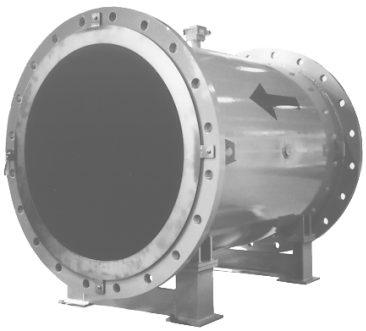
YAMATAKE Specification

MagneW 3000 FLEX Smart Electromagnetic Flowmeter Detector (General Model) MGG11 (Watertight model, Integral/Remote) MGG12 (Submersible model, Remote)

Introduction

The MagneW 3000 FLEX electromagnetic flowmeter detector is a high performance, highly reliable flowmeterdeveloped with Yamatake Corporation's proven MagneW 3000 flow measurement technologies. MGG11 and MGG12 models for watertight and submerged use offer superior flowrate and process measurement when couple a with one of our MagneW 3000 FLEX converters.

(Diameter 2.5 to 600mm)



(Diametr 700 to 1100mm)

Special features

(1) High performance lining
- A new, exclusive high quality lining technology and a special, mirror-finish PFA lining offer higher antiadhesive properties than existing models.
- The specular finish PFA lining is particularly applicable for measurement of sticky pulp and gypsum slurries.
- Only pure white PFA with no additives is used to make new linings.
- The successful embedded punch plate that offers proven performance under conditions such as rapid thermal change and negative pressure.
- PFA linings with diameter ranges from 2.5mm to 600mm available, making selection of the best lining easy for a wide variety of applications.

(2) Replacement interfacing detector (optional)
- This detector can replace the detector interfaces of our existing models and those of other manufacturers. Please consult your Yamatake Corporation representative for details.

(3) Rugged detector structure
- A stainless steel case has been adopted for diameters of 2.5mm to 200mm.
- A watertight structure effective for environments where moisture condensation tends to occur is used for the water-tight model (MGG11).

(4) A wide variety of piping connections
- A hose or union joint or clamp can be selected for very small diameter models (diameters of 2.5 to 15mm).
- A flange structure is used for all diameters (diameters of 2.5 to 1100mm).
- A wafer construction can be also selected (diameters of 2.5 to 200mm).
- Diameters of 65 and 125mm have been added to our existing product lineup.

(5) Compatibility
- Remote model converters can be used in combination with our conventional converters. Please consult your Yamatake Corporation representative for details.

Wide variety of applications

Pulp and paper :
Pulp liquids, chemicals, corrosive liquids, industrial water, wastewater, etc.

Petroleum/petrochemical/chemicals:
Corrosive liquids, dyestuffs, chemicals, industrial water, waste water, etc.

Public utilities:
Water supply systems, sewage systems, community drainage, human waste, sludge, sediment slurry, regulation of total effluent, etc.

Food:
Potable water, light, medium and high density fluids, industrial water, waste water, etc.

Steel/nonferrous metals/ceramics:
Alumina slurry, cooling water, industrial water, corrosive liquids, wastewater, etc.

Machinery/equipment/electric machinery:
Corrosive liquids, cooking water, circulating water, industrial water, wastewater, etc.

Construction:
Building material slurry, sediment slurry, cement slurry, industrial water, etc.

Shipbuilding:
Sediment slurry etc.

Electric power:
Corrosive liquids, cooling water, industrial water, wastewater, etc.

Gas:
Circulating water for air conditioning, etc.

Detector Specifications (standard)

Equipment specifications

Structure:
MGG11: JIS C 0920 water-tight model
NEMA ICS6-110 TYPE4X
IEC PUBL 529 IP67
MGG12: JIS C 0920 submersible model
NEMA ICS6-110 TYPE6
IEC PUBL 529 IP68

Finish:
MGG11: Corrosion-preventive acrylic resin (remote model, diameter 2.5 to 200mm, terminal box only)
Corrosion-preventive polyurethane resin (diameter 250 to 600mm, terminal box of remote model and case of remote/integral model)
Corrosion-preventive acrylic resin (diameter 700 to 1100mm, terminal box and case of remote/integral model)
MGG12: Corrosion-preventive tar epoxy (diameter 15 to 200mm, terminal box only; and diameter: 250 to 600mm, terminal box and case)

Color:
MGG11: Light beige (Munsell 4Y7.2/1.3)
MGG12: Black

Main body material:
Measuring pipe materials: SUS304 stainless steel
Flange: SUS304 stainless steel (diameter: 2.5 to 65mm)
Carbon steel + corrosion-preventive coating (diameter 80 to 600mm)
Carbon steel (diameter 700 to 1100mm)
Case: SCS13 stainless steel (diameter 2.5 to 15mm)
SUS304 stainless steel (diameter 25 to 200mm)
SS400 carbon steel (diameter 250 to 1100mm)
Terminal box: Aluminum alloy (remote model)

Material of parts in contact with liquid:
Lining: PFA (diameter: 2.5 to 600mm)
ETFE (diameter: 80 to 600mm)
Polyurethane rubber (diameter 25 to 200mm)
Chloroprene rubber (diameter 250 to 1100mm)
Electrode: SUS316L, Hastelloy C, titanium, zirconium, tantalum, tungsten-carbide, platinum/iridium
Ground ring: SUS316, Hastelloy C, titanium,zirconium, tantalum, platinum
Union joint: SUS316 (diameter 2.5 to 15mm)
Hose: SUS316 (diameter 2.5 to 15mm)
IDF Clamp : SUS316
Tri Clamp : SUS316

Material of parts in contact with liquid:
Gasket: PTFE (if the grounding ring is not made of SUS316)
O-ring: Viton rubber (with union joints)

Structure of electrode:
MGG11: External insertion (electrode can be removed)
MGG12: External insertion (electrode cannot be removed)

Installation specifications

Ambient temperature:
-25 to +60°C (integral model)
-30 to +80°C (remote model, PFA lining)
-30 to +60°C (remote model, polyurethane rubber lining/ chloroprene rubber lining)

Ambient humidity : 5 to 100% RH

Cable connection port:
Integral model; Connected to converter
Remote model;
G1/2 (PF1/2) internal thread, 1/2 NPT internal thread, CM20 internal thread, Pg 13.5 internal thread
Pipe connection;
Wafer (models 2.5 to 200mm in diameter)
Flange (models 2.5 to 1100mm in diameter)
Union (models 2.5 to 15mm in diameter)
Hose (models 2.5 to 15mm in diameter)
IDF Clamp (models 2.5 to 15mm in diameter)
Tri Clamp (models 2.5 to 15mm in diameter)

Nuts and bolts (for models of wafer construction):
S20C carbon steel, SUS304 stainless steel

Flange rating:
JIS10K, JIS20K, JIS30K,
JPI150, JPI300,ANSI150, ANSI300,
DIN PN10, DIN PN16, DIN PN25,
DIN PN40 (diameter 2.5 to 50mm)

JIS10K, JIS20K, JIS30K,
JPI150, JPI300,ANSI150, ANSI300,
DIN PN10, DIN PN16, DIN PN25,
DIN PN40, JIS G3451 F12
(diameter 80 to 200mm)

JIS10K, JIS20K, JPI150, JPI300,
ANSI150, ANSI300, DIN PN10,
DIN PN16, DIN PN25, JIS G3451 F12
(diameter 250 to 600mm, PFA/ETFE lining)

JIS10K, JPI150, ANSI150, DIN PN10
JIS G3451 F12(diameter 250 to 1100mm,
chloroprene rubber lining)

Grounding: Category D
(Grounding resistance: lower than 100 Ω)

Mounting : Horizontally-mounted electrode

Length of straight pipe:

Upstream side;
Five (5) times or longer than the diameter. However, 10 times or longer than the diameter if a diffuser, valve, pump, etc., are installed.

Downstream side;
Not required. However, 2 times or longer than the diameter if influence exists from drift current of such equipment as a valve.

Cable (between remote detector and converter):

Maximum length:	300m (depending on fluid conductivity)
Outer diameter:	10 to 12 mm
Signal cable:	Dedicated cable (11.4mm, 0.75mm^2 diameter) or equivalent (CVVS, CEEV, etc.)
Excitation cable:	Dedicated cable (10.5mm, 2mm^2 diameter) or equivalent (CVV and others)

Additional specifications (optional)

Test report:
Test result based on repair of electromagnetic flowmeter for actual flow.

Certification of traceability:
From 3 sources: configuration of measuring management system for electromagnetic flowmeter, repair certification, and test report.

Mill sheet:
Data sheet describing materials and charge numbers of electrodes and grounding rings.

Moisture treatment:
When shipped, condensation is removed from wetted surfaces.

Oil removal treatment:
When shipped, oil is removed from wetted surfaces.

Gasket for resin pipe (for general use):
When installing the detector on a resin pipe, attach this gasket between the lining and the grounding ring, and between the grounding ring and the pipe flange.

Attaching the tag number to the terminal box:
Mark the tag with the specified number and attach to the terminal box of the cover. The maximum number of characters in the tag number is 8.

Attaching the tag number on the neck section:
Mark the tag number specified and attach it to the neck section of the detector. The maximum number of characters in the tag number is 16.

For additional specifications, please contact your Yamatake Corporation representative.

Performance (standard)

Accuracy (in combination with the MGG10C converter)

Table 1

＜diameter 2.5 to 15mm＞ Upper limit value of Vs=set velocity range

Vs(m/s)	Velocity during measurement≧Vs×40%	Velocity during measurement≦Vs×40%
1.0≦Vs≦10	±0.5% of indicated value	±0.2% of Vs
0.1≦Vs≦1.0	±(0.1/Vs+0.4)% of the indicated value	±0.4(0.1/Vs+0.4)% of Vs

＜diameter 25 to 600mm＞ Upper limit value of Vs=set velocity range

Vs(m/s)	Velocity during measurement≧Vs×20%	Velocity during measurement≦Vs×20%
1.0≦Vs≦10	±0.5% of indicated value	±0.1% of Vs
0.1≦Vs≦1.0	±(0.1/Vs+0.4)% of the indicated value	±0.2(0.1/Vs+0.4)% of Vs

＜diameter 700 to 1100mm＞ Upper limit value of Vs=set velocity range

Vs(m/s)	Velocity during measurement≧Vs×50%	Velocity during measurement≦Vs×50%
1.0≦Vs≦10	±1.0% of indicated value	±0.5% of Vs
0.1≦Vs≦1.0	±(0.2/Vs+0.8)% of the indicated value	(0.1/Vs+0.4)% of Vs

Liquid to be measured/temperature range:

PFA lining

Diameter (mm)	Temperature of the liquid to be measured (°C)	
	Integral model	Remote model
2.5 to 10	-40 to +100	-40 to +100
15 to 200	-40 to +120	-40 to +160
250 to 600	-40 to +120	-40 to +120

ETFE lining

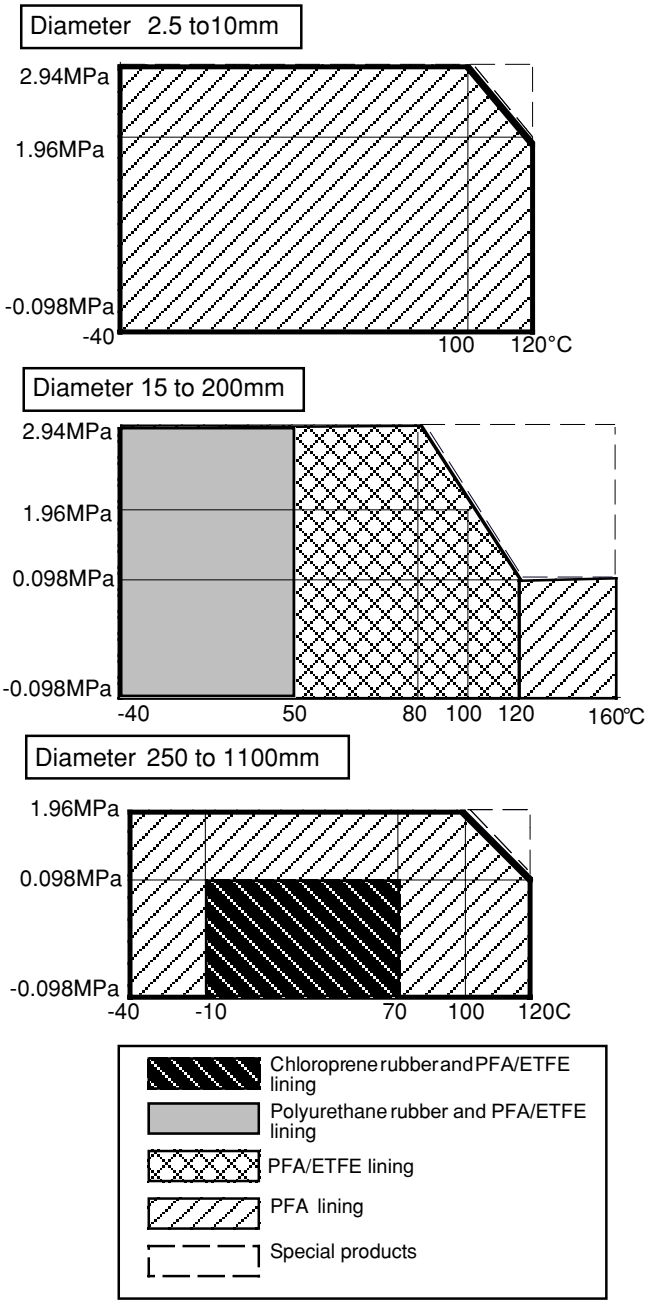
Diameter (mm)	Temperature of the liquid to be measured (°C)	
	Integral model	Remote model
80 to 200	-40 to +120	-40 to +120
250 to 600	-40 to +120	-40 to +120

Polyurethane rubber lining

Diameter (mm)	Tempreature of the liquid to be measured (°C)
	Integral /Remote model
25 to 200	-40 to +50

Chloroprene rubber lining

Diameter (mm)	Tempreature of the liquid to be measured (°C)
	Integral /Remote model
250 to 1100	-10 to +70



Measurable electrical conductivity:

Combined with MGG10C converter
3μS/cm or more (consult your Yamatake Corporation engineer when conditions are 3μS/cm or less)

Measurement flow range:

Refer to the minimum/maximum set ranges shown in Table 2.

Measurement flow range: 0m/s to 10m/s

Measurable flow pressure:

PFA/ETFE lining; -0.098 to +2.94MPa
Polyurethane rubber lining ; -0.098 to +2.94MPa
Chloroprene rubber lining ; -0.098 to +0.98MPa

Table 2

Diameter (mm)	Minimum set range(m^3/h) (Minimum constant flow speed of 0 to 0.1m/s)	Maximum set range(m^3/h) (Maximum constant flow speed of 0 to 10m/s)	Flow conversion factor K
2.5	0 to 0.00177	0 to 0.177	56.59
5	0 to 0.00707	0 to 0.707	14.15
10	0 to 0.0283	0 to 2.83	3.537
15	0 to 0.0636	0 to 6.36	1.572
25	0 to 0.177	0 to 17.7	0.5659
40	0 to 0.452	0 to 45.2	0.2210
50	0 to 0.707	0 to 70.7	0.1415
65	0 to 1.19	0 to 119	0.08375
80	0 to 1.81	0 to 181	0.05526
100	0 to 2.83	0 to 283	0.03537
125	0 to 4.42	0 to 442	0.02264
150	0 to 6.36	0 to 636	0.01572
200	0 to 11.31	0 to 1,131	0.008842
250	0 to 17.67	0 to 1,767	0.005659
300	0 to 25.45	0 to 2,545	0.003930
350	0 to 34.64	0 to 3,464	0.002887
400	0 to 45.24	0 to 4,524	0.002210
450	0 to 57.26	0 to 5,726	0.001747
500	0 to 70.70	0 to 7,070	0.001415
600	0 to 101.79	0 to 10,179	0.0009824
700	0 to 138.54	0 to 13,854	0.0007221
800	0 to 180.96	0 to 18,096	0.0005529
900	0 to 229.02	0 to 22,902	0.0004368
1000	0 to 282.74	0 to 28,274	0.0003538
1100	0 to 311.02	0 to 31,102	0.0002924

Flow conversion : Velocity V(m/s)=K×Q

$$K=\text{Flow conversion factor}=\frac{1}{3600}\times\frac{4}{\pi D^2}$$

Q=Flow rate (m^3/h)

Contents of Model Number Tables

Detector(General Model)

Structure/Basic Model No.	Lining	Pipe connection	Daimeter(mm)	Ref. page
Watertight model MGG11U	PFA	Union/Hose/Clamp	2.5 to 15	6
Watertight model MGG11D	PFA	Wafer	2.5 to 10	7
Watertight model MGG11D	PFA/ETFE	Wafer	15 to 200	8
Watertight model MGG11F	PFA	Flange	2.5 to 10	9
Watertight model MGG11F	PFA/ETFE	Flange	15 to 200	10
Watertight model MGG11F	PFA/ETFE	Flange	250 to 600	11
Watertight model MGG11D	Polyurethane rubber	Wafer	25 to 200	12
Watertight model MGG11F	Polyurethane rubber	Flange	25 to 200	13
Watertight model MGG11F	Chloroprene rubber	Flange	250 to 600	14
Watertight model MGG11F	Chloroprene rubber	Flange	700 to 1100	15
Submersible model MGG12U	PFA	Union/Hose/Clamp	15	16
Submersible model MGG12D	PFA/ETFE	Wafer	15 to 200	17
Submersible model MGG12F	PFA/ETFE	Flange	15 to 200	18
Submersible model MGG12F	PFA/ETFE	Flange	250 to 600	19
Submersile model MGG12D	Polyurethane rubber	Wafer	25 to 200	20
Submersile model MGG12F	Polyurethane rubber	Flange	25 to 200	21
Submersile model MGG12F	Chloroprene rubber	Flange	250 to 600	22

PFA/ETFE lining

Rubber lining

MagneW3000 FLEX (General Model)(Union/Hose/Clamp assemblies 2.5 to15mm) PFA lining

Basic Model No.	Selections									Optional selections	Options
MGG11U										–	

Diameter	2.5mm	002	
	5mm	005	
	10mm	010	
	15mm	015	
Lining	PFA	P	
Pipe connection	Union joint R1/2 (PT1/2) external thread		U1
	Union joint 1/2NPT external thread		U2
	Union joint R1/2 (PT1/2) internal thread		U3
	Union joint 1/2NPT internal thread		U4
	Hose joint		H1
	IDF clamp		C1
	Tri clamp		C2
	Others		£
Elecrodes	SUS316L		L
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tungsten carbide		W
	Others		£
Union / Hose / Clamp material	SUS316		S S
Wiring connection/ Watertight gland	Integral model		1
	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	£
Face to face	Standard		A
Installation/ Wiring direction	Integral model		H
	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		£

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
K	Attaching the TAG number plate to the terminal box (remote detector)	
L	Attaching the TAG number plate to the neck section	
£	Others	

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

MagneW3000 FLEX (General Model) (Wafer detector 2.5 to 10mm) PFA lining

Basic Model No.: MGG11D — Selections □□□□□□□□□ – Optional selections □□ — Options □

Item	Selection		Code
Diameter	2.5mm		002
	5mm		005
	10mm		010
Lining	PFA		P
Pipe connection	Wafer JIS10K for 15mm flange		11
	Wafer JIS20K for 15mm flange		12
	Wafer JIS30K for 15mm flange		13
	Wafer JIS16/20K for 10mm flange		14
	Wafer JIS30K for 10mm flange		15
	Wafer ANSI150 for 15mm flange		21
	Wafer ANSI300 for 15mm flange		22
	Wafer DIN PN10 for 15mm flange		41
	Wafer DIN PN16 for 15mm flange		42
	Wafer DIN PN25 for 15mm flange		43
	Wafer DIN PN40 for 15mm flange		44
	Wafer DIN PN10/16/25/40 for 10mm flange		45
	Wafer JPI150 for 15mm flange		61
	Wafer JPI300 for 15mm flange		62
Electrodes	SUS316L		L
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Tungsten carbide		W
	Platinum iridium		P
	Others		£
Grounding ring	SUS316		S
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Platinum		P
	Others		£
Wiring connection/ Watertight gland	Integral model		1
	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	£
Face to face	Standard		A
	Others		£
Installation/ Wiring direction	Integral model		H
	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		£

Optional selections

Code	Item	Selection
X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish
X	Bolt/nuts	None
1		Carbon steel
2		SUS304

Options

Code	Option
X	No option
A	Test report
B	Certification of traceability
C	Mill sheet
E	Moisture treatment
F	Oil removal treatment
J	Gasket for resin pipe (for general purposes)
K	Attaching the TAG number plate to the terminal box (remote detector)
L	Attaching the TAG number plate to the neck section
£	Others

MagneW3000 FLEX (General Model) (Wafer detector 15 to 200mm) PFA/ETFE lining

Basic Model No. **MGG11D** — Selections — Optional selections — Options

Diameter	15mm	015	
	25mm	025	
	40mm	040	
	50mm	050	
	65mm	065	
	80mm	080	
	100mm	100	
	125mm	125	
	150mm	150	
	200mm	200	
Lining	PFA		P
	ETFE (Diameter 80mm to 200mm)		E
Pipe connection	Wafer JIS10K		11
	Wafer JIS20K		12
	Wafer JIS30K		13
	Wafer ANSI150		21
	Wafer ANSI300		22
	Wafer JIS G3451 F12 (Diameter 80mm or more)		31
	Wafer DIN PN10		41
	Wafer DIN PN16		42
	Wafer DIN PN25		43
	Wafer DIN PN40		44
	Wafer JPI150		61
	Wafer JPI300		62
Electrodes	SUS316L		L
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Tungsten carbide		W
	Platinum iridium		P
	Others		£
Grounding ring	SUS316		S
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Platinum		P
	Others		£
Wiring connection/ Watertight gland	Integral model		1
	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	£
Face to face	Standard		A
	Others		£
Installation/ Wiring direction	Integral model		H
	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		£

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
J	Gasket for resin pipe (for general purposes)	
K	Attaching the TAG number plate to the terminal box (remote detector)	
L	Attaching the TAG number plate to the neck section	
£	Others	

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

X	Bolt/nuts	None
1		Carbon steel
2		SUS304

MagneW3000 FLEX (General Model) (Flange detector 2.5 to 10mm) PFA Lining

Basic Model No.	Selections										Optional selections	Options
MGG11F										–		

Diameter	2.5mm	002										
	5mm	005										
	10mm	010										
Lining	PFA		P									
Pipe connection	Flange JIS10K for 15mm flange		J1									
	Flnage JIS20K for 15mm flange		J2									
	Flange JIS30K for 15mm flange		J3									
	Flange JIS10K for 10mm flange		J4									
	Flange JIS20K for 10mm flange		J5									
	Flange JIS30K for 10mm flange		J6									
	Flange ANSI150 for 15mm flange		A1									
	Flange ANSI300 for 15mm flange		A2									
	Flange DIN PN10 for 15mm flange		D1									
	Flange DIN PN16 for 15mm flange		D2									
	Flange DIN PN25 for 15mm flange		D3									
	Flange DIN PN40 for 15mm flange		D4									
	Flange DIN PN10/16 for 10mm flange		D5									
	Flange DIN PN25/40 for 10mm flange		D6									
	Flange JPI150 for 15mm flange		P1									
	Flange JPI300 for 15mm flange		P2									
Flange material	Standard			1								
	Others			£								
Electrodes	SUS316L				L							
	Hastelloy C				C							
	Titanium				K							
	Zirconium				H							
	Tantalum				T							
	Tungsuten carbide				W							
	Platinum iridium				P							
	Others				£							
Grounding ring	SUS316					S						
	Hastelloy C					C						
	Titanium					K						
	Zirconium					H						
	Tantalum					T						
	Platinum					P						
	Others					£						
Wiring connection/ Watertight gland	Integral model						1					
	Remote model	G1/2 internal thread/Without watertight gland					2					
		G1/2 internal thread/With brass (Ni-plated) watertight gland					3					
		G1/2 internal thread/With plastic watertight gland					4					
		1/2NPT internal thread/Without watertight gland					5					
		CM20 internal thread/Without watertight gland					6					
		Pg13.5 internal thread/Without watertight gland					7					
		Others					£					
Face to face	Standard							A				
	Others							£				
Installation/ Wiring direction	Integral model								H			
	Remote model	Upstream side							A			
		Downstream side							B			
		Horizontal piping mounting/Left side viewed from upstream							C			
		Horizontal piping mounting/Right side viewed from upstream							D			
Calibration/ Approval	Standard calibration									A		
	Others									£		

X	No option
A	Test report
B	Certification of traceability
C	Mill sheet
E	Moisture treatment
F	Oil removal treatment
J	Gasket for resin pipe (for general purposes)
K	Attaching the TAG number plate to the terminal box (remote detector)
L	Attaching the TAG number plate to the neck section
£	Others

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

MagneW3000 FLEX (General Model) (Flange detector 15 to 200mm) PFA/ETFE Lining

Basic Model No. MGG11F — Selections — Optional selections — Options

Diameter	15mm			015										
	25mm			025										
	40mm			040										
	50mm			050										
	65mm			065										
	80mm			080										
	100mm			100										
	125mm			125										
	150mm			150										
	200mm			200										
Lining	PFA				P									
	ETFE (Diameter 80mm to 200mm)				E									
Pipe connection	Flange JIS10K					J1								
	Flnage JIS20K					J2								
	Flange JIS30K					J3								
	Flange ANSI150					A1								
	Flange ANSI300					A2								
	Flnage JIS G3451 F12 (Diameter 80mm or more)					G1								
	Flange DIN PN10					D1								
	Flange DIN PN16					D2								
	Flange DIN PN25					D3								
	Flange DIN PN40					D4								
	Flange JPI150					P1								
	Flange JPI300					P2								
Flange material	Standard						1							
	Others						£							
Electrodes	SUS316L							L						
	Hastelloy C							C						
	Titanium							K						
	Zirconium							H						
	Tantalum							T						
	Tungsuten carbide							W						
	Platinum iridium							P						
	Others							£						
Grounding ring	SUS316								S					
	Hastelloy C								C					
	Titanium								K					
	Zirconium								H					
	Tantalum								T					
	Platinum								P					
	Others								£					
Wiring connection/ Watertight gland	Integral model									1				
	Remote model	G1/2 internal thread/Without watertight gland								2				
		G1/2 internal thread/With brass (Ni-plated) watertight gland								3				
		G1/2 internal thread/With plastic watertight gland								4				
		1/2NPT internal thread/Without watertight gland								5				
		CM20 internal thread/Without watertight gland								6				
		Pg13.5 internal thread/Without watertight gland								7				
		Others								£				
Face to face	Standard										A			
	Others										£			
Installation/ Wiring direction	Integral model											H		
	Remote model	Upstream side										A		
		Downstream side										B		
		Horizontal piping mounting/Left side viewed from upstream										C		
		Horizontal piping mounting/Right side viewed from upstream										D		
Calibration/ Approval	Standard calibration												A	
	Others												£	

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
J	Gasket for resin pipe (for general purposes)	
K	Attaching the TAG number plate to the terminal box (remote)	
L	Attaching the TAG number plate to the neck section	
£	Others	

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

MagneW3000 FLEX (General Model) (Flange detector 250 to 600mm) PFA/ETFE Lining

Basic Model No.	Selections											Optional selections	Options
MGG11F	–											–	–

Diameter	250mm	250	
	300mm	300	
	350mm	350	
	400mm	400	
	450mm	450	
	500mm	500	
	600mm	600	
Lining	PFA		P
	ETFE		E
Pipe connection	Flange JIS10K		J1
	Flnage JIS20K		J2
	Flange ANSI150		A1
	Flange ANSI300		A2
	Flnage JIS G3451 F12		G1
	Flange DIN PN10		D1
	Flange DIN PN16		D2
	Flange DIN PN25		D3
	Flange JPI150		P1
	Flange JPI300		P2
Flange material	Standard		1
	Others		□
Electrodes	SUS316L		L
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Tungsuten carbide		W
	Platinum iridium		P
	Others		□
Grounding ring	SUS316		S
	Hastelloy C		C
	Titanium		K
	Others		□
Wiring connection/ Watertight gland	Integral model		1
	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	□
Face to face	Standard		A
	Others		□
Installation/ Wiring direction	Integral model		H
	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		□

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
J	Gasket for resin pipe (for general purposes)	
K	Attaching the TAG number plate to the terminal box (remote)	
L	Attaching the TAG number plate to the neck section	
□	Others	

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

MagneW3000 FLEX (General Model) (Wafer detector 25 to 200mm) Polyurethane rubber lining

Basic Model No.	Selections									Optional selections		Options
MGG11D	–									–		–

Diameter	25mm	025	
	40mm	040	
	50mm	050	
	65mm	065	
	80mm	080	
	100mm	100	
	125mm	125	
	150mm	150	
	200mm	200	
Lining	Polyurethane rubber lining		Q
Pipe connection	Wafer JIS10K	11	
	Wafer JIS20K	12	
	Wafer JIS30K	13	
	Wafer ANSI150	21	
	Wafer ANSI300	22	
	Wafer JIS G3451 F12 (Diameter 80mm or more)	31	
	Wafer DIN PN10	41	
	Wafer DIN PN16	42	
	Wafer DIN PN25	43	
	Wafer DIN PN40	44	
	Wafer JPI150	61	
	Wafer JPI300	62	
Electrodes	SUS316L		L
	Titanium		K
	Tungsten carbide		W
	Others		□
Grounding ring	SUS316		S
	Titanium		K
	Others		□
Wiring connection/ Watertight gland	Integral model		1
	Remote model: G1/2 internal thread/Without watertight gland		2
	Remote model: G1/2 internal thread/With brass (Ni-plated) watertight gland		3
	Remote model: G1/2 internal thread/With plastic watertight gland		4
	Remote model: 1/2NPT internal thread/Without watertight gland		5
	Remote model: CM20 internal thread/Without watertight gland		6
	Remote model: Pg13.5 internal thread/Without watertight gland		7
	Remote model: Others		□
Face to face	Standard		A
Installation/ Wiring direction	Integral model		H
	Remote model: Upstream side		A
	Remote model: Downstream side		B
	Remote model: Horizontal piping mounting/Left side viewed from upstream		C
	Remote model: Horizontal piping mounting/Right side viewed from upstream		D
Calibration/ Approval	Standard calibration		A
	Others		□

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
J	Gasket for resin pipe (for general purposes)	
K	Attaching the TAG number plate to the terminal box (remote detector)	
L	Attaching the TAG number plate to the neck section	
□	Others	

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

X	Bolt/nuts	None
1		Carbon steel
2		SUS304

MagneW3000 FLEX (General Model) (Flange detector 25 to 200mm) Polyurethane rubber lining

Basic Model No. MGG11F –

Selections

Diameter	25mm	025	
	40mm	040	
	50mm	050	
	65mm	065	
	80mm	080	
	100mm	100	
	125mm	125	
	150mm	150	
	200mm	200	
Lining	Polyurethane rubber		Q
Pipe connection	Flange JIS10K		J1
	Flnage JIS20K		J2
	Flnage JIS30K		J3
	Flange ANSI150		A1
	Flange ANSI300		A2
	Flnage JIS G3451 F12		G1
	Flange DIN PN10		D1
	Flange DIN PN16		D2
	Flange DIN PN25		D3
	Flange DIN PN40		D4
	Flange JPI150		P1
	Flange JPI300		P2
Flange material	Standard		1
	Others		□
Electrodes	SUS316L		L
	Titanium		K
	Tungsuten carbide		W
	Others		□
Grounding ring	SUS316		S
	Titanium		K
	Others		□
Wiring connection/ Watertight gland	Integral model		1
	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	□
Face to face	Standard		A
	Others		□
Installation/ Wiring direction	Integral model		H
	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		□

Optional selections

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

Options

X	No option
A	Test report
B	Certification of traceability
C	Mill sheet
E	Moisture treatment
F	Oil removal treatment
J	Gasket for resin pipe (for general purposes)
K	Attaching the TAG number plate to the terminal box (remote)
L	Attaching the TAG number plate to the neck section
□	Others

MagneW3000 FLEX (General Model) (Flange detector 250 to 600mm) Chloroprene rubber lining

Basic Model No.	Selections											Optional selections	Options
MGG11F	–											–	–

Diameter	250mm	250	
	300mm	300	
	350mm	350	
	400mm	400	
	450mm	450	
	500mm	500	
	600mm	600	
Lining	Chloroprene rubber lining		R
Pipe connection	Flange JIS10K		J1
	Flnage JIS20K		J2
	Flange ANSI150		A1
	Flange ANSI300		A2
	Flnage JIS G3451 F12		G1
	Flange DIN PN10		D1
	Flange DIN PN16		D2
	Flange DIN PN25		D3
	Flange JPI150		P1
	Flange JPI300		P2
Flange material	Standard		1
	Others		□
Electrodes	SUS316L		L
	Titanium		K
	Tungsuten carbide		W
	Others		□
Grounding ring	SUS316		S
	Titanium		K
	Others		□
Wiring connection/ Watertight gland	Integral model		1
	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	□
Face to face	Standard		A
	Others		□
Installation/ Wiring direction	Integral model		H
	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		□

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
J	Gasket for resin pipe (for general purposes)	
K	Attaching the TAG number plate to the terminal box (remote)	
L	Attaching the TAG number plate to the neck section	
□	Others	

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

MagneW3000 FLEX(General Model)(Flange type detector 700 to 1100mm)

Basic Model No.			Selections										Optional selections	Options
MGG11F	–												–	–

Diameter	700mm	700	
	800mm	800	
	900mm	900	
	1000mm	10H	
	1100mm	11H	
Lining	Chloroprene rubber		R
Pipe connection	Flange JIS10K		J1
	Flange ANSI150		A1
	Flange DIN PN10		D1
	Flange JPI150		P1
	Flange JIS G3451 F12		G1
Flange meterial	Standard		1
	Others		□
Electrodes	SUS316L		L
	Titannium		K
	Tungsten carbide		W
	Others		□
Grounding ring	SUS316		S
	Others		□
Wiring connection/ Watertight gland	Integral type		1
	Remote type	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass(Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	□
Face to face	Standard		A
	Others		□
Installation/ Wiring direction	Integral type		H
	Remote type	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		□

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
K	Attaching the TAG number plate to the terminal box(remote type)	
L	Attaching the TAG number plate to the neck section	
□	Others	

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

MagneW3000 FLEX (General Model)(Submersible model/ Union/Hose/Clamp detector 15mm) PFA lining

Basic Model No.: MGG12U – Selections – Optional selections – Options

Item		Description	Code
Diameter		15mm	015
Lining		PFA	P
Pipe connection		Union joint R1/2 (PT1/2) external thread	U1
		Union joint 1/2NPT external thread	U2
		Union joint R1/2 (PT1/2) internal thread	U3
		Union joint 1/2NPT internal thread	U4
		Hose joint	H1
		IDF clamp	C1
		Tri clamp	C2
		Others	□
Elecrodes		SUS316L	L
		Hastelloy C	C
		Titanium	K
		Zirconium	H
		Tungsten carbide	W
		Others	□
Union / Hose /Clamp material		SUS316	S
Wiring connection/ Watertight gland	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	□
Face to face		Standard	A
Installation/ Wiring direction	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval		Standard calibration	A
		Others	□

Optional selections

Code	Item	Description
X	Finish	Standard

Options

Code	Description
X	No option
A	Test report
B	Certification of traceability
C	Mill sheet
E	Moisture treatment
F	Oil removal treatment
K	Attaching the TAG number plate to the terminal box (remote detector)
L	Attaching the TAG number plate to the neck section
□	Others

MagneW3000 FLEX (General Model) (Submersible model/Wafer detector 15 to 200mm) PFA/ETFE lining

Basic Model No. **MGG12D** – Selections – Optional selections – Options

												–		–

Diameter	15mm	015	
	25mm	025	
	40mm	040	
	50mm	050	
	65mm	065	
	80mm	080	
	100mm	100	
	125mm	125	
	150mm	150	
	200mm	200	
Lining	PFA		P
	ETFE (Diameter 80mm to 200mm)		E
Pipe connection	Wafer JIS10K	11	
	Wafer JIS20K	12	
	Wafer JIS30K	13	
	Wafer ANSI150	21	
	Wafer ANSI300	22	
	Wafer JIS G3451 F12 (Diameter 80mm or more)	31	
	Wafer DIN PN10	41	
	Wafer DIN PN16	42	
	Wafer DIN PN25	43	
	Wafer DIN PN40	44	
	Wafer JPI150	61	
	Wafer JPI300	62	
Electrodes	SUS316L		L
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Tungsten carbide		W
	Platinum iridium		P
	Others		□
Grounding ring	SUS316		S
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Platinum		P
	Others		□
Wiring connection/ Watertight gland	Remote model: G1/2 internal thread/Without watertight gland		2
	Remote model: G1/2 internal thread/With brass (Ni-plated) watertight gland		3
	Remote model: G1/2 internal thread/With plastic watertight gland		4
	Remote model: 1/2NPT internal thread/Without watertight gland		5
	Remote model: CM20 internal thread/Without watertight gland		6
	Remote model: Pg13.5 internal thread/Without watertight gland		7
	Remote model: Others		□
Face to face	Standard		A
	Others		□
Installation/ Wiring direction	Remote model: Upstream side		A
	Remote model: Downstream side		B
	Remote model: Horizontal piping mounting/Left side viewed from upstream		C
	Remote model: Horizontal piping mounting/Right side viewed from upstream		D
Calibration/ Approval	Standard calibration		A
	Others		□

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
J	Gasket for resin pipe (for general purposes)	
K	Attaching the TAG number plate to the terminal box (remote detector)	
L	Attaching the TAG number plate to the neck section	
□	Others	

X	Finish	Standard

X	Bolt/nuts	None
1		Carbon steel
2		SUS304

MagneW3000 FLEX (General Model)(Submersible model/ Flange detector 15 to 200mm) PFA/ETFE Lining

Basic Model No.		Selections		Optional selections	Options
MGG12F	–		–	–	

Diameter	15mm	015	
	25mm	025	
	40mm	040	
	50mm	050	
	65mm	065	
	80mm	080	
	100mm	100	
	125mm	125	
	150mm	150	
	200mm	200	
Lining	PFA		P
	ETFE (Diameter 80mm to 200mm)		E
Pipe connection	Flange JIS10K		J1
	Flnage JIS20K		J2
	Flange JIS30K		J3
	Flange ANSI150		A1
	Flange ANSI300		A2
	Flnage JIS G3451 F12 (Diameter 80mm or more)		G1
	Flange DIN PN10		D1
	Flange DIN PN16		D2
	Flange DIN PN25		D3
	Flange DIN PN40		D4
	Flange JPI150		P1
	Flange JPI300		P2
Flange material	Standard		1
	Others		□
Electrodes	SUS316L		L
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Tungsuten carbide		W
	Platinum iridium		P
	Others		□
Grounding ring	SUS316		S
	Hastelloy C		C
	Titanium		K
	Zirconium		H
	Tantalum		T
	Platinum		P
	Others		□
Wiring connection/ Watertight gland	Remote model: G1/2 internal thread/Without watertight gland		2
	Remote model: G1/2 internal thread/With brass (Ni-plated) watertight gland		3
	Remote model: G1/2 internal thread/With plastic watertight gland		4
	Remote model: 1/2NPT internal thread/Without watertight gland		5
	Remote model: CM20 internal thread/Without watertight gland		6
	Remote model: Pg13.5 internal thread/Without watertight gland		7
	Remote model: Others		□
Face to face	Standard		A
	Others		□
Installation/ Wiring direction	Remote model: Upstream side		A
	Remote model: Downstream side		B
	Remote model: Horizontal piping mounting/Left side viewed from upstream		C
	Remote model: Horizontal piping mounting/Right side viewed from upstream		D
Calibration/ Approval	Standard calibration		A
	Others		□

X	No option	
A	Test report	
B	Certification of traceability	
C	Mill sheet	
E	Moisture treatment	
F	Oil removal treatment	
J	Gasket for resin pipe (for general purposes)	
K	Attaching the TAG number plate to the terminal box (remote)	
L	Attaching the TAG number plate to the neck section	
□	Others	

X	Finish	Standard

MagneW3000 FLEX (General Model) (Submersible model/ Flange detector 250 to 600mm) PFA/ETFE Lining

Basic Model No. **MGG12F** – Selections – Optional selections – Options

Diameter	250mm	250	
	300mm	300	
	350mm	350	
	400mm	400	
	450mm	450	
	500mm	500	
	600mm	600	
Lining	PFA	P	
	ETFE	E	
Pipe connection	Flange JIS10K	J1	
	Flnage JIS20K	J2	
	Flange ANSI150	A1	
	Flange ANSI300	A2	
	Flnage JIS G3451 F12 (Diameter 80mm or more)	G1	
	Flange DIN PN10	D1	
	Flange DIN PN16	D2	
	Flange DIN PN25	D3	
	Flange JPI150	P1	
	Flange JPI300	P2	
Flange material	Standard	1	
	Others	□	
Electrodes	SUS316L	L	
	Hastelloy C	C	
	Titanium	K	
	Zirconium	H	
	Tantalum	T	
	Tungsuten carbide	W	
	Platinum iridium	P	
	Others	□	
Grounding ring	SUS316	S	
	Hastelloy C	C	
	Titanium	K	
	Others	□	
Wiring connection/ Watertight gland	Remote model: G1/2 internal thread/Without watertight gland	2	
	Remote model: G1/2 internal thread/With brass (Ni-plated) watertight gland	3	
	Remote model: G1/2 internal thread/With plastic watertight gland	4	
	Remote model: 1/2NPT internal thread/Without watertight gland	5	
	Remote model: CM20 internal thread/Without watertight gland	6	
	Remote model: Pg13.5 internal thread/Without watertight gland	7	
	Remote model: Others	□	
Face to face	Standard	A	
	Others	□	
Installation/ Wiring direction	Remote model: Upstream side	A	
	Remote model: Downstream side	B	
	Remote model: Horizontal piping mounting/Left side viewed from upstream	C	
	Remote model: Horizontal piping mounting/Right side viewed from upstream	D	
Calibration/ Approval	Standard calibration	A	
	Others	□	

X	Finish	Standard

X	No option
A	Test report
B	Certification of traceability
C	Mill sheet
E	Moisture treatment
F	Oil removal treatment
J	Gasket for resin pipe (for general purposes)
K	Attaching the TAG number plate to the terminal box (remote)
L	Attaching the TAG number plate to the neck section
□	Others

MagneW3000 FLEX (General Model) (Submersible model/Wafer detector 25 to 200mm) Polyurethane rubber lining

Basic Model No. **MGG12D** – Selections – Optional selections – Options

Diameter	25mm	025	
	40mm	040	
	50mm	050	
	65mm	065	
	80mm	080	
	100mm	100	
	125mm	125	
	150mm	150	
	200mm	200	
Lining	Polyurethane rubber lining		Q
Pipe connection	Wafer JIS10K		11
	Wafer JIS20K		12
	Wafer JIS30K		13
	Wafer ANSI150		21
	Wafer ANSI300		22
	Wafer JIS G3451 F12 (Diameter 80mm or more)		31
	Wafer DIN PN10		41
	Wafer DIN PN16		42
	Wafer DIN PN25		43
	Wafer DIN PN40		44
	Wafer JPI150		61
	Wafer JPI300		62
Electrodes	SUS316L		L
	Titanium		K
	Tungsten carbide		W
	Others		□
Grounding ring	SUS316		S
	Titanium		K
	Others		□
Wiring connection/ Watertight gland	Integral model		1
	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	□
Face to face	Standard		A
Installation/ Wiring direction	Integral model		H
	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		□

X	Finish	Standard
1		Corrosion-resistant finish
2		Corrosion-proof finish

X	Bolt/nuts	None
1		Carbon steel
2		SUS304

X	No option
A	Test report
B	Certification of traceability
C	Mill sheet
E	Moisture treatment
F	Oil removal treatment
J	Gasket for resin pipe (for general purposes)
K	Attaching the TAG number plate to the terminal box (remote detector)
L	Attaching the TAG number plate to the neck section
□	Others

MagneW3000 FLEX (General Model) (Submersible model/ Flange detector 25 to 200mm) Polyurethane rubber lining

Basic Model No.: **MGG12F** – Selections: □□□□□□□□□□□ – Optional selections: □ – Options: □

Item	Description		Code
Diameter	25mm		025
	40mm		040
	50mm		050
	65mm		065
	80mm		080
	100mm		100
	125mm		125
	150mm		150
	200mm		200
Lining	Polyurethane rubber		Q
Pipe connection	Flange JIS10K		J1
	Flnage JIS20K		J2
	Flnage JIS30K		J3
	Flange ANSI150		A1
	Flange ANSI300		A2
	Flnage JIS G3451 F12 (Diameter 80mm or more)		G1
	Flange DIN PN10		D1
	Flange DIN PN16		D2
	Flange DIN PN25		D3
	Flange DIN PN40		D4
	Flange JPI150		P1
	Flange JPI300		P2
Flange material	Standard		1
	Others		□
Electrodes	SUS316L		L
	Titanium		K
	Tungsuten carbide		W
	Others		□
Grounding ring	SUS316		S
	Titanium		K
	Others		□
Wiring connection/ Watertight gland	Remote model	G1/2 internal thread/Without watertight gland	2
		G1/2 internal thread/With brass (Ni-plated) watertight gland	3
		G1/2 internal thread/With plastic watertight gland	4
		1/2NPT internal thread/Without watertight gland	5
		CM20 internal thread/Without watertight gland	6
		Pg13.5 internal thread/Without watertight gland	7
		Others	□
Face to face	Standard		A
Installation/ Wiring direction	Remote model	Upstream side	A
		Downstream side	B
		Horizontal piping mounting/Left side viewed from upstream	C
		Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration		A
	Others		□

Options

Code	Option
X	No option
A	Test report
B	Certification of traceability
C	Mill sheet
E	Moisture treatment
F	Oil removal treatment
J	Gasket for resin pipe (for general purposes)
K	Attaching the TAG number plate to the terminal box (remote)
L	Attaching the TAG number plate to the neck section
□	Others

Optional selections

Code	Item	Description
X	Finish	Standard

MagneW3000 FLEX (General Model)(Submersible model/ Flange detector 250 to 600mm) Chloroprene rubber lining

Basic Model No.: **MGG12F** – Selections [ ][ ][ ][ ][ ][ ][ ][ ][ ] – Optional selections [ ] – Options [ ]

Diameter	250mm	250
	300mm	300
	350mm	350
	400mm	400
	450mm	450
	500mm	500
	600mm	600
Lining	Chloroprene rubber lining	R
Pipe connection	Flange JIS10K	J1
	Flnage JIS20K	J2
	Flange ANSI150	A1
	Flange ANSI300	A2
	Flnage JIS G3451 F12	G1
	Flange DIN PN10	D1
	Flange DIN PN16	D2
	Flange DIN PN25	D3
	Flange JPI150	P1
	Flange JPI300	P2
Flange material	Standard	1
	Others	□
Electrodes	SUS316L	L
	Titanium	K
	Tungsuten carbide	W
	Others	□
Grounding ring	SUS316	S
	Titanium	K
	Others	□
Wiring connection/ Watertight gland	Remote model: G1/2 internal thread/Without watertight gland	2
	Remote model: G1/2 internal thread/With brass (Ni-plated) watertight gland	3
	Remote model: G1/2 internal thread/With plastic watertight gland	4
	Remote model: 1/2NPT internal thread/Without watertight gland	5
	Remote model: CM20 internal thread/Without watertight gland	6
	Remote model: Pg13.5 internal thread/Without watertight gland	7
	Remote model: Others	□
Face to face	Standard	A
	Others	□
Installation/ Wiring direction	Remote model: Upstream side	A
	Remote model: Downstream side	B
	Remote model: Horizontal piping mounting/Left side viewed from upstream	C
	Remote model: Horizontal piping mounting/Right side viewed from upstream	D
Calibration/ Approval	Standard calibration	A
	Others	□

Optional selections

X	Finish	Standard

Options

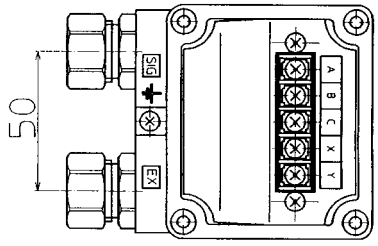
X	No option
A	Test report
B	Certification of traceability
C	Mill sheet
E	Moisture treatment
F	Oil removal treatment
J	Gasket for resin pipe (for general purposes)
K	Attaching the TAG number plate to the terminal box (remote)
L	Attaching the TAG number plate to the neck section
□	Others

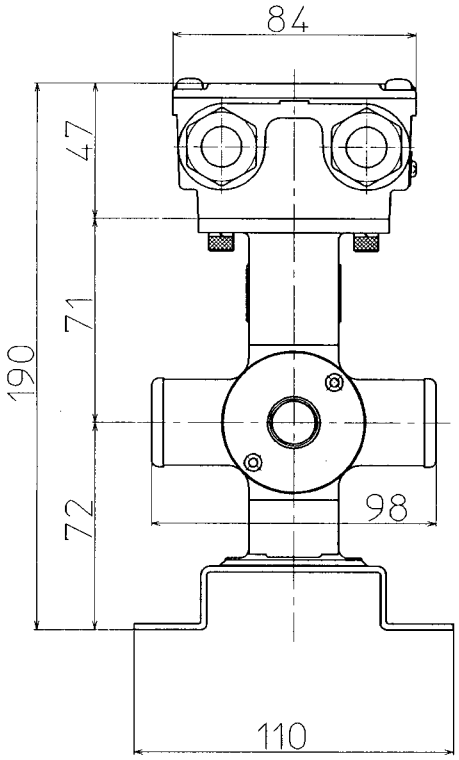
Dimension and terminal connection drawings

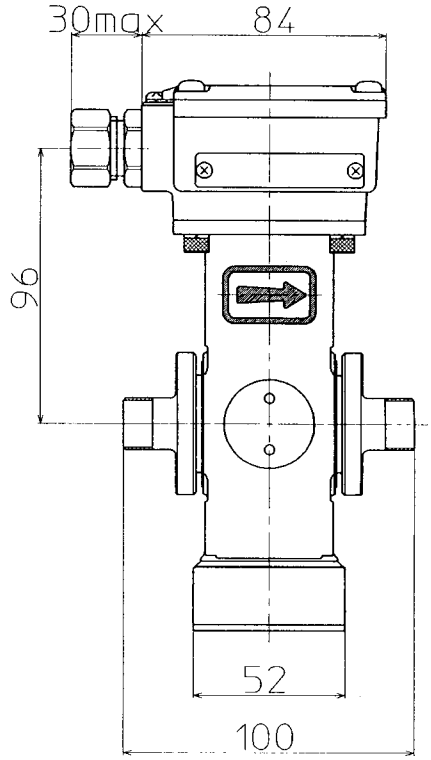
Union Joint
(Meter size 2.5 to 15mm)

Terminal connection table

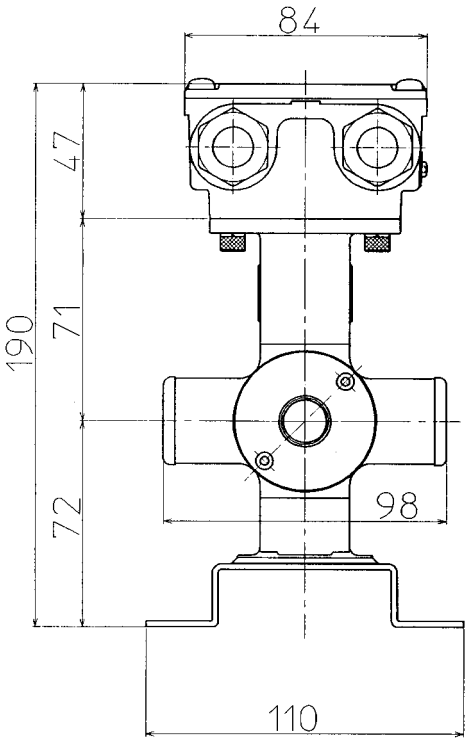
Symbol	Description
X	Excitation current input
Y	
A	Flow rate signal output
B	
C	

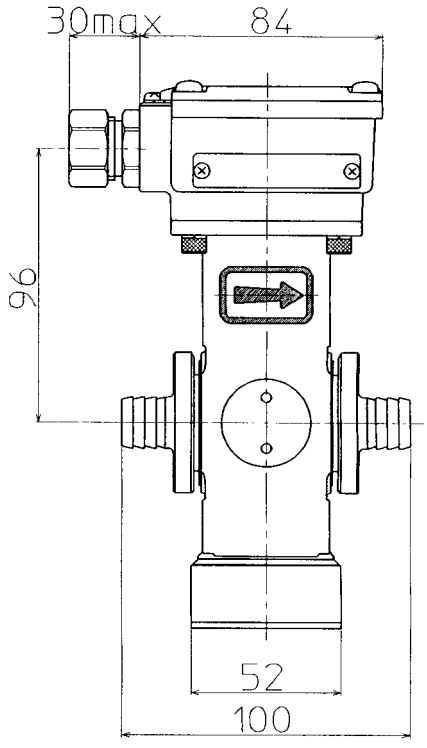






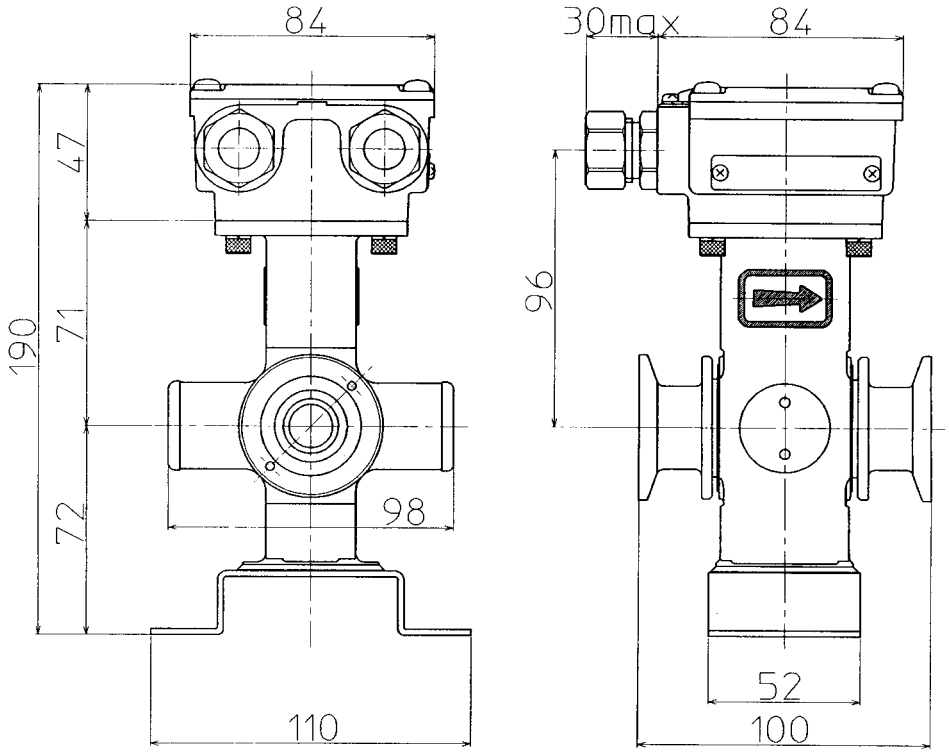
Hose Joint
(Meter size 2.5 to 15mm)





IDF/Tri Clamp (Unit: mm)

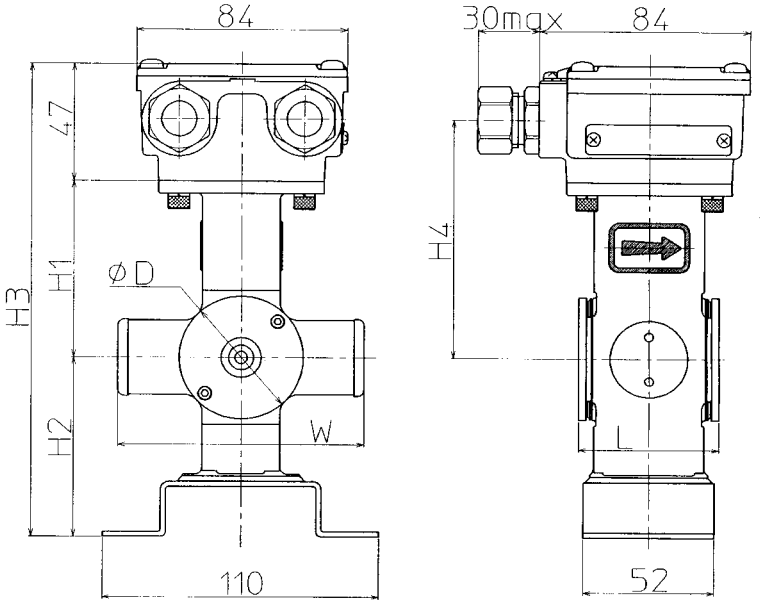
(Meter size 2.5 to 15mm)



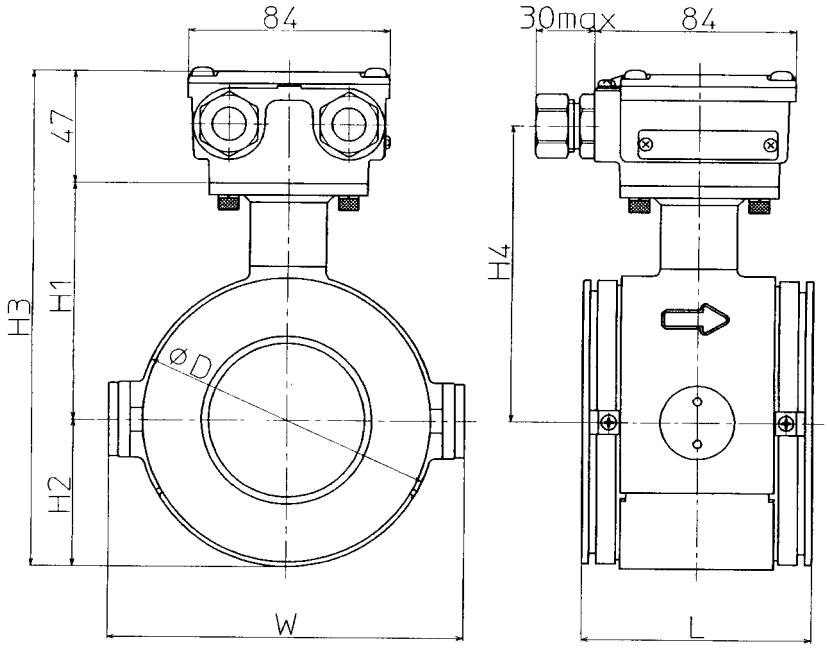
Note: 1) An integral detector includes an integral converter instead of a terminal box.
2) Clamp size: 1S

Wafer
(Meter size 2.5 to 15mm)

(Unit: mm)



Wafer
(Meter size 25 to 200mm)



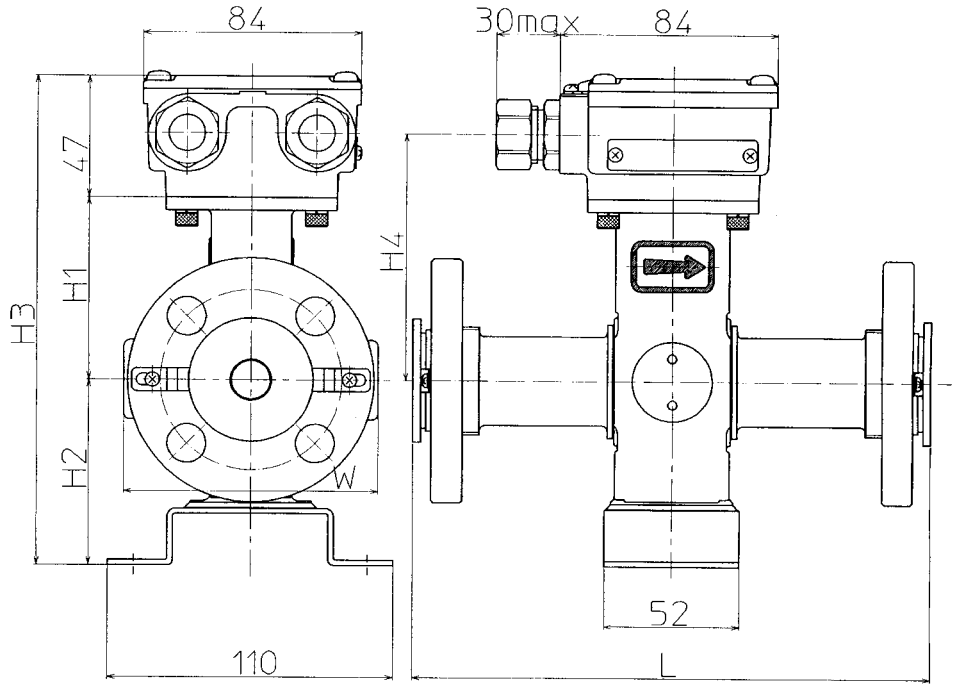
(Unit:mm)

Detector diameter		2.5	5	10	15	25	40	50	65	80	100	125	150	200
Face to face dimension	L	56	56	56	56	56	80	86	96	106	120	140	160	200
Height	H1	71	71	71	71	77	84	93	100	108	120.5	133	160	185
	H2	72	72	72	72	34	43.5	52	62	67	79.5	95	110	135
	H3	190	190	190	190	158	174.5	192	209	222	247	275	317	367
	H4	96	96	96	96	102	109	118	125	133	145.5	158	185	210
Width	W	98	98	98	98	106	125	135	148	164	189	214	240	290
Outer diameter	ϕD	49.5	49.5	49.5	49.5	68	87	104	124	134	159	190	220	270
Mass(kg)		2.6	2.6	2.6	2.3	2.6	2.8	3.4	4.5	5.2	6.7	10.0	13.6	22.0

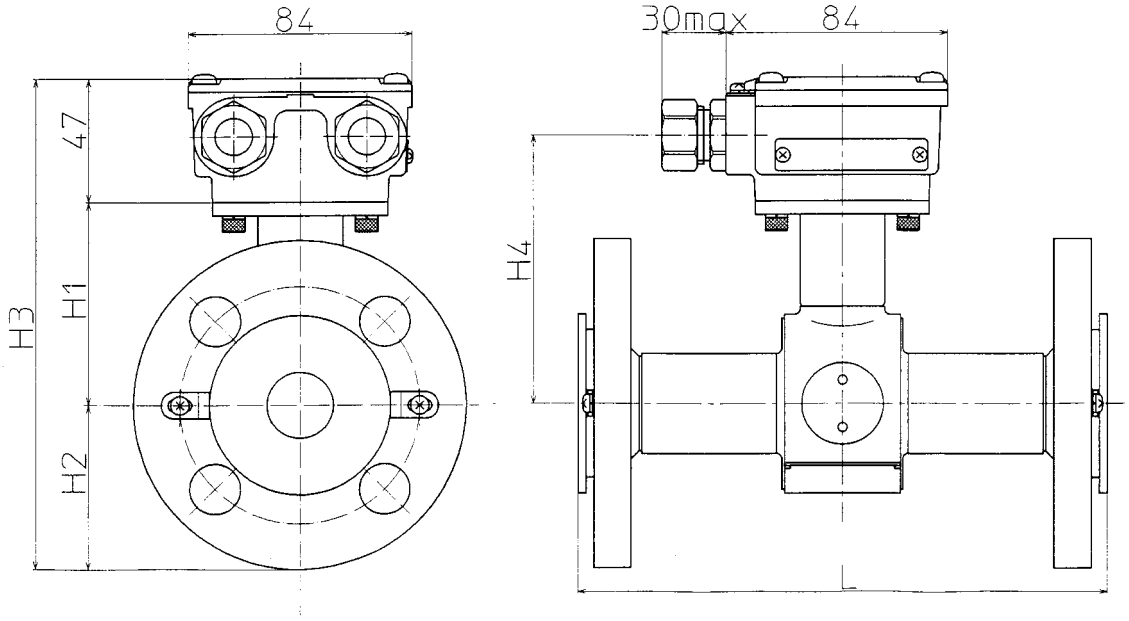
Note: 1) An integral detector includes an integral converter instead of a terminal box.

Flange
(Meter size 2.5 to 15mm)

(Unit: mm)



Flange
(Meter size 25mm)



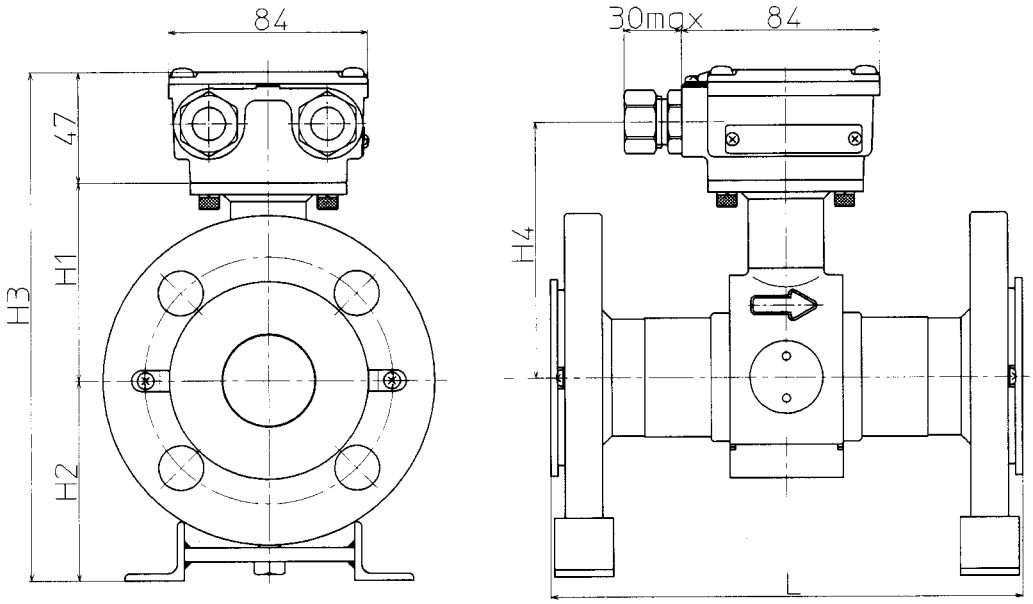
(Unit:mm)

Detector diameter		2.5	5	10	15	25
Face to face dimension	L	160	160	160	200	200
Height	H1	71	71	71	71	77
	H2	70	70	70	70	62.5
	H3	190	190	190	190	186.5
	H4	96	96	96	96	102
Width	W	98	98	98	98	106
Mass(kg)		5.0	5.0	5.0	5.0	5.5

Note: 1) This table is for remote detectors .
2) An integral detector includes an integral converter instead of a terminal box.

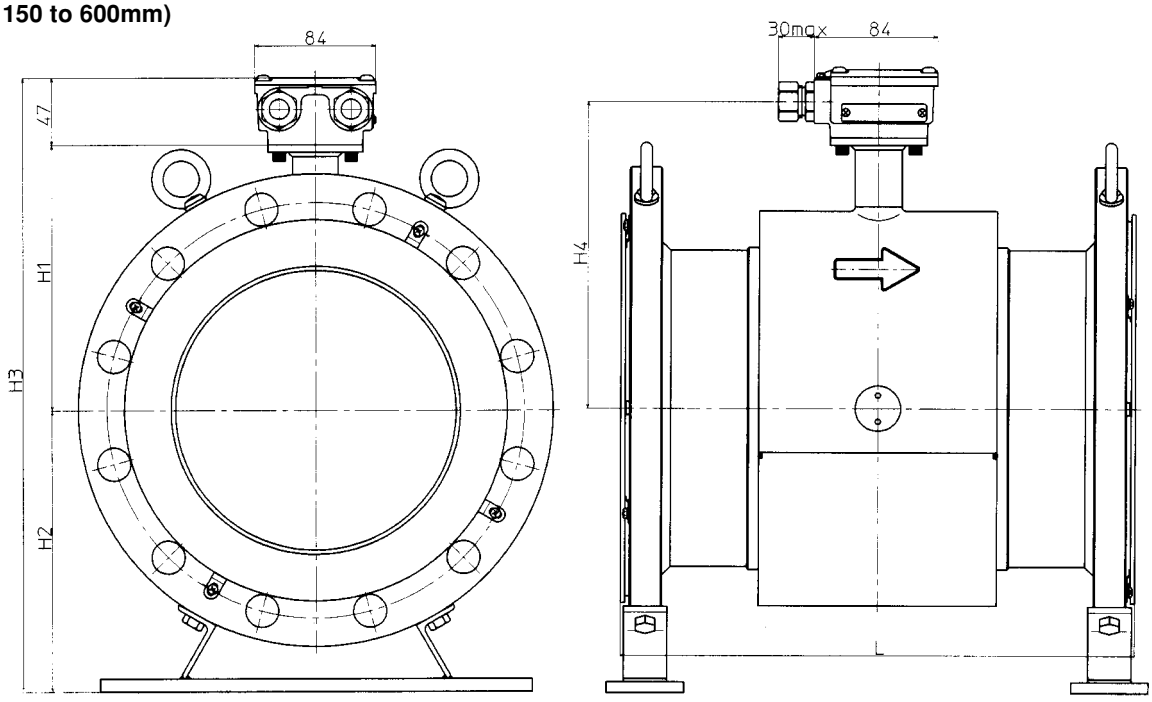
Flange (Unit: mm)

(Meter size 40 to 100mm)



Flange

(Meter size 150 to 600mm)



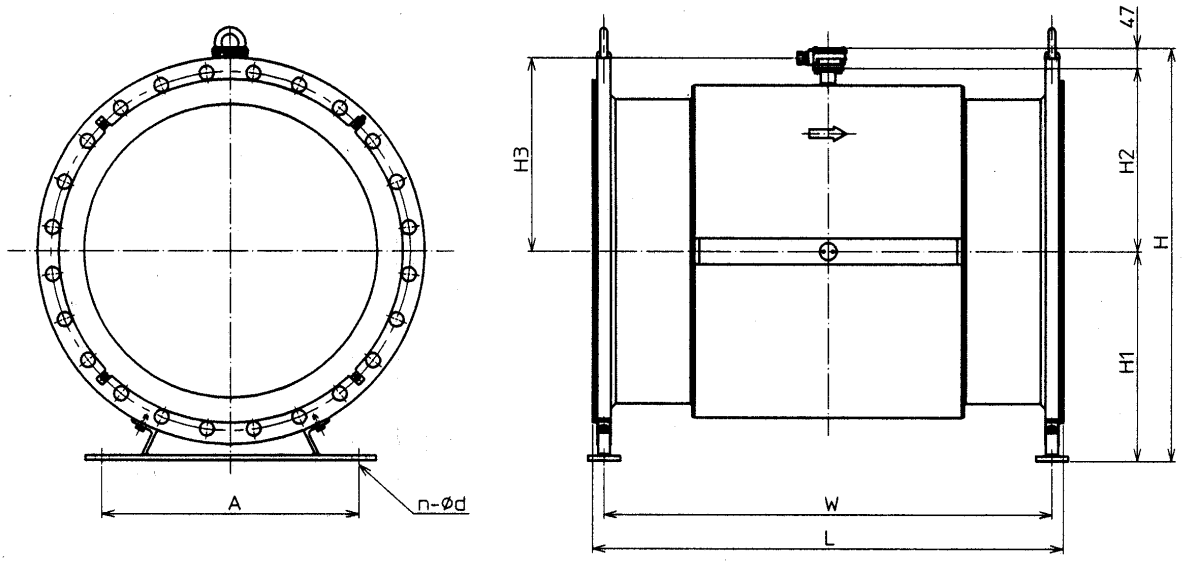
(Unit:mm)

		40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Face to face dimension	L	200	200	200	200	250	250	300	350	450	500	550	600	600	600	650
Height	H1	84	93	100	108	120.5	133	160	185	235	258	282	310	339	366	415
	H2	85	90	102	110	120	143	175	197	221	250	273	321	353	383	446
	H3	216	230	249	265	287.5	323	382	429	503	555	602	678	739	796	908
	H4	109	118	125	133	145.5	158	185	210	260	283	307	335	364	391	440
Mass(kg)		6.5	8.5	10.0	12.6	18.4	26.0	32.6	48.0	60.0	73.0	96.0	128.0	168.0	202.0	272.0

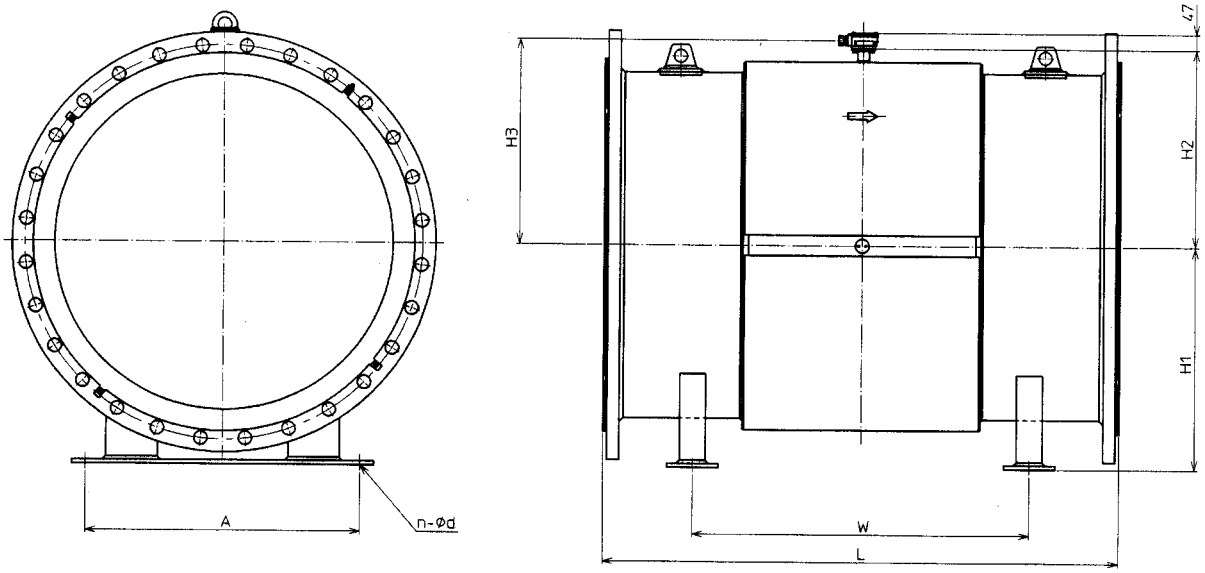
Note: 1) This table is for the remote detector .
2) An integral detector includes an integral converter instead of a terminal box.

Flange
(Meter size 700 to 900mm)

(Unit: mm)



Flange
(Meter size 1000 to 1100mm)

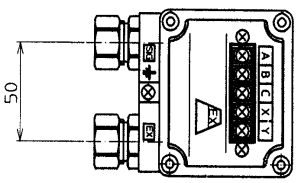


Detector diameter		700A	800A	900A	1000A	1100A
Face to face dimension	L	1100	1200	1300	1500	1500
Height	H	966	1080	1185	1278	1399
	H1	491	554	608	650	720
	H2	429	480	530	581	632
	H3	454	505	555	606	657
Feet length	W	1049	1147	1245	980	1000
Feet width	A	600	600	600	800	800
Feet halls*	n-ϕ d	4-ϕ33	4-ϕ33	4-ϕ33	4-ϕ33	4-ϕ33
Mass(kg)		630.0	720.0	1060.0	1320.0	1540.0

* : n=quantity, ϕd=diameter

Terminal connection table

Symbol	Description
X	Excitation current input
Y	
A	Flow rate signal output
B	
C	



Specifications are subject to change without notice.

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