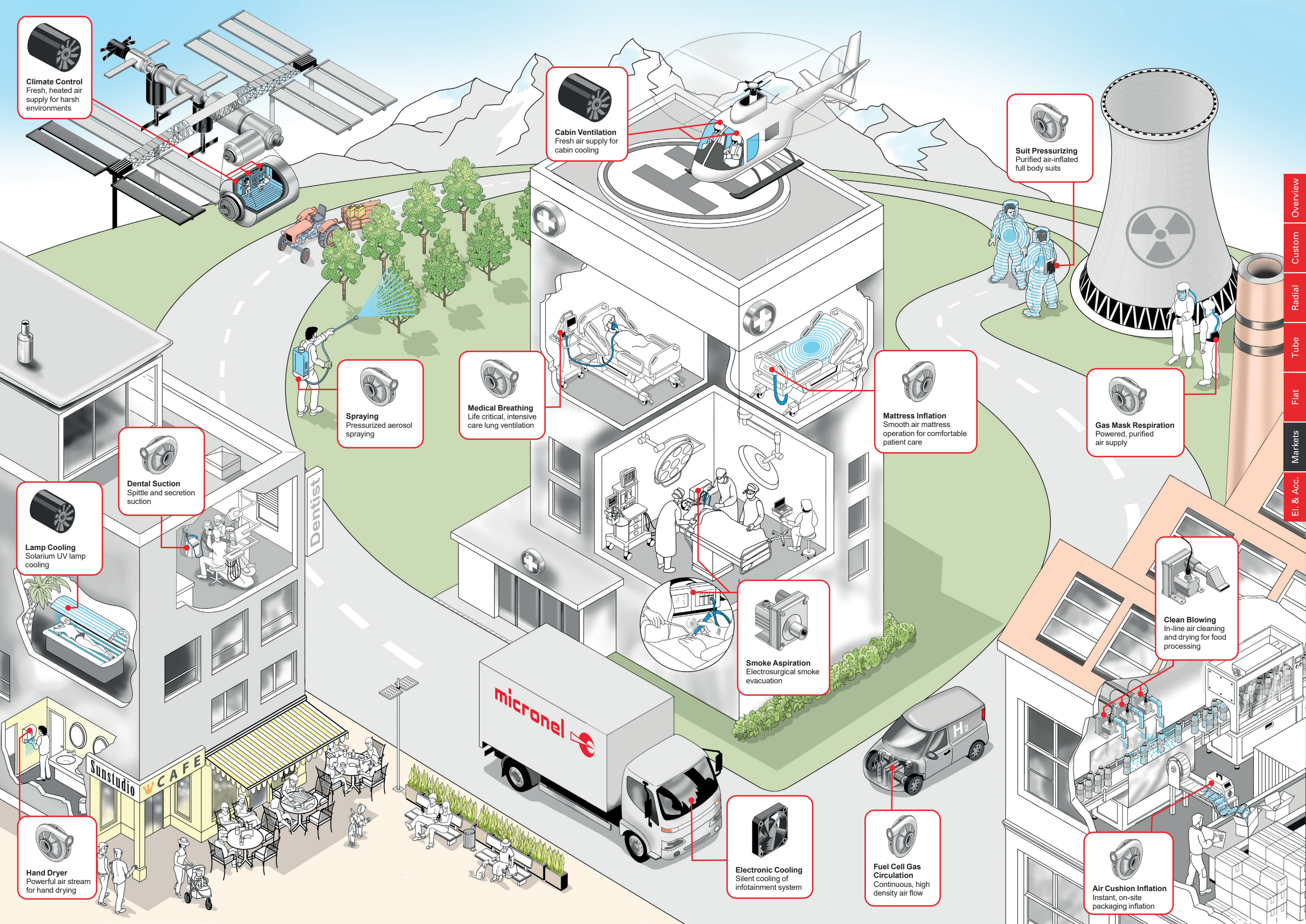
Overview | Custom | Radial | Tube | Flat | Markets | El. & Acc.

Electronics & Accessories
Some Major Products

This is a selection of our range of accessories and electronics. For further items and information, please visit **www.micronel.com**.

Overview

Custom

Radial

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Markets

El. & Acc.

Micronel Evaluation Motor Driver Box MDB-48/10
The versatile development tool for your application with an included configuration software. Sensored or sensorless operation.

Part Number	Product Type	Features	Suitable Products
H023B-048ZX-0 Box	Motor Driver Box MDB-48/10	12 to 48 V_{DC}, 10 A max.	Blowers with brushless motors
S0500-00001	Choke Module MCM-33/10	3 x 33 µH, 10.7 A max.	MDB-48/10 and MDM-48/10
M450X-587A9	MDB Adapter Cable	300 mm	U71HL, U85HL/MX/MN
M450X-588A9	MDB Adapter Cable	300 mm	U51D2, U65H2/H4/HN/MN, U71HX/MX

Micronel Mini Smart Driver Module MSDM-24/10
This powerful and cost-effective compact driver can operate brushless and sensorless blowers and motors.

Part Number	Product Type	Features	Suitable Products
H353X-024ZX-0	Driver Module MSDM-24/10	12 to 24 V_{DC}, 10 A max. Sensorless, analog and PWM set-speed inputs	Blowers without integrated driver electronics & brushless motors.

Micronel Air Knife
Blow-off device for a consistent air stream.

Part Number	Product Type	Features	Suitable Products
S4000-00001	Micronel Air Knife 40	25 mm fitting, 40 x 1.5 mm outlet	U85HL-024KM-42 /-43 /-52 /-53,
S4000-00002	Micronel Air Knife 60	25 mm fitting, 60 x 1.2 mm outlet	U85MX-024KM-42 /-43 /-52 /-53,
S4000-00003	Micronel Air Knife 80	25 mm fitting, 80 x 1.2 mm outlet	U100HL, U100UL, U100H4

Micronel Silent Box
Noise attenuation housing with 25 mm inlet and outlet nozzles.

Part Number	Product Type	Features	Suitable Products
S1100-00001	Micronel Silent Box	157 x 140 x 97 mm	U71HL-024KM-43
			U85HL-024KH-43
			U85MX-024KX-43

Micronel Silencer
Inlet / Outlet silencer for reducing flow noises.

Part Number	Product Type	Features	Suitable Products
S1900-00001	Micronel Silencer	G 3/4", 127 x Ø 41 mm	U100HL, U100UL, U100H4

Micronel Rubber Buffer
Rubber buffer for protecting against vibrations.

Part Number	Product Type	Features	Suitable Products
S5300-00001	Micronel Rubber Buffer	M6, Ø 15 mm x 15 mm, 1 pc	U100HL, U100UL, U100H4
S5300-00002	Micronel Rubber Buffer	M6, Ø 15 mm x 20 mm, 1 pc	U51DL /-42 /-43, U51HP-43
S5300-00003	Micronel Rubber Buffer	M4, Ø 15 mm x 15 mm, 1 pc	U85HL

Micronel Air-Filter and Filter Cartridge (Paper)
Suction filter including paper filter insert, filter fineness 2 µm, G 3/4".

Part Number	Product Type	Features	Suitable Products
S8100-00001	Micronel Air-Filter (Paper)	Ø 120 x 110 mm	U100HL, U100UL, U100H4
S8100-00002	Micronel Filter Cartridge (Paper)	Ø 110 x 60 mm	

Micronel Air-Filter and Filter Cartridge (Polyester)
Filter including polyester filter insert, filter fineness 10 µm, G 3/4".

Part Number	Product Type	Features	Suitable Products
S8200-00001	Micronel Air-Filter (Polyester)	Ø 106 x 90 mm	U100HL, U100UL, U100H4
S8200-00002	Micronel Filter Cartridge	Ø 106 x 55 mm	

Micronel Vacuum Filter VFU1000
Vacuum filter including paper filter insert, filter fineness 3 - 5 µm, G 3/4".

Part Number	Product Type	Features	Suitable Products
S8300-00005	Vacuum Filter VFU1000	Ø 102 x 91 mm	U100HL, U100UL, U100H4
S8100-00003	Filter Cartridge VFU1000	Ø 63 x 69 mm	

Micronel Vacuum Filter VFU1600
Vacuum filter including paper filter insert, filter fineness 3 - 5 µm, G 1¼".

Part Number	Product Type	Features	Suitable Products
S8100-00006	Vacuum Filter VFU1600	Ø 135 x 100 mm	U100HL, U100UL, U100H4
S8100-00004	Filter Cartridge VFU1600	Ø 98 x 71 mm	

Micronel Connector-Set M450X
Molex connector (Mini-Fit, six-pole) with connector cable.

| Part Number	Product Type	Features	Suitable Products
M450X-527A9	Connector-Set M450X	300 mm (+/- 15 mm) Stranded wires Ø 1.5 mm²	U85MX-024KE-4 U85HL-024KH-4

Micronel Cable U100X-M16 6-Pol
Six-pole M16 plug with connection cable. Thickness of 6.5 mm and stranded wires AWG16 (power).

Part Number	Product Type	Features	Suitable Products
S0400-10001 /-2 /-3 /-4	Cable U100X-M16 6-Pol	90° angle, 2.5 / 5 / 10 / 1 m length	U100HL, U100UL, U100H4
S0400-20001 /-2 /-3 /-4	Cable U100X-M16 6-Pol	Straight, 2.5 / 5 / 10 / 1 m length	

Micronel
Locations & Distributors
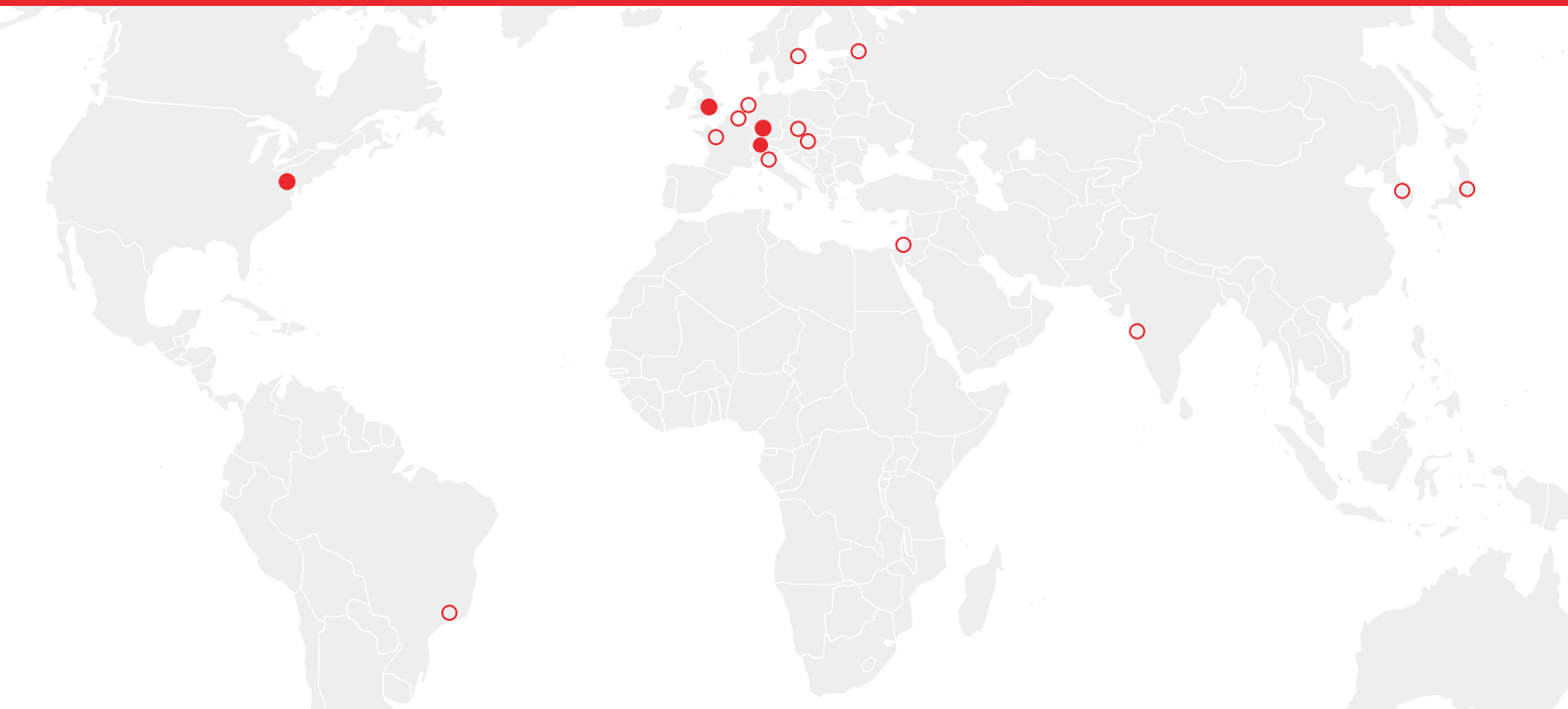
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