

MAGMAX®EGM4300C

Compact Electromagnetic Flowmeter

GENERAL

MAGMAX® EGM4300C is a combination of flange type EGS4000 primary head with PFA/PTFE liner and high performance converter EGC300.

An excitation system extendable up to twice the commercial frequency has been introduced to reduce fluid noise.

And improved self-diagnostic functions include vacancy detection and detection unit monitoring.

10 to 1000mm sizes are available. EGM4300C is widely applicable for chemical processes and many other applications.

FEATURES

- Punched plate reinforced high quality clear PFA is adopted (size: 25 to 150mm) for high anti-corrosive, anti-erosion, and anti-penetration capability.
- ☐ Other than PFA/PTFE, different types of lining are also available.
- ☐ High accuracy of ±0.5% of reading.
- High speed data processing for quick response. Suitable for batch process control and pulsating flow.
- The excitation system extendable up to twice the commercial frequency allows applications to much fluid noise such as slurry.
- ☐ Blue dot matrix LCD (with backlight) used for the display. Capable of providing 1 to 3-digit display.
- ☐ Equipped with a quick setup function to readily respond to changed flow range, pulse rate, etc.
 - A touch panel system by an infrared sensor allows you to alter the settings without removing the cover of the conversion sec-
- □ 10kHz high-speed pulse output. Capable of responding to short hatch processes
- Current and pulse output, bi-directional measurement, double range, status output, control input...Full function provided in compact design.



STANDARD SPECIFICATION

General Specification

• Excitation : Square wave

• Nominal size : 10, 15, 20, 25, 40, 50, 65, 80, 100, 125,

150, 200, 250 300, 350, 400, 450, 500, 600, 700, 800, 900, and 1000mm (For size over 1000mm, consult TOKYO

(Elec.)

(EISO.)

• Measuring range : Flow velocity

Min. 0 to 0.3m/s Max. 0 to 12m/s

Flow rate

Min. 0 to 0.085m³/h

(Minimum flow at 10mm size)

Max. 0 to 33928m3/h

(Maximum flow at 1000mm size)

• Protection class : IP66/67 (IEC 60529)

Meter body material

Measuring tube: Stainless steel / SS304

Primary head housing: Size 20mm or less; Cast duplex stainless

steel (*)

Size 25mm or more; Carbon steel (*)

[Standard]

[Option] Stainless steel/SS304

Flanges : Carbon steel (*) [Standard]

[Option] Stainless steel/SS316L

(*) Anti-corrosive painting

Wetted part material

Liner: [Standard]

Size 10 to 20mm; PTFE Size 25 to 150mm; PFA Size 200 to 1000mm; ETFE

[Option]

PTFE, Polyurethane rubber

* Refer to the "LINER MATERIAL AND

FLANGE."

Electrode: Hastelloy® C22 [Standard]

[Option]

Hastelloy® B2, Stainless steel/SS316, Titanium, Tantalum, Platinum, Low noise

type

Earth ring: Stainless steel/SS316 [Standard]

[Option]

Hastelloy® B, Hastelloy® C, Titanium,

Tantalum

Converter housing : Aluminium alloyPainting : Siloxane coating

Cable entry

Supply frequency

• Color : Grey (Primary head housing/Converter

housing), Jade green (Converter cover /

Terminal box cover): 2 × G1/2 female thread

 $2 \times 1/2$ NPT female thread $2 \times M20$ with watertight glands (Option : Watertight glands for G1/2) (Option : Number of wiring connection ; 3)

• Supply voltage : 100 to 230V AC (85 to 250V AC)

24V DC (9 to 31V) : 48 to 63Hz (AC)

Power consumption : AC; (approx.) 22VA
 DC; (approx.) 12W

• Ambient temp. : $-40 \text{ to } +65^{\circ}\text{C}$ (Fluid temp. $\leq 140^{\circ}\text{C}$)

-50 to $+70^{\circ}$ C (For storage)

• Grounding : Grounding resistance must be less than

100Ω.

• Process connection : Flange connection

• Flanges : JIS10K/20K, ANSI class 150/300,

DIN PN40/16/10

* Refer to the "LINER MATERIAL AND

FLANGE."

Fluid Specification

2

• Temperature : −40 to +140°C

• Pressure : To be within the applicable flange limita-

tion.

* Refer to "FLUID TEMPERATURE AND PRESSURE RANGE" table as details.

• Conductivity : To be 1µ S/cm or more

(To be 20µ S/cm or more for water)

Indication and Output Specification

• Indicator : Blue, dot matrix LCD (With backlight)

 128×64 pixels (59 \times 31mm)

The touch sensor system by infrared sensor 3-page composition, Indication change of one to three lines is

possible for the 1 or 2nd page by data setup.

Contents of indication:

Flow rate, velocity, total flow, conductivity, coil temperature, self-diagnosis result, and setting menu etc.

• Current output: 4 to 20mA DC (Max. 22mA)

Internal power supply:

Less than 1000ohms (Load resistance)

External power supply: 32V DC (External voltage)

Pulse output

Open collector output

Rating : Less than 32V DC, 20mA (\leq 10kHz) Less than 100mA (\leq 100Hz)

Pulse rate

2 to 36,000,000 pulse/h (0.00056Hz to 10kHz)

Pulse width

One of the following selectable

1) Automatic: Pulse width by which duty factor to be 50%

at full scale

2) Duty factor 1:1 fixed

3) Free setting; 0.05 to 2000m/s

Status output

Open collector output

Rating: 32V DC, 100mA Max.

Contents of output

One of the following selectable:

1) No status output (Standard factory setting)

2) Identification of flow direction

3) Over range

4) Error

5) Flow alarm

6) Identification of range (For double range measurement)

7) Empty detection

Control input

Voltage input

Low: 0 to 2.5V DC High: 19 to 32V DC

Contents

One of the following selectable:

1) No control input (Standard factory setting)

2) Signal hold

3) Signal lock to 0%

4) Total counter reset

5) Error reset

6) Range selection (For double range measurement)

Description of input and output terminal

	<u> </u>	
Terminal	Standard setup	Switchover by reprogramming
A (A, A / A-)	Current output	-
B (B / B-)	Status output	Control input
C (C / C-)	Status output	-
D (D / D-)	Pulse output	Status output

Low flow cutoff

Current output, Pulse output, Indicator (Separate setting is possible.)

Setting value: 0.0 to 20.0% FS Setting value (Standard):

Current output, Pulse output; ON 1%, OFF 3% FS

Indicator; Without low flow cutoff

• Damping time constant

Current output, Pulse output, Indicator (Separate setting is possible.)

Setting value: 0.0 to 100.0s Setting value (Standard): Current output, Indicator; 3s

Pulse output; Damping time constant 0

• Isolation of input and output

Each circuit of power supply, electrode input, terminal A, terminal B, terminal C, and terminal D are isolated.

Standard Functions

• Customer's free measuring unit setting function

Volume (or mass) and time unit in 7 characters can be created.

• Automatic zero adjustment function

Zero adjustment is automatically conducted at "ZERO ADJUST MODE" (Subject to zero flow)

Bi-directional flow measurement function

A flow-direction distinction signal is outputted in state output and current.

• Double range measurement function

Possible range setting range ratio 1:20 to 1:1.25 (Setting range of low range: 5 to 80% of high range) Range selection; By automatic or control input signal

• Excitation current frequency switching function

Standard mode:

1/6 of supply frequency (Standard)

High frequency mode:

1/50 to 2 of supply frequency (For slurry, pulsating flow, etc.)

• Self diagnosis function

The following conditions are indicated by error message;

Functional diagnosis:

Coil disconnection, CPU, Memory, Software, Output module, and Output connection

Status diagnosis:

Velocity distribution, Linearity, Magnetizing current / frequency, Empty detection, Over range, Counter over flow, and Power fail detection

• Memory save function for power failure

Operation parameters and totalization figures are stored for more than 10 years by EEPROM (Non volatile memory).

Testing function

Simulating output function for current and pulse output is integrated.

Current output test:

Arbitrary output (0.0 to 22.0 mA)

Pulse output test:

Arbitrary output (1Hz to 10kHz) Status output test: On / Off

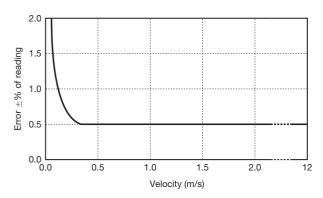
Accuracy (*)

Indication and pulse output

For velocity ≥ 0.33 m/s; $\pm 0.5\%$ of reading

For velocity < 0.33m/s ; \pm 0.2% of reading + velocity error of

 ± 0.001 m/s



• Current output :

Additional error of ±0.01mA be added onto displey and pulse output.

(*) Basis condition

Fluid : Water : 10 to 30°C Fluid temperature Conductivity : 150µS/cm or more Supply voltage : Rated voltage ±2% Ambient temperature : 18 to 28°C

Upstream / Downstream pipe length: 10D / 2D (D: Diameter) Warm-up time : About 10 minutes

3

Measuring time : 100s

TG-EM147E-4 TOKYO KEISO CO., LTD.

FLUID TEMPERATURE AND PRESSURE RANGE

Fluid Temperature

Liner	Nominal size (mm)	Fluid temperature	Ambient temperature
PFA	25 to 150	-40 to +140°C	
PTFE	10 to 20, 200 to 600	-40 to +140 C	−40 to +65°C
ETFE	200 to 1000	−40 to +120°C	
Polyurethane	200 to 1000	−5 to +65°C	−25 to +65°C
Hard rubber	200 to 1000	−5 to +80°C	-25 t0 +65 C

Maximum Pressure / Permissible Vacuum Load

Lines	Nominal size	Pressure		Minimur	n pressure kP	a (abs) / Fluid	temp.	
Liner	(mm)	MPa *	40°C	60°C	80°C	100°C	120°C	140°C
PFA	25 to 150	5	0	0	0	0	0	0
	10 to 20	5	0	0	0	0	50	75
PTFE	200 to 300	5	50	75	100	100	100	100
	350 to 600	5	80	100	100	100	100	100
ETFE	200 to 1000	15	10	10	10	10	10	-
Polyurethane	200 to 1000	150	50	60	_	-	-	-
Hard rubber	200 to 300	15	25	40	40	-	-	-
Hard rubber	350 to 1000	15	50	60	60	-	-	-

^{*} Maximum operating pressure must be within the flange rating pressure. The value on this table indicates maximum pressure of main body.

FLOW RANGE

Nominal size	Possible settir	ng range (m³/h)	Nominal size	Possible settir	ng range (m³/h)
(mm)	Min. (Velocity: 0 to 0.3 m/s)	Max. (Velocity: 0 to 12 m/s)	(mm)	Min. (Velocity: 0 to 0.3 m/s)	Max. (Velocity: 0 to 12 m/s)
10	0 to 0.085	0 to 3.393	250	0 to 53.013	0 to 2120.520
15	0 to 0.191	0 to 7.634	300	0 to 76.341	0 to 3053.640
20	0 to 0.339	0 to 13.572	350	0 to 103.908	0 to 4156.320
25	0 to 0.530	0 to 21.205	400	0 to 135.717	0 to 5428.680
40	0 to 1.357	0 to 54.287	450	0 to 171.765	0 to 6870.600
50	0 to 2.121	0 to 84.823	500	0 to 212.058	0 to 8482.320
65	0 to 3.584	0 to 143.352	600	0 to 305.370	0 to 12214.800
80	0 to 5.429	0 to 217.152	700	0 to 415.620	0 to 16624.800
100	0 to 8.482	0 to 339.288	800	0 to 542.880	0 to 21715.200
125	0 to 13.254	0 to 530.148	900	0 to 687.060	0 to 27482.400
150	0 to 19.085	0 to 763.404	1000	0 to 848.220	0 to 33928.800
200	0 to 33.930	0 to 1357.200			

LINER MATERIAL AND FLANGE

 \mathbb{O} : Standard \mathbb{O} : Option -: Not applicable

Flange											N	omin	al siz	e (mr	n)								і арріі	
rating	Liner	10	15	20	25	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000
	PTFE	0	0	0	_	_	-	_	-	_	_	_	0	0	0	0	0	0	0	0	-	-	_	-
	PFA	-	-	_	0	0	0	0	0	0	0	0	_	-	_	-	_	_	_	-	-	_	-	-
JIS10K *	ETFE	-	-	_	_	-	_	_	_	_	_	_	0	0	0	0	0	0	0	0	0	0	0	0
	PU	-	-	_	_	-	_	_	_	_	_	_	0	0	0	0	0	0	0	0	0	0	0	0
	Hard rubber	-	-	_	_	-	-	-	-	-	-	_	0	0	0	0	0	0	0	0	0	0	0	0
	PTFE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	PFA	-	_	_	_	-	_	_	-	_	-	_	_	-	_	_	_	_	_	-	_	_	-	-
JIS20K	ETFE	-	-	_	_	-	_	-	-	_	-	_	0	0	0	0	0	0	0	0	0	0	0	0
	PU	-	-	ı	_	_	_	_	-	_	_	-	0	0	0	0	0	0	0	0	0	0	0	0
	Hard rubber	-	-	1	-	-	_	-	-	_	-	-	0	0	0	0	0	0	0	0	0	0	0	0
	PTFE	0	0	0	-	-	_	-	-	_	-	_	0	0	0	0	0	0	0	0	-	-	-	_
ANSI	PFA	_	_	_	0	0	0	0	0	0	0	0	_	_	_	_	-	_	_	_	_	_	-	_
class150	ETFE	-	-	_	_	_	_	-	_	_	-	-	0	0	0	0	0	0	0	0	0	0	0	0
Class 150	PU	_	-	_	-	_	_	-	_	_	-	_	0	0	0	0	0	0	0	0	0	0	0	0
	Hard rubber	_	-	_	-	_	_	-	_	_	-	_	0	0	0	0	0	0	0	0	0	0	0	0
	PTFE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_	_	_	-
ANSI	PFA	_	_	_	_	_	_	-		_	_	_	_	_	_	-	_	_	_	_	_	_	-	-
class300	ETFE	_	_	_	-		-	_	-	_	-	-	0	0	0	0	0	0	0	0	-	-	_	_
Oldococo	PU	-	-	-	-	_	-	_	-	-	-		0	0	0	0	0	0	0	0	-	-	-	-
	Hard rubber	-	-	-	_	-	-	-	-	_	-		0	0	0	0	0	0	0	0	-	-	-	-
	PTFE	-	-	-	-	-	-	-	_	_	-	_	0	0	0	0	0	0	0	0	-	-	-	-
	PFA	_	-	_	-	_	_	_	_	_	_	-	-	_	_	_	-	_	_	-	-	-	-	-
DIN PN10	ETFE		_	_	_	_	_	-	_	_	-	_	0	0	0	0	0	0	0	0	0	0	0	0
	PU	-	-	_	-	-	_	-		_	_	-	0	0	0	0	0	0	0	0	0	0	0	0
	Hard rubber	_	_	_	-	_	_	_		_	-	-	0	0	0	0	0	0	0	0	0	0	0	0
	PTFE	_	_	_	-			_		_	-	-	0	0	0	0	0	0	0	0	-	_	-	-
	PFA	_	_	_	-	-	_	0	_	0	0	0	-	-	_	_	_	_	-	-	-	-	-	-
DIN PN16	ETFE	-	-	-	-	-	-	-	-	-	-	_	0	0	0	0	0	0	0	0	0	0	0	0
	PU		-	_	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
	Hard rubber	-	_	-	-	_	-	_		_	-	-	0	0	0	0	0	0	0	0	0	0	0	0
	PTFE		_	-	-	_	-	-	-	-	-	-	0	0	0	0	0	0	0	0	-	-	-	-
	PFA	_		_	-	-		0	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
DIN PN25	ETFE		_		-	-		-		-	-	-	0	0	0	0	0	0	0	0	-	-	-	_
	PU	-	-	_	-	-	-	-	-	-	-	_	0	0	0	0	0	0	0	0	-	-	-	-
	Hard rubber	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	-	-	-	-
	PTFE	0	0	0	-	-	-	-	-	-	-	_	0	0	0	0	0	0	0	0	-	-	-	-
	PFA	-	-	-	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
DIN PN40	ETFE	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	-	-	-	-
	PU	-	_	_	-	-	-	-	-	-	-	_	0	0	0	0	0	0	0	0	-	-	-	-
	Hard rubber	_	_	-	_	_		-	-	_	-	_			0	0	0	0	0		_	_	-	_

^{*} JIS20K flange is provided for nominal size 10 to 40mm as standard. (Installation dimensions of JIS20K flange are equal to JIS10K except the flange thickness.)

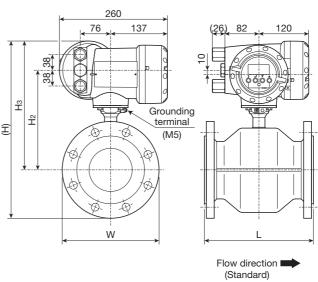
TG-EM147E-4 TOKYO KEISO CO., LTD.

DIMENSIONS

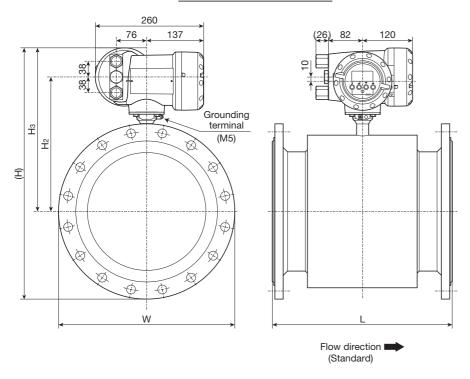
Nominal size: 10 to 20mm

Flow direction (Standard)

Nominal size: 25 to 150mm



Nominal size: 200 to 1000mm



Nominal				Dimensi	ons (mm)				Man	- (1)
size	L	*1	(1	H)	II.	Ш	Ш	W *0	i was	s (kg)
(mm)	JIS 10K	ANSI 150	JIS 10K	ANSI 150	H1	H2	Нз	W *2	JIS10K	ANSI 150
10	156	156	324	324	62	192	262	121	10	11
15	156	156	324	324	62	192	262	121	10	11
20	156	156	324	324	62	192	262	121	12	13
25	156	156	301	293	-	169	239	90	12	13
40	156	156	316	310	-	176	246	105	13	14
50	206	206	335	334	-	188	258	120	13	14
65	206	206	349	351	-	192	262	140	15	16
80	206	206	357	360	-	194	264	150	17	18
100	256	256	387	397	-	212	282	175	20	23
125	256	256	421	423	-	226	296	210	24	27
150	306	306	452	452	-	242	312	240	27	31
200	356	356	507	514	-	272	342	291	39	48
250	406	406	563	566	-	293	363	331	53	68
300	506	506	610	629	-	318	388	381	63	100
350	506	706	655	677	-	340	410	428	83	134
400	606	806	716	734	-	366	436	483	103	170
450	606	806	771	778	-	391	461	533	122	190
500	606	806	825	837	-	417	487	585	133	228
600	606	806	940	949	-	472	542	694	169	311
700	706	-	1053	-	-	531	601	812	250	-
800	906	-	1167	-	-	587	657	922	333	-
900	1006	-	1269	-	-	639	709	1026	430	-
1000	1206	-	1379	-	-	691	761	1132	512	-

^{*1 1)} Dimension L includes earth rings thickness.

In case of tantalum earth ring, total length (L') is as follows

Size 10 to 150mm : L' = (L+7) mm

(For size over 200mm, consult TOKYO KEISO.)

When the liner material is ETFE, the earth rings are not fixed onto the primary head flanges. They are to be installed between primary head and connection flanges on installation.

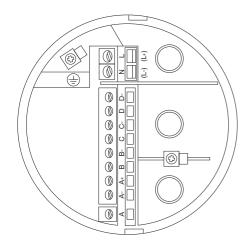
In case of install the earth ring, gaskets are also needed between the primary head liner side and earth ring. Total 4 pieces of gasket are needed including for connection flanges.

 $L' = L + 2 \times t$

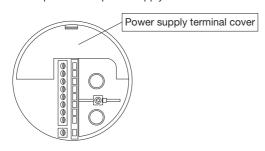
- t : Gasket thickness between the liner and earth ring
- 2) Dimension L is for JIS10K and ANSI class150 flange. Consult TOKYO KEISO for other flanges.
- *2 Dimension W indicates external dimension of housing

TG-EM147E-4 TOKYO KEISO CO., LTD.

ELECTRICAL CONNECTION



Protection cover is provided for power supply terminals.



Terminal	Description
L / L+	L+ (+) • L- (-) (AC power supply / DC power supply)
N/L-	L+ (+) • L- (-) (AC power supply / DC power supply)
(Grounding

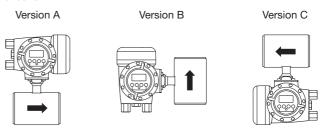
Terminal	Descr	ription	Pola	arity								
D-	Dulas sutput s	r Status output	-	-								
D	Puise output o	r Status output	-	+								
C-	Ctatua	output	-	-								
С	Status	Status output Status output or Control input										
B-	Ctatus sutsut s											
В	Status output o	Status output or Control input										
A+	Current output (4 to 20mA DC / HART: Internal power supply)		+									
A-		0		-								
А	Current output (4 to 20mA DC / HART: Internal power supply)	Current output (4 to 20mA DC / HART: External power supply)	_	+								

• Terminal type : Plug-in type screw terminal

• Connection capacity: 0.5 to 2.5mm²

Mounting position of LCD display

Indication part of EGM4300C can be changed according to the flow direction.



The mounting position will be arranged according to the customer's request when ordering.

The arrow indicates standard flow direction.

Flow direction can be changed by data setting.

MODEL AND SPECIFICATION CODE

• Nominal size: 10 to 150mm

Model: EGM4300C

Primary head Spec. code V N 0 3 4		1	С	П	1	0 0	0	0	0 2 0 0 0 0 0 0			Description	Standard
Primary head code V N 0 3											Flange type		0
(Fixed code) 4											always 4	Standard liner (For JIS10K) *2	0
'	1			\Box			T				10mm *1	PTFE	0
	2			П							15mm	PTFE	0
	3			Ħ			1				20mm	PTFE	
	4			\vdash			Ť				25mm	PFA	0
	6		\top	†			†				40mm	PFA	0
Nominal size	7	+	_	+			$^{+}$	+			50mm	PFA	0
110111111111111111111111111111111111111	8		_	H			$^{+}$	+			65mm	PFA	
	A	+	+	\forall	+	\vdash	+	+			80mm	PFA	0
	В	+	_	++	+		+	+			100mm	PFA	0
	С	+	+	$^{++}$	+		+	+			125mm	PFA	
	D	+	-	+	+		+	+					0
		+	+	\vdash	+		+	+			150mm	PFA	0
	3	+	-	Н	+		+	+			DIN PN16		
	4	+	_	\vdash	_		+	+			DIN PN25		
	5	\perp	_	Н	_		4	_			DIN PN40		
Flange	Α	\perp	_	Ш			4				ANSI class 15		
13-	В			Ш			_				ANSI class 30	10	
	М			Ш			_				JIS 20K		
	N										JIS 10K (For s	size: More than 50mm) *3	0
	9										Others		
Use purpose		0		П							General type ((Non-Ex)	0
Туре		1	С	П			T				Compact vers	sion (EGC300 converter)	0
			2	\Box			T				PTFE (For size	e 10 to 20mm)	0
Lining *4			s	\Box			T	T			PFA (For size	25 to 150mm)	0
				1			T				Stainless stee		
				3			T				Hastelloy® C2		○*5
				4			†	+			Hastelloy® B2		0.*6
				5			+	+			Tantalum		0.0
Electrode material				6	+		+	-			Titanium		
				7			+	+			Platinum		
				G			+						
				-	-		+	-				ectrode (Hastelloy® C22)	
				U			+					ectrode (Stainless steel (SS316))	
Construction of electrode					1	\vdash	_	-			Fixed mounting	· T.	0
					U		4					tainless steel/Carbon steel (size: 10 to 20mm)	0
					W		4					tainless steel/Stainless steel (SS316L) (size: 10 to 20mm)	
Primary head housing / Flange material					1							Carbon steel (size: 25 to 150mm)	0
					3							Stainless steel (SS316L) (size: 25 to 150mm)	
					С						Stainless stee	l (SS304) / Sainless steel (SS316L) *8	
					9		I				Others		
Protection class						0	T				IP66/67		0
(Fixed code)						0	0				always 00		0
Calibration								0			Standard calib	oration	0
								Н			Stainless stee	I (SS316)	0
								K			Hastelloy® C		
								L			Hastelloy® B		
Earth ring								M			Tantalum		
								N			Titanium		
								9	 		Others		+
(Eivad aada)								9				000	
(Fixed code)									0 2 0 0 0 0 0 0		always 02000	000	0
Special feature										(Blank)			0
•										/Z	Involved *7		1

Converter Spec. code	VN	1 3	0	4	4			2	0 0	1	2	1	0 (0 0	0 0		Description		Standard
Converter code	V N	1 3	0														pe: EGC300 (Cylindrical housing)		0
(Fixed code)				4				Т									ays 4		0
Туре					4												D indication		0
Dames and b						1		Τ									V DC (18 to 31V)		
Power supply						Α											0 to 230 V AC (85 to 250V)		0
Use purpose							0	Т									neral type (Non-Ex)		0
							4										NPT female thread		
Cable entry							5										/2 female thread		0
							6	T									0 with watertight glands		
(Fixed code)								2	0 0								/ays 200		0
Housing										1							andard (Aluminium alloy)		0
(Fixed code)											2						ays 2		0
Output type												1					andard (Current output + Pulse output + Control input + Status	output)	0
(Fixed code)													0 (0 0	0 0		/ays 00000		0
Special feature																(Blank	ne		0
Special leature																/Z	olved *7		

- *1 Nominal size 10mm is provided with size 15mm or 1/2" flanges.
- *2 Standard liner material in this table indicates for JIS10K flange. Refer to "LINER MATERIAL AND FLANGE" table as details.
- *3 JIS20K flange is provided for nominal size 10 to 40mm as standard. (Installation dimensions of JIS20K flange are equal to JIS10K except the flange thickness.) Select JIS20K flange (Code: M) for size 10 to 40mm.
- *4 Applicable liner material is subject to nominal size and flange rating. Refer to "LINER MATERIAL AND FLANGE" table as details.
 *5 Standard electrode material for size 40 to 1000mm is Hastelloy® C22.
- *6 Standard electrode material for size 10 to 25mm is Hastelloy® B2.
- *7 In case that special feature are involved, put [/Z] at the end of spec. code and specify the details. It is recommended to consult TOKYO KEISO for such availability before ordering.

9

*8 It is selectable for size 25mm and above.

TG-EM147E-4 TOKYO KEISO CO., LTD. • Nominal size : 200 to 600mm

Model: EGM4300C

Primary head Spec. code V N 0 4		\sqcup	1 (C	Ш	1	0	0 0	0		0	2 0	0 0	0 0 0			Description	Standard
Primary head code V N 0 4																Flange type		0
(Fixed code)	4				П											always 4	Standard liner (For JIS10K) *2	0
	Е															200mm	ETFE	
	F															250mm	ETFE	
	G				П											300mm	ETFE	
	Н				П		T									350mm	ETFE	
Nominal size	K			Т	П	T	T		Т							400mm	ETFE	
	L	П			П	T	T									450mm	ETFE	
	М				П		Т									500mm	ETFE	
	N			Т	П		T		Т							600mm	ETFE	
		2		T	П	T	T		Т							DIN PN10	•	
		3														DIN PN16		
		4		\top	П	T	T		Т							DIN PN25		
		5		\top	П	T	T		Т							DIN PN40		
Flange		A		\top	Ħ	\top	\top		\top	П						ANSI class150		
3.		В		\top	Ħ	\top	\top		\top							ANSI class300		
		М		\top	Ħ	\dashv	\top		\top	П					1	JIS 20K		
		N		\top	Ħ		\dagger		T							JIS 10K		0
		9		+	H	+	+		+							Others		
Use purpose		10)		Ħ				1							General type (N	Non-Ex)	0
Туре			1 (c	H	+	+		+	\vdash							on (EGC300 Converter)	0
.,,,,,				0	Ħ	+	+		+							ETFE	on (Eacoco contento)	 0
				2			+		+							PTFE		
Liner *4				5	H	+	+		+							Hard rubber		
				F		+	+		+							Polyurethane		
				10	1	+	+		+							Stainless steel	(\$\$316)	
					3	+	+		+	\vdash						Hastelloy® C22		○*5
					4	+	+		+	Н						Hastelloy® B2	=	103
					5	+	+		+							Tantalum		
Electrode material					6	+	+		+		-				+	Titanium		
					7	+	+	_	+	Н					1	Platinum		
					G	+	+		+						1		trode (Hastelloy® C22)	
					U	+	+		+						1		strode (Stainless steel (SS316))	
O						1	+		+						-			
Construction of electrode						-	1		+	H						Fixed mounting Carbon steel /		0
							_		+								Stainless steel (SS316L)	
Primary head housing / Flange	mater	ial					3		+						+		(SS304) / Stainless steel (SS316L)	
							9	_	+								(55304) / Stainless steel (55316L)	
Dratastian also-						;	_	-	+	\vdash					+	Others		+ ~
Protection class							0	0 0	+	\vdash						IP66/67		0
(Fixed code)								0 0	-	\vdash					+	always 00	ration	0
Calibration									0	_					+	Standard calib		0
										Н					-	Stainless steel	(55310)	\perp
										K					-	Hastelloy® C		_
Earth ring										L					1	Hastelloy® B		
										М						Tantalum		
										N						Titanium		
										9	_				1	Others		
(Fixed code)											0	2 0	0 0	0 0 0		always 020000	000	0
Special feature															(Blank)	None		0
- L															/Z	Involved *7		

Converter Spec. code V N 3 0 4	4	2 0 0 1	2 1	0	0 0	0 0		Description	Standard
Converter code V N 3 0								Type: EGC300 (Cylindrical housing)	0
(Fixed code) 4								always 4	0
Туре	4							LCD indication	0
Dower supply	1							24V DC (18 to 31V)	
Power supply	A							100 to 230V AC (85 to 250V)	0
Use purpose	0							General type (Non-Ex)	0
	4							1/2 NPT female thread	
Cable entry	5							G1/2 female thread	0
	6							M20 with watertight glands	
(Fixed code)	•	2 0 0						always 200	0
Housing		1						Standard (Aluminium alloy)	0
(Fixed code)			2					always 2	0
Output type			1					Standard (Current output + Pulse output + Control input + Status output)	0
(Fixed code)				0	0 0	0 0		always 00000	0
Consist feature							(Blank)	None	0
Special feature							/Z	Involved *7	

Standard liner material in this table indicates for JIS10K flange. Refer to "LINER MATERIAL AND FLANGE" table as details.
 Applicable liner material is subject to nominal size and flange rating. Refer to "LINER MATERIAL AND FLANGE" table as details.
 Standard electrode material for size 40 to 1000mm is Hastelloy[®] C22.
 In case that special feature are involved, put [/Z] at the end of spec. code and specify the details. It is recommended to consult TOKYO KEISO for such availability before ordering.

Nominal size : 700 to 1000mm

Model: EGM4300C

Primary head Spec. code V N 0 5 4	1		1 0	;	1		0	0 0	0		0	2 0	0 0	0 0	0			Description	Standard
Primary head code V N 0 5																	Flange type		0
(Fixed code)	1																always 4	Standard liner (For JIS10K) *2	0
	Р			Т													700mm	ETFE	
	R																800mm	ETFE	
Nominal size	S						T										900mm	ETFE	
	Т																1000mm	ETFE	
		2															DIN PN10		
		3															DIN PN16		
Flange		Α															ANSI class150		
		N															JIS 10K		0
		9															Others		
Use purpose		0															General type (No	on-Ex)	0
Туре			1 C	;													Compact version	n (EGC300 Converter)	0
				0													ETFE		0
Liner *4 5														Hard rubber					
				D			T										Polyurethane		
					1		T										Stainless steel (S	SS316)	
3						П							Hastelloy® C22		○ *5				
					4												Hastelloy® B2		
Electronic metadol					5		T			П							Tantalum		
Electrode material				6												Titanium			
7														Platinum					
	G							П							Low noise electr	rode (Hastelloy® C22)			
U															Low noise electr	rode (Stainless steel (SS316))			
Construction of electrode					1		T			П							Fixed mounting		0
						1											Carbon steel / C	arbon steel	0
Primary head housing / Flange material 3 C 9 9														Carbon steel / S	tainless steel (SS316L)				
														Stainless steel (S	SS304) / Stainless steel (SS316L)				
													Others						
Protection class 0																	IP66/67		0
(Fixed code)						· ·		0 0									always 00		0
Calibration	(Standard calibra	ition	0		
										Н							Stainless steel (S	SS316)	0
Earth ring						Κ							Hastelloy® C						
						L							Hastelloy® B						
						N							Titanium						
										9							Others		
(Fixed code)											0	2 0	0 0	0 0	0		always 0200000	0	0
Chariel feature															(BI	ank)	None		0
Special feature																/Z	Involved *7		

Converter Spec. code	٧	N	3	0	4	4		Т		2 (0	1	2	1	0	0 (0 (0 0			Description	Standard
Converter code	٧	N	3	0		T		T													Type: EGC300 (Cylindrical housing)	
(Fixed code)				Π.	4			T													always 4	
Туре					T	4															LCD indication	0
Paular aummbi																24V DC (18 to 31V)						
Power supply							Α														100 to 230V AC (85 to 250V)	0
Use purpose 0													General type (Non-Ex)									
4									1/2 NPT female thread													
Cable entry				5												G1/2 female thread	0					
				Г	6												M20 with watertight glands					
(Fixed code)										2 (0 (always 200	
Housing 1											Standard (Aluminium alloy)											
(Fixed code) 2													always 2	0								
Output type 1													Standard (Current output + Pulse output + Control input + Status output)									
(Fixed code) 0 0 0 0 0									0	0 (0 (0 0			always 00000	0						
Special feature									(BI	ank)	None											
									/	/Z	Involved *7											

TG-EM147E-4 TOKYO KEISO CO., LTD.

Standard liner material in this table indicates for JIS10K flange. Refer to "LINER MATERIAL AND FLANGE" table as details.
 Applicable liner material is subject to nominal size and flange rating. Refer to "LINER MATERIAL AND FLANGE" table as details.
 Standard electrode material for size 40 to 1000mm is Hastelloy[®] C22.
 In case that special feature are involved, put [/Z] at the end of spec. code and specify the details. It is recommended to consult TOKYO KEISO for such availability before ordering.

STANDARD ACCESSORIES

Parameter sheet : 1Instruction manual : 1

OPTION

• G1/2 watertight glands for cable entry: 1 set [Symbol: WG]

• Number of wiring connection: 3 [Symbol: 3G]

• No converter data (parameter) setting [Symbol : NS]

We will supply with standard data setting in case you have no request.

Please set the data of flow range, pulse rate and flow direction etc. that required operating.

ORDERING INSTRUCTIONS

Specify the following when ordering:

1. Model and spec. code

Example : Model : EGM4300C

Primary head spec. code :

VN0347N01CS3110000H02000000

Converter spec. code: VN3044A0520012100000

- 2. Flow range (Full scale) (Unnecessary when option is NS.)
- Option (Specify if necessary.)Specify the symbol with reference to the option.
- 4. Fluid name

* Specification is subject to change without notice.



Head Office: Shiba Toho Building, 1-7-24 Shibakoen, Minato-ku, Tokyo 105-8558

Tel: +81-3-3431-1625 (KEY); Fax: +81-3-3433-4922

e-mail: overseas.sales@tokyokeiso.co.jp; URL: http://www.tokyokeiso.co.jp