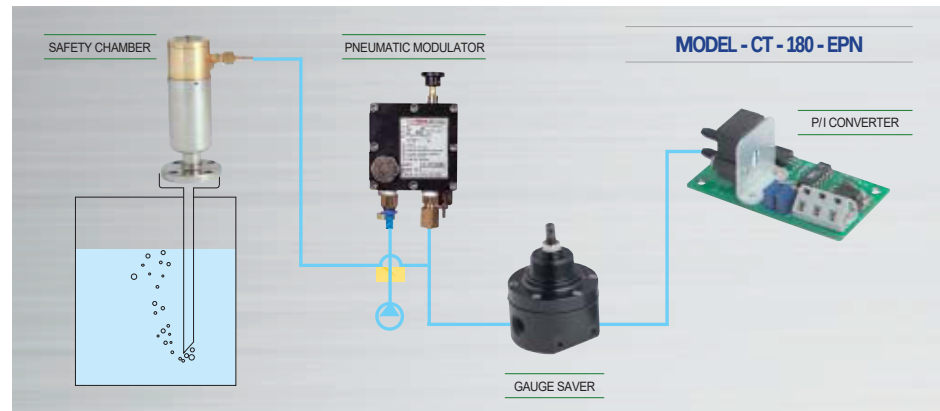


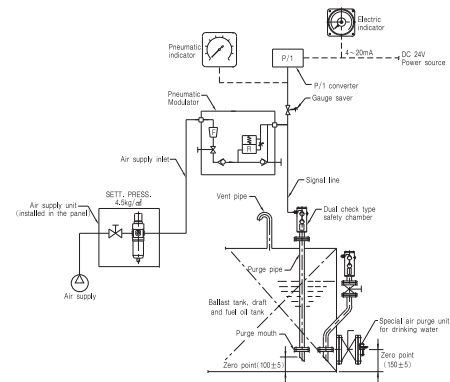
Tank Remote Sounding System | CT-180

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* AIR PURGE TYPE REMOTE LEVEL GAUGING SYSTEM(ELECTRO PNEUMATIC TYPE)



PRINCIPLE DIAGRAM



The flow is produced by means of an automatic air flow modulator, type which includes:

- An air supply filter
- An air flow regulator ensuring a constant pre-set flow at the end of the bubble pipe in the tank irrespective of the supply pressure.
- A safety valve protecting the indicator and pressure transmitter against over pressure.
- The air supply valve is used for isolation from other channel without any influence.
- The blowing valve is used for sending the full air pressure through the signal line for cleaning purposes.

OPERATING PRINCIPLE

The operating principle is based upon the measurement of the hydrostatic pressure by providing a constant low flow of air or neutral gas into a probe which opens at the tank bottom. The output pneumatic signal of the modulator is fed into P/I converter and is changed to electric signal(4~20mA) in 2 wire by P/I converter. The electric output signal(4~20mA) can be connected to C.R.T display cargo system, Digital indicator, analogue type indicators, etc. or a combination of these systems.

FEATURES

- Liquid level of measuring depth pressure is indicated for direct reading, and then the high precision is achieved.
- The construction is simple and the handling, and maintenance is easy.
- 4~20mA output signal/Two wires.

APPLICATIONS

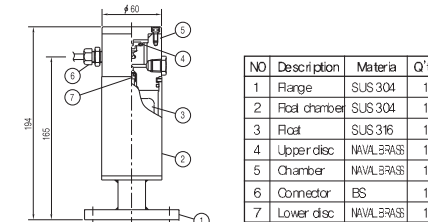
- Ballast tank remote reading
- Draft remote reading
- Fuel oil tank remote reading
- All liquids even viscous ones (molasses, bitumen etc...)

STANDARD SPECIFICATIONS

- System type : One line type air purge system
- Flow rating : 10~80NI/h
- Working Temp. : -30°C~70°C
- Supply air setting pressure : 4.5kg/cm²
- 400m Max. distance of signal line and indicator
- Signal line size : OD 8 or OD 10
- Range : 1 to 40 meter
- Output : 4~20mA 2wire system
- Power supply : 16 to 32V DC
- Accuracy : $\pm 0.5\%$ of F.R
 $\pm 0.2\%$ of F.R(optional)

COMPONENTS OF SYSTEM

DUAL CHECK TYPE SAFETY CHAMBER(AIR PURGE HEAD)

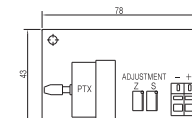


- Avoids entry of liquid inside the device in case of air supply failure.
- Connection size : JIS 5K 25A, or 5K 20A.
- Working pressure : Max. 10 kg/cm².
- Connection size of local test device : PT 1/4" .
- Material : Naval brass.
- Including local test device for check of actual level.

TRANSMITTER PANEL



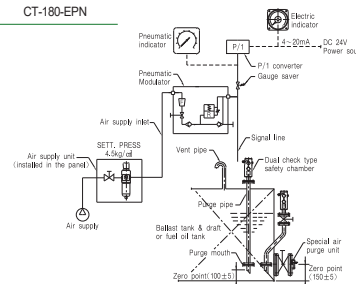
P/I CONVERTER



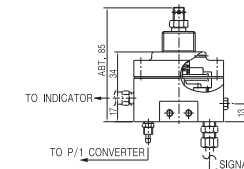
- The transmitter is linked to an integral air regulator and consists of :
 - a sensyn piezoresistant type sensor
 - an electronic unit which converts the signal from the sensor into a standard 2 wire, 4-20mA signal
- Power supply From 18 to 36VDC
- Output signal : standard 4-20mA(2 wires)
- Accuracy : $\pm 0.2\%$, OFF F.S
- Enclosure : EEx ia IIC T6

SYSTEM EXAMPLE

CT-180-EPN

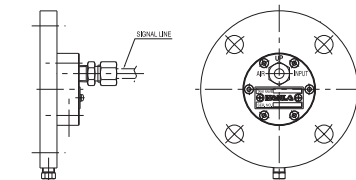


GAUGE SAVER

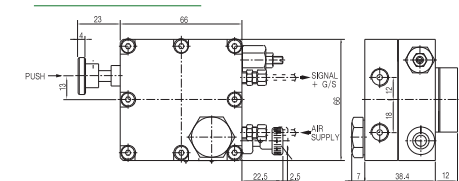


- Body material : AL6061
- Differential : Below 0.01 kg/cm²
- Including the range adjuster

SPECIAL PURGE UNIT



PNEUMATIC MODULATOR



- Air pressure : 4.5kg/cm²
- Flow rating : 10~80NI/h
- Blowing pressure : 4.5 kg/cm²
- Connexion : Air supply-PT 1/8" Signal line-PT 1/8"
- Including the flow rate adjuster and main air non-return check valve

GENERAL WIRING DIAGRAM

