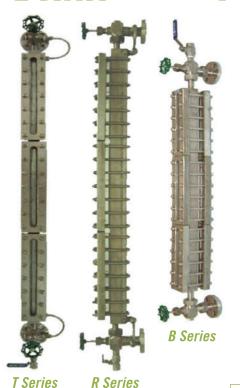
LIQUID LEVEL GAUGE

SAPIAS – Reflex Type | SAPIAS – Transparent Type | SAPIAS – Large Chamber Type



R Series

T series, B series and illuminator type. Which meet various pressure, temperature for application by customer. Approvals:

NEW-FLOW glass level gauge are designed in wide range including R series,

Feature

- High Quality
- Low Cost
- Material: Carbon steel, SS304, SS316 are available
- The special materials are available by requested







Valve Type





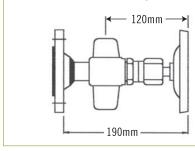


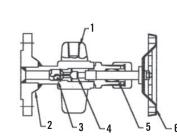
Standard Type Valve

Jacket Type Valve

Offset Type Valve

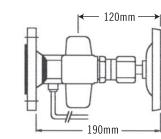


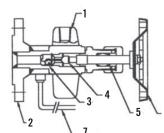




- **(1)** Body
- (2) Flange
- (3) Ball Check
- (4) Plug stem
- (5) Packing
- (6) Handle wheel

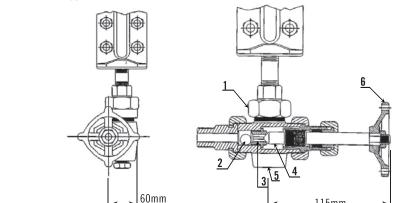
Jacket Type Valve (Max. Pressure: 70 kg/cm² @ 38°C)

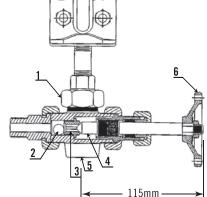




- **(1)** Body
- (2) Flange
- (3) Ball Check
- (4) Plug stem
- (5) Packing
- (6) Handle wheel
- (7) Jacket tube

Offset Valve Type (Max. Pressure: 3000 PSI @ 38°C)





- (1) Unit-Nut
- (2) Ball Check
- (3) Seat
- (4) Stem
- (5) ½"NPT
- (6) Handle Wheel

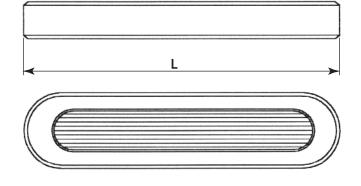


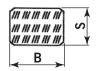
ILLUMINATOR Type (only for transparent type)

illuminator Protection: EEx ia II C T4/T5/T6 21 special LED's provide dazzle free illumination. **Electrical Data and Components; General:**

- Supply: AC or DC
- Operating Voltage: 24V
- Power Consumption: Max. 2W
- Temperature Resistant: -10°C to +90°C

Glass for Reflex type

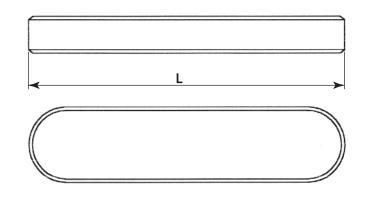




Dimensions-mm

No.	L	В	S
3	165	34	17
4	190	34	17
5	220	34	17
6	250	34	17
7	280	34	17
7 ½	300	34	17
8	320	34	17
9	340	34	17
10	400	34	17

Glass for Transparent type





Dimensions-mm

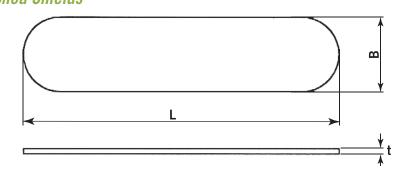
No.	L	В	S
3	165	34	17
4	190	34	17
5	220	34	17
6	250	34	17
7	280	34	17
7 ½	300	34	17
8	320	34	17
9	340	34	17
10	400	34	17

5700 psi — 345 bar				_	— transp	arent
4750 psi 328 bar					reflex	
4500 psi 310 bar	-					
4250 psi 293 bar	-					
4000 psi 276 bar						
3750 psi 259 bar	}					
3500 psi 241 bar	_					·
3250 psi — 224 bar	_					
3250 psi	<u> </u>					
50 07E0 mai						
2750 psi 190 bar						
2750 psi						<u> </u>
2750 psi	100°F 38°C	188°F 87°C	275°F 135°C	363°F 184°C	450°F 232°C	538°F 281°C

Application Conditions	Perm	imum issible ssure	Perm	mum issible erature
	Bar	Psi	°C	°F
Saturated steam or hot water in direct contact with reflex or transparent sight glasses.	35	500	243	470
Saturated steam or hot water in contact with transparent sight glasses protected with mica.	103	1500	320	608
Non-corrosive, non-steam service and no technically significant glass attack, with reflex or transparent glasses.	280	4000	38	100
Transparent sight glasses in contact with medias with no technically significant glass attack.	345	5000	38	100
High pressure transparent sight glasses in special armatures (gauges).	414	6000	38	100

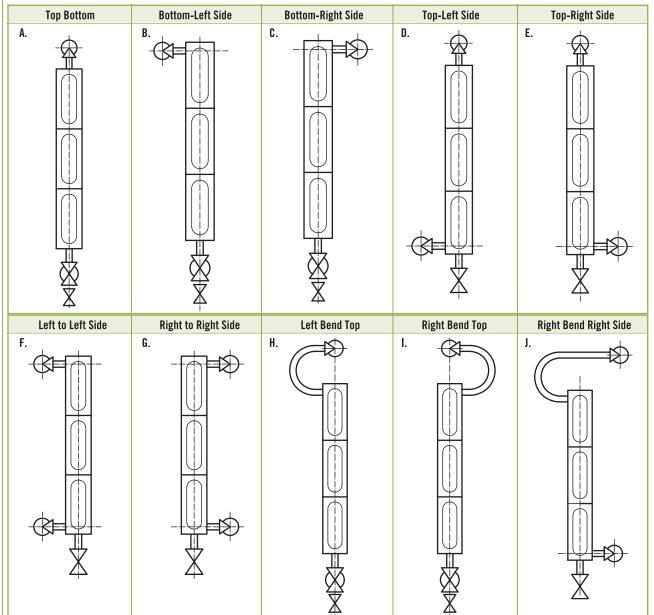
No.	L	В	t
3	165	34	≒1.5~1.8
4	190	34	≒1.5~1.8
5	220	34	≒1.5~1.8
6	250	34	≒1.5~1.8
7	280	34	≒1.5~1.8
7 ½	300	34	≒1.5~1.8
8	320	34	≒1.5~1.8
9	340	34	≒1.5~1.8
10	400	3.4	±15~18

Mica Shields

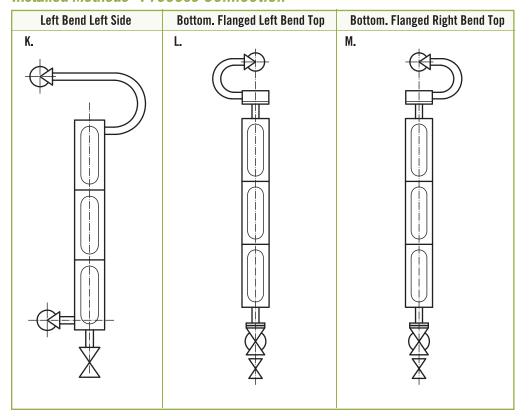


Dimensi	ons-mm		
No.	L	В	t
3	165	34	⇒ 0.2
4	190	34	≒ 0.2
5	220	34	⇒ 0.2
6	250	34	≒ 0.2
7	280	34	≒ 0.2
7 ½	300	34	≒ 0.2
8	320	34	≒ 0.2
9	340	34	⇒ 0.2
10	400	34	⇒ 0.2

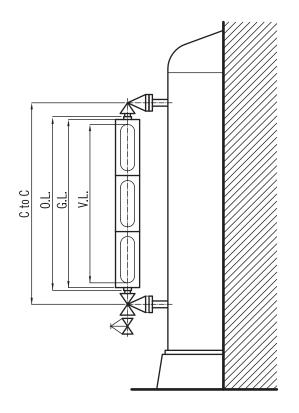
Installed Methods- Process Connection



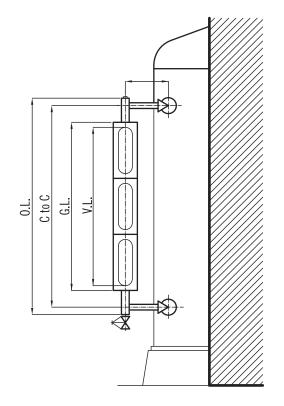
Installed Methods- Process Connection



Sample Hook-Up Drawing



Top-Bottom Hook-Up



Right to Right Side Hook-Up

• R Series — Reflex Type Liquid Level Gauge

The Reflex type level gauge is constructed by a solid one-piece chamber made from bar stack with ductile steel covers, hard glass, steel bolts and nuts. The material are available with carbon steel, SS304, SS316 and SS316L. The special material are available by requested. The level gauge provide from one up to five section. As the reflex level gauge is used, liquid section appears black color and steam or gas section appears with white color.

The R Series level gauge is designed to suit for the euipment in the chemical plant. Power plant and other industries to measure the liquid level. NEW-FLOW provides - R (standard type), RJ (jacket type) and RN (Non-frosting type) for customer to application by requested.

Technical Data

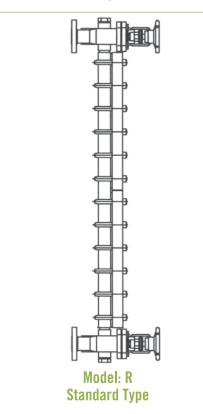
Center to Center length: By customer requested Connection Vessel: 1/2" or 1/4" female or male Process Rating: Thread or Flange end available

Covers: Ductile, SS304 and SS316 are available by requested

Sight Glass: Borosilicate glass

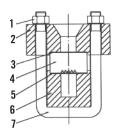
Gasket: High quality material are made by requested

U-Bolt and Nuts: Alloy steel, SS304 and SS316 are available

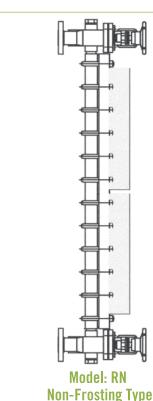


- •Temperature Range: 2°C ~ 280°C
- Pressure Range: up to 40 kg/cm² (standard); optoin up to 70 kg/cm² available.
- •With Gauge Valve: Union nut or Nipple between gauge valve and vessel body.
- Process Connection: Thread or Flange according to JIS, ANSI and DN specification.

Parts List



- 1. Nut for U-bolt
- 2. Cover
- 3. Packing
- 4. Gauge Glass
- 5. Packing 6. Body
- 7. U-bolt

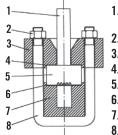


Using in low temperature application to prevent the frost build up does not

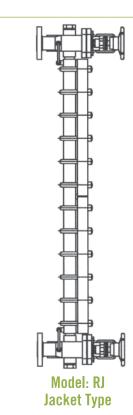
- •Temperature Range: -10°C ~ -100°C
- Pressure Range: up to 20 kg/cm²

obscure reading of the liquid level.

Parts List



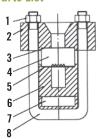
- 1. Plastic Extension Plate
- 2. Nut for U-bolt
- 3. Gauge Cover
- 4. Gasket
- 5. Gauge Glass
- **6.** Gasket
- 7. Gauge Body
- 8. U-bolt



Jacket type— Heating or Cooling This type is built with a jacket pass through steam or cooling water into the jacket. It can keep temperature in the vessel to avoid liquid crystallization or vaporization. So the liquid can be indicated dearly.

- •Temperature Range: 2°C ~ 280°C
- Pressure Range: up to 40 kg/cm² (standard): optoin up to 70 kg/cm² available.

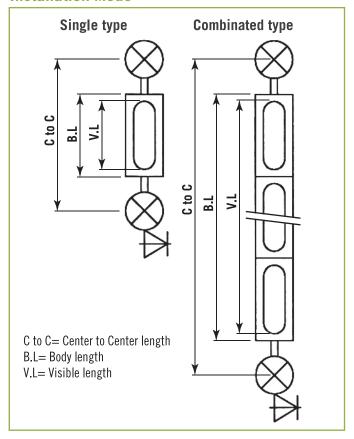
Parts List



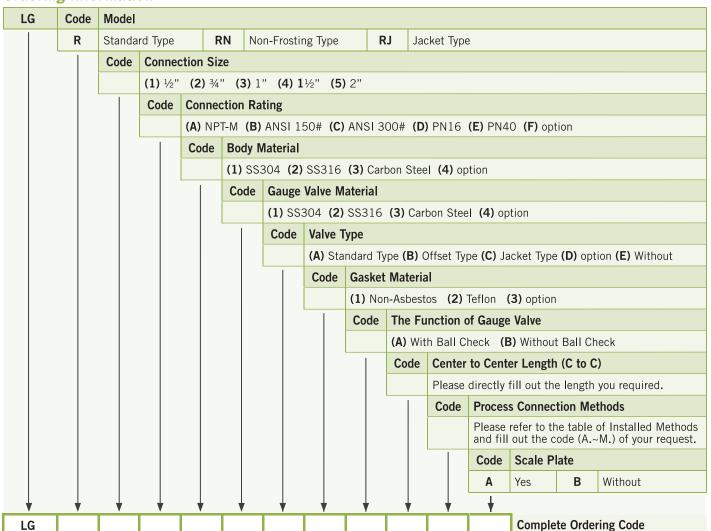
- 1. Nut for U-bolt
- 2. Cover
- 3. Packing
- **4.** Gauge Glass
- 5. Packing 6. Body
- 7. Jacket
- 8. U-bolt



R Series — Reflex Type Liquid Level Gauge Installation Mode



Ordering Information



• T Series — Transparent Type Liquid Level Gauge

The Transparent type level gauge is constructed by a solid one-piece chamber made from bar stack with ductile steel covers, hard glass, steel bolts and nuts. The material are available with carbon steel, SS304, SS316 and SS316L. The special material are available by requested. The level gauge provide from one up to five section. As the transparent level gauge is used, liquid section appears black color and steam or gas section appears with white color. The T Series level gauge is designed to suit for the euipment in the chemical plant. Power plant and other industries to measure the liquid level. NEW-FLOW provides - T (standard type), TJ (jacket type) and TN (Non-frosting type) for customer to application by requested.

Technical Data

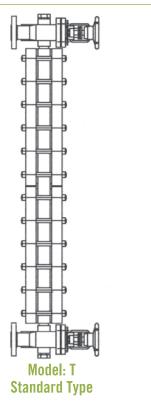
Center to Center length: By customer requested Connection Vessel: 1/2" or 1/4" female or male Process Rating: Thread or Flange end available

Covers: Ductile, SS304 and SS316 are available by requested

Sight Glass: Borosilicate glass

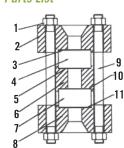
Gasket: High quality material are made by requested

U-Bolt and Nuts: Alloy steel, SS304 and SS316 are available

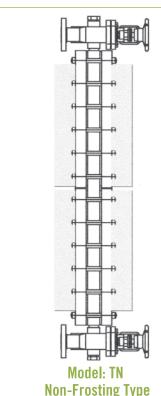


- •Temperature Range: 2°C ~ 280°C
- Pressure Range: up to 40 kg/cm² (standard): optoin up to 70 kg/cm² available.
- •Without Gauge Valve: ½" or ¾"NPT
- •With Gauge Valve: Union nut or Nipple between gauge valve and vessel body.
- Process Connection: Thread or Flange according to JIS, ANSI and DN specification.
- •Transparent type is not suitable for colorless liquid.

Parts List



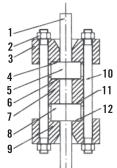
- 1. Nut for U-bolt
- 2. Cover
- 3. Packing
- 4. Gauge Glass
- 5. Packing
- 6. Body
- 7. Gauge Glass
- 8. Cover
- 9. Bolt
- 10. Packing
- 11. Packing



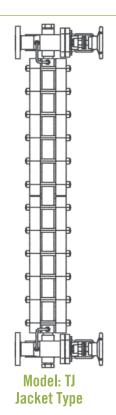
Using in low temperature application to prevent the frost build up does not obscure reading of the liquid level.

- •Temperature Range: -10°C ~ -100°C
- Pressure Range: up to 20 kg/cm²

Parts List



- 1. Plastic **Extension Plate**
- 2. Nut for U-bolt
- 3. Gauge Cover
- 4. Gasket
- 5. Gauge Glass
- 6. Packing
- 7. Body
- 8. Gauge Glass
- 9. Cover
- 10. U-bolt
- 11. Packing
- 12. Packing

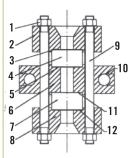


Jacket type— Heating or Cooling This type is built with a jacket pass through steam or cooling water into the jacket. It can keep temperature in the vessel to avoid liquid crystallization or vaporization. So the liquid can be

- •Temperature Range: -10°C ~ 280°C
- •Pressure Range: up to 40 kg/cm² (standard); optoin up to 70 kg/cm² available.

Parts List

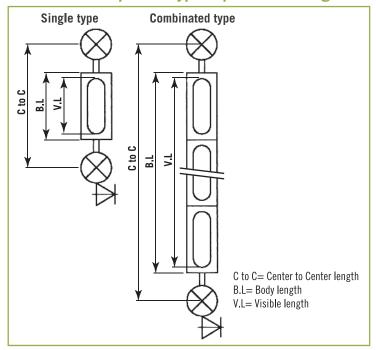
indicated dearly.



- 1. Nut for U-bolt
- 2. Cover
- 3. Packing
- 4. Gauge Glass
- 5. Packing
- 6. Body
- 7. Gauge Glass
- 8. Cover
- 9. Bolt
- **10.** Jacket Pipe
- 11 Packing
- 12. Packing



• T Series — Transparent Type Liquid Level Gauge Installation Mode



Ordering Information

_G	Code	Model																		
	T	Standa	d Type TN Non-Frosting Type TJ Jacket Type																	
		Code	Conne	ction	Size	;														
			(1) 1/2"	/2" (2) 3/4" (3) 1" (4) 11/2" (5) 2"																
			Code	Cor	nect	nection Rating														
				(A)	(A) NPT-M (B) ANSI 150# (C) ANSI 300# (D) PN16 (E) PN40 (F) option															
				Co	de l	Bod	ly Ma	aterial												
					((1)	SS3	04 (2)	SS316	(3) C	Carbor	n Stee	(4)	opti	on					
						Coc	de	Gauge	Valve M	lateria	al									
							-	(1) SS3	304 (2)	SS31	16 (3) Carl	bon St	teel	(4) op	tion				
								Code	Valve 1	Гуре										
									(A) Sta	ındard	І Туре	(B) (Offset	Туре	e (C) Ja	acket Typ	oe (D) op	tior	n (E) Wit	hout
									Code	Gask	ket M	ateria	ıl							
										(1) №	Von-A	sbest	os (2	2) Te	flon	(3) optio	n			
										Cod	le T	he Fu	nctio	n of	Gauge	Valve				
											(A	4) Wit	h Ball	l Che	eck (E	3) Withou	ut Ball C	hec	k	
											C	ode				er Lengt				
													Pleas			fill out t				ed.
													Cod			s Conne				
																refer to to the				
															Code	illumin	ator (EE	x ia	II C T4	I/T5/T6
															Α	With	В	W	/ithout	
																Code	illumin	ato	r Power	Supply
																0	Withou	t	1	24VD0
																2	110VA	0	3	220VA
																	Code	Sc	ale Plat	е
																	Α	Yes	S	
																	В	Wi	thout	
\	+	₩	\	•		V		\	+	V		V	\		+	+	†			
_G					- 1		-1											Cor	mplete Or	dering C

• B Series — Large Chamber Type Liquid Level Gauge

The Large Chamber level gauge is constructed by a big chamber made with ductile steel covers, hard glass, steel bolts and nuts. The large chamber type level gauge is specifically designed to provide an easy observation for the level of viscose liquid and provide an easy flushing to vessel of the level gauge when it's on requested. The B series can provide end connection up to 2" thread or flange, according to the specification of JIS, ANSI, DIN

all materials in the B series are available with carbon steel, \$\$304, \$\$316 and \$\$\$5316L. The special materials are available by requested.

Technical Data

Center to Center length: By customer requested

Connection Vessel: Up to 2" pipe size

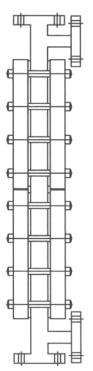
Process Rating: Thread or Flange end available

Covers: Ductile, SS304 and SS316 are available by requested

Sight Glass: Borosilicate glass

Gasket: High quality material are made by requested

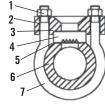
U-Bolt and Nuts: Alloy steel, SS304 and SS316 are available



Model: BR, Standard Type

- •Temperature Range: 2°C ~ 300°C
- •Pressure Range: up to 40 kg/cm² (standard); optoin up to 70 kg/cm² available.
- •Process Connection: ½" up to 2"

Parts List



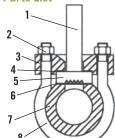
- 1. Nut for U-bolt
- 2. Gauge Cover
- 3. Packing
- 4. Gauge Glass
- 5. Packing
- **6.** Body 7. U-bolt

Model: BRN, Non-Frosting Type

Using in low temperature application toprevent the frost build up does not obscure reading of the liquid level.

- •Temperature Range: -10° C $\sim -100^{\circ}$ C
- Pressure Range: up to 20 kg/cm²;
- •Process Connection: ½" up to 2"

Parts List

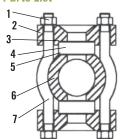


- 1. Plastic Extension Plate
- 2. Nut for U-bolt
- 3. Gauge Cover
- 4. Gasket
- 5. Gauge Glass
- 6. Gasket 7. Gauge Body
- 8. U-bolt

Model: BT, Standard Type

- •Temperature Range: 2°C ~ 300°C
- Pressure Range: up to 40 kg/cm² (standard); optoin up to 70 kg/cm² available.
- •Process Connection: ½" up to 2"

Parts List

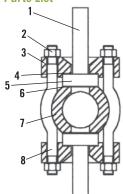


- 1. Nut for U-bolt
- 2. Gauge Cover
- 3. Gasket
- 4. Gauge Glass
- 5. Gasket
- **6.** Gauge Body
- 7. Bolt

Model: BTN, Non-Frosting Type

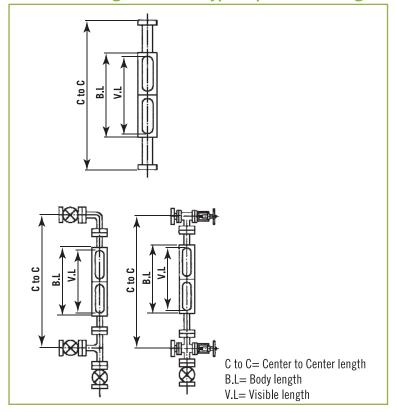
- •Temperature Range: -10°C ~ 100°C
- Pressure Range: up to 20 kg/cm²;
- •Process Connection: ½" up to 2"

Parts List



- 1. Plastic Extension Plate
- 3. Gauge Cover
- 4. Gasket
- 5. Gauge Glass
- 2. Nut for U-bolt
- 6. Gasket 7. Gauge Body

• B Series — Large Chamber Type Liquid Level Gauge Installation Mode



aerin	g Into	ormat	<i>ion</i>													
LG	Code	Model														
	BR	Reflex,	, Standar	d Type		BRI	BRN Reflex, Non-Frosting Type									
	ВТ	Transp	arent, St	tandard Type BTN Transparent, Non-Frosting Type												
		Code	Connec	ction Si	ze											
			(1) ½"	ANSI 1	50# (2) ¾" AN	ISI 15	50#	(3) 1'	' ANSI	150# (4	4) 1" JIS	10K (5) op	otion	
			Code	Body I	Material											
				(1) SS	304 (2)	SS316	(3)	Carb	on Stee	(4) o	otion					
				Code	Gauge	Valve N	lateri	ial								
					(1) SS:	304 (2)	SS3 (16 ((3) Carl	bon Ste	el (4) op	otion				
					Code	Valve ⁻	Туре									
						(A) Ba	II Valv	ve (B) Glob	oe Valve	(C) Op	tion (D) Withou	t		
						Code	Gas	ket l	Materia	ıl						
							(1)	Non-	Asbest	os (2)	Teflon	(3) optio	n			
							Coc	de	The Fu	nction	of Gauge	Valve				
									(A) Witl	h Ball C	heck (E	3) Withou	ut Ball C	heck		
									Code	Cente	to Cent	er Lengt	th (C to	C)		
										Please	directly	fill out t	he length	ı you	requir	ed.
								_		Code	Proces	s Conne	ction Me	ethod	ls	
																Methods r request.
											Code	illumin	ator (EE	x ia	II C T4	/T5/T6)
											Α	With	В	Wit	thout	
												Code	illumin	ator	Power	Supply
												O Without 1 24VDC 2 110VAC 3 220VAC Code Scale Plate				
													Α	Yes		B Without
↓	V	V	+	V	+	+	V		V	+	+	V	+			
LG														Con	nplete	Ordering Code