

ER-Q SERIES

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

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



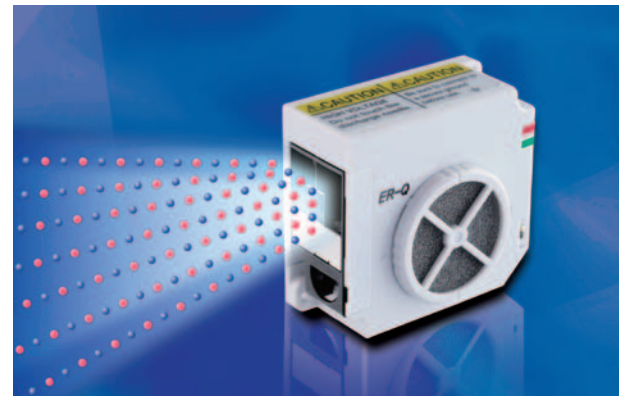
panasonic.net/id/pidsx/global

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

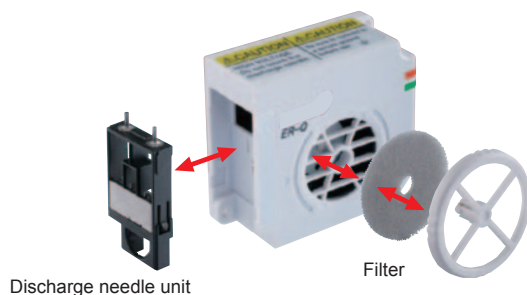
Includes volume adjuster to change fan blowing to meet your needs.

Safe design

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

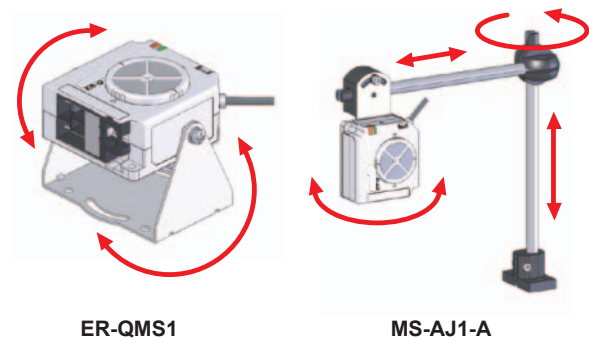
Simple maintenance

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



Freely mounted: No air hoses necessary

Mountable like a sensor in cell workbenches or inside devices.

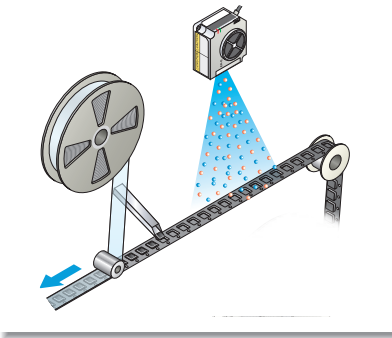


ER-QMS1

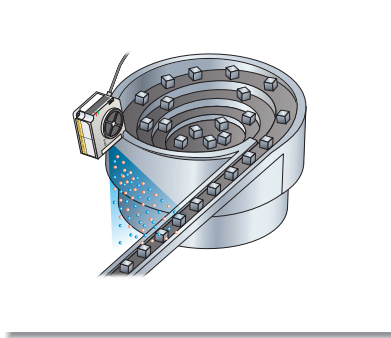
MS-AJ1-A

APPLICATIONS

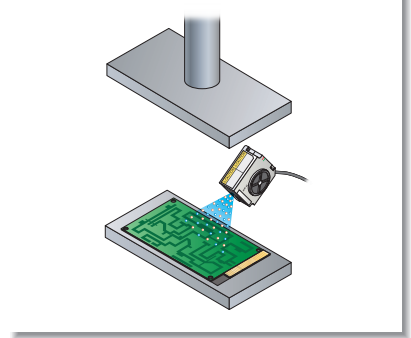
Removing dust on tape before taping



Prevention of part feeder clogging



Prevention of misalignment at crimping



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ER-X

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ER-VS02

ER-VW

ER-Q

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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

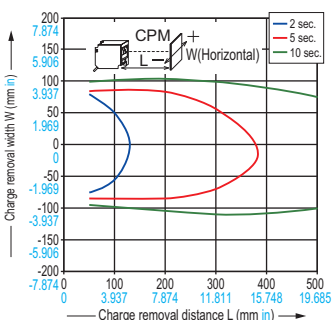
| Designation | Model No. | Description |
|--------------------------|-----------------|---|
| Mounting bracket | ER-QMS1 | The ER-Q mounting bracket. Adjust the air output direction. |
| Connector-attached cable | ER-QCC2 | Length 2 m 6.562 ft |
| | ER-QCC5 | Length 5 m 16.404 ft |
| AC adapter | ER-VAPS1 | <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)

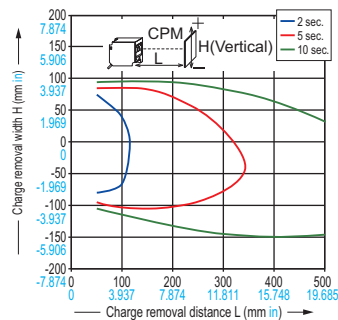
Charge removal field (horizontal direction)

(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-VS02

ER-VW

ER-Q

ER-F

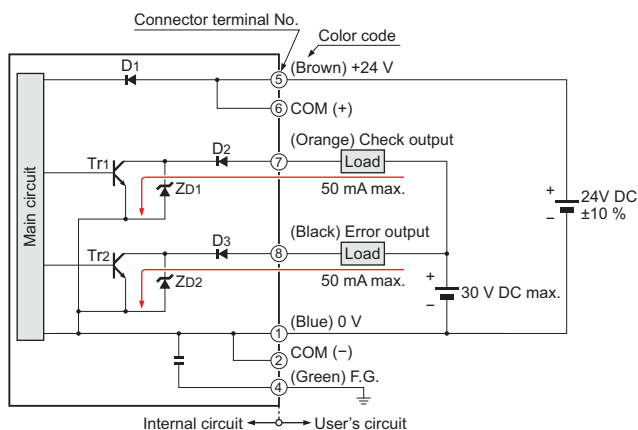
SPECIFICATIONS

| 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)] |

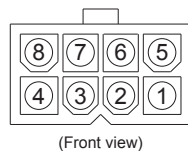
Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C **+68 °F**.
 2) Typical value at 100 mm **3.937 in** from directly in front of air outlet, fan speed MAX., with no filter installed.
 3) Discharge check: Drop in discharging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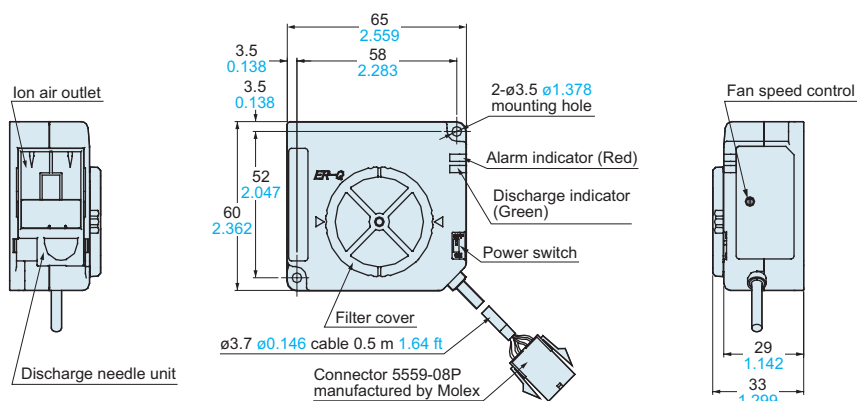
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DIMENSIONS (Unit: mm in)

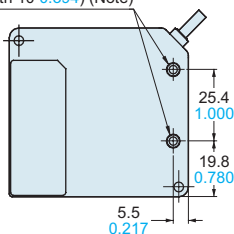
The CAD data in the dimensions can be downloaded from our website.

ER-Q

Ionizer main unit



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

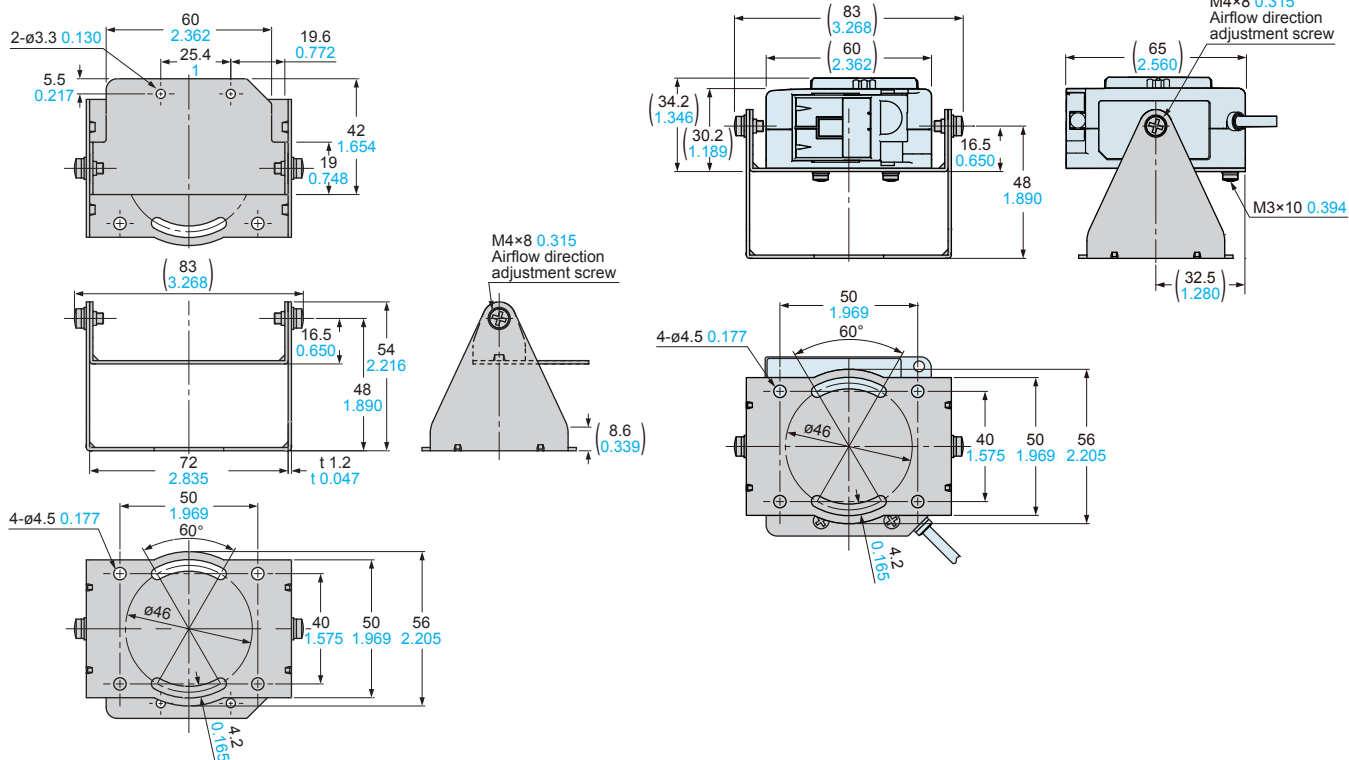


Note: Screw threads exclusive for mounting brackets. Do not use them in mounting with other products. When mounting this product directly to a case or such, fix it with M3 screws using 2- $\phi 3.5$ $\phi 1.378$ mounting holes.

ER-QMS1

Mounting bracket (Optional)

Assembly dimensions



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