

# Accessories

## Feedback sensor IZS31-DF



## Autobalance sensor [High-precision type] IZS31-DG



## Autobalance sensor [Body-mounting type] IZS31-DE

- Connection cable A/B (1 pc. each)
- Sensor bracket (1 pc.)
- Hexagon socket head cap screw for sensor bracket (2 pcs.)



Accessories

## Power supply cable

- IZS31-CP (3 m)
- IZS31-CPZ (10 m)



## Connection cable A/B for connecting autobalance sensor to the body

- For driving:  
IZS31-CF (12P)



- For I/O signals:  
IZS31-CR (6P)



## Electrode cartridge with rapid elimination of static electricity

- IZS31-NT  
(Material: Tungsten)
- IZS31-NC  
(Material: Silicon)
- IZS31-NS  
(Material: Stainless steel)

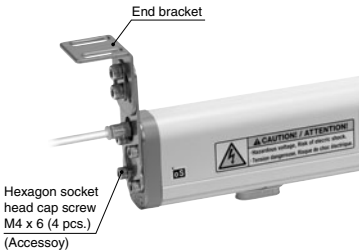


## Electrode cartridge with low maintenance

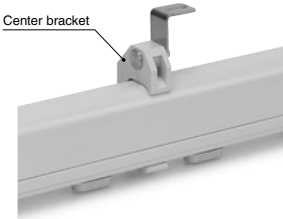
- IZS31-NJ  
(Material: Tungsten)
- IZS31-NK  
(Material: Silicon)



## End bracket/IZS31-BE



## Center bracket/IZS31-BM



Note) The number of center brackets required, as listed below, depends on the bar length. Two end brackets are always required regardless of the bar length.

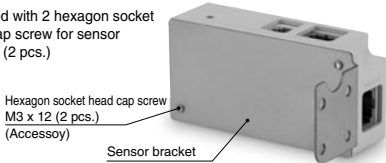
Bar length (mm)	Quantity	
	End bracket	Center bracket
300, 380, 620, 780	2 pcs.	None
1100, 1260, 1500		With 1 pc.
1900, 2300		With 2 pcs.

Note) The model number is for a single bracket.

## Sensor bracket/IZS31-BL

(For mounting IZS31-DE on the body)

\* Provided with 2 hexagon socket head cap screw for sensor bracket (2 pcs.)



Pressure Sensor

Pressure Control

Flow Sensor

Position Detection Switch

Reduced-wiring Fieldbus System

Static Electricity Elimination Equipment

Length Measuring/Counter

Alphabetical Index

# Specifications

Ionizer model		IZS31-□□ (NPN specification)	IZS31-□□P (PNP specification)
Ion generation method		Corona discharge type	
Method of applying voltage		Sensing DC, Pulse DC, DC	
Electricity discharge output		±7000 V	
Ion balance <small>Note 1)</small>		±30 V (Stainless steel electrode needle: ±100 V)	
Air purge	Fluid	Air (Clean and dry)	
	Operating pressure	0.7 MPa or less <small>Note 2)</small>	
	Connecting tubing O.D.	ø4	
Power supply voltage		24 VDC ±10%	
Current consumption	Sensing DC mode	200 mA or less (While standing by: 120 mA or less)	
	Pulse DC mode	Autobalance sensor [Body-mounting type]: 300 mA or less Autobalance sensor [High-precision type]: 200 mA or less When sensor is not used : 170 mA or less	
	DC mode	170 mA or less	
Input signal	Discharge stop signal	Connected to GND (Voltage: 5 VDC or less, Current consumption: 5 mA or less)	Connected to +24 V (Voltage: Between 19 VDC and power supply voltage, Current consumption: 5 mA or less)
	Maintenance signal		
Output signal	Static electricity removal completion signal	Max. load current: 100 mA Residual voltage: 1 V or less (Load current at 100 mA) Max. applied voltage: 28 VDC	Max. load current: 100 mA Residual voltage: 1 V or less (Load current at 100 mA)
	Maintenance output signal		
	Error signal		
	Sensor monitor output <small>Note 3)</small>		
Effective distance of static electricity elimination		50 to 2000 mm (Sensing DC mode: 200 to 2000 mm)	
Ambient temperature, Fluid temperature		0 to 50°C	
Ambient humidity		35 to 80% Rh (No condensation)	
Material		Cover of ionizer: ABS, Electrode needle: Tungsten, Single crystal silicon, Stainless steel	
Vibration resistance		Durability 50 Hz Amplitude 1 mm XYZ each 2 hours	
Shock resistance		10 G	
Compliance with overseas standards/directive		CE (EMC directive: 2004/108/EC)	
		UL U.S. Standard for Electrostatic Air Cleaner, UL867, fourth edition CSA Canadian Standard for Electrostatic Air Cleaner, CAN/CSA C22.2 No.187-M1986	

Note 1) When the air purge is performed between a charged object and an ionizer at a distance of 300 mm  
 Note 2) When the electrode cartridge with low maintenance is used, the operating pressure must be 0.05 MPa or more.  
 Note 3) When the potential of a charged object is measured by a feedback sensor, the relationship between the potential being measured and the sensor monitor output voltage, and the detection range of the sensor vary depending on the sensor's installation distance. Refer to page 641.

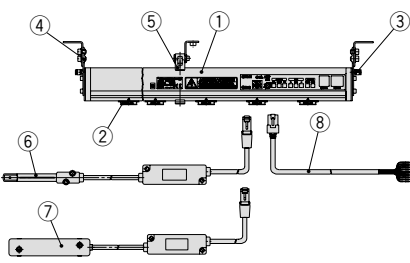
## Number of Electrode Cartridges/Weight

Bar length (mm)	300	380	620	780	1100	1260	1500	1900	2300
Number of electrode cartridges	3	4	7	9	13	15	18	23	28
Weight (g)	470	530	720	850	1100	1220	1410	1730	2040

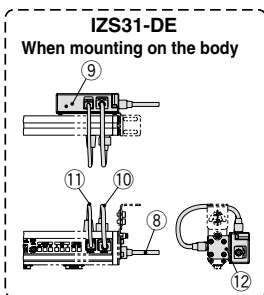
## Sensor

Sensor model	IZS31-DF (Feedback sensor)	IZS31-DG (Autobalance sensor [High-precision type])	IZS31-DE (Autobalance sensor [Body-mounting type])
Ambient temperature	0 to 50°C		
Ambient humidity	35 to 85% Rh (No condensation)		
Case material	ABS	ABS, Stainless steel	ABS
Vibration resistance	Durability 50 Hz    Amplitude 1 mm    XYZ each 2 hours		
Shock resistance	10 G		
Weight	200 g (Including cable weight)	220 g (Including cable weight)	110 g (Including cable weight)
Installation distance	10 to 50 mm (Recommended)	—	
Compliance with overseas standards/directive	CE (EMC directive: 2004/108/EC, Low voltage directive: 73/23/EEC, 93/68/EEC)		

## Construction



No.	Description
1	Ionizer
2	Electrode cartridge
3	One-touch fitting
4	End bracket
5	Center bracket
6	Feedback sensor
7	Autobalance sensor [High-precision type]
8	Power supply cable
9	Autobalance sensor [Body-mounting type]
10	Connection cable A (12P)
11	Connection cable B (6P)
12	Sensor bracket

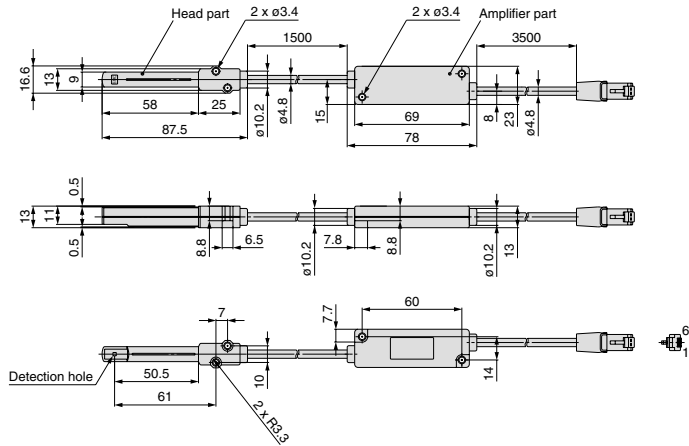


Pressure Sensor  
Pressure Control  
Flow Sensor  
Position Detection Switch  
Reduced-wiring Fieldbus System  
Static Electricity Elimination Equipment  
Length Measuring/Counter  
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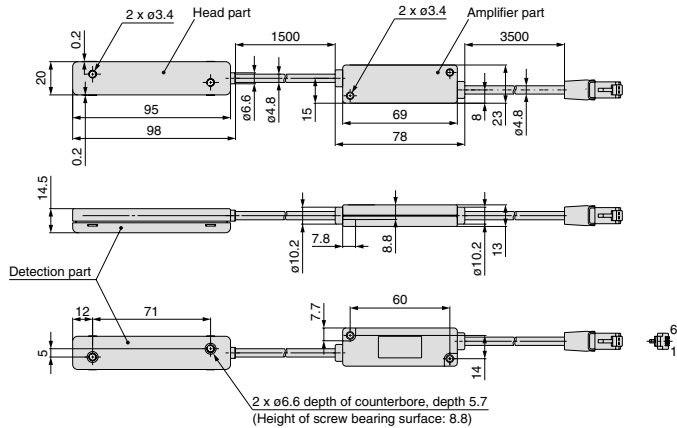
# Series IZS31

## Dimensions

### Feedback sensor/IZS31-DF



### Autobalance sensor [High-precision type]/IZS31-DG



### Power supply cable/IZS31-CP□

