

GLASS LEVEL GAUGES

Everywhere liquid levels have to be directly read and defined



Glass level gauges were invented and patented in 1888 by Richard Klinger, the founder of the Group of independent KLINGER companies



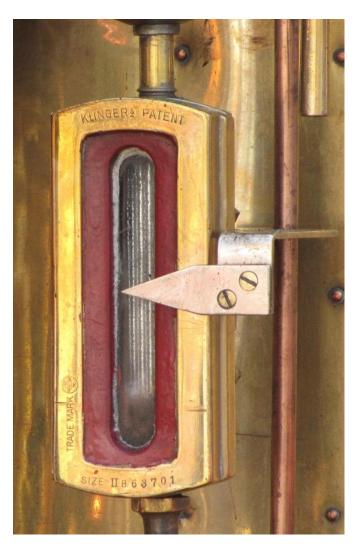


The first great step into business was at the world exhibition 1901 in Paris

KLINGER trusted. worldwide.

Original KLINGER Level Gauges are used from many years!





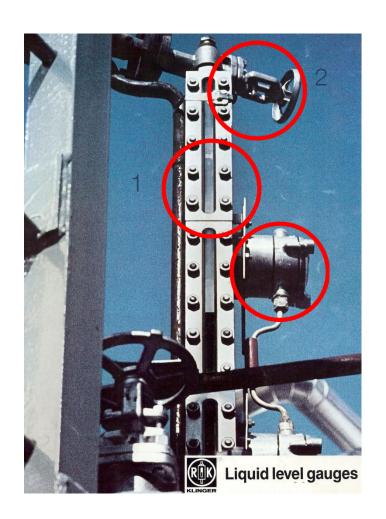


MAIN ADVANTAGES

- 1 Direct view of the fluid level
- 2 Suitable for steam application
- 3 No electronic signal, no fault
- 4 Cheaper solution to check the fluid level
- 5 Easy maintenance
- 6 Very long life in service



MAIN COMPONENTS



1 – BODY LEVEL GAUGES

With Glasses (Reflex or Transparent)

2 – VALVES OR COCKS

To isolate the Level Gauge body from the utility

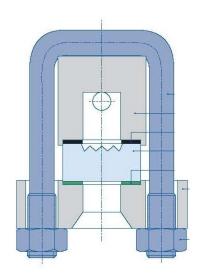
3 – ACCESSORIES

Illuminator Unit No frost Device Mica Shields Heating Tracing



REFLEX

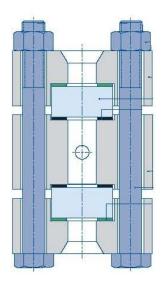
(process & steam)



Different Rifraction with Liquid and Gas (or steam)

TRANSPARENT

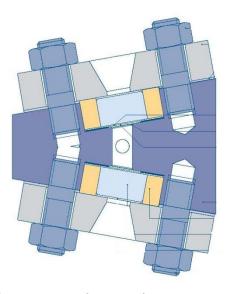
(process & steam)



Direct vision through the two glasses (back illumination available)

BICOLOUR

(steam)



Different colours between Water (Green) and Steam (Red). Back illuminated.



PROCESS APPLICATION

REFLEX: WATER, CLEAN LIQUID AND COLOURED

FLUID

TRANSPARENT: VISCOUS, DIRTY AND UNCOLOURED

FLUID, INTERFACE SERVICE AND

AGGRESSIVE FLUID (PROTECTED GLASS)

STEAM APPLICATION

REFLEX UP TO 32 bar

TRANSPARENT UP TO 120 bar

BICOLOUR UP TO 225 bar



Range of Production – PROCESS application

PROCESS APPLICATION FOR GLASS LEVEL GAUGES									
Level Gauge Type	Max Working Pressure (Bar)	Max Working Temperature (C°)	Klinger Level Gauge Model	Klinger Gauge Valve Model		Klinger Level Gauge RATING / Max Pressure			
REFLEX	25	400	R 25	DG	Offset RAV	PN 25 / ANSI 150			
	100	400	R 100	DG	Offset RAV	PN 100 / ANSI 600			
	160	400	R 160	DG Offset RAV		PN 160 / ANSI 900			
	250	400	R 250	Offset RAV		PN 250 / ANSI 1500			
	63	400	UOR Large Chamber	DG Offset RAV		PN 63 / ANSI 400			
	400	120	A 400	DVK2.IT		PN 400 / ANSI 2500			
TRANSPARENT	16	185	R-D (glass)	D		PN 16			
	50	400	T 50	DG	Offset RAV	PN 50 / ANSI 300			
	100	400	T 100	DG	Offset RAV	PN 100 / ANSI 600			
	160	400	T 160	DG	Offset RAV	PN 160 / ANSI 900			
	160	400	T 160-XS	DG	Offset RAV	PN 160 / ANSI 900			
	250	400	T 250		Offset RAV	PN 250 / ANSI 1500			
	63	400	UOT Large Chamber	DG	Offset RAV	PN 63 / ANSI 400			
WELD-PAD	100	400	UWR / UWT	Not Applicable		PN 100 / ANSI 600			
	100	400	USR / UST Not		plicable	PN 100 / ANSI 600			



Range of Production – STEAM application

STEAM APPLICATION FOR GLASS LEVEL GAUGES									
Level Gauge Type	Max Working Pressure (Bar) SATURATED STEAM	Max Working Temperature (C°)	Klinger Level Gauge Model	Klinger Gauge Valve Model					
	32	239	K	D					
REFLEX	20	215	R 25	D					
KEFLEX	22	219	R 100	D					
	32	239	R 160	D		D			
	10	185	R-D (glass)	D		D			
	15	202	T 50	D					
	30	235	T 100	D		D			
	40	252	T 160	160 D DA		DA			
TRANSPAREN	40	252	T 160-XS	D DA		DA			
T	60	270	T 160-XS	DA					
	85	298	T 85	DA	DVK2.IT	Offset RAV 957 Seal welded			
	85	298	TA 120	DA					
	120	323	TA 120	DVK2.IT					
BICOLOUR	225		KTA - 225		DVK2				
	180	356	KTA	DVK2					
	75	291	KT – 75	DVK DA		DA			
	25	225	KT - 25	D	DA				



MATERIALS

FS/H CARBON STEEL

- ASTM A105N as standard

- LF2 available for low temperature service at - 46°C

M/H WETTED PART STAINLESS STEEL

OTHERS IN CARBON STEEL

- AISI 316L and ASTM A105N as standard

M STAINLESS STEEL

- AISI 316L as standard

ALLOY, PLASTIC OR OTHER MATERIALS ARE AVAILABLE

MATERIALS



GASKET in contact with media

- Klinger REINFORCED GRAPHITE type PSM (Single tang insert in 316) or for high pressure "PDM" (Double tang inserts in 316)
- PTFE and other material on request

ORIGINAL GAUGE KLINGER GLASSES

- "Extra-hard" borosilicate glass, according to DIN 7081
- NEW OPTION: ANTISTICK GLASSES

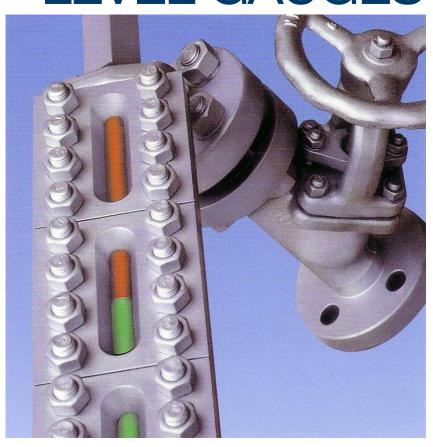
VALVE AND COCKS

- FS/H , M/H, M and other on request.

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BICOLOUR LEVEL GAUGES

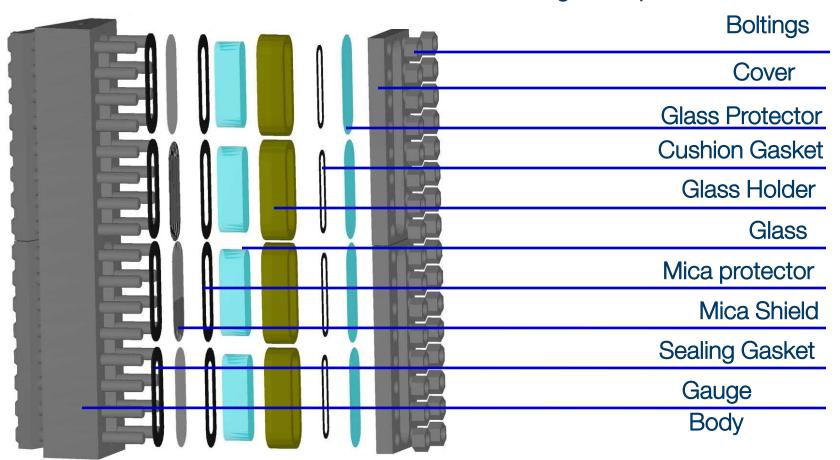


Becolour Level Gauge

For steam and process application



The Gauge Components



Same Components for the opposite side of the Gauge

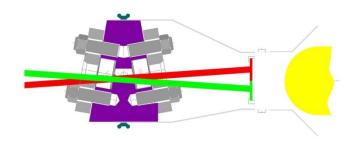


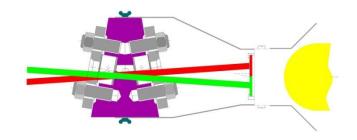
BICOLOUR LEVEL GAUGES

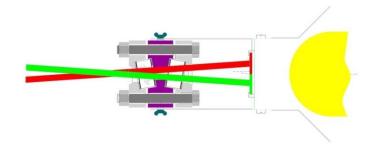
KTA up to 180 Bar Steam

KT-75 up to 75 Bar Steam

KT-25 up to 25 Bar Steam

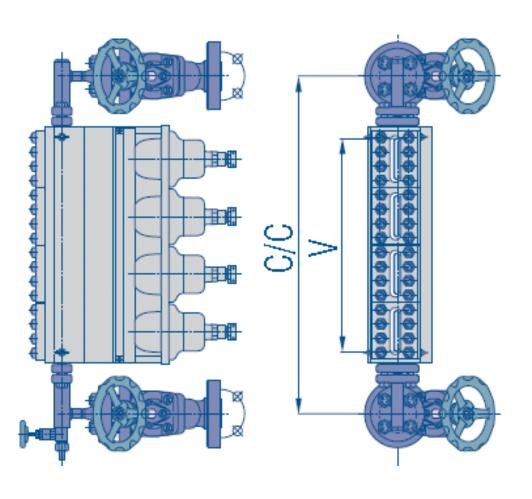






Bicolour Level Gauge





High Pressure Steam

Up to 225 Bar

Material Carbon Steel (FS/H)

Mica shields

Back illuminator

Single Sizes I (VIS = 93 mm) Multiple Sections available

Suitable for shut-off Fittings:

- for KTA & KTA 225: DVK.2

- for KT 75: DVK-2 or DA

- for KT 25: DA or D

BICOLOUR MODEL





Top of the world

Bicolour level gauges for high pressure steam application



Complete family







A COMPLETE FAMILY

Designed in Klinger Italy Srl

KTA up to 225 bar Steam

KTA up to 180 bar Steam

KT-75 up to 75 bar Steam

KT-25 up to 25 bar Steam



THANK YOU FOR YOUR ATTENTION