

# Multi-port type two-color level gauge

Model : L510

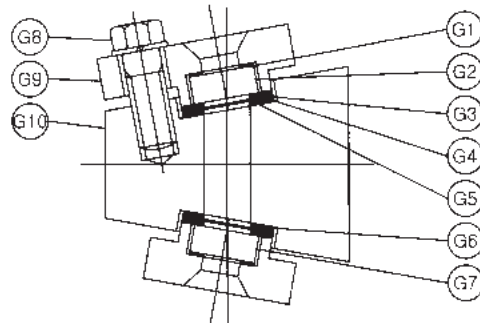
Spec. sheet no. LD05-02

## Description

This multi-window two color level gauge is provided with from 5 or 7 round windows or ports and is designed to handle the pressures and temperatures higher than the single window type level gauges. Impacts from external pressure and heat are distributed to each of the ports, thereby eliminating or minimizing the glass breakage and increasing the structural durability.

EAC

## Model



G1. Cushion gasket  
G2. Gauge glass  
G3. Protective gasket  
G4. Mica gasket  
G5. Sealing gasket

G6. Protective gasket  
G7. Packing strip  
G8. Hex. bolt  
G9. Gauge cover  
G10. Gauge body

## Specification

### No. of ports

Max.10

### Max. pressure

21.5 MPa

### Max. temperature

Sat. temperature

### Material

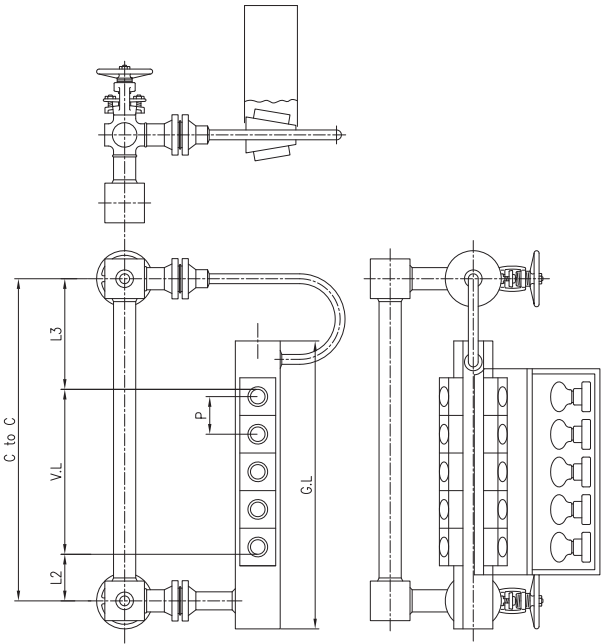
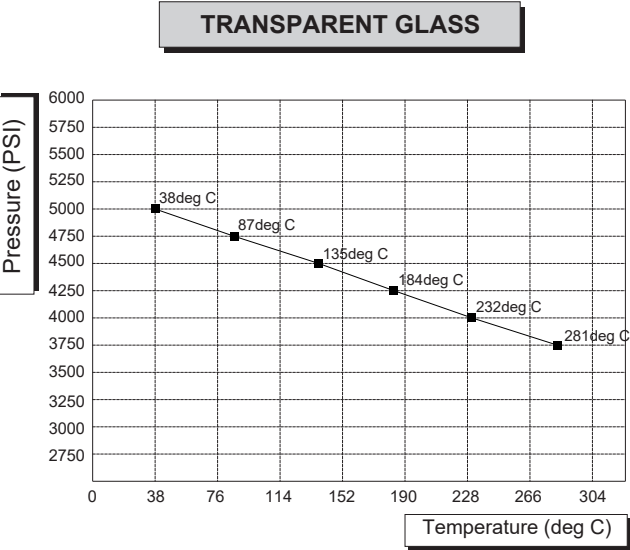
Carbon steel, Stainless steel

### Connection

3/4" or 1" flanged, Socket welds

**WISE**<sup>®</sup>

Pressure and Temperature rating for L510

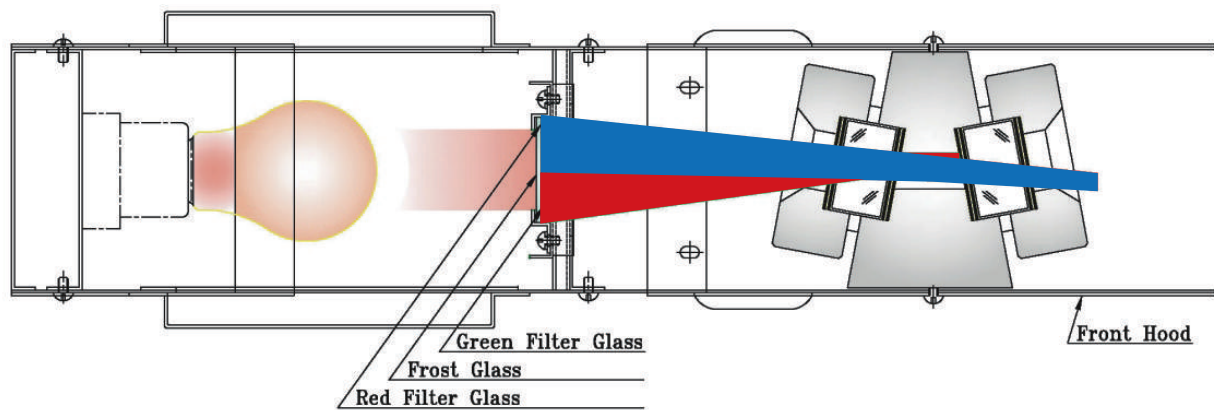


MODEL	HOOK-UP		PORT NO.	PORT PITCH	DIMENSION	
	SS-R	SS-L			C TO C	V.L
L510			3	89	449	201
			4	89	538	290
			5	89	627	379
			6	89	716	468
			7	89	805	557
			8	89	894	646
			9	89	983	735
			10	89	1072	824

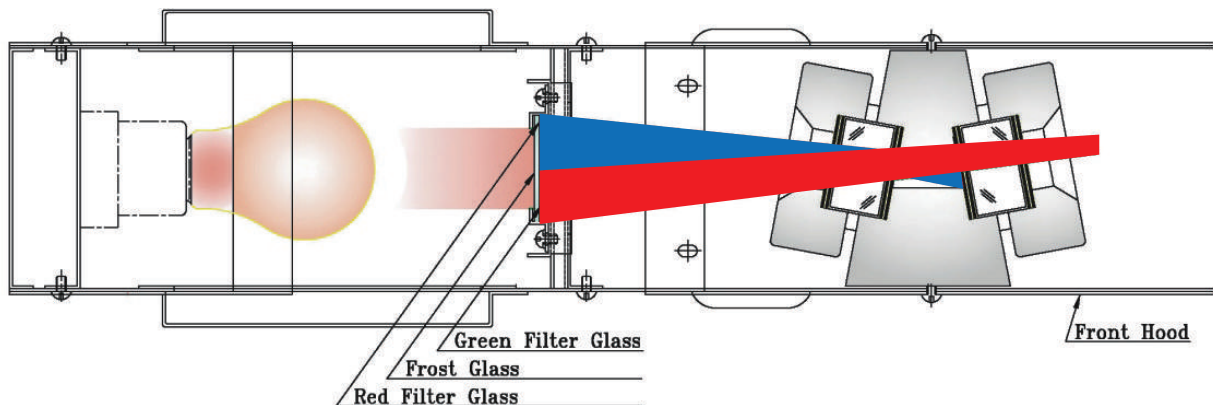
## Construction and functioning

Two-color water level gauge applies the principle of optical science that the reflective index of light is different when it passes through steam space and boiler water section, separating red (steam space) and green (boiler water section). The gauge is of construction that a special lamp, colored glass plate (red, blue) and a condensing lens are provided inside the illuminator installed at the rear of water level gauge. The light separated into two colors by passing through the colored plates (red, blue) enters into visible window of water level gauge after traveling angle is changed a little by the next condensing lens. Then, when the light passes through the trapezoid chamber which consists of two sheets of gauge glass when it is steam red light reflected in the chamber and does not appear outside interrupted by gauge cover and only red reflected ray appears on the visible face after passed through inside of water level gauge. And when it is boiler water in the chamber, contradictions phenomenon will occur, that is, the red reflected ray does not appear outside interrupted and only green refracted ray appears on the visible face. As mentioned above, the filter glass, a condensing lens, gauge glass are combined in the optically position so that correct water level may appear by instantaneously sensing the level variance.

### In the case of steam (Red)



### In the case of boiler water (Blue)



**1. Base model****L510** Two color multi-port type level gauge**2. Material**

**A** Body - A105  
**S** Body - SA105  
**O** Other

**3. Vessel connection**

**1S** 1" S.W  
**2S** 1½" S.W  
**ZZ** Other

**4. Hook-up**

**EL** ES-L  
**ER** ES-R

**5. C to C / Port quantity**

**01** 0 ~ 250 / -  
**02** 251 ~ 500 / -  
**03** 501 ~ 750 / -  
**04** 751 ~ 1000 / -  
**05** 1001 ~ 1250 / -  
**06** 1251 ~ 1500 / -  
**07** 1501 ~ 1750 / -  
**08** 1751 ~ 2000 / -  
**09** 2001 ~ 2250 / -  
**10** 2251 ~ 2500 / -  
**ZZ** Other

**6. Drain connection \_ Size and connection type**

**2** ¾" S.W  
**4** 1" S.W  
**O** Other

**7. Drain connection \_ Type**

**P** Pipe End  
**N** N/A

**8. Drain connection \_ Valve type**

**X** None  
**O** Other

**9. Drain connection \_ Material**

**CC** C.S  
**ZZ** Other

**10. Vent connection \_ Size and connection type**

**2** ¾" S.W  
**4** 1" S.W  
**O** Other

**11. Vent connection \_ Type**

**P** Pipe End  
**N** N/A

**12. Vent connection \_ Valve type**

**X** None  
**O** Other

**13. Vent connection \_ Material**

**CC** C.S  
**ZZ** Other

**14. Hood material**

**C** C.S  
**4** 304SS  
**6** 316SS  
**O** Other

**15. Lamp specification**

**L1** Non Ex-proof  
**L7** Ex-proof  
**LO** Other

**16. Glass**

**A** Aluminasilicate  
**B** Borosilicate  
**O** Other

**17. Option**

**L1** Scale Plate  
**OC** Operating Chain  
**PR** Personal Protection  
**ST** Switch Timer  
**LO** Other  
**LX** None

**Sample ordering code**

1	2	3	4	5	6	7	8	9	10	11
L510	A	1S	EL	01	2	P	X	CC	2	P
12	13	14	15	16	17					
X	CC	C	L1	A	L1					