



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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ER-Q SERIES

Related Information

- General terms and conditions..... F-7
- Selection guide P.1157~
- Glossary of terms..... P.1497
- General precautions P.1501

- FIBER SENSORS
- LASER SENSORS
- PHOTOELECTRIC SENSORS
- MICRO PHOTOELECTRIC SENSORS
- AREA SENSORS
- LIGHT CURTAINS / SAFETY COMPONENTS
- PRESSURE / FLOW SENSORS
- INDUCTIVE PROXIMITY SENSORS
- PARTICULAR USE SENSORS
- SENSOR OPTIONS
- SIMPLE WIRE-SAVING UNITS
- WIRE-SAVING SYSTEMS
- MEASUREMENT SENSORS



panasonic.net/id/pidsx/global

STATIC ELECTRICITY PREVENTION DEVICES

LASER MARKERS

PLC

HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

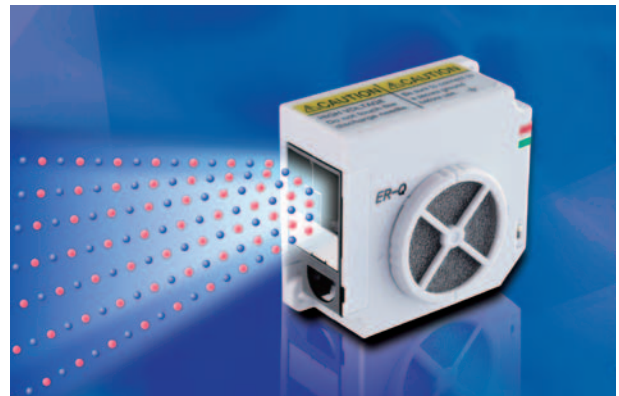
UV CURING SYSTEMS

Spot charge removal without compressed air

Miniature, ultralight, fast charge removal

A perfect fit for installation in other devices.

- Dimensions: W65 × H60 × D33 mm
W2.559 × H2.362 × D1.299 in
- Net weight: 110 g approx.
- Charge removal Time (± 1,000 V → ± 100 V):
1.5 sec approx. (typical)



Adjustable

Includes volume adjuster to change fan blowing to meet your needs.

Safe design

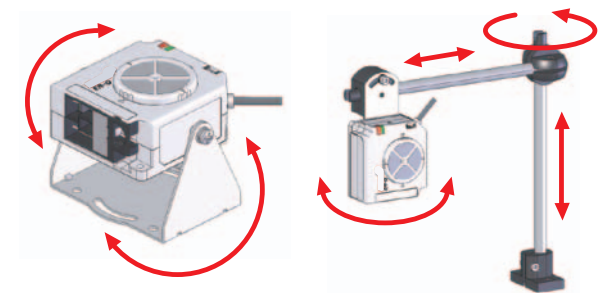
The LED display and output indicate maintenance timing and problems with the fan.

Freely mounted: No air hoses necessary

Mountable like a sensor in cell workbenches or inside devices.

Simple maintenance

Assembled and disassembled in a single touch, reducing steps required to replace parts or clean filters.



ER-QMS1

MS-AJ1-A



Discharge needle unit

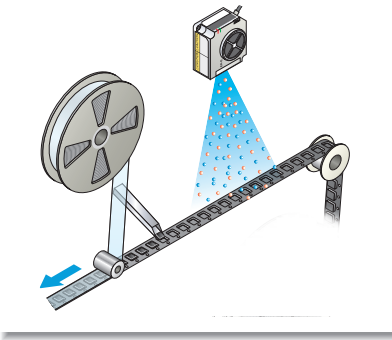
Filter

- Selection Guide
- Static Removers
- Cleaning Box
- Pulse Air-gun
- Electrostatic Sensor

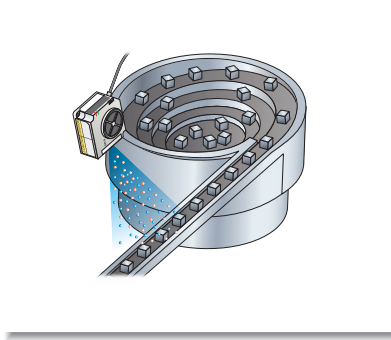
- ER-X
- ER-TF
- ER-VS02
- ER-VW
- ER-Q
- ER-F

APPLICATIONS

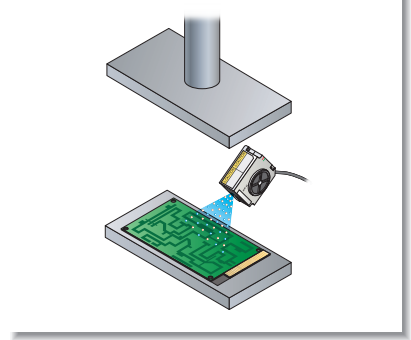
Removing dust on tape before taping



Prevention of part feeder clogging



Prevention of misalignment at crimping



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ORDER GUIDE

Type	Appearance	Change removal time (±1,000V→±100V)	Ion balance	Model No.
Compact fan type		1.5 sec. approx. (Note)	±10 V or less (Note)	ER-Q

Note: Typical value at 100 mm 3.937 in from directly in front of air outlet, fan speed MAX., with no filter installed.

OPTIONS

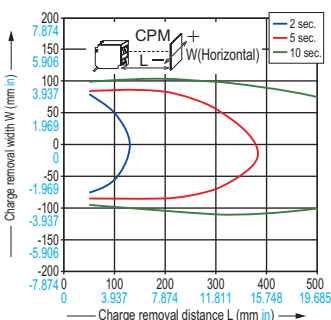
Designation	Model No.	Description
Mounting bracket	ER-QMS1	The ER-Q mounting bracket. Adjust the air output direction.
Connector-attached cable	ER-QCC2	Length 2 m 6.562 ft
	ER-QCC5	Length 5 m 16.404 ft
AC adapter	ER-VAPS1	<ul style="list-style-type: none"> • IN: 100 to 240 V AC, 50 / 60 Hz, 40 VA • OUT: 24 V DC, 750 mA • Ambient temperature: 0 to +40 °C +32 to +104 °F
Discharge needle unit	ER-QANT	Unit with tungsten needles (1 pc.)
Air filter	ER-QFX5	Fan intake filter (5 pcs. per set)

CHARGE REMOVAL CHARACTERISTICS (TYPICAL)

- Measured using a 150 mm × 150 mm 5.906 in × 5.906 in CPM (charge plate monitor). (At center of CPM)

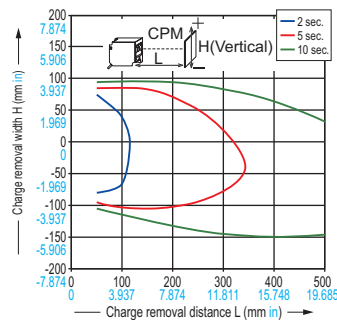
Charge removal field (horizontal direction)

(Fan speed MAX., filter is mounted)



Charge removal field (vertical direction)

(Fan speed MAX., filter is mounted)



PRECAUTIONS FOR PROPER USE

Refer to p.1501 for general precautions.

- Never use this product in a device for personnel protection.
- In case of using devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.
- Do not use this product in places where there may be a danger of flammable or combustible items being present.

ER-X

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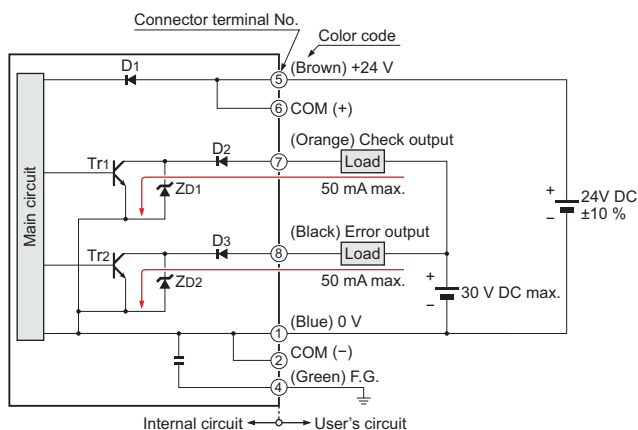
SPECIFICATIONS

Type	Compact fan type	
Item	Model No.	ER-Q
Charge removal time ($\pm 1,000$ V \rightarrow ± 100 V)		1.5 sec. approx. (Note 2)
Ion balance		± 10 V or less (Note 2)
Power supply voltage		24 V DC $\pm 10\%$
Power consumption		200 mA or less
Discharge method		High-frequency AC method
Discharge output voltage		± 2 kV approx.
Max. fan speed		6.4 m/s (Note 2)
Max. fan volume		0.2 m ³ /min.
Output(CHECK, ALARM)		NPN transistor / open collector • Max sink current: 50 mA • Applied voltage: 30 V DC or less (between output terminal and 0 V) • Residual voltage: 1 V or less (at input current of 50 mA)
Output operation		Check: On when discharge check (Note 3) detected Off at all other times Error: Off when discharge error or fan error (Note 3) detected On at all other times
Short-circuit protection		Incorporated
Indicators		Discharge (DSC): Green LED, Alarm (ALARM): Red LED
Ozone generation amount		0.02 ppm or less (Note 2)
Ambient temperature		0 to +50 °C +32 to +122 °F (No dew condensation), Storage: -10 to +65 °C +14 to +149 °F
Ambient humidity		35 to 65% RH (No dew condensation), Storage: 35 to 65% RH
Vibration resistance		10 to 150 Hz frequency, 0.75 mm 0.030 in amplitude in X, Y and Z directions for two hours each
Grounding method		C (capacitor) grounding
Material		Enclosure: PBT, Discharge needle: Tungsten
Weight		Net weight: 110 g approx.
Accessory		Connector for wiring: 1 set [Manufactured by Molex: Housing (5557-08P), Terminal (5556T)]

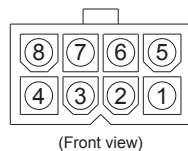
Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C **+68 °F**.
 2) Typical value at 100 mm **3.937 in** from directly in front of air outlet, fan speed MAX., with no filter installed.
 3) Discharge check: Drop in discharging status detected. Discharge error: Abnormal discharge detected. Fan error: Fan operating problem detected.

I/O CIRCUIT AND WIRING DIAGRAMS

I/O circuit diagram



Connector terminal arrangement



Terminal No.	Description	Color code
①	0 V	Blue
②	COM (-)	—
③	N.C. (no connection)	—
④	F.G.	Green
⑤	+24 V	Brown
⑥	COM (+)	—
⑦	Check output	Orange
⑧	Error output	Black

Symbols ... D1: Reverse supply polarity protection diode
 D2, D3: Input protection diode
 ZD1, ZD2, : Surge absorption zener diode
 Tr1, Tr2, : NPN output transistor

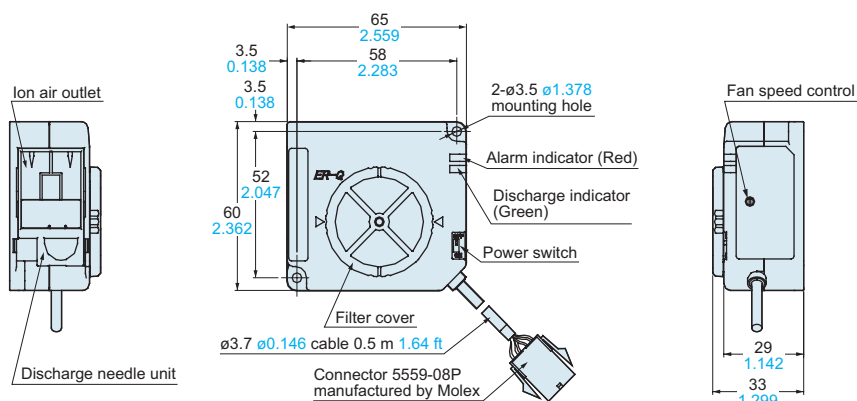
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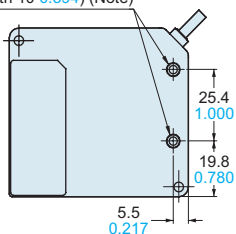
DIMENSIONS (Unit: mm in)

The CAD data in the dimensions can be downloaded from our website.

ER-Q Ionizer main unit



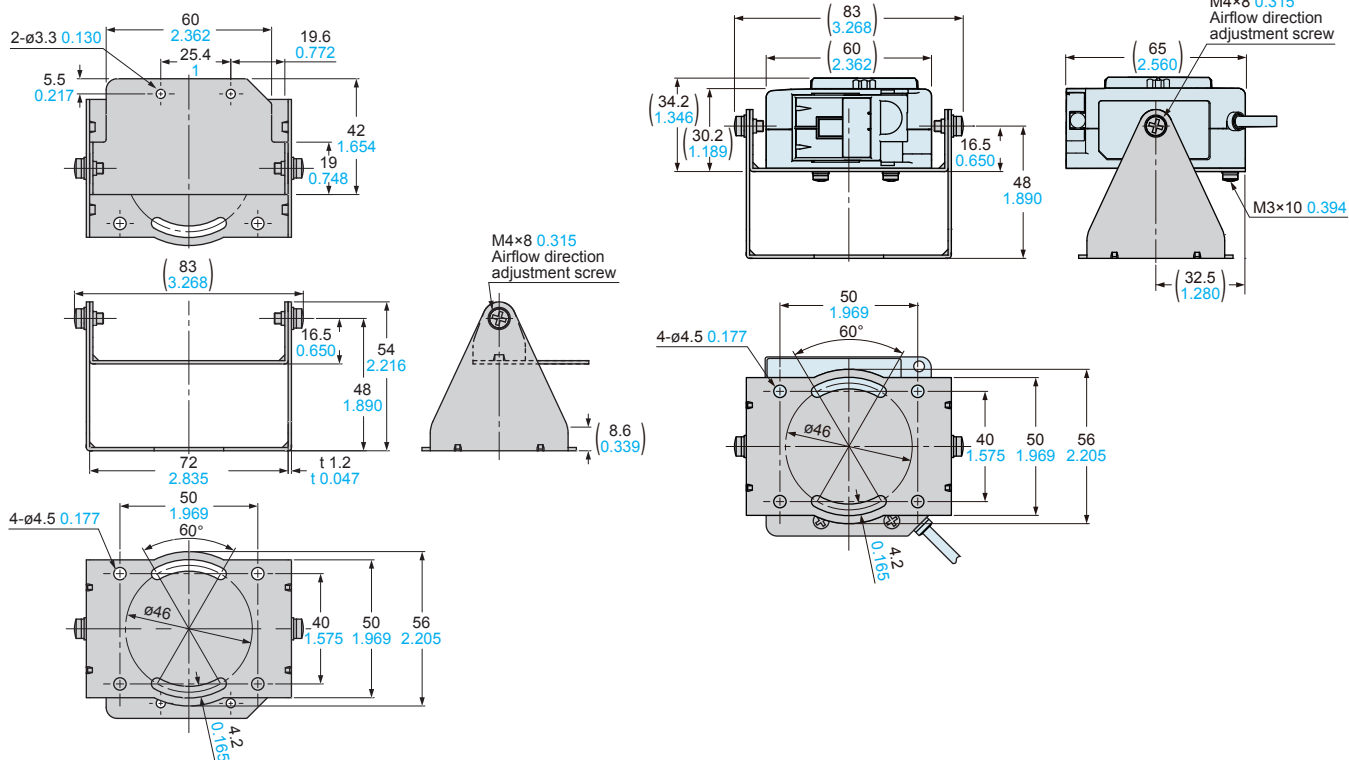
2-M3 screws (depth 10 0.394) (Note)



Note: Screw threads exclusive for mounting brackets. Do not use them in mounting with other products. When mounting this product directly to a case or such, fix it with M3 screws using 2- $\phi 3.5$ $\phi 1.378$ mounting holes.

ER-QMS1 Mounting bracket (Optional)

Assembly dimensions



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