RKL-10 Electromagnetic Flowmeter



Overview

The RKL-10 electromagnetic flow meter operates based on Faraday's law of induction, delivering measurement results unaffected by variations in fluid density, viscosity, temperature, pressure, or conductivity, ensuring high linearity. It covers a full range of bore sizes from DN6 to DN2000, featuring an unobstructed flow path with zero pressure loss and compatibility diverse types of liner and electrode materials. Utilizing programmable low-frequency rectangular-wave excitation, it offers enhanced stability and reduced power consumption. A 16-bit microcontroller implements full digital signal processing, providing strong anti-interference capability and a wide turndown ratio of up to 1500:1. Equipped with a backlit HD LCD and supporting RS485/RS232 digital communication, it comes with intelligent empty pipe detection and electrode contamination diagnostics. Manufactured using SMT for high reliability, it is well-suited for measuring and controlling the volume flow of conductive liquids across industries including chemical processing, petroleum, metallurgy, water treatment, and food and pharmaceutical production.

Features

- No moving parts, maintenance free
- Multiple pipeline diameters to choose from
- Suitable for multiple media
- Strong anti-interference ability
- Optional split type
- Built in air traffic control detection and electrode resistance monitoring function

Applications

- Chemical processing
- Petroleum metallurgy,
- Water treatment,
- Food & pharmaceutical production
- Liquid cooling

Technical Parameter

Item	Technical Specification
Maximum flow velocity	15 m/s
Nominal diameter (DN)	3,6,10,15,20,25,32,40,50,65,80,100,150,200,250,300,350,400,450,500,600, 700,800,900,1000,1200,1400,1600,1800,2000,2200,2400,2600,3000
Accuracy level	±0.5%, ± 1.0%, ±1.5%
Rated pressure	DN3–300: 1.6 MPa DN350–1000: 1.0 MPa DN1200–2000: 0.6 MPa DN2200–3000: 0.2 MPa
Electrode form	Standard, Scraper-type, Insertion-type, Grounding Electrode
Electrode material	316L stainless steel, HC,HB, Titanium, Tantalum, Tungsten Carbide, platinum/iridium alloy
Flange material	Carbon steel
Grounding ring material	304,316L,HC,HB, Titanium, Tantalum

Technical Parameter

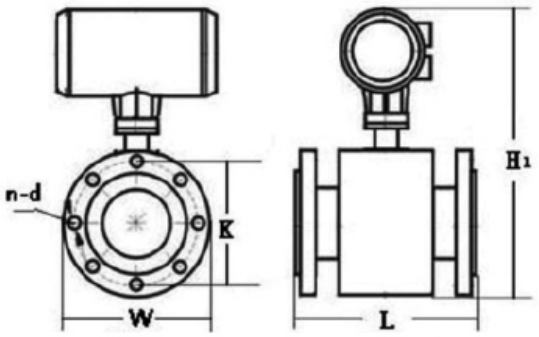
Item	Technical Specification
Inlet protection ring material	Carbon steel, stainless steel
Ingress protection	IP65 (integrated, split type host) IP68 (split type sensor)
Explosion-proof standard	Integrated: explosion-proof type, intrinsic safety type Split type: explosion-proof box can be separately installed
Connecting cable	The split type flowmeter requires a dedicated connecting cable with a length of ≤ 100 meters; Standard 10 meters
power supply	AC: 85–250V,50/60Hz DC: 20-36V
Operation and display	4-button keypad, High-resolution backlit LCD, Self-diagnostic function
Output signal	4-20mA, 0-5kHz frequency/pulse RS485

Dimension

Nominal Diameter (DN)	L	H1 / H2 (Ref.)	W	K	n-d	kg (Ref.)
15	200	275/240	95	65	14-4	9
20	200	285/250	105	75	14-4	9.5
25	200	295/260	115	85	14-4	10
32	200	315/280	135	100	18-4	11
40	200	325/290	145	110	18-4	12
50	200	340/305	160	125	18-4	14
65	250	360/325	180	145	18-4	15
80	250	375/340	195	160	18-8	16
100	250	395/360	215	180	18-8	19
125	250	425/390	245	210	18-8	23
150	300	460/425	280	240	23-8	27
200	350	515/480	335	295	23-12	45
250	450	585/550	405	355	25-12	67
300	500	640/605	460	410	25-12	77
350	550	680/645	500	460	23-16	92
400	600	745/710	656	515	25-16	104
450	600	795/760	615	565	25-20	120
500	600	850/815	670	620	25-20	135

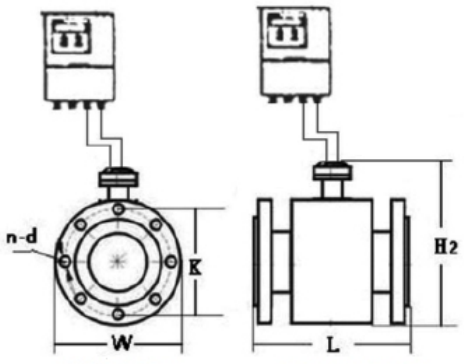
Dimension

Nominal Diameter (DN)	L	H1 / H2 (Ref.)	W	K	n-d	kg (Ref.)
600	600	960/925	780	725	30-20	150
700	700	1075/1040	895	840	30-24	220
800	800	1190/1150	1010	950	34-24	280
900	900	1290/1255	1110	1050	34-28	310
1000	1000	1400/1365	1220	1160	34-28	360
1200	1200	1585/1550	1405	1340	33-32	550
1400	1400	1810/1775	1630	1560	36-36	700
1600	1600	2010/1975	1830	1760	36-40	850
1800	1800	2225/2190	2045	1970	39-44	1000



Side View Front View

Integrated Electromagnetic Flow Meter



Side View Front View

Split Electromagnetic Flow Meter

Revision time	Reviser	Current Version	Remarks
20260804	Echo	V5. 0	