

OMEGA WATER METERS

FLANGED WOLTMAN WATER METERS
DN50 - DN500 COLD WATER METERS
DN50 - DN200 HOT WATER METERS



Cold Water Model (standard)



Hot Water Model (optional)

ACCORDING TO

- ✓ ISO 4064 Class B Standard

FEATURES

The OMEGA series water meter range is a heavy duty water meter used to measure the volume of water passing through pipelines in, water supply, industrial and irrigation markets. Due to its hermetically sealed register and magnetic drive transmission, this meter is well known for its long life as only its impeller and transmission shaft are in contact with the water.

- High quality fusion bonded epoxy coated
- Fitted as standard with reed switch pulse output. The reed switch can be read by external equipment that can receive pulse outputs (not supplied with meter).
- Removable and interchangeable measuring element
- Meets or exceeds international standard ISO4064 class B
- Low pressure loss even at high flow rates
- Magnetic transmission allows register to keep completely dry

OPTIONS

- Hot water model (maximum 90°C).
- Optional flange connections.
- Other pulse output options:
 - DN40-DN125 1 Pulse per 1,000 Litres
 - DN150-DN200 1 Pulse per 10,000 Litres
 - DN250-DN500 1 Pulse per 100,000 Litres

TECHNICAL DATA

Size Range:	DN50 - DN500 (Cold Water Models) DN50 - DN200 (Hot Water Models)
Pressure Class:	PN16
Maximum Temperature Rating:	40°C Cold Water Model (standard) 90°C Hot Water Model (optional)
Connection to suit:	AS2129 Table E (standard) AS4087 Class 16 (optional) AS2129 Table D (optional)
Maximum Permissible Error:	Lower Zone (Qmin to Qt) • Cold Meters ±5% • Hot Meters ±5% Upper Zone (Qt to Qs) • Cold Meters ±2% • Hot Meters ±3%
Standard Pulse Outputs:	DN40-DN125 1 Pulse per 100 Litres DN150-DN200 1 Pulse per 1,000 Litres DN250-DN500 1 Pulse per 10,000 Litres

INSTALLATION

- The OMEGA series water meter range must be installed with the register facing upwards and with the direction of the flow matching the flow arrow that is cast onto the body of the meter.
- The meter must have a minimum of 10 diameters straight pipe before the meter (i.e. DN50 must have 500mm straight pipe before the meter).
- The meter must have a minimum of 5 diameters straight pipe after the meter (i.e. DN50 must have 250mm straight pipe after the meter).
- Meters are designed for clean water use. Pipeline must be flushed clean before installation of the meter. To prevent damage to meter it is highly recommended to install a strainer before the straight pipework to prevent any foreign matter damaging the internals of the meter.
- Meters are designed on the assumption that the pipe is constantly full of water, anything other than full will cause errors.

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Reed Switch Assembly

• The reed switch pulser consists of a plastic housing with a reed switch to read the total consumption of water.

• Pulser wiring: cable.

① 2 core, 1.5mm long, 3.5mm diameter.

② Red-black: pulse team.

Reed switch: single.

Electric data:

V_{max} : 24AV/DC,

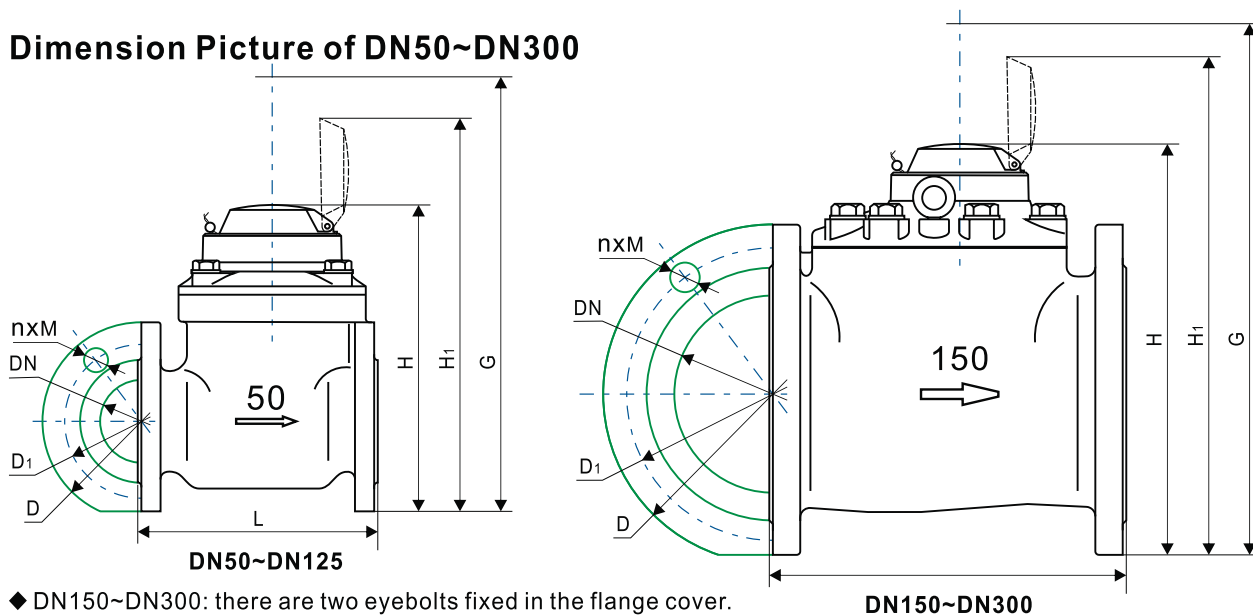
I_{max} : 0.01A.

Dimensions and Weights for pressure rating PN16

Nominal Diameter	DN	50	65	80	100	125	150	200	250	300	400	500	
Length	mm	L	310	200	225	250	250	300	350	450	500	600	800
Height	mm	H	256	266	276	286	299	345.5	375.5	494	521	638.5	762.5
Working Height	mm	H1	328	338	348	358	371	417.5	447.5	566	593	710.5	834.5
Height	mm	G	400	400	400	400	400	500	500	730	730	830	931
Outside Diameter	mm	D	165	185	200	220	250	285	340	405	460	580	715
Circle Diameter	mm	D1	114	127	146	178	210	235	292	356	406	521	641
Connecting Bolt Quantity	nxM		4xM18			8xM18		8xM22		12xM22	12xM26	16xM28	20xM28
Meter Weight	Kg		12	13	16	18	20	42	64	94	114	199	340

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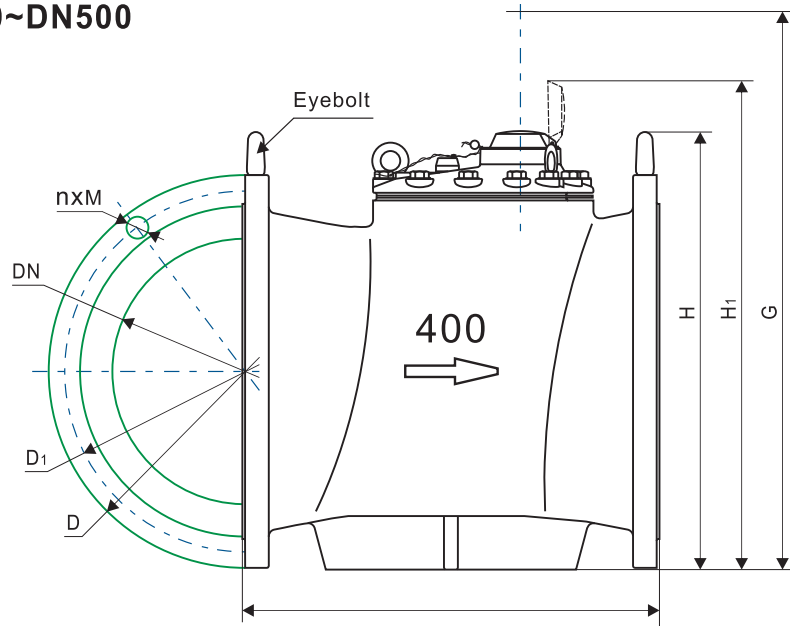
Dimension Picture of DN50~DN300



- ◆ DN150~DN300: there are two eyebolts fixed in the flange cover.
- ◆ Nominal diameter and arrow are indicated on the both sides of the meter body.
- ◆ The height "G" is necessary for removing the measuring element.
- ◆ The lid can open 180°.

Dimension Picture of DN400~DN500

- ◆ There are two eyebolts fixed in the flange cover and two eyebolts fixed in the flange ends of the meter body.
- ◆ Nominal diameter and arrow are indicated on the both sides of the meter body.
- ◆ The height "G" is necessary for removing the measuring element.
- ◆ The lid can open 180°.



Description of the Register

Nominal diameter	DN50/65/80/100/125	DN150/200	DN250/300/400/500
Number of black numbered roller	6	6	6
Number of red numbered roller	0	0	0
Number of black pointer	0	1	2
Number of red pointer	2	1	0
Maximum reading	m ³ 999999.99	9999999.9	99999999
Minimum reading	m ³ 0.01	0.1	1
Minimum graduation	L 1	10	100

Main Technical Data

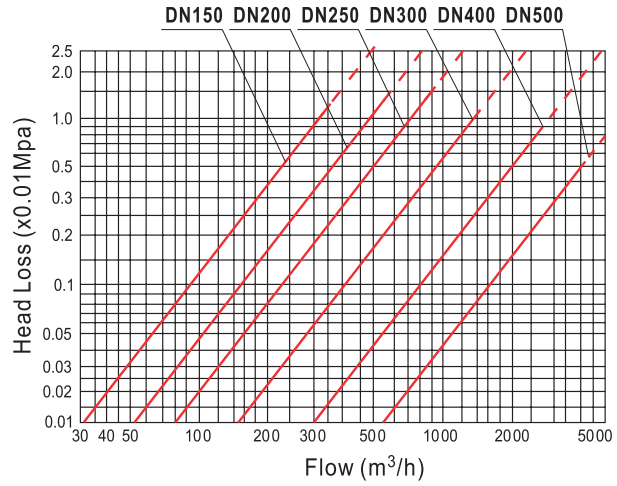
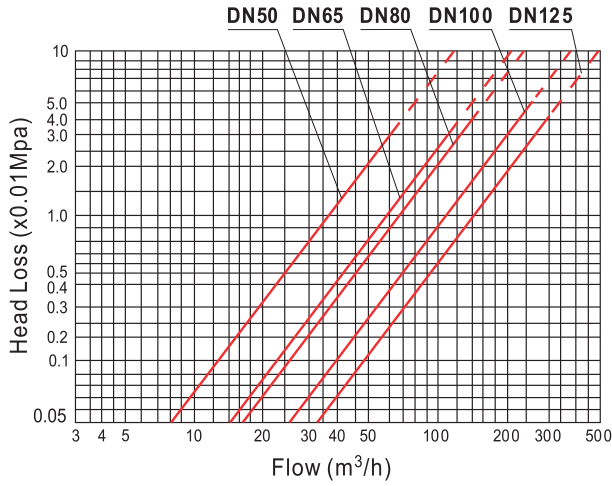
Nominal diameter	DN	50	65	80	100	125	150	200	250	300	400	500
Maximum flow rate	m ³ /h Qmax	30	50	80	120	200	300	500	800	1200	2000	3000
Nominal flow rate	m ³ /h Qn	15	25	40	60	100	150	250	400	600	1000	1500
Transition flow rate	m ³ /h Qt	3.0	5.0	8.0	12	20	30	50	80	120	200	300
Minimum flow rate	m ³ /h Qmin	0.45	0.75	1.2	1.8	3.0	4.5	7.5	12	18	30	45

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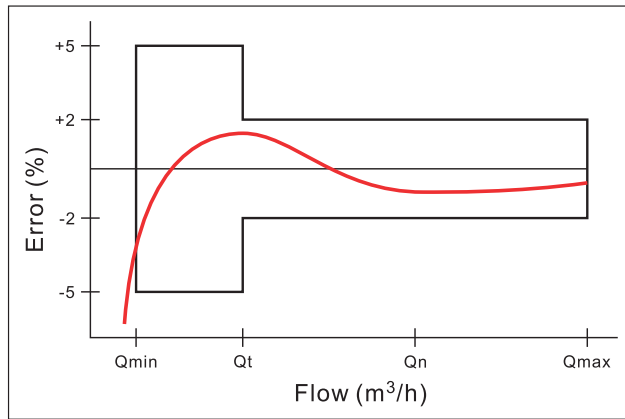
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Head Loss Curve

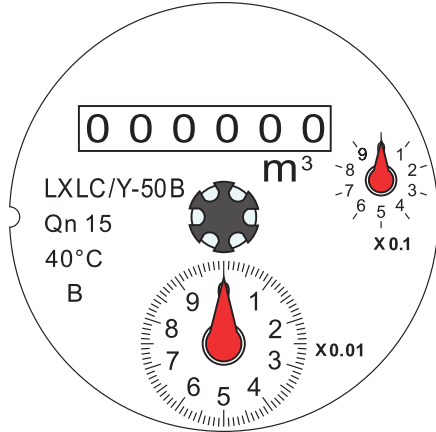


Accuracy Curve

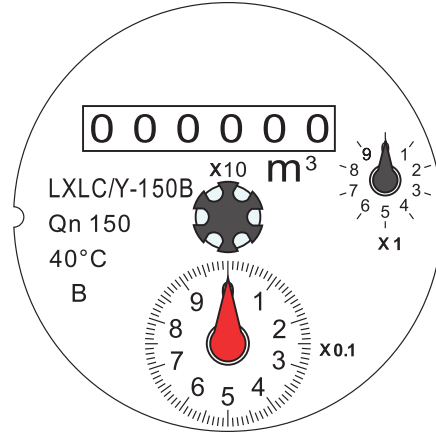


Dial(With Single Reed Switch)

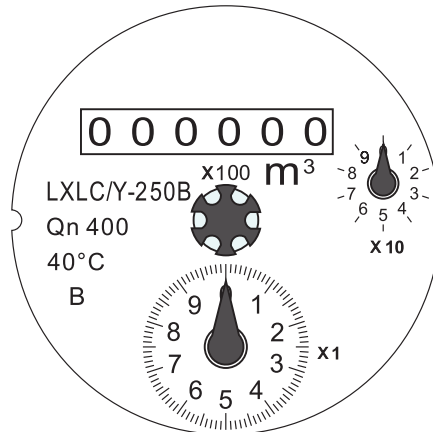
◆ OMEGA-050 to OMEGA-125



◆ OMEGA-150 to OMEGA-200



◆ OMEGA-250 to OMEGA-300



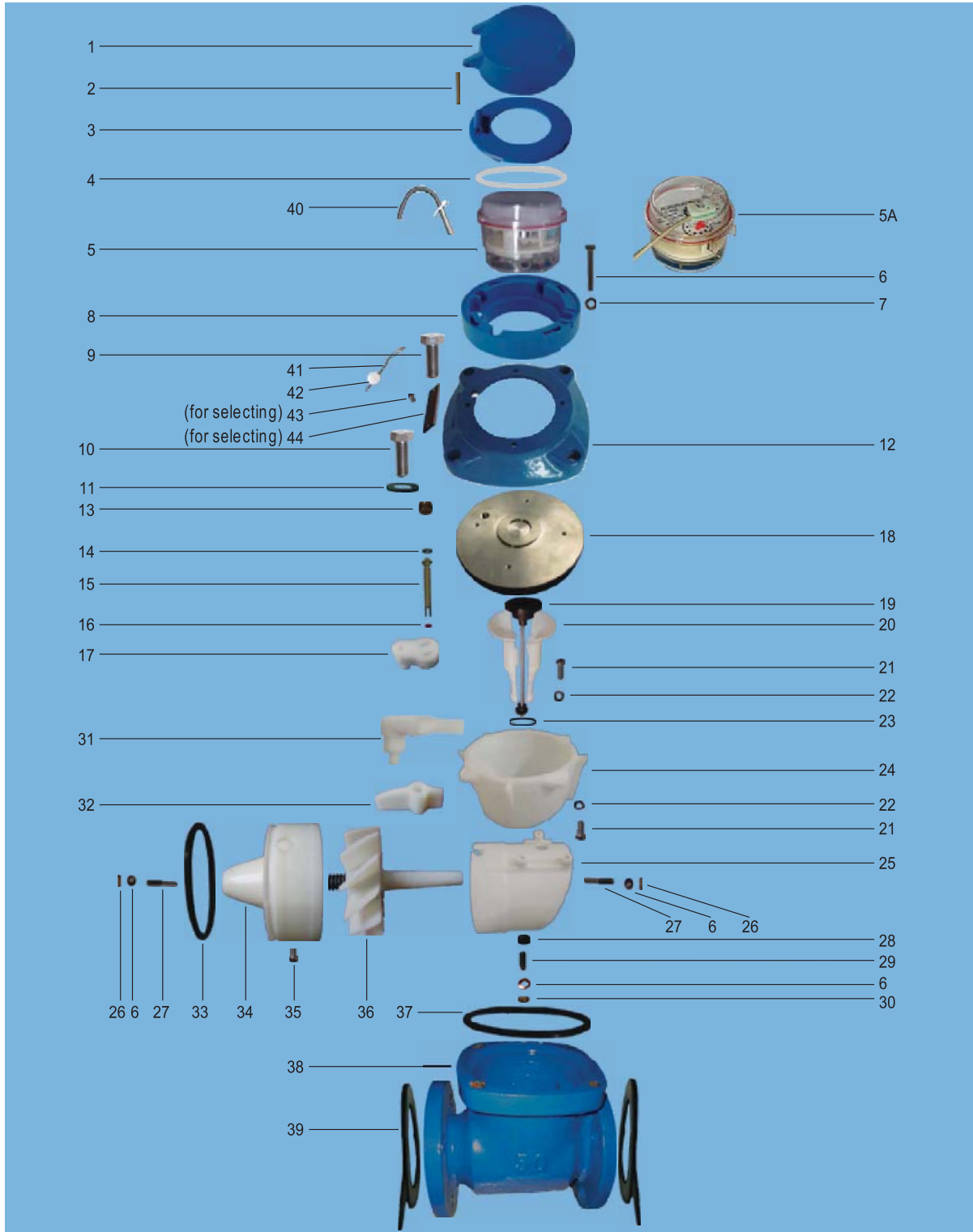
- ◆ Qn 15/Qn 150/Qn 400: nominal flow rate.
- ◆ 40°C: maximum water temperature.
- ◆ B: technical data conforms to the requirements of ISO 4064 Class B Standard.
- ◆ Scale 1:1

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Exploded View of OMEGA-050 to OMEGA-125



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Parts List of OMEGA-050 to OMEGA-125

No.	Name	Qty
1	Lid	1
2	Hinge pin	1
3	Retaining ring	1
4	Gasket	1
5	Register	1
5A	Register(with dual switch option)	1
6	Screw	4
7	Washer	7
8	Upper ring	1
9	Bolt with seal hole	1
10	Bolt	3
11	Washer	4
12	Flange cover	1
13	Regulating bolt	1
14	Gasket	1
15	Regulating shaft	1
16	O-ring	1
17	Catch	1
18	Seal plate	1
19	Transmission shaft assembly	1
20	Half shaft tube	2
21	Screw	7
22	Washer	7

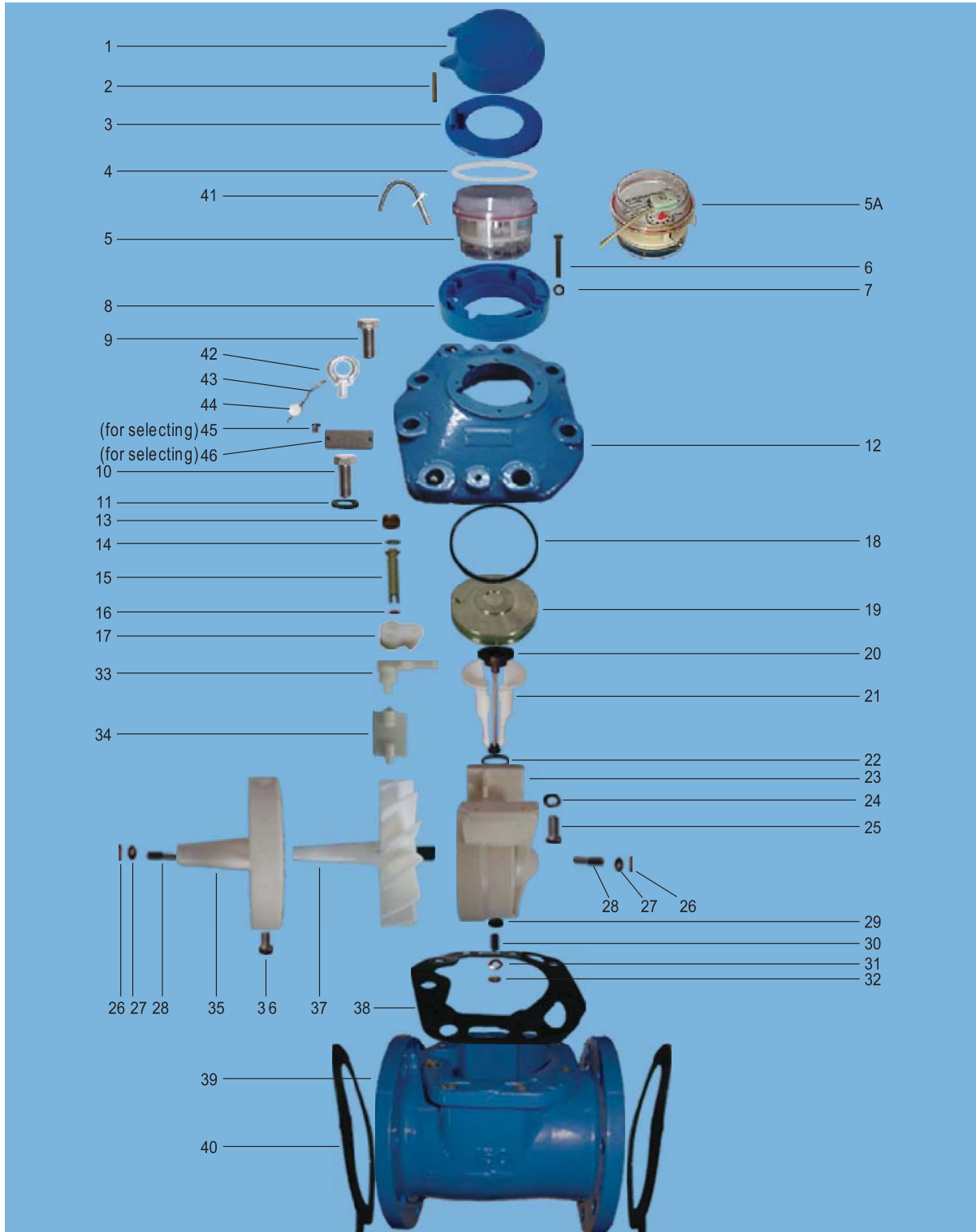
No.	Name	Qty
23	O-ring	1
24	Upper support	1
25	Lower support	1
26	Nut	2
27	Pivot	2
28	Shaft tube	1
29	Bearing	1
30	Nut	1
31	Regulating lever	1
32	Regulating vane	1
33	O-ring	1
34	Rectifier	1
35	Screw	1
36	Turbine assembly	1
37	Gasket	1
38	Body	1
39	Gasket	2
40	Copper wire	1
41	Reed switch assembly(with single reed switch)	1
42	Seal lead	1
43	Rivet(for selecting)	2
44	Label(for selecting)	1

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Exploded View of OMEGA-150 to OMEGA-200



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Parts List of OMEGA-150 to OMEGA-200

No.	Name	Qty
1	Lid	1
2	Hinge pin	1
3	Retaining ring	1
4	Gasket	1
5	Register	1
5A	Register(with dual switch option)	1
6	Screw	4
7	Washer	4
8	Upper ring	1
9	Bolt with seal hole	1
10	Bolt	7
11	Washer	8
12	Flange cover	1
13	Regulating bolt	1
14	Gasket	1
15	Regulating shaft	1
16	O-ring	1
17	Catch	1
18	O-ring	1
19	Seal plate	1
20	Transmission shaft assembly	1
21	Half shaft tube	2
22	O-ring	1

No.	Name	Qty
23	Support	1
24	Washer	4
25	Screw	4
26	Nut	2
27	Washer	2
28	Pivot	2
29	Shaft tube	1
30	Bearing	1
31	Washer	1
32	Nut	1
33	Regulating lever	1
34	Regulating vane	1
35	Rectifier	1
36	Screw	1
37	Turbine assembly	1
38	Gasket	1
39	Body	1
40	Gasket	2
41	Reed switch assembly(with single reed switch)	1
42	Eyebolt	2
43	Copper wire	1
44	Seal lead	1
45	Rivet(for selecting)	2
46	Label(for selecting)	1