General
LEVEL DIVISION

TDSCH2011
Chambers for Guided Wave Radar

Features

- Applicable upto 150 kg and upto 550 deg cent
- Cryo applications upto -196 deg cent
- Jacketed design applicable
- For applicability in critical, acidic, cryo and high temperature zone
- IBR certified device available
- NACE, H2S service compatibility applicable
- Heat tracing available
- Level 1 radiographed body available
- Helium leak test proved design @ 10(-5) mbarlt/sec
- Viscous media (max upto 380 cst and upto 100 deg cent) besides other acidic, non acidic, steam water media
- Device fully compatible for conductive and non conductive media
- Applicable for refinery, petrochemical, chemical, power, radioactive, fertilizer, food, pharma, metal industry applications

Concept and Principle of operation

General Instruments Consortium offers chambers for guided wave radar technology wherein the chambers offer the component for the GWR to assemble on the chamber for achieving level measurement .

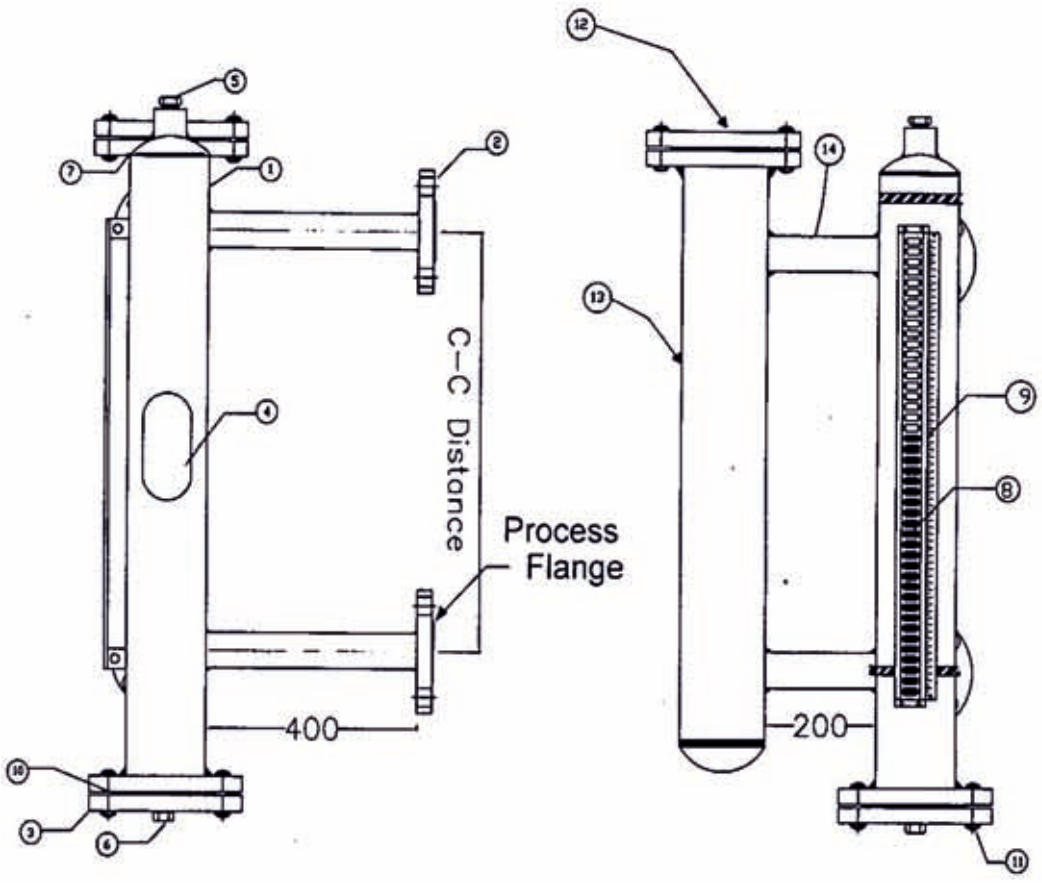
The chambers are technically installed vertically directly to the vessel and the fluid will flow into it and enable the GWR to sense the level accordingly.

These chambers are thus required to meet all sorts of applications where the material is essentially required to meet NACE, IBR, H2S, Radiography level -1, helium leak tested to 10 ^ (-5)mabrltr/sec.

Our chambers meet all such critical requirements and can cater to pressure upto 150 bar and upto 550 deg cent applications

Technical data sheet - 1

MOC type	Forged , chamber schedule 10,10S, 20,40,100,160,250
MOC type for flange	Forged
MOC of chamber	SS316,SS316L,SS304L,Alloy20 , PP , PVDF , PTFE , PTFE coated , PTFE lined , Hastealloy
CCD	Upto 5000mm
MOC of flange	SS316,SS316L,SS304L,Alloy20 , PP , PVDF , PTFE , PTFE coated , PTFE lined , Hastealloy



Side View

Front View

GIC Magnetic level gauge with chamber connection for guided waver radar transmitter for refinery and petrochemicals application

Technical data sheet - 2

Product	Chambers for Guided wave radar
Application	For both conductive and non conductive liquids and mixtures of gas and liquid
Surface tension of the liquid	Lowest to the highest
Refractive index of the liquid	Lowest to the highest
Reynolds No	Min 1250
Viscocity	Min 0.1cp to max 200 cp at operating temp
Span of level measurement with accuracy defined, in a single stretch	200mm to 5000mm
Accuracy	0.2% of the complete span
Repeatability	0.5% of the complete span
Hysteresis	0.2% of the span
Max Velocity at the input of the measuring device	10m/s for liquid and 40 m/s for mix for gas and liquid
Application	Acids, alkalies, steam water, hot water, resin liquid, molasis, thermic fluid, rock slat paste, syrup, metal deforming liquids, food molasis
Operating pressure range	28mm wc to 150 kg
Operating temperature	550 deg cent
Operating density	340 kg/m3 to 1800 kg/m3
Radiography level	Level-1
Helium leak test level	10(-5)mbarltr/sec
Thermal coefficient of expansion	0.2/deg cent
Communication with control room	Yes with integrated design of transmitter
IBR certified	YES
ATEX certified	Not applicable
CCOE certified	YES
Most demand in industry	All Refinery / petrochemical and oil and gas and chemical application
Most applicable application	Automation control systems in all refinery/petroc/chemical
Applications for closed tanks (undergnd)/vessels	Yes with top mounting design with integrated transmitter model
Application for open tanks (above gnd)/vessels	Yes
Applicable for most corrosive nature atmosphere	Yes
SAFETY IN LINE (SIL certification)	Yes SIL2 most rated in MLG with transmitter
Exclusive cryogenic application	YES
Ambient condition for the device applicability	Minus 40 deg to plus 60 deg cent(because of magnetism)
Guaranteed full life cycles of operations	5,00,000
Dynamic response test applicability	Most linear stable reading at upto 60 decibels reading and then at 0.15 fall at upto100 decibels
Most applicable against constant interference of Electromagnetic Interference	Most linear output upto 2000Hz
View Interface system	Magnetic flapper assembly, capsule type, transmitter HART / FF (display at Control Room)
Exclusive boiler application	Recommended with EMI interference worked out
Application in Biopharma industry	Yes
Application in cement industry	Cement water with high surface tension
Application in oil and gas application	Offshore and onshore at all applications medias
Application in fertilisers	Yes and at Ammonia plant / Urea plant/Bagging plant/ Ammonia storage , CNA/ Sulphuric acid / Methanol plant
Application in petrochemical plants	HDPE/CCU/Boiler
Application in refinery	CRU/CCU/ARU/DCU/DHDS plants and for HSD manufacture and Aviation fuel
Application in food and beverages	Yes for all applications related to food and beverage industry