Model LWGY
Turbine Flow Transducer

LWGY Turbine Flow Transducer (called "Transducer" for short below) combined with relevant flow display instruments (such as XSF-40A、XSF-39A、B flow totalizers) can be used to measure the instantaneous flow rate or accumulated flow. It has found wide application in measuring and controlling systems for petroleum 、 chemical and metallurgy industries as well as scientific research fields. As desired, this kind of transducers could be sorted into three types: common、high precision、and wear-resisting ones. Two kinds of amplifiers, i.e. common and explosion-proof, are available.

Standard for this product is JB/T9246 Q/YXBM 877-1998; while the inspecting regulation thereof is JJG 198-94.

□Principal Specifications

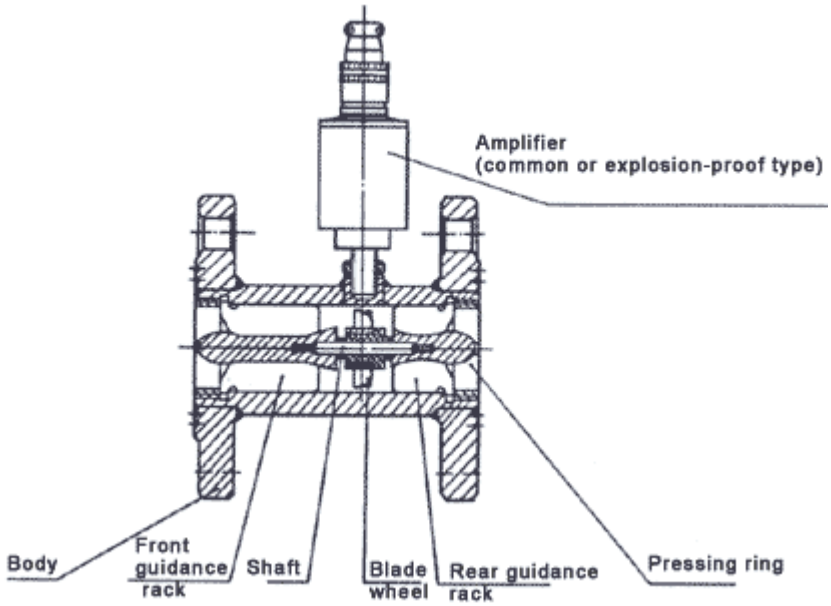
Nominal Size DN mm	Flow Range m3/h						NominalPressure MPa	Max. Pressure LossMPa
	Elementary Error Limit ±0.2%		Elementary Error Limit ±0.5%		Elementary Error Limit ±1.0%			
	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit		
LWGY-4A*					0.04	0.25	6.3	0.12
LWGY-6A					0.1	0.6	6.3 16* 25* 40*	0.08
LWGY-10A					0.2	1.2		0.06
LWGY-10B			0.4	1.2				
LWGY-15A			0.6	4				0.035
LWGY-15B	1	4	0.6	6				
LWGY-25A			1.6	10				
LWGY-25B	2	10	1	10				
LWGY-40A			3	20			1.6 2.5	0.025
LWGY-40B	4	20	2	20				
LWGY-50A			6	40				
LWGY-50B	8	40	4	40				
LWGY-80A			16	100				
LWGY-80B	20	100	10	100				
LWGY-100A			25	160				
LWGY-100B	30	160	20	200				
LWGY-150A			50	300				
LWGY-150B	60	300	40	400				
LWGY-200A			100	600				

LWGY-200B	120	600	80	800				
LWGY-250A			160	1000				
LWGY-250B	200	1000	120	1200			1.6	

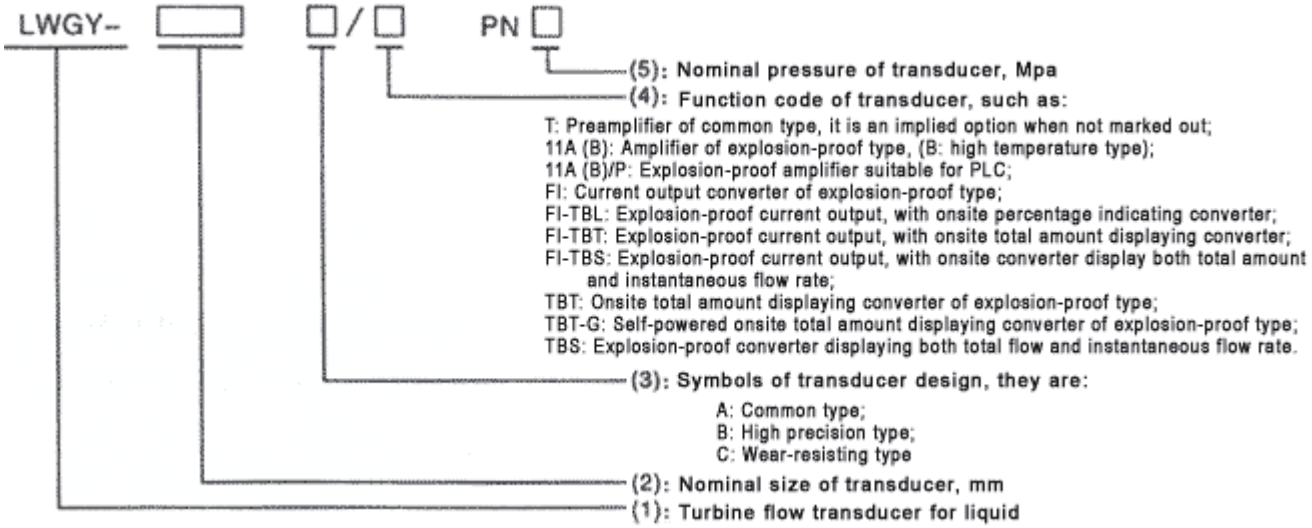
In this table the flow range of Type C is the same as Type A.
Note: Those products with sign " * "should be purchased by special order. Fluid Temperature: -20 to 120℃
Ambient Temperature**:** -25 to 55℃
Relative Humidity**:** ≤80 %

□Structure and Principle

The transducer is composed of body、front guidance rack、blade wheel、rear guidance rack、shaft、pressing rings and electromagnetic induction converter with an amplifier. When the measured fluid passes through the transducer, it will force blade wheel to rotate, and the latter will cyclically change magnetic resistance of electromagnetic system and change magnetic flux passing the coil, thus generating current pulse signals. These signals, after being disposed and amplified, will be transmitted to relevant electronic instruments or displayed on site. In this way, flow measurement could be carried out now.

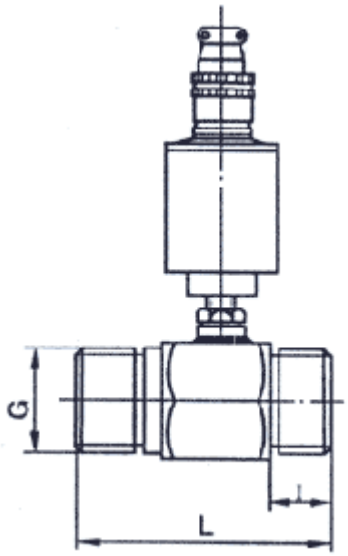


□Model Designation



☐Overall Dimension

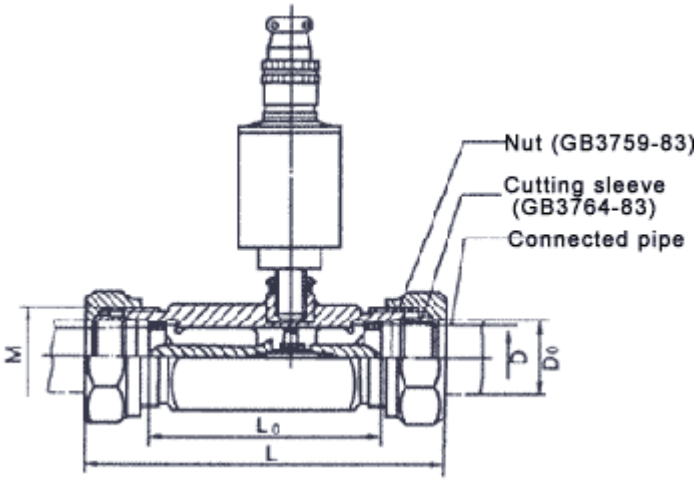
• Nominal Size DN 4 to DN 25 mm (Nominal Pressure PN 6.3 Mpa)



Nominal Size DN	4*	6	10	15	25
Dimension					
G	G1/4"	G3/8"	G1/2"	G1"	G1 1/4"
l mm	7	11	16	18	23
L mm	40	42	55	75	100
Weight kg	0.4	0.5	0.6	1.0	1.5

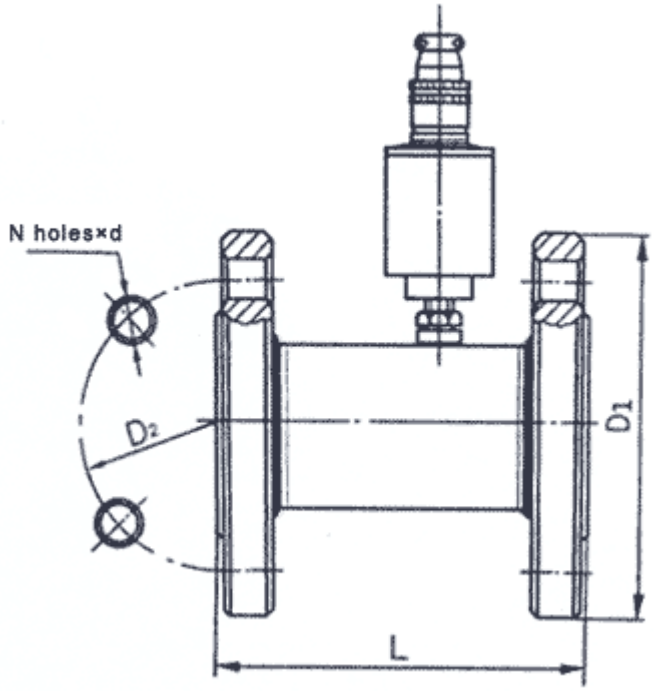
Note: Those products with sign ″*″ should be purchased by special order.

• Nominal Size DN6 to DN25 mm (nominal pressure PN16, PN 25 MPA)



Dimension mm / Nominal SizeDN	Lo	L	Do	D	M	Weight kg
6	42	82	12	6	M18×1.5	0.8
10	55	97	16	10	M22×1.5	1.0
15	75	126	25	15	M33×2	1.5
25	100	155	32	25	M42×2	2.0

• Nominal Size DN 40 to DN 250 mm (Nominal Pressure 1.6、2.5 Mpa)



Nominal Size DN / Dimension mm	40	50	80	100	150	200	250
D1	145(145)	160(160)	195(195)	215(230)	280(300)	335(360)	405
D2	110(110)	125(125)	160(160)	180(190)	240(250)	295(310)	355
d	18(18)			18(23)	23(25)		25
N	4		8			12	
L	140	150	200	220	300	360	400
Weightkg	7	9	14	21(22)	36(44)	57(70)	75

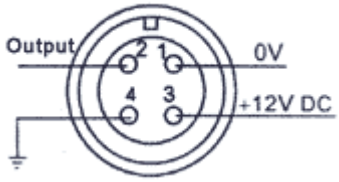
Note: Pipe flange should be provided according to Standard JB/T81-94 (PN1.6, PN2.5) or Standard JB/T82.2-94 (PN4.0, PN6.3).
Those dimensions with parentheses denote the flanges of nominal pressure 2.5Mpa.

☐Specifications and Wiring Terminal Diagram of LWF-T Common Type Amplifier

·Specifications

1.Output Signal:	When input signal is 5mV and external load is 3kΩ, actual value will be no less than 1 V.
2.Output waveform:	Similar to sine wave.
3.Operating voltage:	12V DC

·Wiring Terminal Diagram



☐Attached Instruments

• Digital Flow Totalizers

Model	Function description
XSJ-39A(I、K)	Simultaneously displaying momentary flow rate and total flow;4 to 20 mA output; flow control for fixed displacement is feasible
XSF-39B(I)	Total flow and flow rate display; 4 to 20 mA output; with error no more than ±0.1%; compact structure; LED or LCD display selectable; power-off protection durable over five years.
XSJ-40A	Accumulating total flow and indicating momentary flow rate;0 to 10 mA or 4 to 20 mA output.
SXP-3113	Modular design; compensating for temperature、pressure as desired; displaying total amount、momentary rate and its percentage of mass or volume flow; 0 to 10 mA or 4 to 20 mA output; also usable for totalizing and indicating gas flow.
XSK-10B	Digital flow controller for fixed displacement; usable for proportional bottling; displaying flow rate and total flow of liquid.