

# MAGNETOSTRICTION TYPE LEVEL METER

## EX-GYds Flame-Proof Exd II CT6

# KF-900/KF600/KP600



Absolute type level meter boasting high resolution

# KF-900/KF600/KP600

## MAGNETOSTRICTION TYPE LEVEL METER

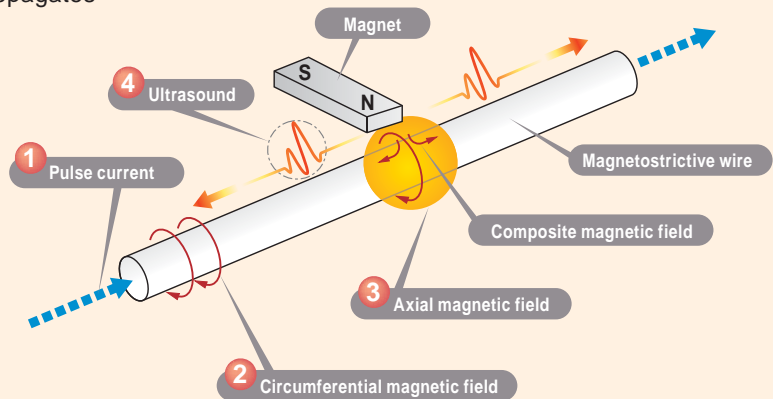
This is a level meter that applies the magnetostriction phenomenon by the Wedemann effect. The magnet in the float which moves along the stem causes torsional strain on the magnetostrictive wire. And the meter detects the liquid level by measuring the propagation time of the strain.

### ■ Operating principle

When a pulse signal is given on the magnetostrictive wire, a circumferential magnetic field is generated in the entire axial direction of the magnetostrictive wire.

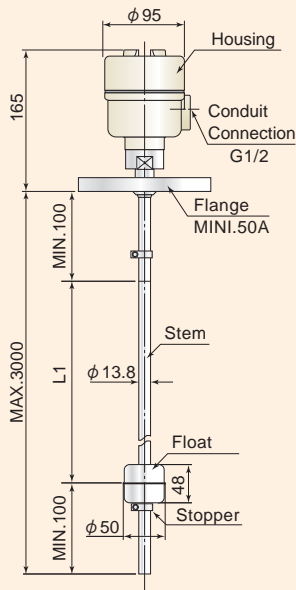
This phenomenon is called as the Wedemann effect. Since this torsion is a kind of mechanical vibration, it propagates

on the magnetostrictive wire made of metal by ultrasonic waves. This magnetostrictive level meter measures the propagation time of this ultrasonic wave and converts the absolute position of the magnet into an analog output.

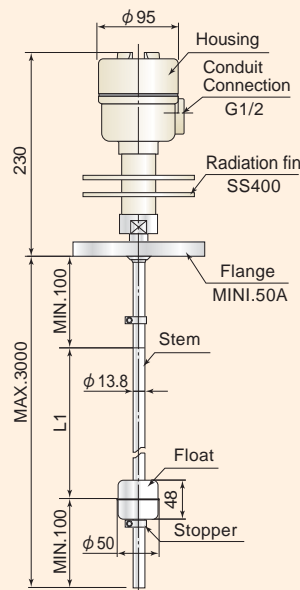


### ■ General Drawings

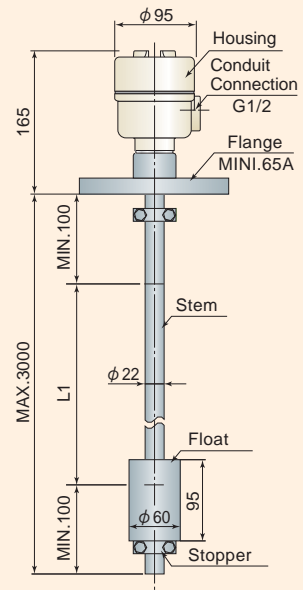
**KF-900**  
SUS316



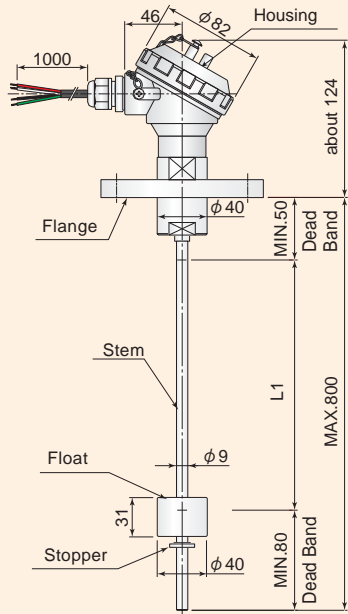
**KF-900H**  
SUS316 · Heat Resistant Type



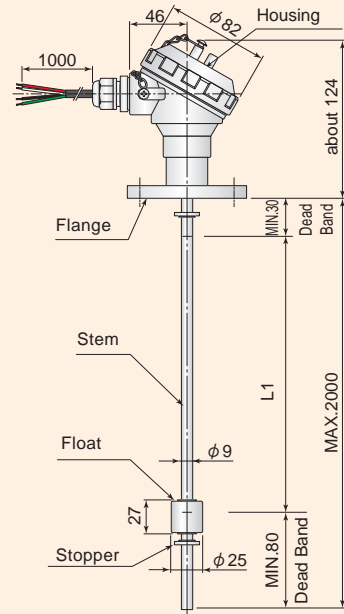
**KF-930/960**  
PVC/HT.PVC



**KF600**  
PTFE Type



**KP600**  
PP Type (Stopper : PTFE)



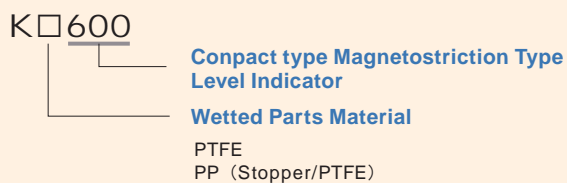
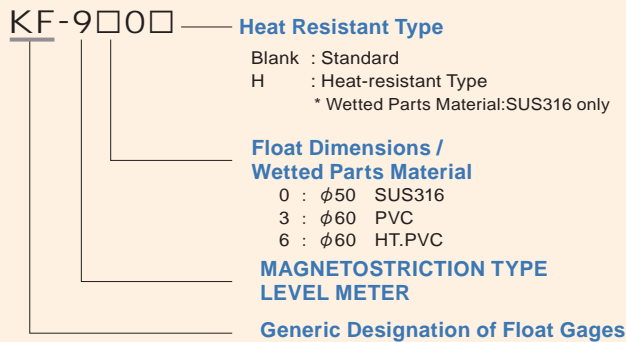
■ Standard Specifications

Specifications	Model	KF-900	KF-900H	KF-930	KF-960	KF600	KP600	
Withstand Pressure		1MPa		196kPa		98kPa	2MPa	
Heat resistant Temperature		100°C	150°C	50°C	80°C	100°C		
Process Connection		Over JIS5K50A		Over JIS5K65A		Over JIS5K50A	Over JIS5K25A	
Specific Gravity of Liquid		over 0.65		Over 0.66	Over 0.67	Over 0.8	Over 0.75	
Wetted Parts Material		SUS316		PVC	HT.PVC	PTFE	PP (Stopper / PTFE)	
Housing Material		ADC						
Cable conduit		G1/2						

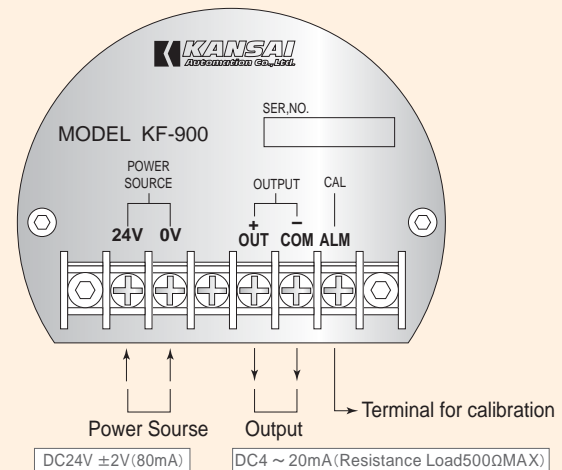
■ Common Specifications

		KF-900/900H/930/960	KF600/KP600
Accuracy	Linearity	Below $\pm 0.05\%$ FS TYP	
	Resolution	Below 0.01% FS	
	Temperature characteristics	Below $\pm 40$ ppm FS	
Input Output	Power Consumption	DC24V $\pm$ 2V 80mA	
	Power Source	DC4-20mA Resistance Load below 500 $\Omega$	
Environmental performance	Temperature Range	-20 $\sim$ +75°C	-20 $\sim$ +80°C
	Enclosure Rating	IP65 equivalent	IP67
	Housing Material	ADC	

■ Type Designation



■ KF-900 Wiring



# EX-GYds

Flame-Proof  
Exd II CT6

The magnetostrictive level meter of IEC-compliant flameproof construction

## Standard Specifications

Withstand Pressure	1MPa
Heat resistant Temperature	-20 ~ +60°C
Process Connection	Over JIS5K50A
Specific Gravity of Liquid	Over 0.65
Wetted Parts Material	SUS316
Housing Material	ADC
Cable conduit	G1/2 (for cable tube Connection Method)

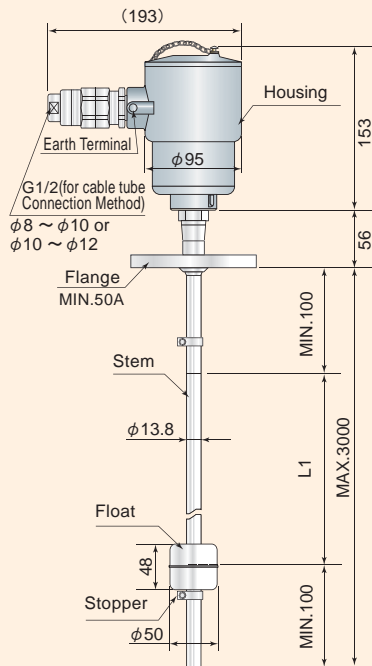
\*1 : Condition of environment range for IEC:80kPa~110kPa

## Common Specifications

Accuracy	Linearity	Below $\pm 0.05\%$ FS TYP
	Resolution	Below 0.01% FS
Input	Temperature characteristics	$\pm 40$ ppm FS / °C
	Power Consumption	DC24V $\pm 2$ V 0.1A (*2)
Output	PowerSource	DC4-20mA (Resistance Load 500 $\Omega$ MAX)
	Temperature Range	-20~+60°C Controller : 0~+60°C
Environmental Performance	Enclosure Rating	IP65
	Housing Material	ADC

\*2 : Remote amplifier type:Below DC24V $\pm 5\%$  350mA

## General Drawings



## Type Designation

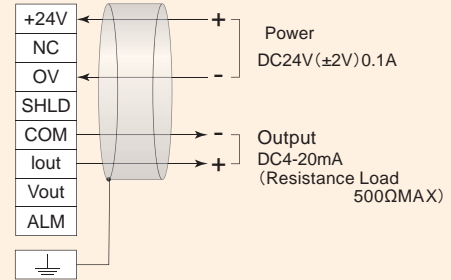
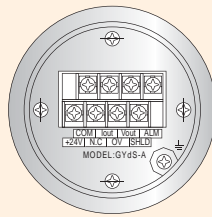
EX-GYds-□14

Dimensions of Stem  $\phi 13.8$

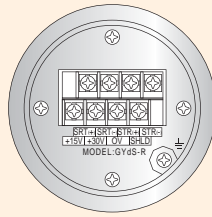
### Construction

A : Built-in amplifier type  
R : Remote amplifier type  
【GYFC2 Controller】

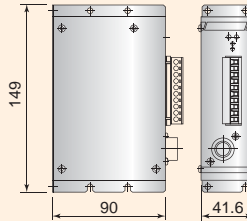
#### Built-in amplifier type Connection diagram



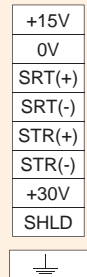
#### Remote amplifier type Connection diagram



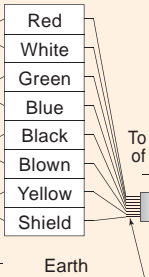
#### GYFC2 Controller



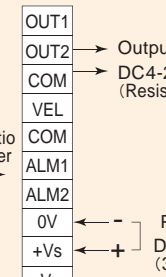
#### Sensor terminal



#### Terminal (Option)



#### Controller terminal



Hazardous Zone

Non Hazardous Zone

## Line of business

- Rotary Paddle Type Level Switch
- Vibration Type Level Switch
- Swing Type Level Switch
- Acoustic Level Switch
- Capacitance Type Level Switch
- Capacitive Proximity Sensor
- Capacitance Type Level Indicator
- Diaphragm Type Level Switch
- Tilt Switch
- Leak Type Level Switch
- Microwave Switch
- Sounding Bob Type Level Indicator
- Flow Switch
- Conductance Type Level Switch
- Float Switch
- Float Type Level Indicator
- Ultrasonic Type Level Indicator
- Equipments For Conveyor Lines
- Dust Monitor System
- Zirconia Oxygen Analyzer
- Laser Type Level Indicator
- RADAR Type Level Indicator
- Ultrasonic Flow meter

\*Please be sure to read USER'S GUIDE, Installation & Operation Instructions before using the instrument.

\*The specifications herein may be subject to change without advance notice.

General Manufacturer of Level Controllers for Powder, Granules, and Liquid



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