MagneW Neo+
Smart Two-wire Electromagnetic Flowmeter
Model MTG11A (Integral type)
Model MTG11B (Remote type)

OVERVIEW

The MagneW Neo+ is a high performance electromagnetic flowmeter based on field proven Yamatake two-wire loop powered technology.

The MagneW Neo+ offers the stable and accurate measurement of a traditional magflow meter with low power consumption. The result is a lower overall cost of ownership.

Integral type

Remote type

FEATURES

Two-wire operation

MagneW T Neo+ improves its noise immunity performance by 700% maximum and 250% in average. For the spike noise, MagneW Neo+ improves its noise immunity performance in 250% in average.

High accuracy and stable output

MagneW Neo+ provides high accuracy (± 0.5% of rate) and its output is as stable as current four wired magnetic flowmeters.

Minimum measurable fluid conductivity

The MagneW Neo+ offers a minimum process fluid conductivity of 10 μS/cm which is the best among two-wire magflow meters thereby maximizing applicability.

Wider range in size

MagneW Neo+ offers wider range in detector size.
Detector size: 2.5 to 200 mm.

Wafer and flange style, integral and remote style available

The MagneW Neo+ is available integral or remote, flanged or wafer, making the selection of the right meter for the application simple.

APPLICATIONS

- Corrosive liquid measurement
- Chemical solution measurement
- Drainage/waste disposal fluid measurement
- Drinking water and waste water service
- Industrial/agricultural water measurement
- Seawater measurement

FUNCTIONAL SPECIFICATIONS

Enclosure rating
NEMA TYPE 4X, IEC IP67

Output signal

Analog output
4 to 20mA DC

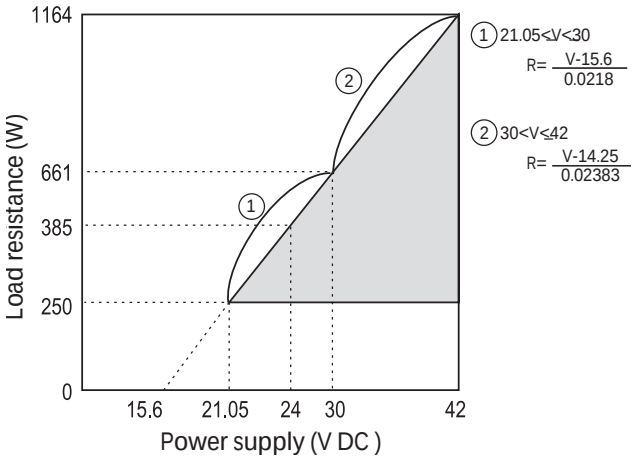
Digital output
DE
Analog or Digital output is selectable.

Pulse output
Open collector output (30V DC, 100 mA max.)
Pulse frequency: 0.0001 to 200 Hz
Pulse width: 1 ms to 1 s
Voltage drop during transistor ON : 1.6 Vmax.

Contact output
Open collector output (30V DC, 100 mA max.)
Pulse or contact output is selectable

Communication protocol
SFC communication and HART® communication

Load resistance characteristic of communication
External power supply 21.05 to 42V DC for communication.



Note) The load resistance of 250 Ω or more is necessary for communications of SFC and the HART® communicator.

Flow unit

Volume flow:	m^3, L, cm^3, G (gallon), mG, kG, B (barrel), IG (imperial gallon), mIG, kIG
Mass flow:	t, kg, g, lb
Time:	d, h, m, s

Note) In case of using Non-SI units, option code "H" in the model selection (refer to page 6 and 7) must be selected.

Display

Display: LCD
Main display: 7-segment, 8 digits
Sub display: 16 digits, 2 lines
Display contents:
Simultaneously displays % flow rate, Actual flow rate (eng. unit) and Totalized value.

Data setting
Operation by four key switches

Damping
Adjustable between 0.5 and 199.9 seconds.

Low flow cutoff
Adjustable between 0 and 10% of setting range.
Below selected value, output is driven to the zero flow rate signal level.

Dropout
Adjustable between 0 and 10% of setting range.
Below selected value, pulse output is cut.

Empty pipe detection
Detect empty pipe condition by monitoring flow rate signal. Once the flow rate signal fluctuates over a certain threshold, the device judges that the detector is empty. When the detector is empty, the analog output (4 to 20mA output) and pulse output are set to zero flow values. The display alternately shows zero value and "Empty Status".
There are three threshold levels to meet an environment where the device is installed. Set an appropriate threshold level from below.
SENSITIVITY HIGH
SENSITIVITY MID
SENSITIVITY LOW
Default setting: OFF
Operating condition :
The following conditions must be met when using the empty pipe detection function.
- Diameter: 10mm or larger
- Electric conductivity of fluid: 30 μS/cm or greater
- Grounding: Grounding resistance must be less than 100Ω
- The noise level must be over the set threshold when the pipe is empty.

The noise level must be under the set threshold when the process fluid flows in the detector.

Lightning protection
12 kV, 1000A
Equipped with the lightning arrester in the power source and external output terminals.

Power failure
An EEPROM retains data record of totalized value when pulse output is used (retention period approximately 10 years).

Power supply

15.6 to 42V DC (without communication)
21.05 to 42V DC (with communication)
Current capacity: 24mA min
In case of current capacity is 22mA, the voltage must be 15.6V minimum.

Size

Wafer style

25, 40, 50, 65, 80, 100 mm (1, 1½, 2, 2½, 3, 4 inches)

Flange style

2.5, 5 mm (0.1, 0.2 inch) (Model MTG11A only)
10, 15, 25, 40, 50, 65, 80, 100, 150, 200 mm (3/8, 1/2, 1, 1½, 2, 2½, 3, 4, 6, 8 inches)

Flange rating

ANSI150, ANSI300, DIN PN10, DIN PN16, DIN PN25, JIS10K, JIS20K, JIS30K

Ambient temperature limits

-20 to 60°C (-4 to 140°F)

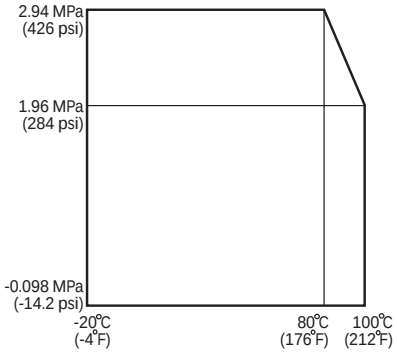
Ambient humidity limits

10 to 90% RH

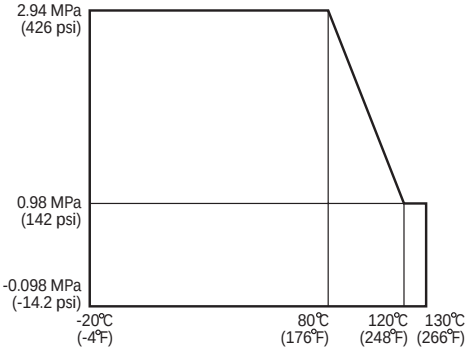
Temperature range and pressure range of process fluid

Refer to the following.

Size: 2.5 to 10 mm (0.1 to 3/8 inch)



Size: 15 to 200 mm (1/2 to 8 inch)



Measurable electrical conductivity

10 μS/cm or greater
50 μS/cm or greater (10 mm (3/8 inch), 15 mm (1/2 inch) for remote type)

Measurement flow range

Size		Maximum flow velocity range is 0 to 0.3 m/s (0 to 0.98 ft/s)		Maximum flow velocity range is 0 to 10 m/s (0 to 32.8 ft/s)		Conversion factor K
		Minimum range		Maximum range		
mm	inches	m^3/h	GPM	m^3/h	GPM	
2.5	0.1	0 to 0.00531	0 to 0.02335	0 to 0.1767	0 to 0.778	56.59
5	0.2	0 to 0.02121	0 to 0.09337	0 to 0.7068	0 to 3.112	14.15
10	3/8	0 to 0.08483	0 to 0.3735	0 to 2.827	0 to 12.44	3.537
15	1/2	0 to 0.1909	0 to 0.8404	0 to 6.361	0 to 28.01	1.572
25	1	0 to 0.5302	0 to 2.335	0 to 17.67	0 to 77.80	0.5659
40	1½	0 to 1.358	0 to 5.976	0 to 45.23	0 to 199.1	0.2210
50	2	0 to 2.121	0 to 9.337	0 to 70.68	0 to 311.2	0.1415
65	2½	0 to 3.584	0 to 15.78	0 to 119.4	0 to 525.9	0.08371
80	3	0 to 5.429	0 to 23.90	0 to 180.9	0 to 796.7	0.05526
100	4	0 to 8.483	0 to 37.35	0 to 282.7	0 to 1244	0.03537
150	6	0 to 19.09	0 to 84.04	0 to 636.1	0 to 2801	0.01572
200	8	0 to 33.93	0 to 149.4	0 to 1130	0 to 4979	0.008842

Velocity V (m/s) = K × Q *K = Conversion factor = $1/3600 \times 4/(\pi D^2) \times 1000^2$, D = Size (mm), Q = Flow rate (m^3/h)*

PERFORMANCE SPECIFICATIONS

Analog output accuracy

<Size: 2.5, 5 mm (0.1, 0.2 inch)> Vs = velocity of setting range (m/s)

Vs (m/s)	Velocity during measurement ≥ Vs×50%	Velocity during measurement ≤ Vs×50%
$1.0 \leq Vs \leq 10$	±0.5% of rate	±0.5% of Vs
$0.3 \leq Vs \leq 1.0$	$\pm\frac{0.5}{Vs}$ % of rate	$\pm\ 0.5 + \left(\frac{0.5}{Vs}\right)$ % of Vs

<Size: 10, 15 mm (3/8, 1/2 inch)> Vs = velocity of setting range (m/s)

Vs (m/s)	Velocity during measurement ≥ Vs×40%	Velocity during measurement ≤ Vs×40%
$1.0 \leq Vs \leq 10$	±0.5% of rate	±0.5% of Vs
$0.3 \leq Vs \leq 1.0$	$\pm\frac{0.5}{Vs}$ % of rate	$\pm\ 0.4 + \left(\frac{0.5}{Vs}\right)$ % of Vs

<Size: 25 to 200 mm (1 to 8 inches)> Vs = velocity of setting range (m/s)

Vs (m/s)	Velocity during measurement ≥ Vs×30%	Velocity during measurement ≤ Vs×30%
$1.0 \leq Vs \leq 10$	±0.5% of rate	±0.5% of Vs
$0.3 \leq Vs \leq 1.0$	$\pm\frac{0.5}{Vs}$ % of rate	$\pm\ 0.3 + \left(\frac{0.5}{Vs}\right)$ % of Vs

PHYSICAL SPECIFICATIONS

Converter case finishing

Standard
Baked acrylic paint

Corrosion-proof
Baked epoxy paint

Converter case material
Aluminum alloy

Display cover material
Tempered glass

Terminal box finishing (Model MTG11B only)

Standard
Baked acrylic paint

Corrosion-proof
Baked epoxy paint

Terminal box material (Model MTG11B only)
Aluminum alloy

Detector main body materials

Case material
Size 2.5 to 15 mm (0.1 to 1/2 inch):
SCS13 stainless steel
Size 25 to 200 mm (1 to 8 inches):
SUS304 stainless steel

Measuring pipe material
SUS304 stainless steel

Flange
SUS304 stainless steel
(size 2.5 to 65 mm (0.1 to 2½ inches))
Carbon steel + corrosion-preventive painting
(size 80 to 200 mm (3 to 8 inches))

Process wetted materials

Lining
PFA

Electrodes
SUS316L, ASTM B574 (Hastelloy C-276 equivalent), Titanium, Tantalum, Nickel, Zirconium, Platinum-Iridium

Grounding rings
SUS316, ASTM B575 (Hastelloy C-276 equivalent), Titanium, Tantalum, Zirconium, Platinum

INSTALLATION

Electrical connection
1/2NPT internal thread (must be selected for FM approval)
CM20 internal thread
G1/2 internal thread

Remote converter mounting
Wall mounting, 2-inch pipe mounting

Grounding
The grounding is essential for flow measurement.
The most effective grounding method is direct connection to earth ground with minimal impedance.

Pipe connection
Wafer style (Size: 25 to 100 mm (1 to 4 inches))
Flange style (Size: 2.5 to 200 mm (0.1 to 8 inches))

Length of straight pipe
Required straight pipe length clearance on the upstream side and the downstream side, while installing the detector.

Upstream side
A minimum 5D straight pipe length is required.
A minimum 10D straight pipe length is required if a diffuser/valve/pump is installed upstream side.

Downstream side
2D straight pipe length is recommended.
(Where D is the nominal bore diameter of the detector)

Cable between converter and detector (Remote type)

Length
70 m (233 ft) or under
(25 mm (1 inch) to 200 mm (8 inches))
30 m (98 ft) or under
(10 mm (3/8 inch), 15 mm (1/2 inch))

Outside diameter
11.4 mm (0.45 inch)

MODEL SELECTION

MagneW Neo+

Model MTG11A - I II III IV V VI VII VIII IX - X XI - Options (some options can be selected per each model)

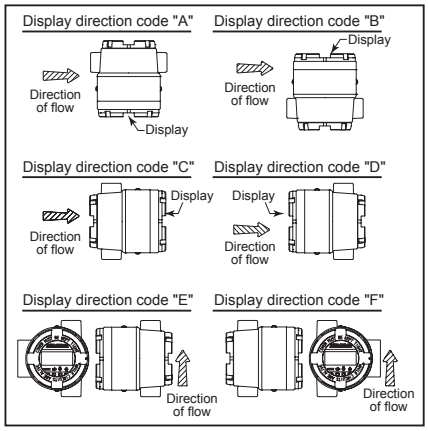
Basic model no.			Selections									Optional selections			Options
MTG11A		—										-		-	

I	Diameter	2.5 mm (0.1 inch) (flange type only) *1	002								
		5 mm (0.2 inch) (flange type only) *1	005								
		10 mm (3/8 inch) (flange type only) *1	010								
		15 mm (0.5 inch) (flange type only) *1	015								
		25 mm (1 inch)	025								
		40 mm (1½ inches)	040								
		50 mm (2 inches)	050								
		65 mm (2½ inches)	065								
		80 mm (3 inches)	080								
		100 mm (4 inches)	100								
		150 mm (6 inches) (flange type only)	150								
		200 mm (8 inches) (flange type only)	200								
II	Lining	PFA		P							
III	Pipe connection	Wafer JIS 10K			11						
		Wafer JIS 16/20K			12						
		Wafer JIS 30K			13						
		Wafer JIS G3451 F12 (Size: 80 mm or larger)			51						
		Wafer ANSI 150			21						
		Wafer ANSI 300			22						
		Wafer JPI 150			61						
		Wafer JPI 300			62						
		Wafer DIN PN10			41						
		Wafer DIN PN16			42						
		Wafer DIN PN25			43						
		Flange JIS 10K			J1						
		Flange JIS 20K			J2						
		Flange JIS 30K			J3						
		Flange JIS 10K for 10 mm size flange *2			J4						
		Flange JIS 20K for 10 mm size flange *2			J5						
		Flange JIS G3451 F12 (Size: 80 mm or larger)			G1						
		Flange ANSI 150			A1						
		Flange ANSI 300			A2						
		Flange JPI 150			P1						
		Flange JPI 300			P2						
IV	Electrode	SUS316L				L					
		ASTM B574 (Hastelloy C-276 equivalent)				C					
		Titanium				K					
		Zirconium				H					
		Tantalum				T					
		Nickel				N					
		Platinum-iridium				P					
V	Grounding ring	SUS316					S				
		ASTM B575 (Hastelloy C-276 equivalent)					C				
		Titanium					K				
		Zirconium					H				
		Tantalum					T				
		Platinum					P				
VI	Wiring connection	G1/2 internal thread						A			
		G1/2 internal thread with a plastic water tight gland						B			
		G1/2 internal thread with a brass Ni-plated watertight gland						C			
		1/2NPT internal thread						D			
		CM20 internal thread						E			
VII	Face-to-face dimension	Standard							A		
		Yamatake SMT3000 wafer type (size: 40 to 100 mm)							S		
VIII	Installation / Display direction	Horizontal piping mounting / Right side viewed from upstream								A	
		Horizontal piping mounting / Left side viewed from upstream								B	
		Horizontal piping mounting / Downstream side								C	
		Horizontal piping mounting / Upstream side								D	
		Vertical piping mounting / Right side of piping / Flow direction: Upward								E	
		Vertical piping mounting / Left side of piping / Flow direction: Upward								F	
IX	Calibration	Standard calibration									A

X	None		Options
A	Test report		
B	Traceability certificate		
C	Material certificate (electrode/grounding ring)		
D	Calculation sheet for material strength		
E	Water-free treatment		
F	Oil-free treatment		
G	Gasket for plastic piping		
H	Special units for display		
J	Tropical treatment		
K	with tag number plate on the converter housing *3		
L	with tag number plate wired to the flowmeter		

X	Finish	Standard paint	X
2	/paint	Corrosion-proof paint	

X	Bolts and nuts	None	XI
2		SUS304 (for wafer style only)	



Note) **1: Flange of size 2.5 to 15 mm detector is 15 mm flange.*
**2: Available for size 2.5 to 10 mm detector.*
**3: Must be selected if tagging is required.*

MagneW Neo+ - Wafer / Flange remote type detector

Model MTG11B - I II III IV V VI VII VIII IX X XI - XII XIII XIV - XV - Options (some options can be selected per each model)

Basic model no. Selections Converter selections Cable length Options

MTG11B — | | | | | | | | | | | | - | | | | - |

I	Diameter	10 mm (3/8 inch) (flange type only) *1	010	
		15 mm (0.5 inch) (flange type only) *1	015	
		25 mm (1 inch)	025	
		40 mm (1½ inches)	040	
		50 mm (2 inches)	050	
		65 mm (2½ inches)	065	
		80 mm (3 inches)	080	
		100 mm (4 inches)	100	
		150 mm (6 inches) (flange type only) *1	150	
		200 mm (8 inches) (flange type only) *1	200	
		None *2	XXX	
II	Lining	PFA	P	
		None *2	X	
III	Pipe connection	Wafer JIS 10K		11
		Wafer JIS 16/20K		12
		Wafer JIS 30K		13
		Wafer JIS G3451 F12 (Size: 80 mm or larger)		51
		Wafer ANSI 150		21
		Wafer ANSI 300		22
		Wafer JPI 150		61
		Wafer JPI 300		62
		Wafer DIN PN10		41
		Wafer DIN PN16		42
		Wafer DIN PN25		43
		Flange JIS 10K		J1
		Flange JIS 20K		J2
		Flange JIS 30K		J3
		Flange JIS 10K for 10 mm size flange *2		J4
		Flange JIS 20K for 10 mm size flange *2		J5
		Flange JIS G3451 F12 (Size: 80 mm or larger)		G1
		Flange ANSI 150		A1
		Flange ANSI 300		A2
		Flange JPI 150		P1
		Flange JPI 300		P2
		None *2		XX
IV	Electrode	SUS316L	L	
		ASTM B574 (Hastelloy C-276 equivalent)	C	
		Titanium	K	
		Zirconium	H	
		Tantalum	T	
		Nickel	N	
		Platinum-iridium	P	
		None *2	X	
V	Grounding ring	SUS316		S
		ASTM B575 (Hastelloy C-276 equivalent)		C
		Titanium		K
		Zirconium		H
		Tantalum		T
		Platinum		P
		None *2		X
VI	Wiring connection /watertight gland	G1/2 internal thread		A
		G1/2 internal thread with a plastic watertight gland		B
		G1/2 internal thread with a brass Ni-plated watertight gland		C
		None *2		X
VII	Face-to-face dimension	Standard		A
		Yamatake SMT3000 wafer type		S
		None *2		X
VIII	Installation / wiring direction	Upstream side		A
		Downstream side		C
		Left side viewed from upstream		D
		Right side viewed from upstream		D
		None *2		X
IX	Calibration	Standard calibration		A
		None *2		X
X	Finish / paint	Standard paint *4		X
		Corrosion-proof paint		2
XI	Bolts / nuts	None *2		X
		SUS304 bolts/nuts (for wafer style only)		2

A	Wiring connection / watertight gland	G1/2 internal thread	XII
B		G1/2 internal thread with a plastic watertight gland	
C		G1/2 internal thread with a brass Ni-plated watertight gland	
X		None *5	
G	Converter mounting	Wall mounting with standard bracket	XIII
H		2-inch pipe mounting with standard bracket	
X		None	
X	Finish/ paint	Standard paint *6	XIV
2		Corrosion-proof paint	

02	Cable length	2 m	XV
03		3 m	
04		4 m	
05		5 m	
10		10 m	
15		15 m	
20		20 m	
30		30 m	
40		40 m	
50		50 m	
60		60 m	
70		70 m	
XX		None *7	

X	None	Options
A	Test report	
B	Traceability certificate	
C	Material certificate (electrode/ grounding ring)	
D	Calculation sheet for material strength	
E	Water-free treatment	
F	Oil-free treatment	
G	Gasket for plastic piping	
H	Special units for display	
J	Tropical treatment	
K	With Tag number plate on the converter housing and the terminal box *8	
L	with Tag number plate wired to the flowmeter	

Note)

**1 Flange of size 2.5 to 15 mm detector is 15 mm flange.*
**2 Must be selected when only converter or cable is ordered.*
**3 Available only for size 10 mm detector.*
**4 In case of ordering detector or cable, this code means none.*
**5 Must be selected when only detector or cable is ordered.*
**6 In case of ordering converter or cable, this code means none.*
**7 Must be selected when only converter or detector is ordered.*
**8 Must be selected if tagging is required.*

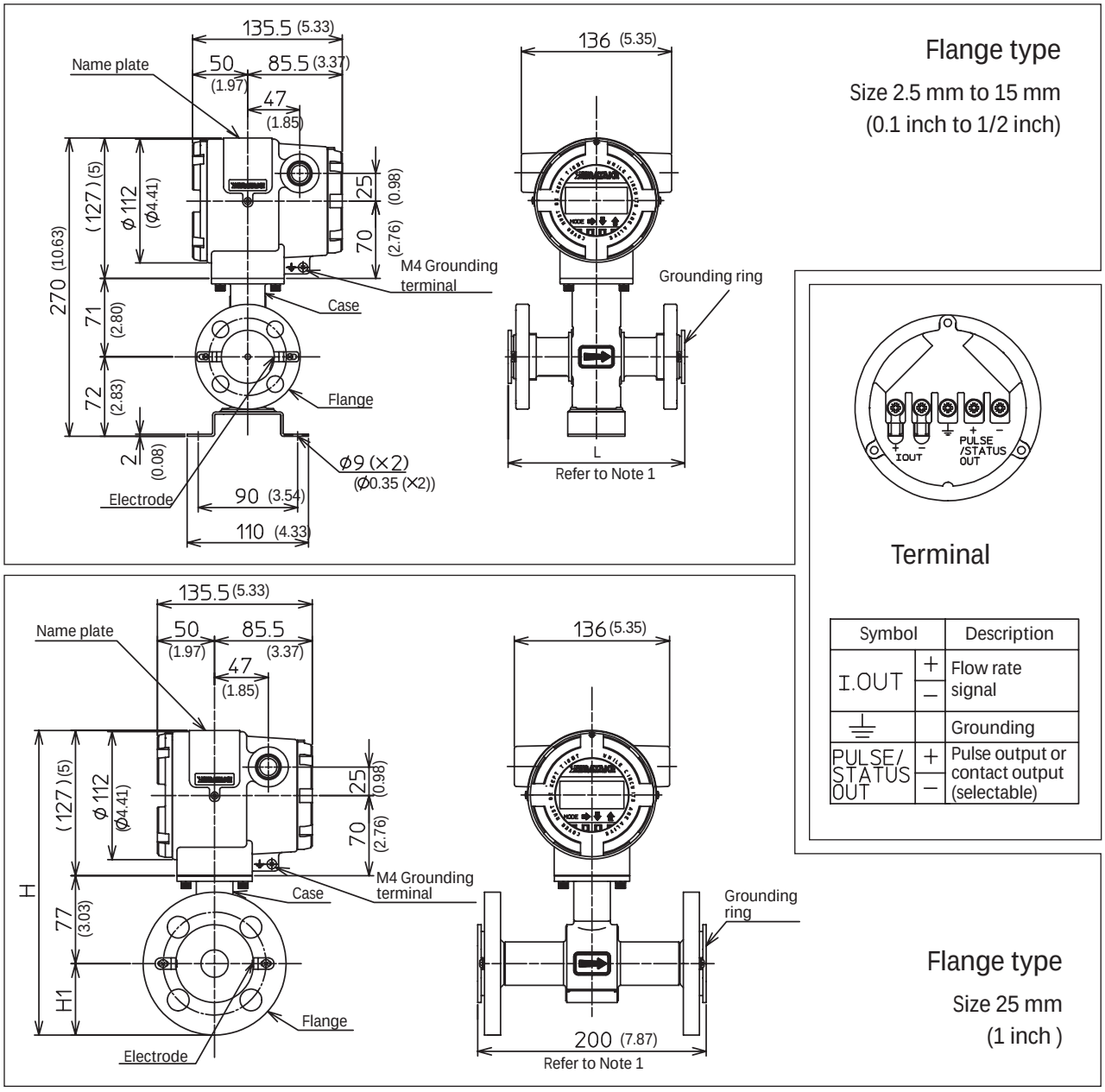
Wiring direction

A	B	C	D
			
Flow direction	Flow direction	Flow direction	Flow direction

DIMENSIONS

All dimensions are in millimeters, dimensions in brackets ( ) are in inches (inch).

Model MTG11A - Flange type size 2.5 mm (0.1 inch) to 15 mm (1/2 inch)
- Flange type size 25 mm (1 inch)

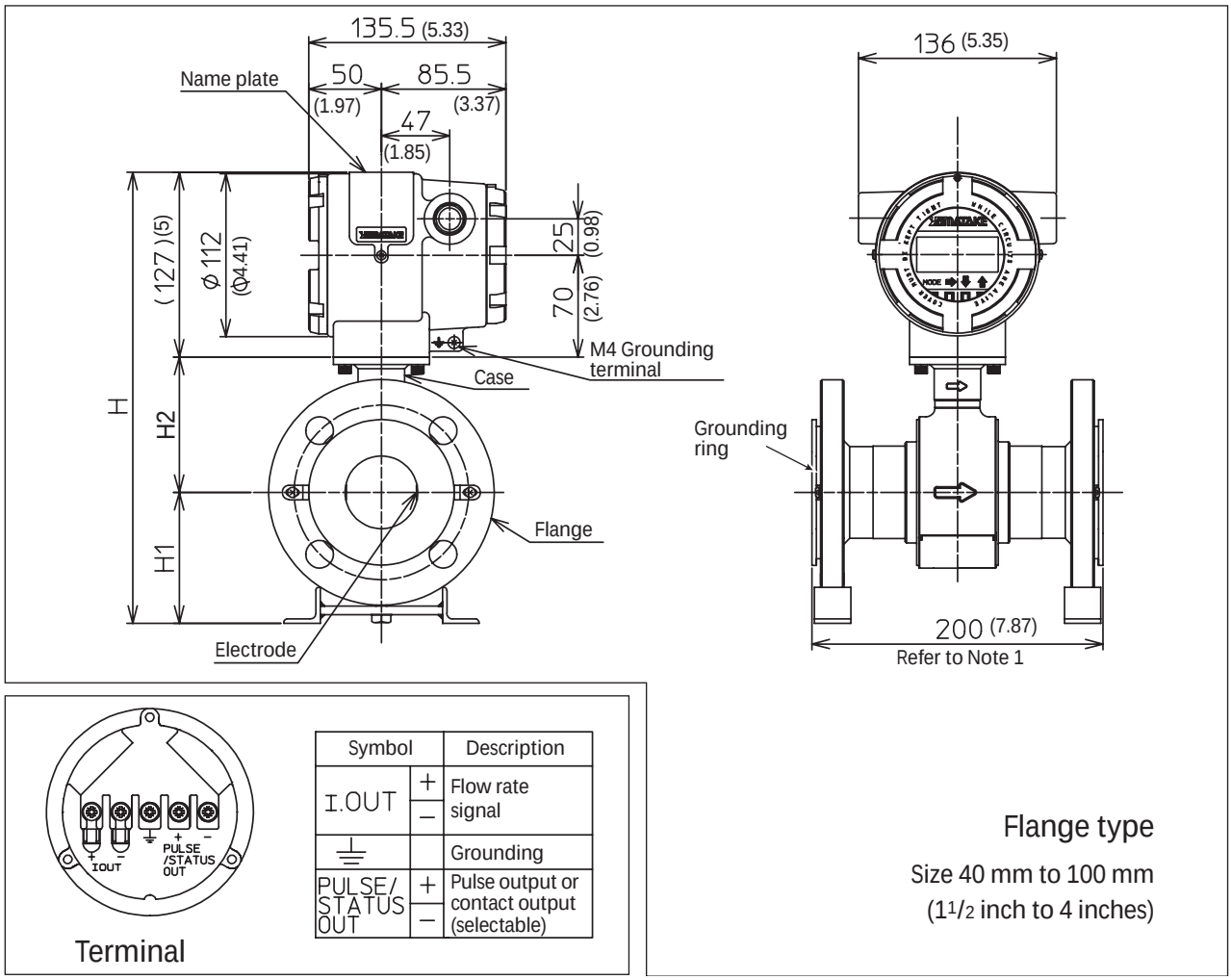


Note 1 • *When grounding ring material is SUS316, gasket dimension is not included to the face-to-face dimension.*
• *When grounding ring material is other than SUS316, a 3 mm of Teflon gasket dimension is included to the face-to-face dimension.*

Table 1

Size mm (inch)	Model no. / Flange rating		J1	J2	J3	J4	J5	A1	A2
			JIS					ANSI	
			10K	20K	30K	10K 10 mm flange	20K 10 mm flange	150	300
2.5 to 10 (0.1 to3/8)	Dimension	L	160	160	160	160	160	160 (6.3)	160 (6.3)
	Weight	(kg)	6.8	7	8	6.7	6.8	6.4 (14.1 lb)	6.9 (15.2 lb)
15 (1/2)	Dimension	L	200	200	200	200	200	200 (7.87)	200 (7.87)
	Weight	(kg)	7	7.2	8.2	6.9	7	6.6 (14.6 lb)	7.1 (15.7 lb)
25 (1)	Dimension	H	267	267	269	-	-	258 (10.16)	266 (10.47)
		H1	63	63	65	-	-	54 (2.13)	62 (2.44)
	Weight	(kg)	9.2	9.5	10.3	-	-	8.4 (18.5 lb)	9.5 (20.9 lb)

Model MTG11A - Flange type size 40 mm (1½ inch) to 100 mm (4 inches)

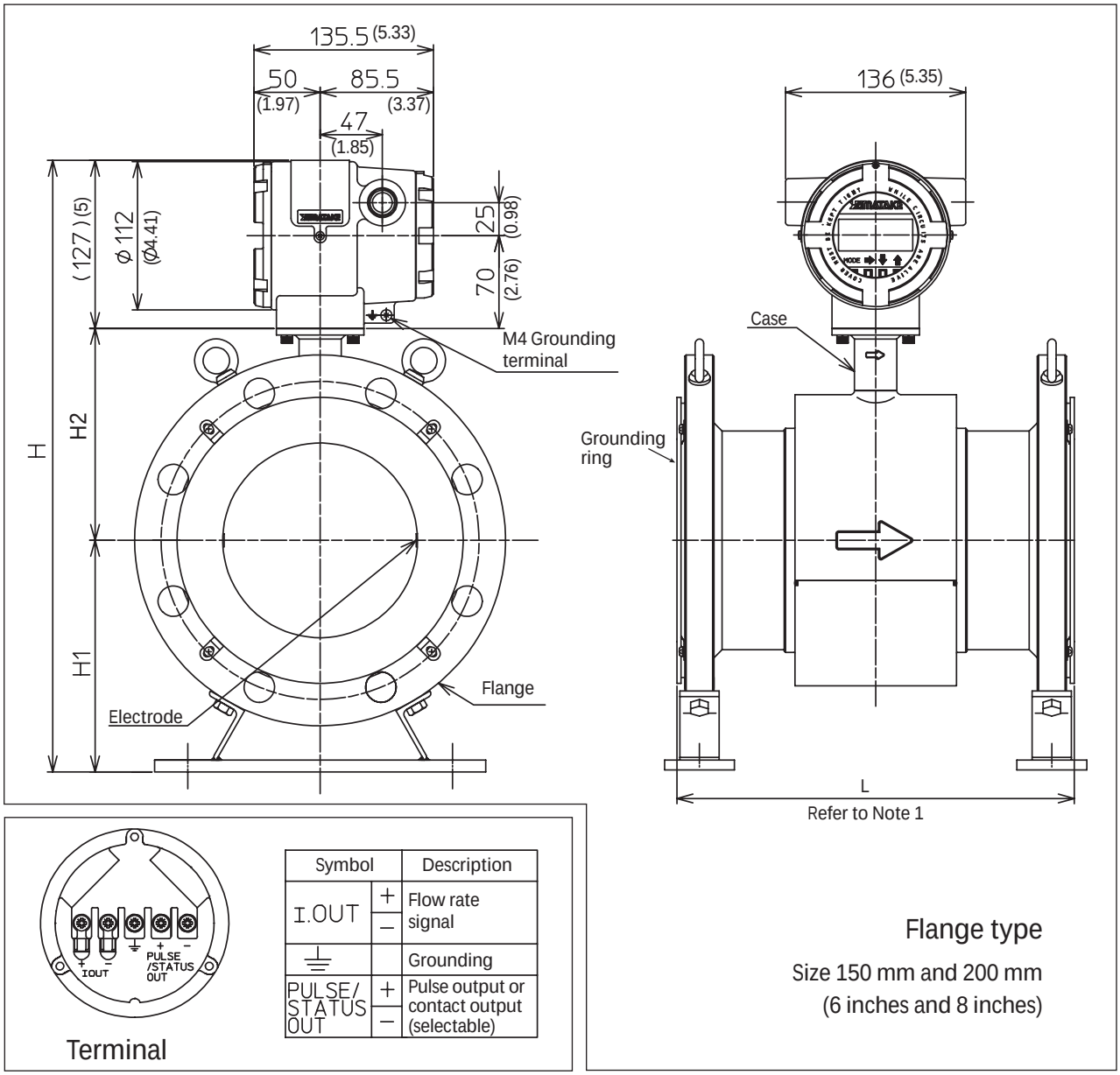


Note 1 • *When grounding ring material is SUS316, gasket dimension is not included to the face-to-face dimension.*
• *When grounding ring material is other than SUS316, a 3 mm of Teflon gasket dimension is included to the face-to-face dimension.*

Table 2

Size mm (inches)	Model no.		J1	J2	J3	A1	A2
	Flange rating		JIS			ANSI	
			10K	20K	30K	150	300
40 (1.5)	Dimension	H	296	296	307	288 (11.34)	305 (12.01)
		H1	85	85	96	77 (3.03)	94 (3.7)
		H2	84	84	84	84 (3.31)	84 (3.31)
	Weight	(kg)	8.3	8.6	11	7.8 (17.2 lb)	10.1 (22.3 lb)
50 (2)	Dimension	H	310	310	316	308 (12.13)	316 (12.44)
		H1	90	90	96	88 (3.46)	96 (3.78)
		H2	93	93	93	93 (3.66)	93 (3.66)
	Weight	(kg)	11.9	12	13.7	12.3 (27.1 lb)	13.8 (30.4 lb)
65 (2.5)	Dimension	H	329	329	343	330 (12.99)	388 (13.31)
		H1	102	102	116	103 (4.06)	111 (4.37)
		H2	100	100	100	100 (3.94)	100 (3.94)
	Weight	(kg)	13.9	14	15.7	14.3 (31.5 lb)	15.8 (34.8 lb)
80 (3)	Dimension	H	345	354	359	346 (13.62)	359 (14.13)
		H1	110	119	124	113 (4.45)	124 (4.88)
		H2	108	108	108	108 (4.25)	108 (4.25)
	Weight	(kg)	14.4	16.7	20.4	17.3 (38.1 lb)	21.3 (47.0 lb)
100 (4)	Dimension	H	367.5	376.5	384.5	378.5 (14.90)	392.5 (15.45)
		H1	120	129	137	131 (5.16)	145 (5.71)
		H2	120.5	120.5	120.5	120.5 (4.74)	120.5 (4.74)
	Weight	(kg)	20.2	23.7	28.6	25.1 (55.3 lb)	34.2 (75.4 lb)

Model MTG11A - Flange type size 150 mm (6 inches) and 200 mm (8 inches)

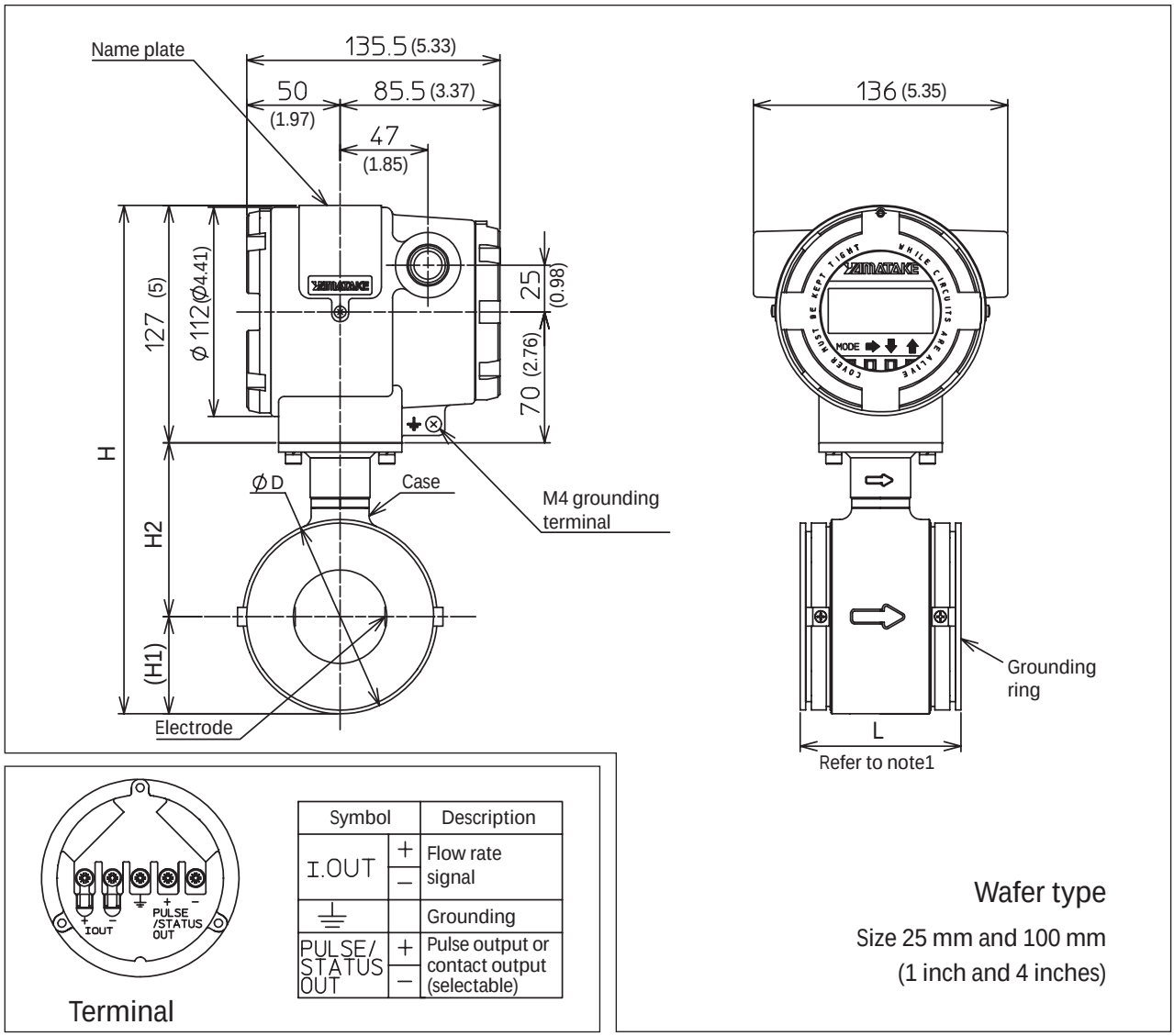


Note 1 • *When grounding ring material is SUS316, gasket dimension is not included to the face-to-face dimension.*
• *When grounding ring material is other than SUS316, a 3 mm of Teflon gasket dimension is included to the face-to-face dimension.*

Table 3

Size mm (inches)	Model no.		J1	J2	J3	A1	A2
	Flange rating		JIS			ANSI	
			10K	20K	30K	150	300
150 (6)	Dimension	L	300	300	300	300 (11.81)	300 (11.81)
		H	462	476	487	461 (18.15)	483 (19.02)
		H1	175	189	200	174 (6.85)	196 (7.72)
		H2	160	160	160	160 (6.3)	160 (6.3)
	Weight	(kg)	34.4	41.7	54.3	37.2 (82.0 lb)	56.2 (123.9 lb)
200 (8)	Dimension	L	350	350	350	350 (13.78)	350 (13.78)
		H	508	515	531	516 (20.31)	537 (21.14)
		H1	196	203	219	204 (8.03)	225 (8.86)
		H2	185	185	185	185 (7.28)	185 (7.28)
	Weight	(kg)	49.8	59.8	87	61.8 (136.2 lb)	90.8 (200.2 lb)

Model MTG11A - Wafer type size 25 mm (1 inch) to 100 mm (4 inches)

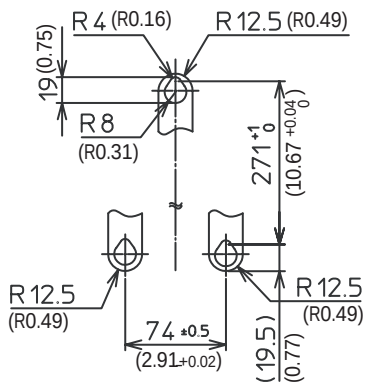


Note 1 • *When grounding ring material is SUS316, gasket dimension is not included to the face-to-face dimension.*
• *When grounding ring material is other than SUS316, a 3 mm of Teflon gasket dimension is included to the face-to-face dimension.*

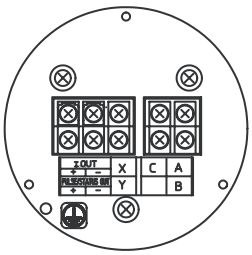
Table 4

Flange rating		25 mm (1 inch)	40 mm (1½ inch)		50 mm (2 inches)		65 mm (2½ inches)	80 mm (3 inches)		100 mm (4 inches)	
Face-to-face dimension code		A	A	S	A	S	A	A	S	A	S
Dimension size	L	94 (3.7)	80 (3.15)	98 (3.86)	86 (3.39)	104 (4.09)	96 (3.78)	106 (4.17)	130 (5.12)	120 (4.72)	150 (5.91)
	H	238 (9.37)	254.5 (10.02)		272 (10.71)		289 (11.38)	302 (11.89)		327 (12.87)	
	H1	34 (1.34)	43.5 (1.71)		52 (2.05)		62 (2.44)	67 (2.64)		79.5 (3.13)	
	H2	77 (3.03)	84 (3.31)		93 (3.66)		100 (3.94)	108 (4.25)		120.5 (4.74)	
	D	68 (2.68)	87 (3.43)		104 (4.09)		124 (4.88)	134 (5.28)		159 (6.26)	
Weight	kg (lb)	3.7 (8.2 lb)	3.8 (8.4 lb)	4.3 (9.5 lb)	4.4 (9.7 lb)	5.0 (11.0 lb)	5.5 (12.1 lb)	6.4 (14.1 lb)	7.1 (15.7 lb)	8.2 (18.1 lb)	9.2 (20.3 lb)

Model MTG11B - Converter



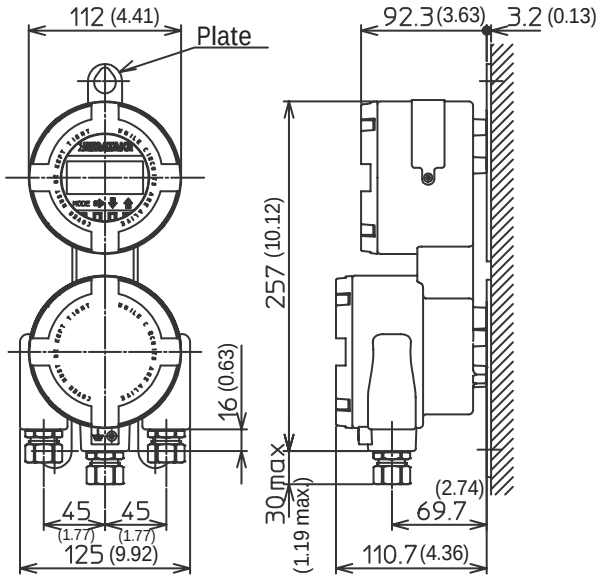
Wall mounting dimension



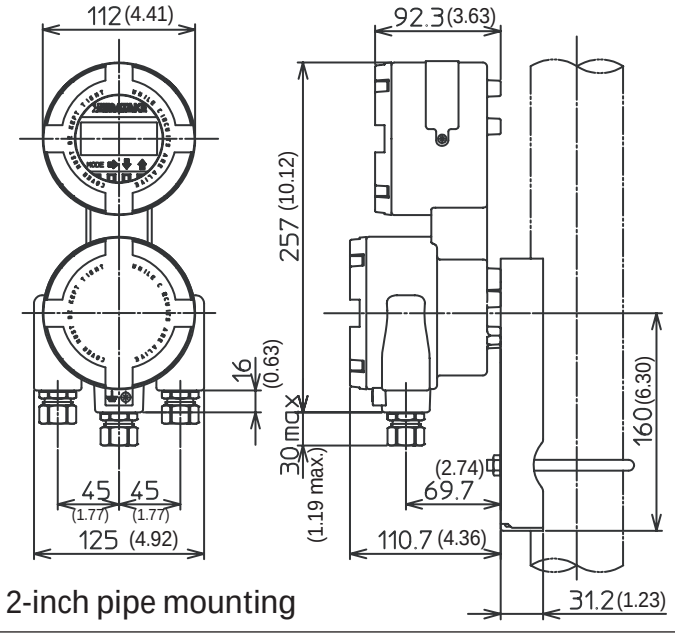
Terminal

Symbol		Description
I-OUT	+	Flow rate signal
	−	
⏚		Grounding
PULSE/ STATUS OUT	+	Pulse output or contact (selectable)
	−	
X		Excitation output
Y		
A		Flow rate signal input
B		
C		

* Terminal screw: M4

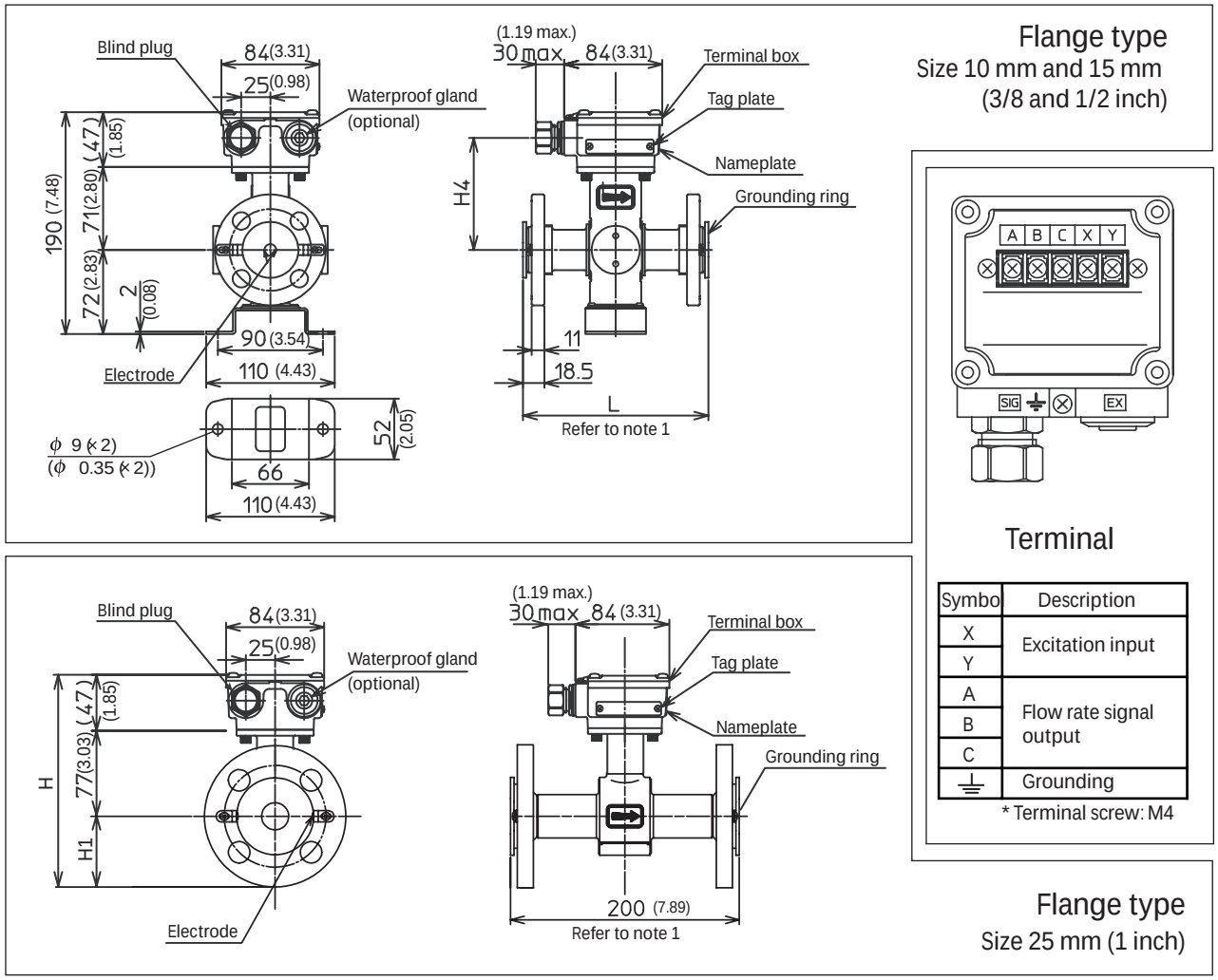


Wall mounting



2-inch pipe mounting

Model MTG11B - Detector - Flange type size 10 mm (3/8 inch) and 15 mm (1/2 inch)
- Flange type size 25 mm (1 inch)

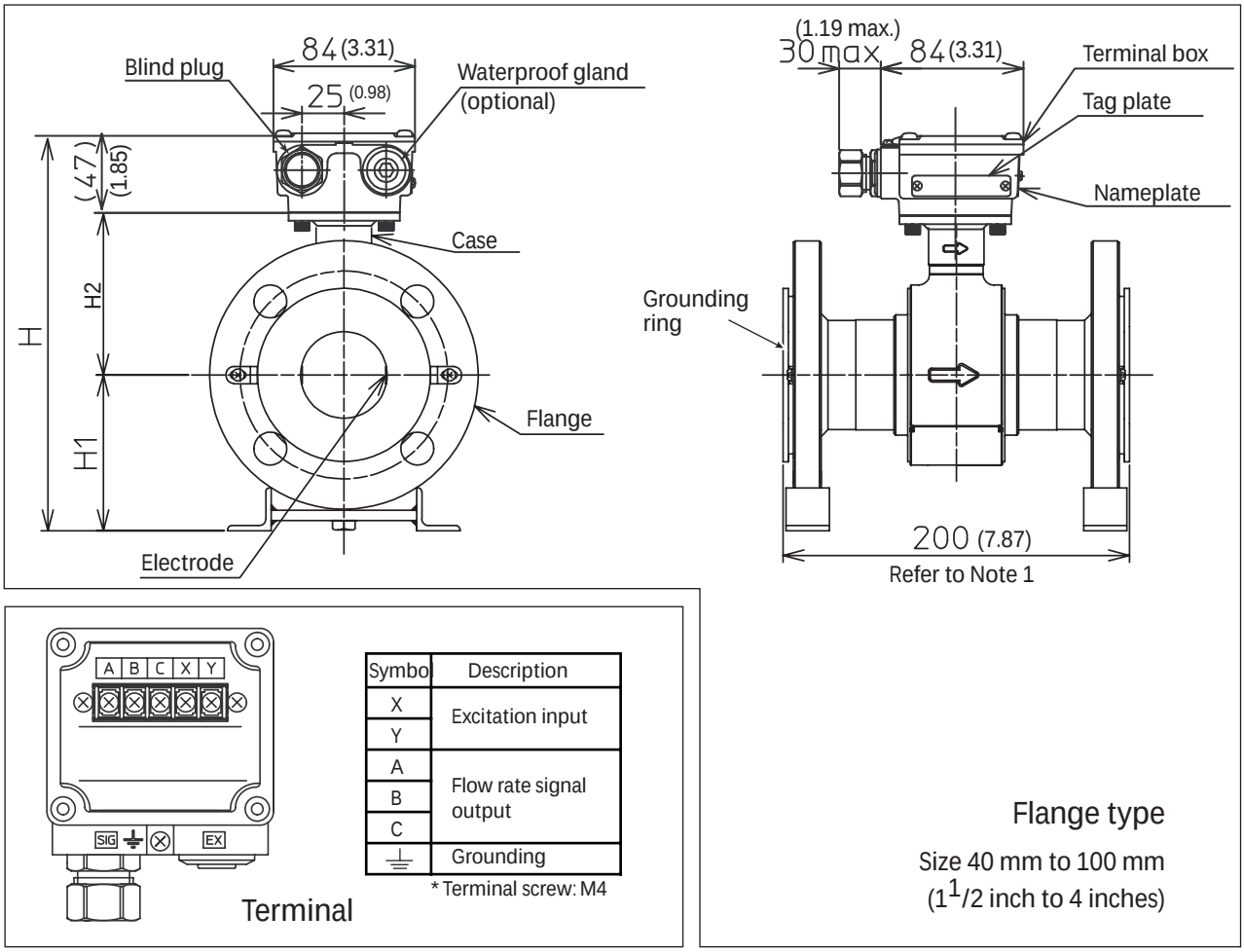


Note 1 • *When grounding ring material is SUS316, gasket dimension is not included to the face-to-face dimension.*
• *When grounding ring material is other than SUS316, a 3 mm of Teflon gasket dimension is included to the face-to-face dimension.*

Table 5

Size mm (inches)	Model no.		J1	J2	J3	J4	J5	A1	A2
	Flange rating		JIS					ANSI	
			10K	20K	30K	10K 10 mm flange	20K 10 mm flange	150	300
10 (3/8)	Dimension	L	160	160	160	160	160	160 (6.3)	160 (6.3)
	Weight	(kg)	5	5.2	6.2	4.9	5	4.6 (10.1 lb)	5.1 (11.2 lb)
15 (1/2)	Dimension	L	200	200	200	200	200	200 (7.87)	200 (7.87)
	Weight	(kg)	5.2	5.4	6.4	5.1	5.2	4.8 (10.6 lb)	5.3 (11.7 lb)
25 (1)	Dimension	H	187	187	189	-	-	188 (7.4)	186 (7.32)
		H1	63	63	65	-	-	54 (2.13)	62 (2.44)
	Weight	(kg)	7.4	7.7	8.5	-	-	6.6 (14.6 lb)	7.7 (17.0 lb)

Model MTG11B - Detector - Flange type size 40 mm (1½ inch) to 100 mm (4 inches)

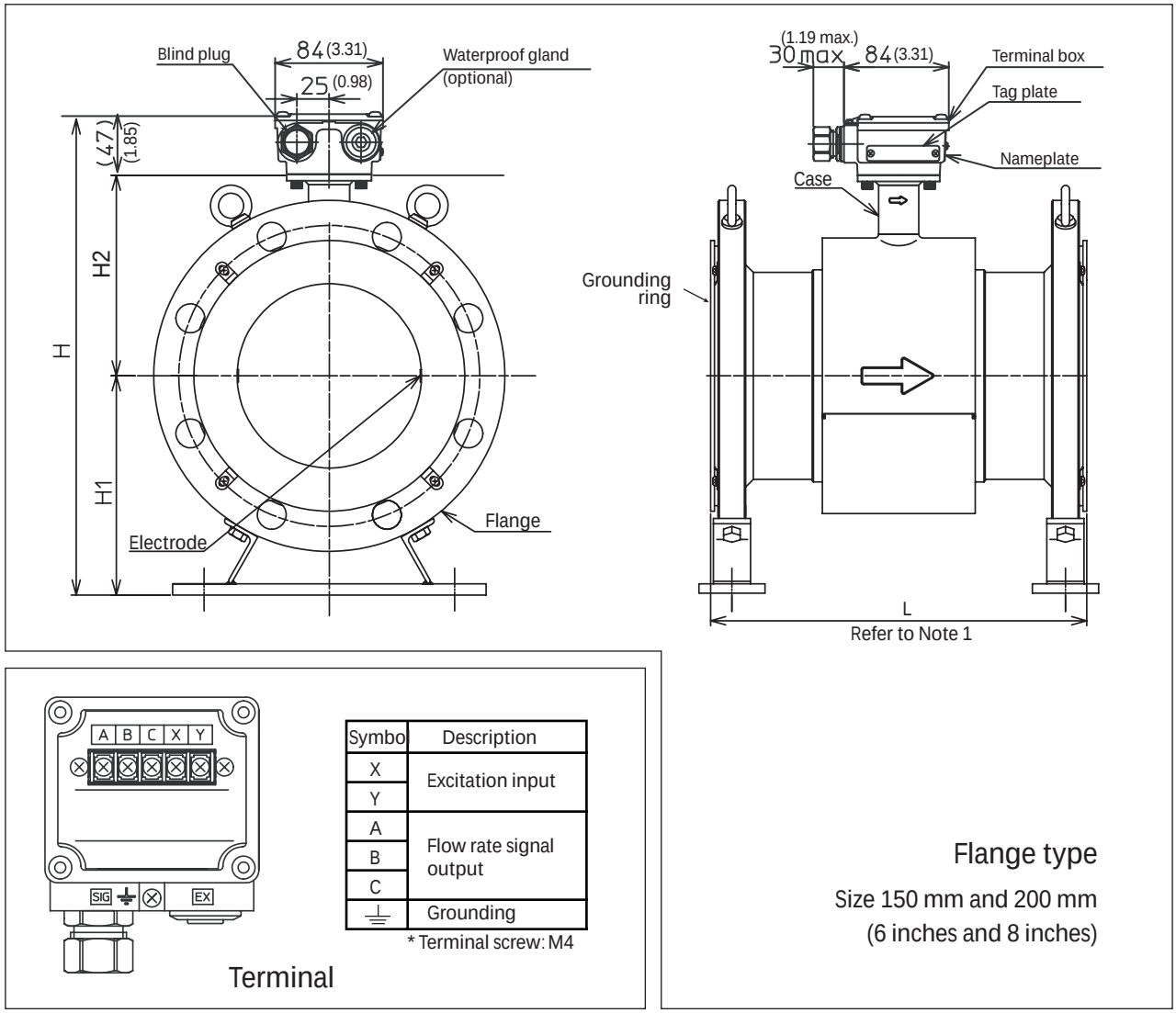


Note 1 • *When grounding ring material is SUS316, gasket dimension is not included to the face-to-face dimension.*
• *When grounding ring material is other than SUS316, a 3 mm of Teflon gasket dimension is included to the face-to-face dimension.*

Table 6

Size mm (inches)	Model no.		J1	J2	J3	A1	A2
	Flange rating		JIS			ANSI	
			10K	20K	30K	150	300
40 (1.5)	Dimension	H	216	216	227	208 (8.19)	225 (8.86)
		H1	85	85	96	77 (3.03)	94 (3.7)
		H2	84	84	84	84 (3.31)	84 (3.31)
	Weight	(kg)	6.5	6.8	9.2	6 (13.2 lb)	8.3 (18.3 lb)
50 (2)	Dimension	H	230	230	236	228 (8.98)	236 (9.29)
		H1	90	90	96	88 (3.46)	96 (3.78)
		H2	93	93	93	93 (3.66)	93 (3.66)
	Weight	(kg)	10.1	10.2	11.9	10.5 (23.1 lb)	12 (26.5 lb)
65 (2.5)	Dimension	H	249	249	263	250 (9.84)	258 (10.16)
		H1	102	102	116	103 (4.06)	111 (4.37)
		H2	100	100	100	100 (3.94)	100 (3.94)
	Weight	(kg)	12.1	12.2	13.9	12.5 (27.6 lb)	14 (30.9 lb)
80 (3)	Dimension	H	265	274	279	266 (10.47)	279 (10.98)
		H1	110	119	124	113 (4.45)	124 (4.88)
		H2	108	108	108	108 (4.25)	108 (4.25)
	Weight	(kg)	16.6	14.9	18.6	15.5 (34.2 lb)	19.5 (43.0 lb)
100 (4)	Dimension	H	287.5	296.5	304.5	298.5 (11.75)	312.5 (12.30)
		H1	120	129	137	131 (5.16)	145 (5.71)
		H2	120.5	120.5	120.5	120.5 (4.74)	120.5 (4.74)
	Weight	(kg)	18.4	21.9	26.8	23.3 (51.4 lb)	32.4 (71.4 lb)

Model MTG11B - Detector - Flange type size 150 mm (6 inches) and 200 mm (8 inches)

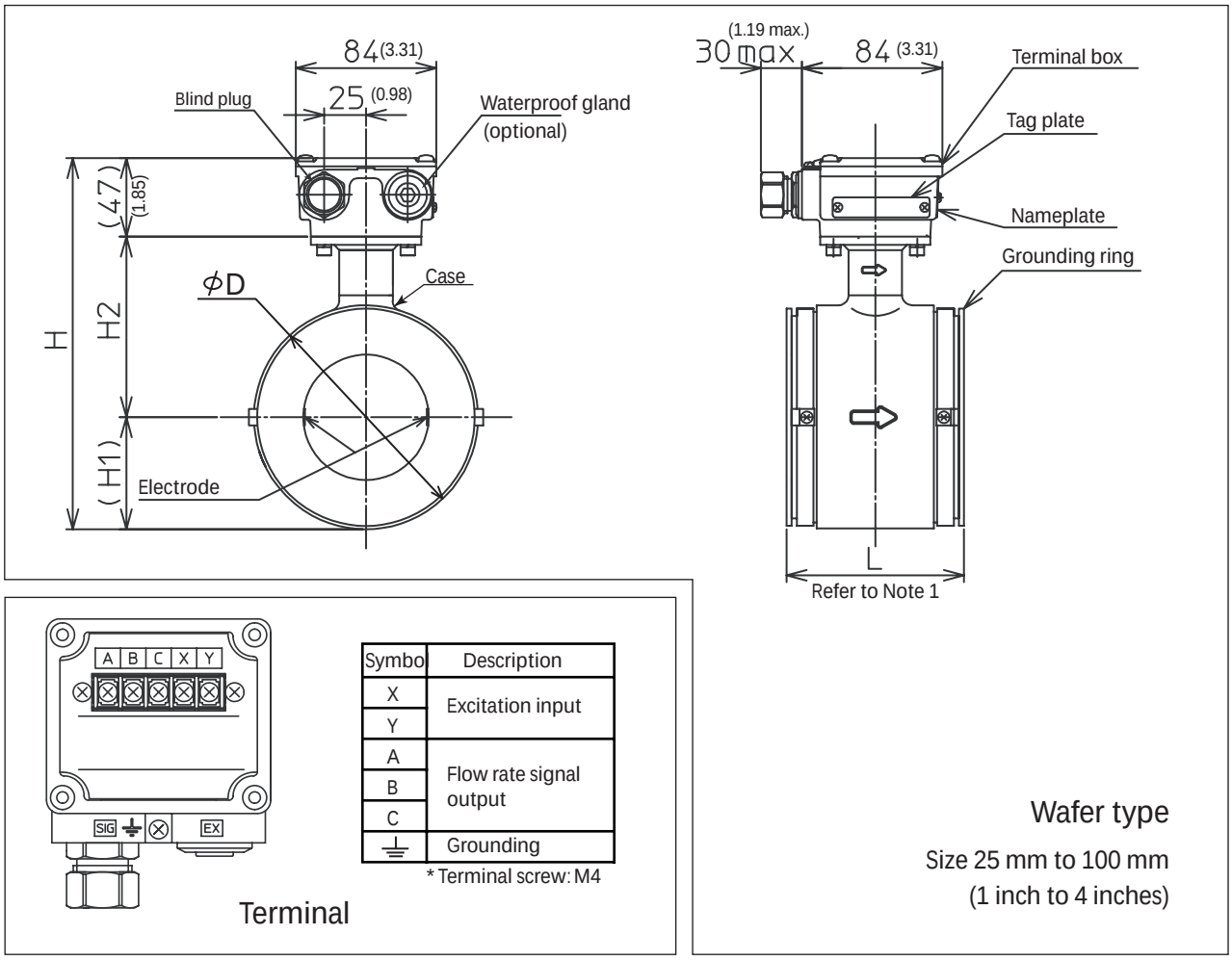


Note 1 • *When grounding ring material is SUS316, gasket dimension is not included to the face-to-face dimension.*
• *When grounding ring material is other than SUS316, a 3 mm of Teflon gasket dimension is included to the face-to-face dimension.*

Table 7

Size mm (inches)	Model no.		J1	J2	J3	A1	A2
	Flange rating		JIS			ANSI	
			10K	20K	30K	150	300
150 (6)	Dimension	L	300	300	300	300 (11.81)	300 (11.81)
		H	382	396	407	381 (15)	403 (15.87)
		H1	175	189	200	174 (6.85)	196 (7.72)
		H2	160	160	160	160 (6.3)	160 (6.3)
	Weight	(kg)	32.6	39.9	52.5	35.4 (78 lb)	54.4 (119.9 lb)
200 (8)	Dimension	L	350	350	350	350 (13.78)	350 (13.78)
		H	428	435	451	436 (17.17)	457 (17.99)
		H1	196	203	219	204 (8.03)	225 (8.86)
		H2	185	185	185	185 (7.28)	185(7.28)
	Weight	(kg)	48	58	85.2	60 (132.3 lb)	89 (196.2 lb)

Model MTG11B - Detector - Wafer type size 25 mm (1 inch) to 100 mm (4 inches)



Note 1 • *When grounding ring material is SUS316, gasket dimension is not included to the face-to-face dimension.*
• *When grounding ring material is other than SUS316, a 3 mm of Teflon gasket dimension is included to the face-to-face dimension.*

Table 8

Flange rating		25 mm (1 inch)	40 mm (1½ inch)		50 mm (2 inches)		65 mm (2½ inches)	80 mm (3 inches)		100 mm (4 inches)	
Face-to-face dimension code		A	A	S	A	S	A	A	S	A	S
Dimension size	L	94 (3.7)	80 (3.15)	98 (3.86)	86 (3.39)	104 (4.09)	96 (3.78)	106 (4.17)	130 (5.12)	120 (4.72)	150 (5.91)
	H	158 (6.22)	174.5 (6.87)		192 (7.56)		209 (8.23)	222 (8.74)		247 (9.72)	
	H1	34 (1.34)	43.5 (1.71)		52 (2.05)		62 (2.44)	67 (2.64)		79.5 (3.13)	
	H2	77 (3.03)	84 (3.31)		93 (3.66)		100 (3.94)	108 (4.25)		120.5 (4.74)	
	D	68 (2.68)	87 (3.43)		104 (4.09)		124 (4.88)	134 (5.28)		159 (6.26)	
Weight	kg (lb)	2 (4.4 lb)	2 (4.4 lb)	2.5 (5.5 lb)	2.6 (5.7 lb)	3.2 (7.1 lb)	3.7 (8.2 lb)	4.6 (10.1 lb)	5.3 (11.7 lb)	6.4 (14.1 lb)	7.4 (16.3 lb)

azbil

Yamatake Corporation
Advanced Automation Company

1-1-32 New Stage Yokohama, Shin-urashima-cho,
Kanagawa-ku, Yokohama, Kanagawa-ken 221-0031, Japan

URL:http://www.azbil.com