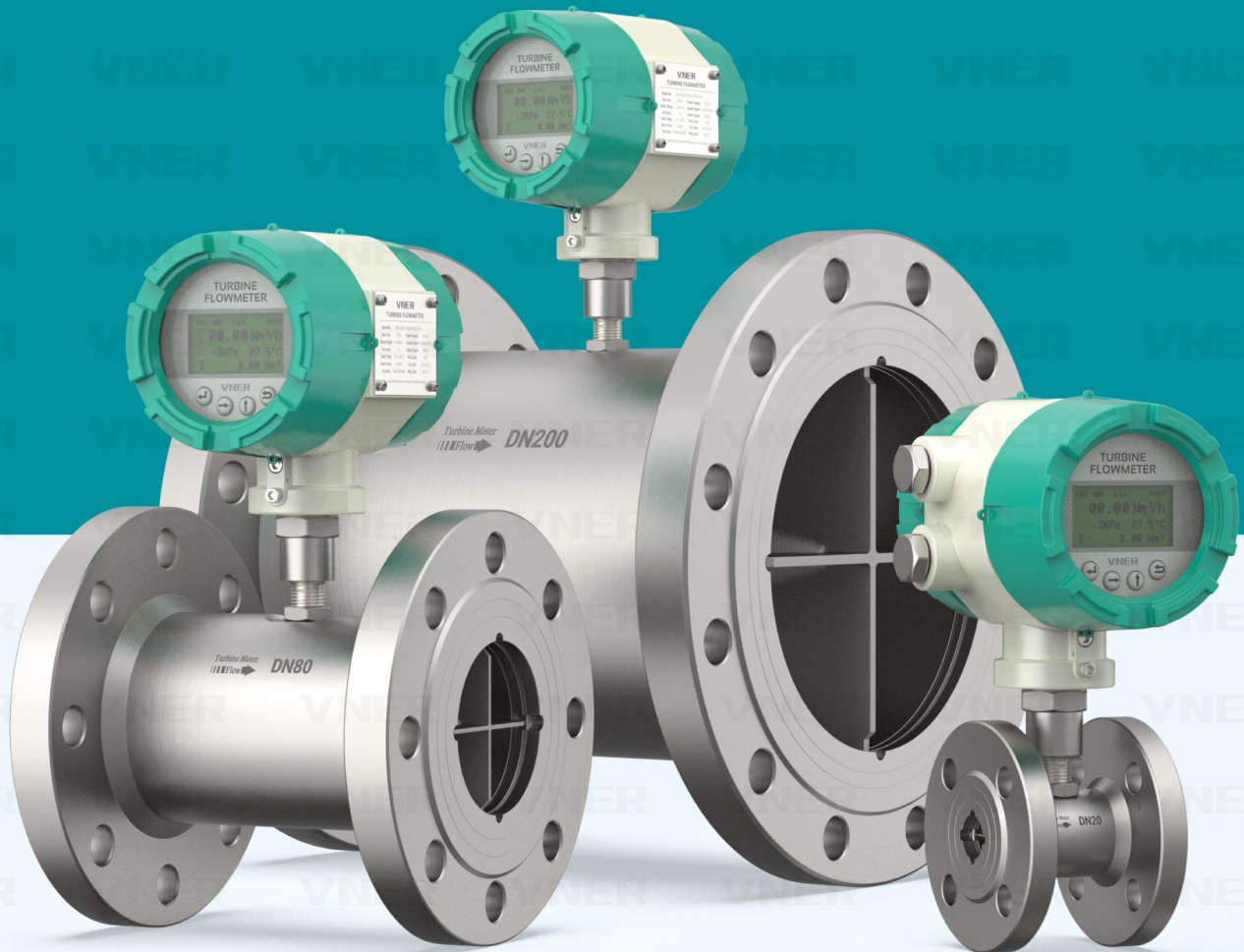


VNER

LIQUID-TURBINE FLOWMETER

LWGY SERIES



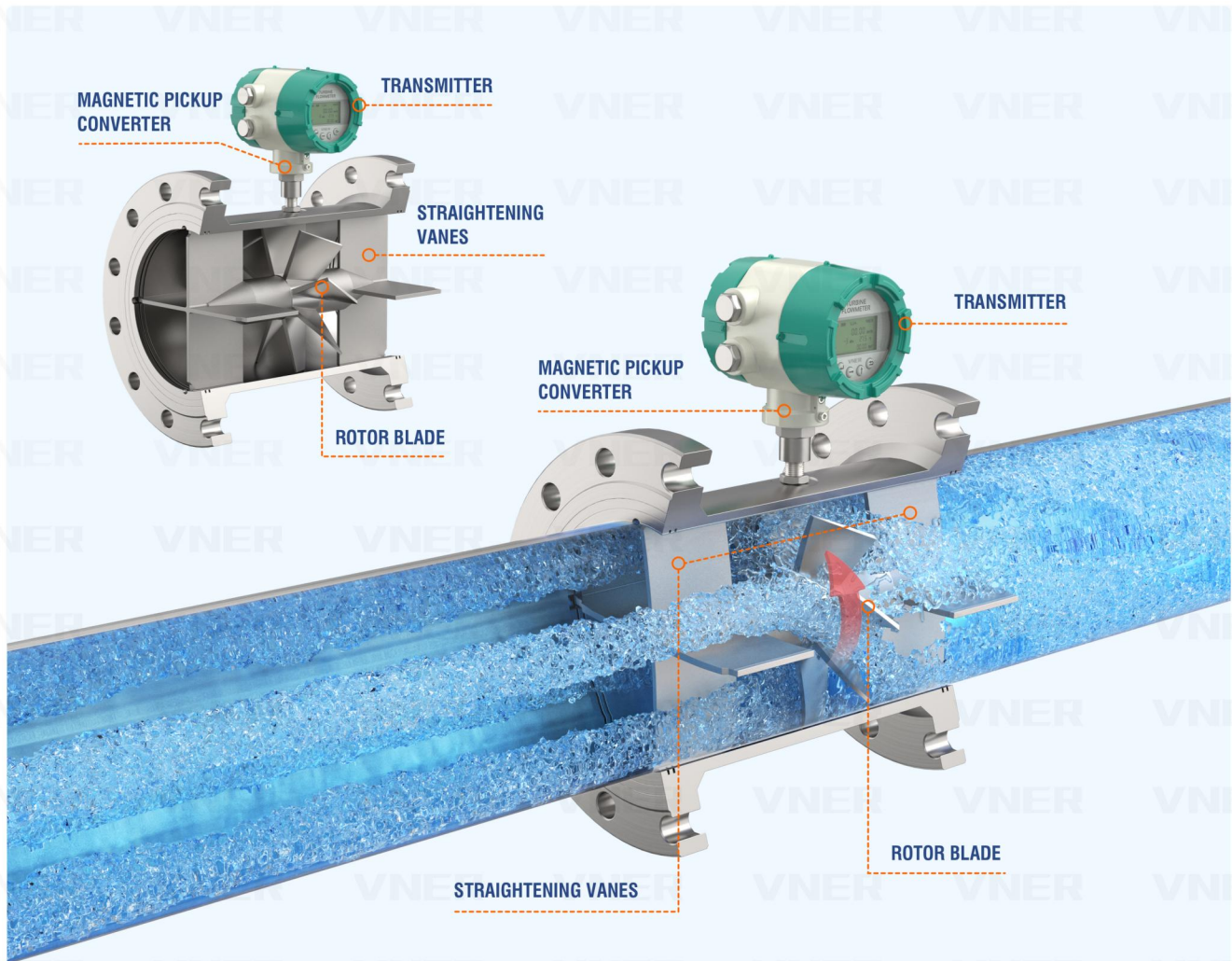
JIANGSU VNER ELECTRONIC TECHNOLOGY LTD

WWW.VNER.COM.CN

1. LIQUID TURBINE FLOW METER WORKING PRINCIPLE

Fluid entering the meter first passes through an inlet flow straightener that reduces its turbulent flow pattern. Fluid then passes through the turbine, causing the turbine to rotate at a speed proportional to fluid velocity. As each turbine blade passes through the magnetic field generated by the meter's magnetic pickup, an AC voltage pulse is generated. These pulses provide an output frequency that is proportional to volumetric flow.

2. WORKING PRINCIPAL



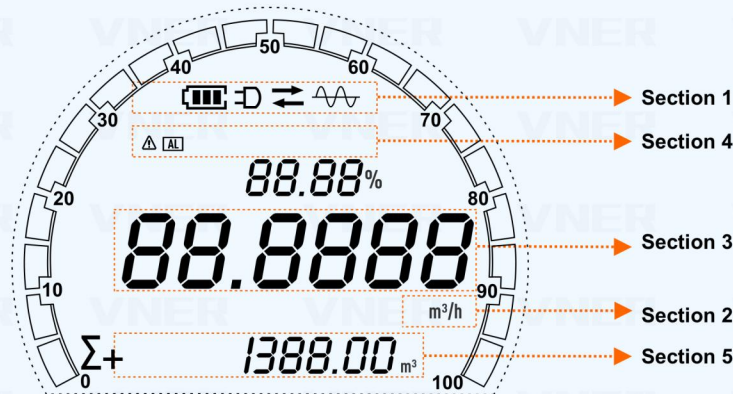
3. APPLICATIONS

- Petrochemicals / energy industry
- Oil / gas industry
- Distilled water
- Food and beverage industry
- Hydraulic / lubrication system
- Test systems
- Clean water

4. FEATURES

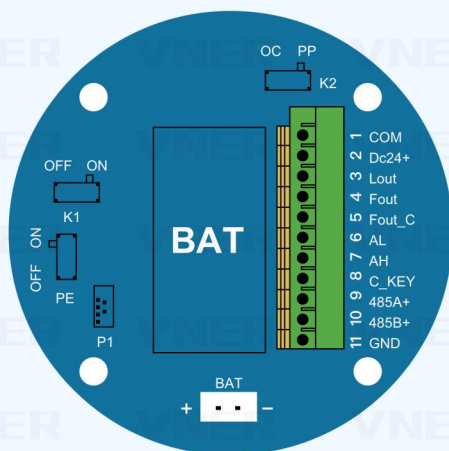
- Light oil & purity liquid measurement
- Backlight option
- Unit of GPM, KG/H, Ft3/h, LPM, BPD, m3/h, Ton/h
- High / low alarm
- Modbus RS485 communication
- Working Max Temp.+150°C
- Totalizer rest

5. LCD DISPLAY



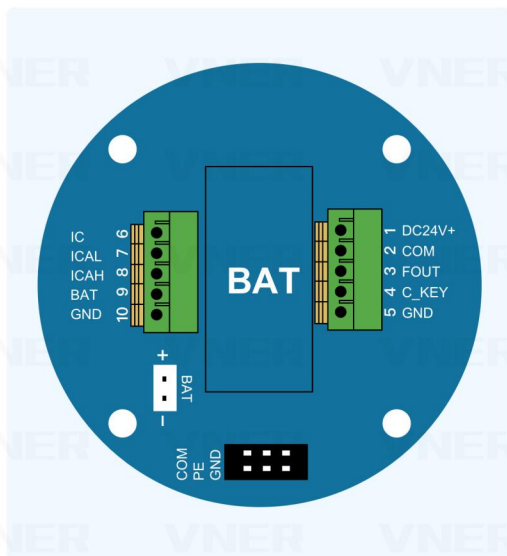
SECTION 1	Functional region which consists of battery situation, communication, current, frequency, flow percentage (Temperature could be available on request).
SECTION 2	Units section which consists of 10 units:m³/h, L/h, L/min, US Gal/min, UK Gal/min.US Gal/h, UK Gal/h, kg/h, t/h, ft³/h.
SECTION 3	Flow rate (7 digital figure at max).
SECTION 4	Alarm sign which consists of SET prompt and alarm prompt.
SECTION 5	Total flow (11 digital figure at mini) with two decimal places.

6. WIRE TERMINAL DESCRIPTION



TERMINAL NO.	TERMINAL SYMBOL	TERMINAL DESCRIPTION	NOTE
1	COM	24V-	
2	DC24V+	24V+	
3	Lout	Current output	
4	Fout	Pulse output	
5	Fout_C	Pulse or scaled pulse output	
6	AL	Low limit alarm	
7	AH	High limit alarm	
8	C_KEY	External button positive terminal	Use along with GND
9	485 A	RS485 terminal A	
10	485_B	RS485 terminal B	
11	GND	External button negative terminal	Use along with C_KEY

PCB DIAGRAM



TERMINAL NO.	TERMINAL SYMBOL	TERMINAL DESCRIPTION	NOTE
1	COM	24V-	
2	DC24V+	24V+	
3	Lout	Current output	
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6	AL	Low limit alarm	
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8	C_KEY	External button positive terminal	Use along with GND
9	485_A	RS485 terminal A	
10	485_B	RS485 terminal B	
11	GND	External button negative terminal	Use along with C_KEY

BATTERY-SUPPLY DIAGRAM

7. FEATURES



EXPLOSION PROOF



MAX TEMPERATURE UP TO +150°C

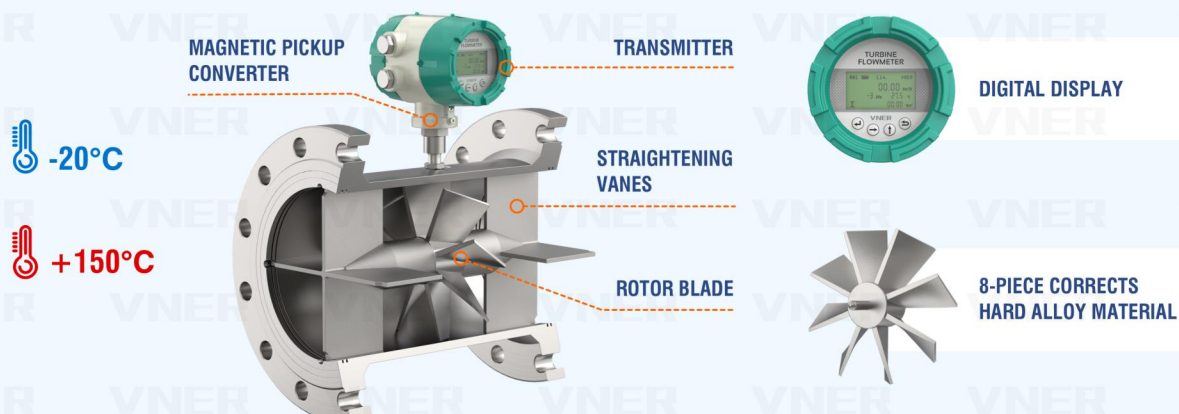


EASY TO INSTALLATION



HIGH/LOW ALARM

8. LIQUID TURBINE FLOW METER STRUCTURE



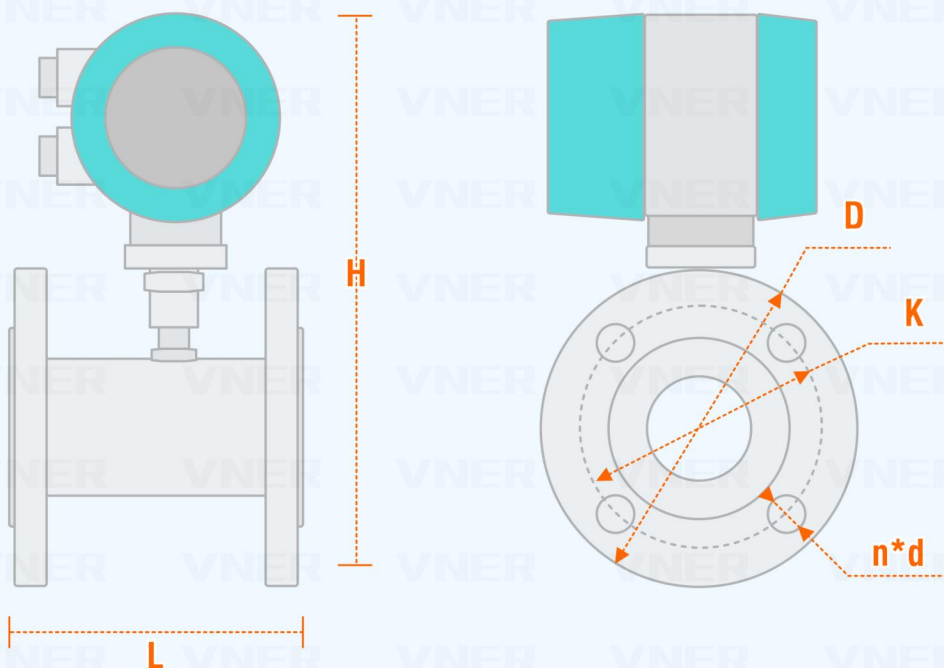
9. TECHNICAL DATA

OUTPUT	Pulse; 4-20mA	
ACCURACY	±1.0 of Rate; ±0.5% of Rate	
AMBIENT TEMP.	-20...+60°C	
FLUID TEMP.	-20...+150°C	
BODY MATERIAL	SS304; SS316	
ROTOR MATERIAL	2Cr13; CD4MCu	
BEARING MATERIAL	Tungsten Carbide	
CONNECTION	Flange of DIN, JIS, ANSI	DN15-DN 200
	Thread of G, BSP, NPT	DN4-DN 50
	Sanitary Tri-Clamp	DN10-DN100
	Wafer	DN50-DN200
COMMUNICATION	RS485	
POWER SUPPLY	24V DC; Battery; 220V AC	
PROTECTION	IP65	
EXPLOSION PROOF	Exd IICT6 Gb	

10. FLOW RANGE

DIAMETER (MM)	STANDARD RANGE (M³/H)	EXTENDED RANGE (M³/H)	MAX.PRESSURE LOSS (KPA)
4	0.04-0.25	0.04-0.4	120
6	0.1-0.6	0.06-0.6	80
10	0.2-1.2	0.15-1.5	50
15	0.6-3.6	0.5-5	35
20	0.8-8	0.45-9	35
25	1-10	0.5-10	35
32	1.5-15	0.8-15	35
40	2-20	1-20	35
50	4-40	2-40	35
65	7-70	5-70	25
80	10-100	7-100	25
100	20-200	10-200	25
125	25-250	13-250	25
150	30-300	15-300	25
200	80-800	40-800	25

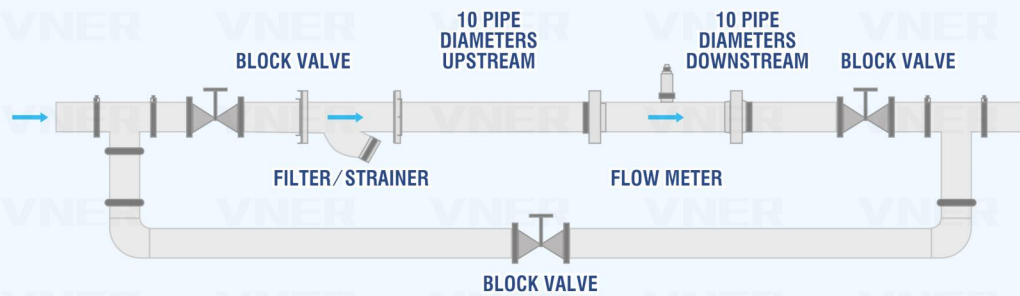
11. TECHNICAL DRAWINGS



12. MODEL SELECTION

MODEL	SUFFIX CODE									DESCRIPTION
LWGY-	1	2	3	4	5	6	7	8	9	Liquid Turbine Flow Meter
Diameter										
XXX										Stand for diameter 004: DN4; 006: DN6 100: DN100; 200: DN200
Converter Type										
N1										24V DC; Pulse output; No display
N2										24V DC; Pulse output; No display; Ex
A										24V DC; 4-20mA output; No display; Ex
E1										Battery power supply; No output; Ex; Digital display
E2										24V DC; 2/3 wires 4-20mA/Pulse output; Ex; Digital display
E4										24V DC; 0-20mA output; Ex; Digital display
G										220V AC; 4-20mA output; Ex; Digital display
FE										FE: Fluidwell E series converter (Refer to page 11)
FF										FF: Fluidwell F series converter (Refer to page 12)
Notice:										1) Modbus RS485 is optional for E2, E4, and G type 2) Dual Power (24V DC+Battery) is optional for E2, E4, G type
Accuracy										
10										±1.0% of rate
05										±0.5% of rate
02										±0.2% of rate (consult with factory)
Flow Range										
S										Standard Range
E										Extended Range
Body Material										
S4										SS304
S6										SS316
Rotor Material										
Cr										2Cr13
CD										CD4MCu
Explosion Proof										
CT										Exd IIC T6 Gb
NA										No explosion proof
Connection										
THM										Male thread; Available from DN4... DN50
THF										Female thread; Available from DN4... DN50
WAF										Wafer connection
TRC										DN10-DN 100 (Sanitary type)
DXX										D16: DIN PN16 Flange; D25: DIN PN25 Flange..
AXX										A15: ANSI150#Flange; A30: ANSI 300 # Flange...
JXX										J10: JIS 10K Flange; J20: JIS 20K Flange..
Temperature										
T1										-20... +80°C
T2										-20... +120°C
T3										-20... +150°C

13. INSTALLATION



CONCENTRIC CONTRACTION FULLY OPEN VALVE



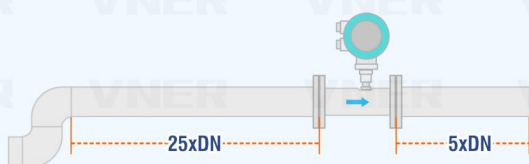
CONCENTRIC EXPANSION VALVE



TWO 90 DEGREE BENTS ON DIFFERENT LEVELS



ONE 90 DEGREE BENT



TWO 90 DEGREE BENTS ON ONE LEVEL



HALF OPENING VALVE OF REGULATING VALVE

MANUFACTURER'S INFORMATION

HQ OFFICE ADDRESS

14th Floor, Yangzhou Zhigu Technology Syntheses, Weiyang Rd, Hanjiang District, Yangzhou City, Jiangsu Province, China

HQ TEL

+86 - 514 - 87018339

FACTORY ADDRESS

11 Xingye Rd, Yizheng Economic Development Zone, Chenji Town, Yangzhou City, Jiangsu Province, China

FACTORY TEL

+86 - 514 - 87899786



JIANGSU VNER ELECTRONIC TECHNOLOGY LTD

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