

#### GENERAL

**MAGMAX** EGS1000F is a separate type primary head of electro-magnetic flowmeters, which aims "Low cost-High performance". High quality, virgin, clear PFA liner with Hastelloy C electrodes covers almost all applications from water lines to chemical process. 8 sizes of 10 to 150mm are available.

#### FEATURES

- ❑ Punched plate reinforced high quality clear PFA is adopted for high anti-corrosive, anti-erosion and anti-penetration capability.
- ❑ High accuracy of  $\pm 0.5\%$  of reading.
- ❑ Light and compact design.

#### STANDARD SPECIFICATION

- Excitation : Square wave
- Nominal size : 10, 15, 25, 40, 50, 80, 100, 150 mm
- Measuring range : Flow velocity Min. 0 to 0.3m/s  
Max. 0 to 12m/s
- Protection class : IP67 (equivalent to NEMA6)
- Meter body material
  - Measuring tube : Stainless steel (equivalent to SS304)
  - Housing : Size 10 to 40mm : Cast iron \*1  
Size 50 to 150mm : Carbon steel \*1
  - Terminal box : Aluminum alloy \*1
- Wetted part material
  - Liner : PFA
  - Electrode : Hastelloy C
  - Earth ring : Stainless steel/SS316
  - Earth ring seal : Viton  
(Supplied for size 10 and 15mm only) \*2
- Painting : Polyurethane resin painting
- Color : Silver (Body)  
Jade green (Terminal box cover)
- Cable entry : 2 × G1/2 female thread  
2 × 1/2 NPT female thread  
2 × M20 (with water tight glands)  
(Option : Water tight glands for G1/2)
- Power supply : Supplied from converter
- Ambient temperature : -25 to +60°C (For operation)  
-50 to +70°C (For storage)
- Process connection : Wafer type
- Flanges : JIS10K/20K, ANSI class 150/300,  
DIN PN16/40  
\* Max. operating pressure is 1.6 MPa irrespective of flange rating.
- Grounding : Grounding resistance must be less than 100Ω



- Cable
  - Exclusive cable for electrode signal : DS or BTS cable
  - Excitation current cable : 2 core, 0.75 to 2mm<sup>2</sup>
  - \* Refer to Technical Guidance for Converter

- Fluid specification
  - Conductivity \*3

Converter	Cable *4	Nominal size 10 and 15mm	Nominal size 25 to 150mm
EGC010W	A	$\geq 50\mu\text{S/cm}$	$\geq 10\mu\text{S/cm}$ *5
EGC300F	A	$\geq 10\mu\text{S/cm}$	*5
	B	$\geq 5\mu\text{S/cm}$	*5

Temperature : -25 to +120°C  
Pressure : 0 Pa (abs) to 1.6 MPa

\*3 Refer to Technical Guidance for Converter as details.

\*4 Electrode signal cable A : DS cable  
B : BTS cable

\*5 To be more than 20μS/cm for water flow measurement.

\*1 Anti-corrosive painting

\*2 Not required earth ring seals or gaskets for size 25 to 150mm

Accuracy

- Pulse output

Converter	For flow velocity <1m/s	For flow velocity ≥1m/s
EGC010W	± (0.3+0.2%/velocity(m/s)) of reading	± 0.5% of reading

- Current output  
Additional error of ±0.05% of full scale to be added onto above pulse output accuracy.

Cable length between Primary head and Converter

- Maximum cable length for electrode signal cable \*1

Converter	Cable *2	Nominal size 10 and 15mm	Nominal size 25 to 150mm
EGC010W	A	10m	30m
EGC300F	A	600m	
	B	600m	

\*1 Refer to Technical Guidance for Converter as details.

\*2 Electrode signal cable A : DS cable  
B : BTS cable

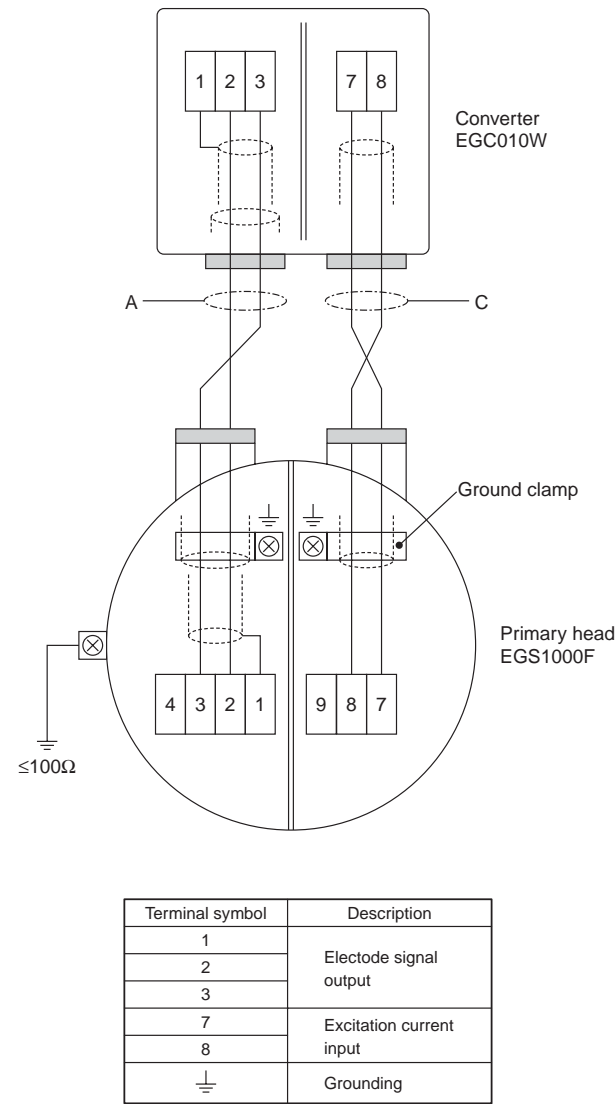
FLOW RANGE

Nominal size (mm)	Possible setting range (m³/h)	
	Min.	Max.
10	0 ~ 0.0849	0 ~ 3.39
15	0 ~ 0.191	0 ~ 7.63
25	0 ~ 0.531	0 ~ 21.2
40	0 ~ 1.36	0 ~ 54.2
50	0 ~ 2.13	0 ~ 84.8
80	0 ~ 5.43	0 ~ 217
100	0 ~ 8.49	0 ~ 339
150	0 ~ 19.1	0 ~ 763

(Flow velocity span : 0.3 to 12m/s)

ELECTRICAL CONNECTION

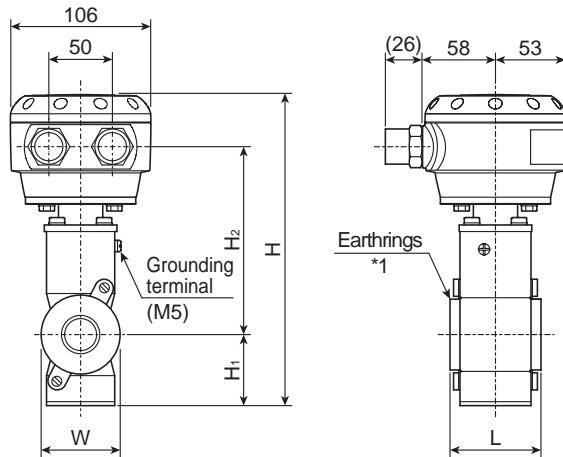
[DS cable]



- Cable
  - A : Exclusive cable for electrode signal : DS cable
  - C : Excitation current cable : 2 core, 0.75 to 2mm² (Supplied by customer)
- Terminal structure = Spring clamp type terminal
- Applicable electric wire = 0.5 to 2.0mm²

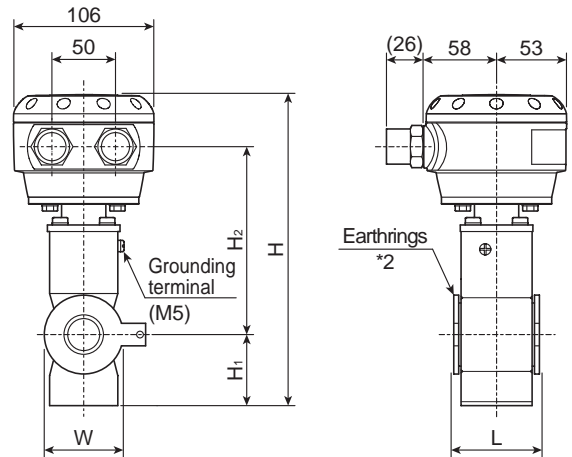
## DIMENSIONS

Nominal size: 10, 15mm



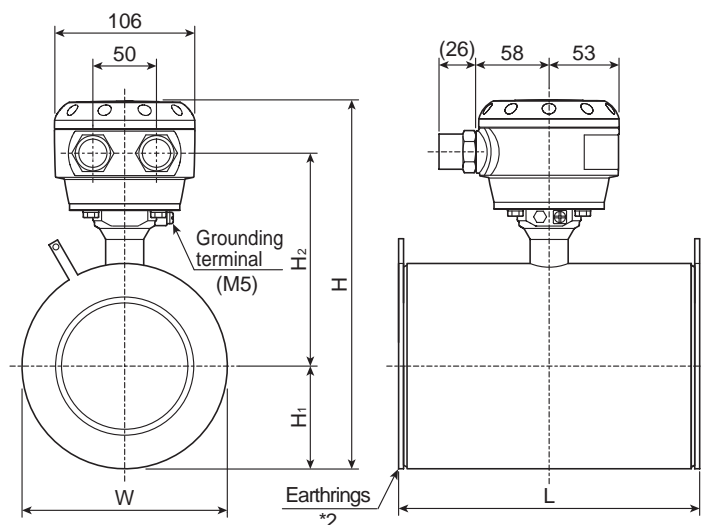
Flow direction (Standard) ➡

Nominal size: 25, 40mm



Flow direction (Standard) ➡

Nominal size: 50 to 150mm



Flow direction (Standard) ➡

Nominal size (mm)	Dimensions (mm)					Mass (kg)
	L *	H	H <sub>1</sub>	H <sub>2</sub>	W	
10	68	214	67	111	52	2.2
15	68	214	67	111	52	2.2
25	60	224	62	126	66	2.4
40	84	239	70	133	82	3.3
50	106	228	51	141	102	5.0
80	156	257	65	156	130	6.7
100	206	284	78	170	156	11.6
150	206	348	110	202	220	16.3

\*1 Dimension L for nominal size 10 and 15mm includes earth rings thickness.  
The earth rings are fixed onto the primary head.

\*2 Dimension L for nominal size 25 to 150mm includes earth rings thickness.  
The earth rings are not fixed onto the primary head.

They are to be installed between the primary head and connection flanges on installation.  
(Earth ring thickness = 3mm × 2)

