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VIBRATION TYPE LEVEL SWITCH

HTM-30N Series



HSB ISO 14001 HSB ISO 9001 ASME epic

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Overview

HTM-30N Series is a Vibration Type Level Switch which is generally calling as Tuning Fork type consisting of a membrane and stainless steel tuning forks. It outs relay contact signal after detecting of liquid or solid level in the tank and can be especially applied for alarm and process control, etc..

Characteristics

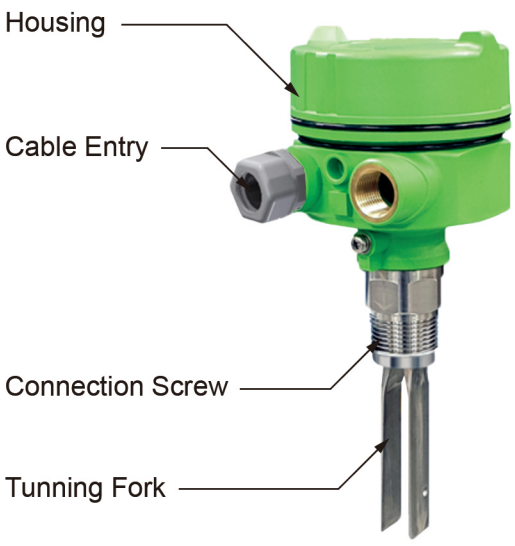


CONTROL PART
M-30N

- Digital operating system based on Microprocessor.
- Detecting of various kinds of liquid and solid level.
- Semi-permanent life cycle caused by solid structure and moveless parts.
- Easy Switching function between Relay Contact form (NO, NC)
- Improved easy operating check through LCD Indicator.
- Flameproof and dust proof version are available.

Operation Principle and Composition

Tuning fork of the level switch is continuously vibrated by the oscillator or piezo sensor. When the tuning fork is contacted by the medium, the oscillator of piezo sensor is stopped by decreased vibration frequency. At this moment, level switch detects the changed frequency and produce a replay output signal.





CONTROL PART

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Specification

▶ *Specification*

Model	HTM-30N	HTM-30N-Ex-**
Mounting	Screw or Flange	
Housing ; Cable Entry	PBT / AL.C; 2 - PF 1/2″(F)	AL.C; 2 - PF 1/2″(F)
Enclosure	Weather-Proof (PBT; IP65 / AL.C; IP66)	Ex td A21 IP66 T85°C / T160°C(*) Ex d IIC T3/T4/T5/T6 (*), IP66
Max. Temperature	PBT Housing: 80°C AL.C Housing: 150°C	Ex tD (*) : Max. 50°C for T85°C Max. 150°C for T160°C Ex d (*) : Max. 150°C for T3 / Max. 100°C for T4 Max. 60°C for T5 / Max. 50°C for T6
Ambient Temperature	-20°C ~ +60°C	
Max. Process Pressure	20kgf/cm^2 (Screw Type)	
Power Source	AC 90V~240V, 50/60Hz / DC +24V	
Output Signal	DPDT	
Wetted Part Material	SUS 316L + SCS 14	
Process Connection	PT 1″(M)	
Installation	Side or Top	
Contact Rating	AC 250V, 5A / DC 30V, 5A	

(*) Fluid Temperature and Class of Ex-Proof (Flameproof, Ex d)
(**) Refer to model identification method

▶ *AMPLIFIER Specification (M-30N)*

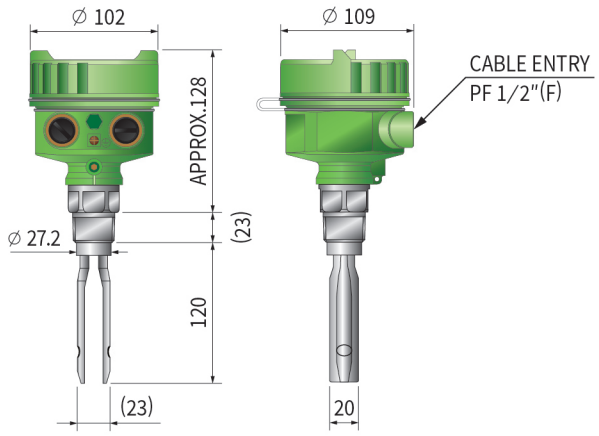
Module	M-30N
Microprocessor	16Bit Microprocessor
Oscillation Frequency	650Hz @ ± 50Hz
Sensitivity Resolution	1Hz
Density of Medium	0.6g/cm^3 @ Min. (Liquid) (Laboratory Conditions)
Function (Adjustment)	■ Sensitivity ■ Relay Delay Time ■ Relay Contact Control (Normal / Reverse)
Relay Contact Out Control	Normal Close @ Default
Status Indicator	Tri-Color LED [Green / Red / Orange]
Detection Indicator	RED LED
Relay Control Indicator	GREEN LED
Dimension	80mm x 65mm x 54mm
Ambient Temperature	-20°C ~ +80°C

▶ **Order Code** can be printed at our website (www.hitrol.com)

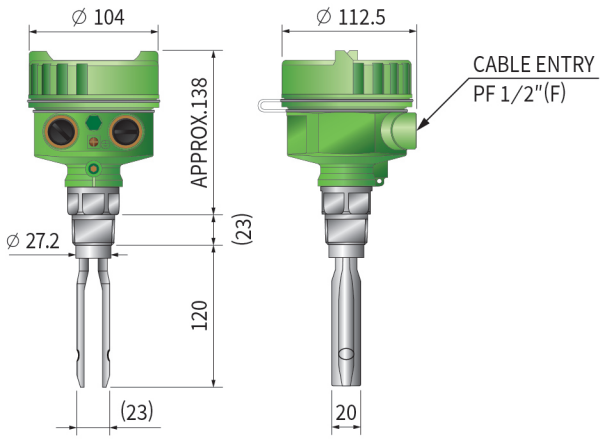
Dimension

▶ Screw type

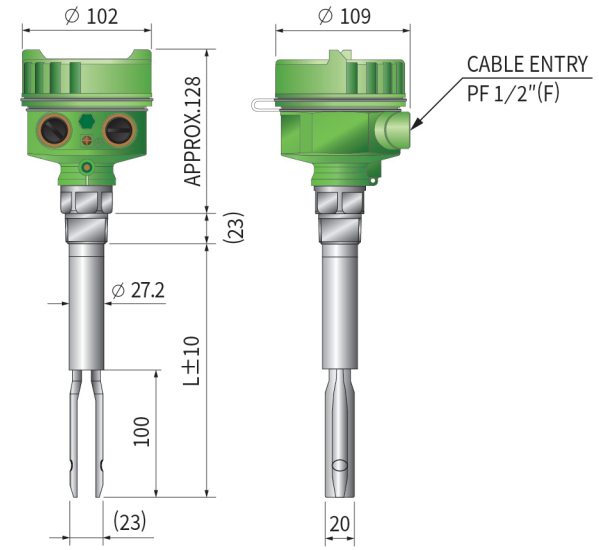
HTM-30N



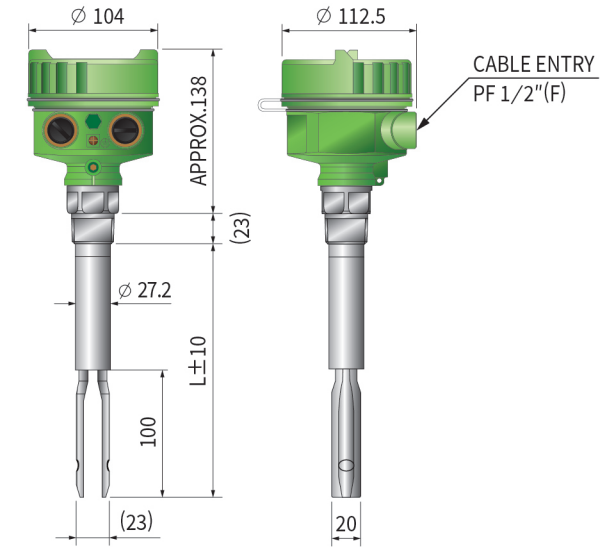
HTM-30N-Ex-**



HTM-30N (Extension Type)

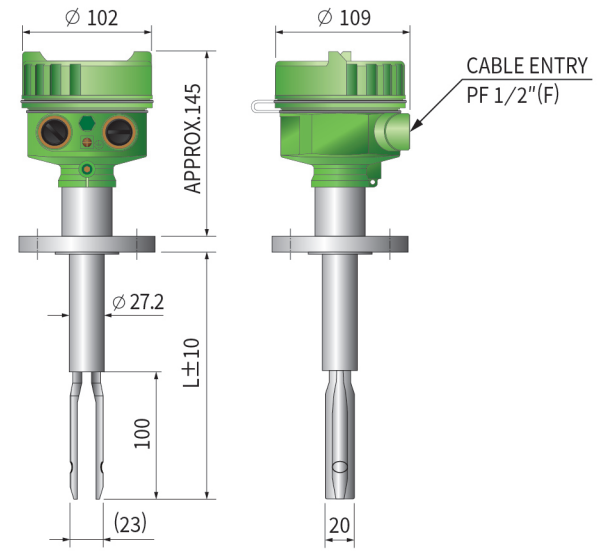


HTM-30N-Ex-** (Extension Type)

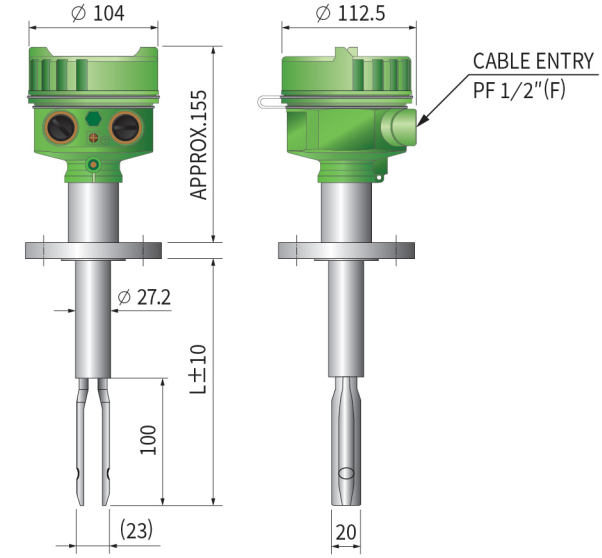


▶ Flange type

HTM-30N



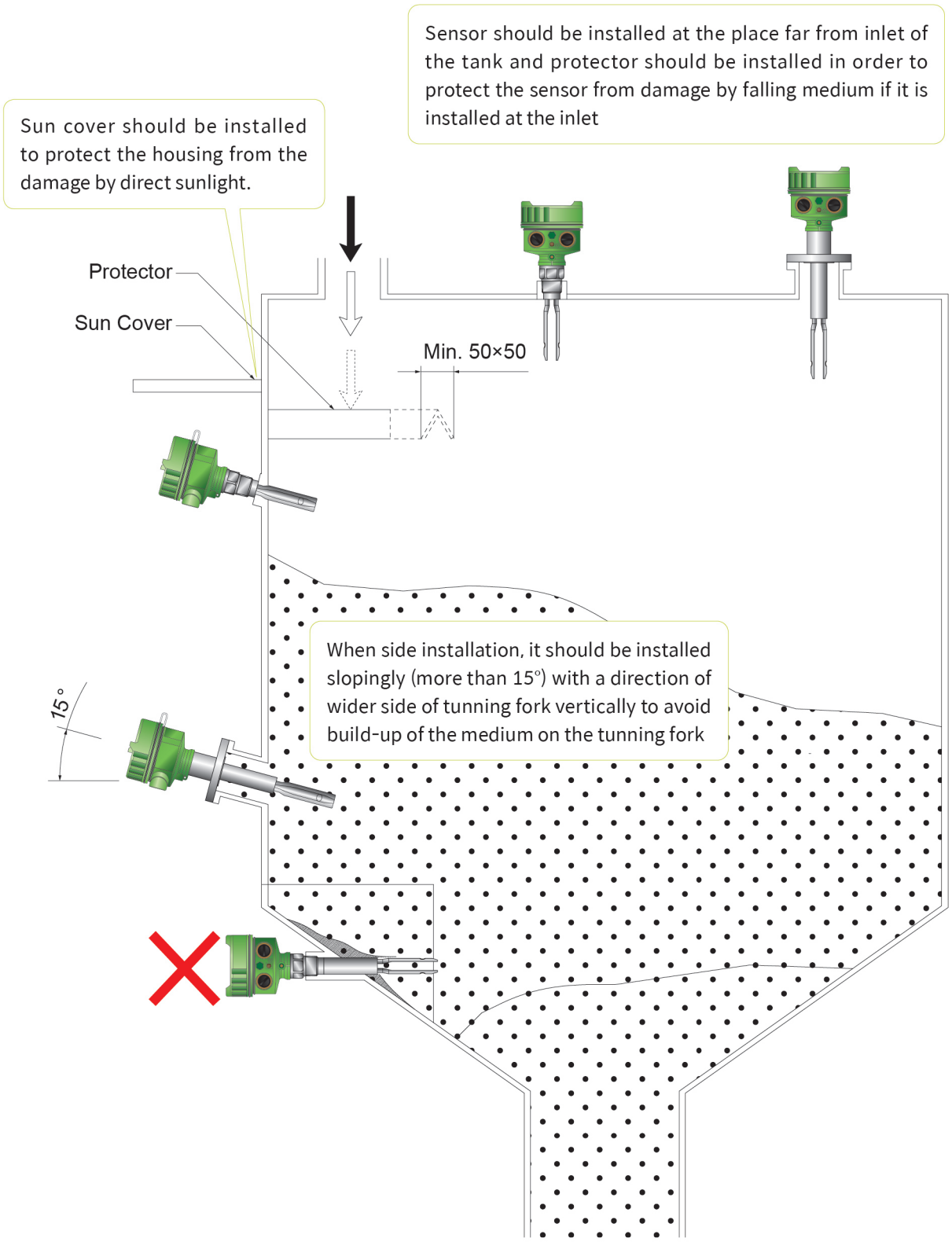
HTM-30N-Ex-**

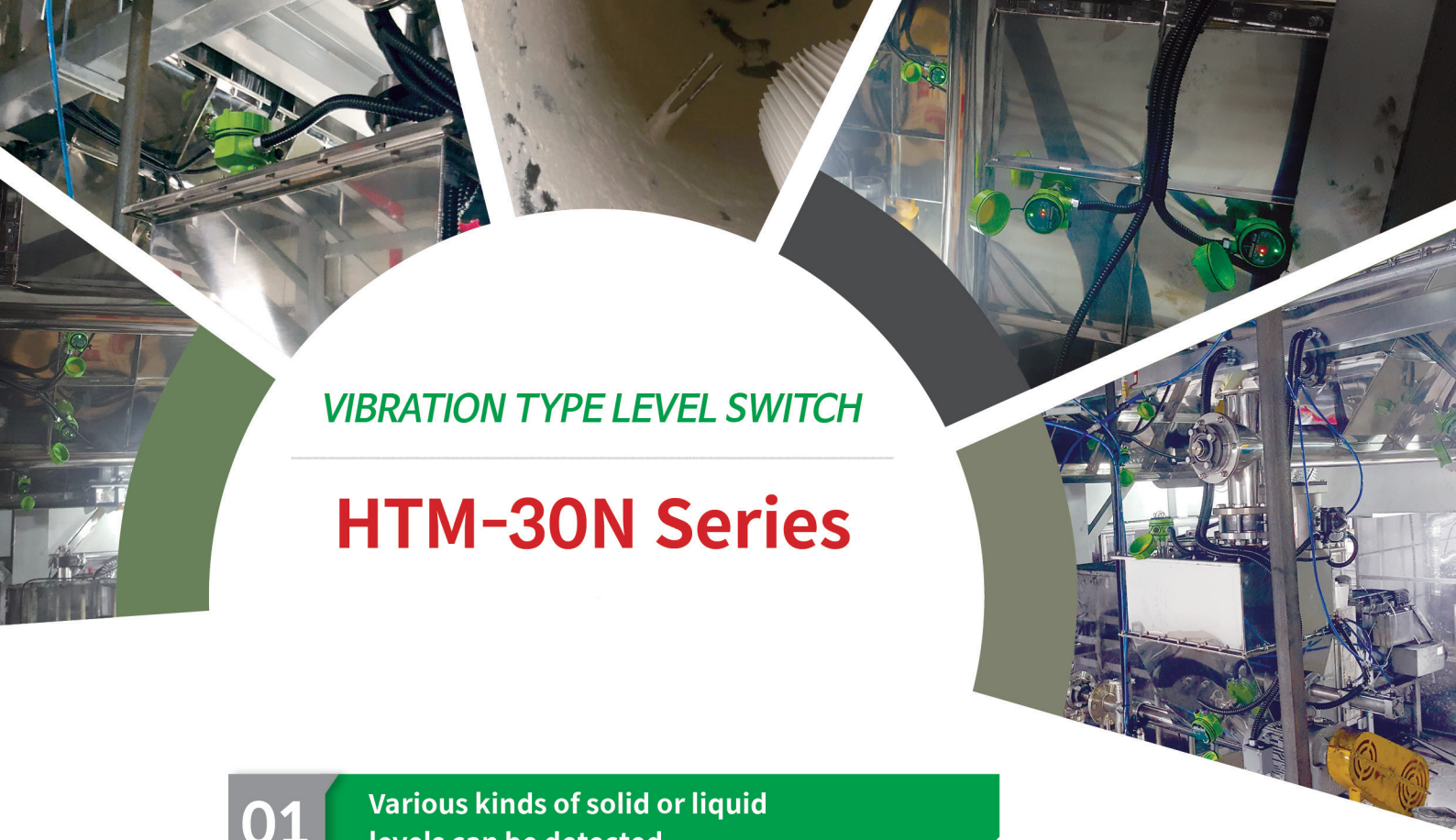


■ Actual product may have a tolerance slightly.

Installation

- Below recommendation should be considered when installation.





VIBRATION TYPE LEVEL SWITCH

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01 Various kinds of solid or liquid levels can be detected

02 Easy setting, stable operating and improved maintenance by dial adjustment

03 Digital Operating System based on Microprocessor



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* Design of product can be changed for upgrade without notice.