KES

KOIKE LEVEL GAUGE

Koike Air Breather Level Gauge

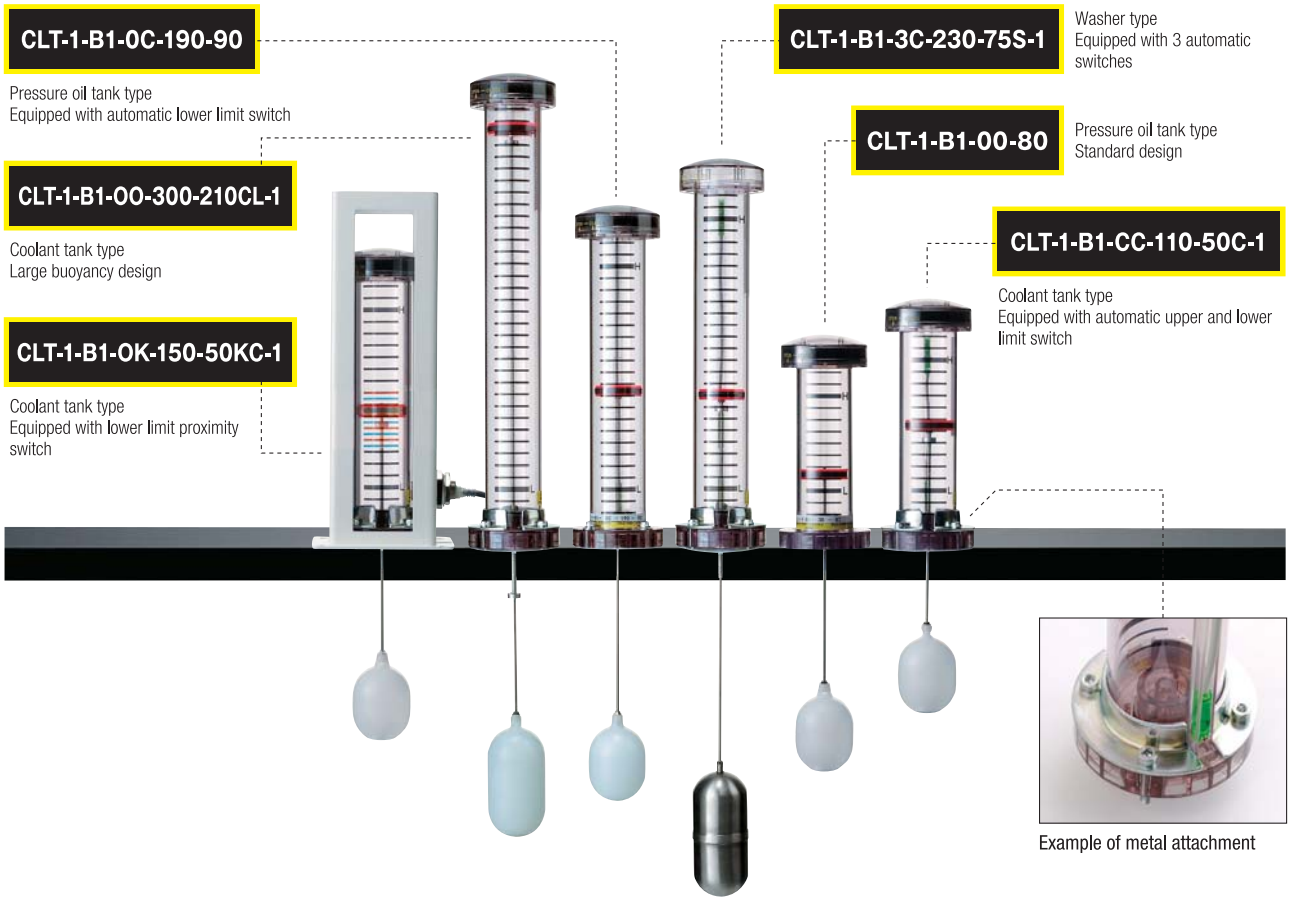
Readable from any direction in 360°

CLEAN LEVEL TOWER

Attached to the tank top with excellent visibility, the fluid level can be checked at a glance from any direction.

Highly useful level gauge with “fine visibility” and “little trouble.”

The level gauge body can be installed on the top of a tank, greatly improving the level visibility.
Free from error operation due to magnetic materials or fluid leakage from damage on a manufacturing site.



Example of metal attachment

General purpose oil pressure lubricant design

Standard and special purpose types are available.
Used for hydraulic fluids, lubricants.

Coolant design

Designed with enhanced oil resistance and chemical resistance.
Used for various cutting oils.

Washer type

Equipped with SUS 316 float.
Used for heated washing fluids.

Large buoyancy design

Please select if standard float’s buoyancy is insufficient.

Designed with telescope-type cover

Damage protection cover for the resinous part. (partially optional)

Characteristics of Clean Level Tower

1 From any direction in 360°

The level tower can be installed on the tank top, allowing to check the changing fluid level from any direction.
Effective for speeding up oil supply operation or preventing fluids from overflowing.

2 Optimal level gauge

An optimal level gauge can be made to order according to the type, depth, or used fluids requested by customers.

3 Easy installation

Easy installation with 4 screws.
The sensor (automatic switch, proximity switch) can be installed easily, allowing centralized control of fluid levels.

4 Air breather function

An air bleeding mechanism is installed in the level gauge for oil pressure and hydraulic fluid tank types. Effective for preventing corrosion by releasing the heat or steam in the tank.

5 Prevention of error operation

Only a float is placed in the tank. Since a magnet detector is installed towards the tank top, error operation trouble due to magnetic sludge can be prevented.

CLEAN LEVEL TOWER

Indication of Model No. of Clean Level Tower

●Coolant tank

CLT-1-B1-※-※-※ C-1

- CLT-1-B1: Common to all models
- ※-※: Types of switches, numbers
- ※: H-L dimension
- C-1: Under neck dimension

●Washer tank

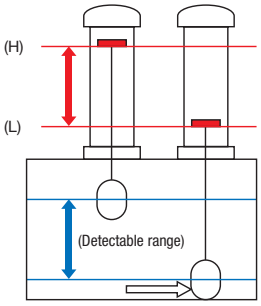
CLT-1-B1-※-※-※S-1

●Oil pressure tank

CLT-1-B1-※-※-※ (No indication)

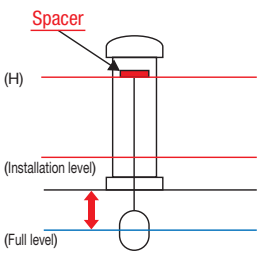
Dimensions of Clean Level Tower

●H-L dimension



- ○H-L dimension means detectable range.
- ○Indicates the upper limit (H) and lower limit (L) of fluid level in the tank.
- ○H-L dimension is between 30 and 930 mm, and the tower can be manufactured according to the depth of the tank used by a customer.
  - * Standard manufacture is designed in 10-mm increments, but special order in 5-mm increments is also possible.
- ○When setting the lower level limit, take care so that the lower half of the float on the fluid level does not contact the tank bottom.

●Under neck dimension



- ○Indicates the distance between the installation level (tank top) and full tank level.
- ○The upper limit is the level of the under neck dimension setting down from the installation level, with the spacer indicating (H).
- ○The minimum under neck dimension is 50 mm. Manufacturer is possible within the range of 50 to 300 mm.
  - * Standard manufacture is designed in 10-mm increments, but special order in 5-mm increments is also possible.
  - * Since a large float is used for the washer type (S-1), the minimum dimension is 70 mm.

Switch types of Clean Level Tower

●Automatic switch

Switch manufacturer	Type	Specifications	Visual contact	Lower limit	Upper and lower limit	3 switches	4 switches
SMC	D-Z73L	A contact	OO	OA	AA	3A	4A
	D-Z73L-100	B contact	OO	OB	BB	3B	4B
JPN	SWC-1-G	B contact	OO	OC	CC	3C	4C

●Proximity switch

Switch manufacturer	Type	Specifications	Visual contact	Lower limit	Upper and lower limit	3 switches	4 switches
OMRON	E2E-X7D1-N	A contact	OO	OK	KK	3K	4K
YAMATAKE	FL7M-7J6HD						

Float types of Clean Level Tower

Selection can be made according to the used fluid type, temperature, gauge dimension, buoyancy, and other specifications.

 ø50 H65 Polypropylene	 ø50 H95 Polypropylene	 ø50 H110 SUS316	 ø95 H95 SUS316
W50-001	**W50-003**	**W50-002**	**W95-001**
Standard float type with enhanced oil resistance and chemical resistance. Applicable to room temperature fluids. Suitable for various cutting oils.	Please select if the buoyancy of W50-001 is insufficient. Be sure to use without fail in case the stroke of the level gauge is 500 mm or over.	SUS float type with excellent resistance to oil, chemical and even strong alkaline. Applicable up to fluid temperature at around 70°C. Most suited for heated washers.	Please select if the buoyancy of W50-002 is insufficient. Be sure to use without fail in case the stroke of the level gauge is 800 mm or over.

Selection procedure of Clean Level Tower

Selection of specifications

<Coolant type>	<Washer type>	<Hydraulic fluid type>
CLT-1-B1-※-※-※C-1 Common to all models	**CLT-1-B1-※-※-※S-1**	**CLT-1-B1-※-※-※** No indication

Selection of switch

Switch manufacturer	Model	Specifications	Visual contact	Lower limit	Upper and lower limit	3 switches	4 switches
SMC	D-Z73L	A contact	00	0A	AA	3A	4A
	D-Z73L-100	B contact	00	0B	BB	3B	4B
JPN	SWC-1-G	B contact	00	0C	CC	3C	4C

<Coolant type>	<Washer type>	<Hydraulic fluid type>
CLT-1-B1-OC-※-※C-1	**CLT-1-B1-OC-※-※S-1**	**CLT-1-B1-OC-※-※**

Switch manufacturer	Model	Specifications	Visual contact	Lower limit	Upper and lower limit	3 switches	4 switches
OMRON YAMATAKE	E2E-X7D1-N FL7M-7J6HD	A contact	00	0K	KK	3K	4K

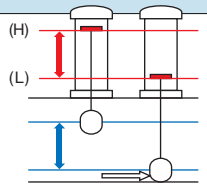
<Coolant type>	<Washer type>	<Hydraulic fluid type>
CLT-1-B1-OK-※-※KC-1	**CLT-1-B1-OK-※-※KS-1**	**CLT-1-B1-OK-※-※K-1**

Selection of H-L dimension

H-L dimension: 30 and 930 mm

○H-L dimension is between 30 and 930 mm, designed according to the tank used by the customer.
* Standard manufacture is designed in 10-mm increments, but special order in 5-mm increments is also possible.

○When setting the lower level limit, take care so that the lower half of the float on the fluid level does not contact the tank bottom.



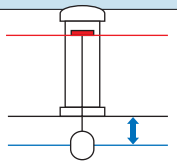
<Coolant type>	<Washer type>	<Hydraulic fluid type>
CLT-1-B1-OC-100-※C-1	**CLT-1-B1-OC-120-※S-1**	**CLT-1-B1-OC-200-※**

Selection of under neck dimension

Under neck dimension: 50 to 300 mm

○It is the distance between the installation level (tank top) and full tank level.

○The minimum under neck dimension is 50 mm. Manufacturer is possible within the range of 50 to 300 mm.
* Standard manufacture is designed in 10-mm increments, but special order in 5-mm increments is also possible.
* Since a large float is used for the washer type (S-1), the minimum dimension is 70 mm.



<Coolant type>	<Washer type>	<Hydraulic fluid type>
CLT-1-B1-OC-100-50C-1	**CLT-1-B1-OC-120-70S-1**	**CLT-1-B1-OC-200-90**

Completion of selection

Coolant type	Washer type	Hydraulic fluid type
CLT-1-B1-OC-100-50C-1	**CLT-1-B1-OC-120-70S-1**	**CLT-1-B1-OC-200-90**

The specifications and designs are subject to change without advance notice. Please contact first.

KOIKE ENGINEERING AND SERVICE