Electrical Level Gauge

Model ML-ELG, MT-ELG, MLMT-ELG

Specifications

- 10, 12, 15, 18, 24" mounting center transparent level indicator
- Transparent Polycarbonate lens
- Aluminum guard - 90° rotation
- Glass reinforced PA 66 nylon end caps
- Maximum Operating temperature 176°F (80°C)
- Maximum working pressure 14.5 PSI (1 bar)
- Compatible with petroleum based fluids, gasoline, diesel, and a variety of solvents
- 70 durometer buna seals
- 1/2"-13 UNC or (M12) mounting hardware available
- Recommended tightening torque 4 ft/lbs (5 Nm)

Options Available

- Optional M12 stainless bolts & nuts

MLMT-ELG
Minimum Level Maximum Temperature Indicator

ML-ELG
Minimum Level Indicator

MT-ELG
Maximum Temperature Indicator

Ordering Code

MLMT — ELG — 12 — M12 — A

Application	
ML	Minimum Level
MT	Maximum Temperature
MLMT	Minimum Level, Maximum Temperature

Series
ELG

Size
10
12
15
18
24

Options	
Omit	No Options
M12	M12 Bolt
V	Viton Seals
*LB	1/2"-13 x 2 Bolts
*M12-SS	303 SS Bolts, Nuts
** GT	Borosilicate glass tube

*Consult Lenz
**10" mounting center only

	Temp. Option Contacts
A	140°F Normally Open
B	140°F Normally Closed
C	158°F Normally Open
D	158°F Normally Closed

Dimensional Detail

Model		Mounting Center L	Wall Thickness	Mounting Hole	Mounting Bolt F	Bolt Torque
ML, MT, MLMT-ELG-10	in. mm	10 254	0.4 10	.50-.53 12.6-12.9	(1/2-13) x 1.75" (M12-1.75) x 1.65"	4 FT-LBS 5 NM
ML, MT, MLMT-ELG-12	in. mm	12 304.8	0.4 10	.50-.53 12.6-12.9		4 FT-LBS 5 NM
ML, MT, MLMT-ELG-15	in. mm	15 381	0.4 10	.50-.53 12.6-12.9		4 FT-LBS 5 NM
ML, MT, MLMT-ELG-18	in. mm	18 457.2	0.4 10	.50-.53 12.6-12.9		4 FT-LBS 5 NM
ML, MT, MLMT-ELG-24	in. mm	24 609.6	0.4 10	.50-.53 12.6-12.9		4 FT-LBS 5 NM

Assembling Instructions

Method A: Tank has to have two drilled and tapped holes in either M12 or 1/2-13 UNC and can be installed from outside into the threaded holes.

Method B: Two holes must be drilled (12.2 mm for M12) (12.6 mm for 1/2-13 UNC) and the level gauge can be installed with two hex nuts from the inside of the tank. The tolerance on center to center distance: 0.3 mm, and the tolerance on the drilled holes is 0.2 mm.

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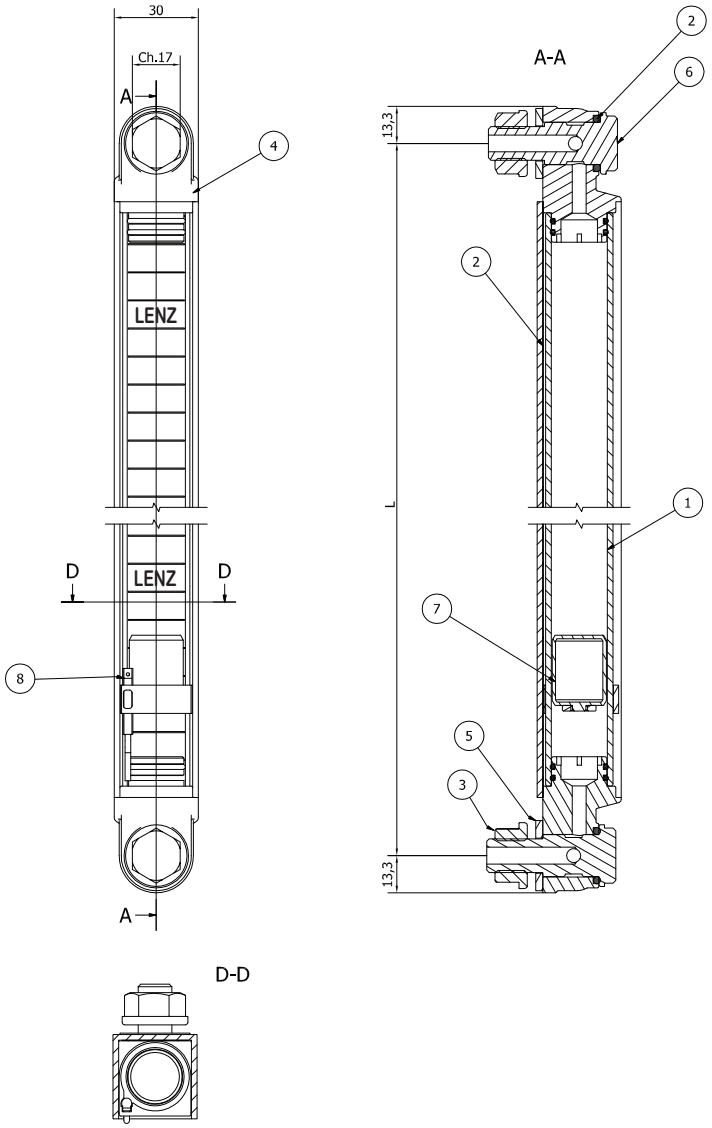
ML-ELG Level Gauge

With minimum level electrical switch

- Sensor “REED” switch attached on the internal transparent tube, adjustable in height according to the customer design control requirements of the level. The minimum location position is 2" or 50 mm from the center of the lower bolt. The sensor is supplied with power cable 11.8" (30 cm) in length and M8 male connector. Upon request it is possible to provide a separate connection cable of 98" (250 cm) complete with female M8 connector.
- Float element made of technopolymer containing a magnetic element that activates the electric contact when it reaches the REED level switch sensor.
- Standard execution: with electrical contact normally open.
- Operating features: the vertical level indicator ML-ELG in addition to allowing for a visual inspection provides an electrical signal when the float reaches the preset minimum level, following the closure of the electrical circuit.



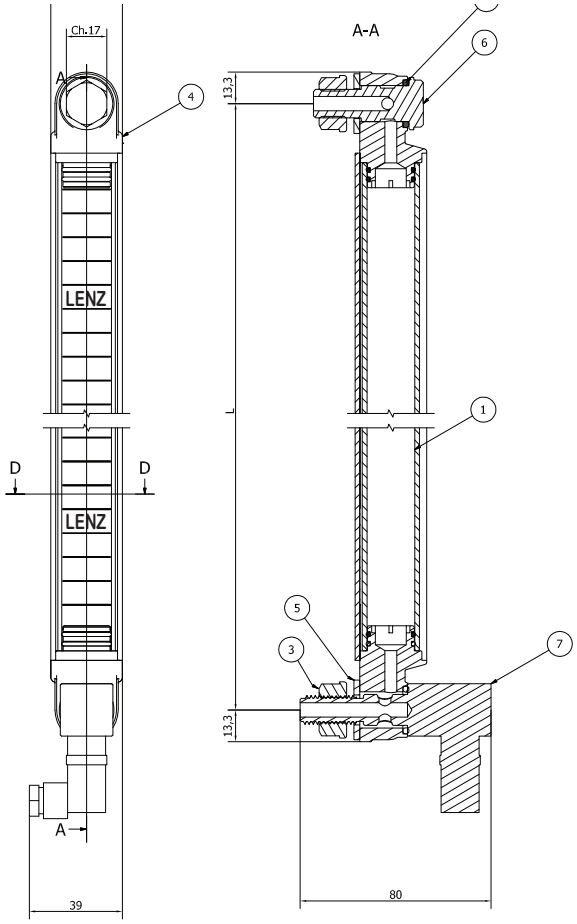
Components List	
Item	Description
1	Polycarbonate transparent tube
2	O-Rings
3	Flanged hex M12, 1/2"-13 UNC nut
4	Plastic end caps
5	NBR seal
6	Hollow bolt M12, 1/2"-13 UNC
7	Magnetic floating element
8	“REED” sensor with M8 male connector
9	Aluminum U-shape guard

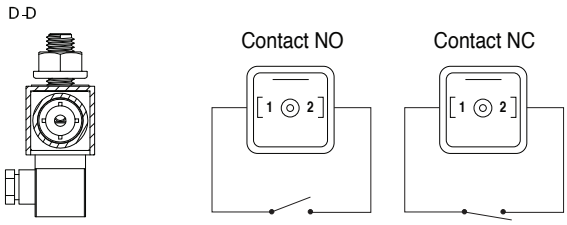
Electrical characteristics	Minimum level REED sensor switch
Supply voltage	3-30 VAC/DC
Electrical contacts	NO normally open
Switching current	.2 AMPS
Maximum temperature	176°F (80°C)
Protection degree	IP67

MT-ELG Level Gauge

With maximum temperature electrical switch

- Preset electrical sensors are available with switching temperatures of 140°F or 158°F
- Temperature executions: MT-ELG-A, MT-ELG-C (electrical contact normally open temperature sensor) – MT-ELG-B, MT-ELG-D (electrical contact normally closed temperature sensor)
- Operation features: The level gauge MT-ELG in addition to allowing a visual oil level inspection provides an electrical signal when the temperature of the fluid inside the reservoir reaches a specified preset switching temperature (see temperature switching chart below). The model MT-ELG-NO the electrical circuit is closed once it reaches the preset switching temperature of 140°F or 158°F. The model MT-ELG-NC the electrical circuit is opened once it reaches the preset switching temperature of 140°F or 158°F.





The electrical sensor is stamped N/A (normally closed) or N/O (normally open) and also marked 60°C (148°F) or 70°C (158°F) for switching temperature.

Components List	
Item	Description
1	Polycarbonate transparent tube
2	O-Rings
3	Flanged hex M12, 1/2"-13 UNC nut
4	Aluminum U-shape guard
5	NBR seal
6	MAX temperature sensor
7	Hollow bolt M12, 1/2"-13 UNC
8	Plastic end caps

Temperature Switching Chart

Code		Normally Closed		Tolerance
	Opens	Tolerance	Closes	Range
B	140°F	131-149°F	113°F	106-120°F
	60°C	55-65°C		41 - 49°C
D	158°F	148-168°F	131°F	124-138°F
	70°C	65-75°C		51 - 59°C
Code		**Normally Open**		**Tolerance**
	Closes	Tolerance	Opens	Range
A	140°F	131-149°F	113°F	106-120°F
	60°C	55-65°C		41-49°C
C	158°F	148-168°F	131°F	124-138°F
	70°C	65-75°C		51-59°C

Electrical characterictics	Maximum temperature electrical sensor
Supply voltage	3-30 VAC/DC
Electrical contacts	NO normally open NC normally closed
Protection degree	IP65, DIN swivel connector
Switching temp.	140°F (60°C) or 158°F (70°C)
Precision	±5°C (data referred to a room temp. = 68°F/ 20°C)

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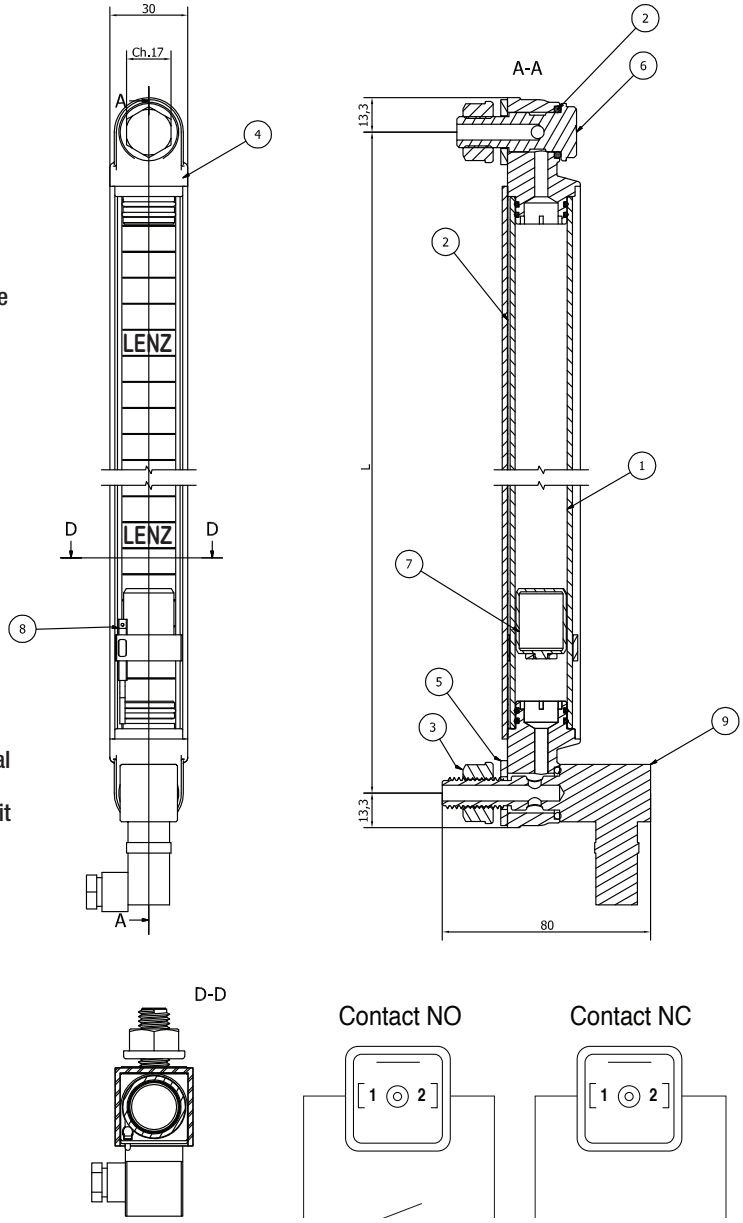
MLMT-ELG Electrical Level Gauge

With minimum level and maximum temperature switch

- Sensor “REED” switch attasched to the internal transparent tube, adjustable in height according to the customer design requirements of the level, minimum positioned is about 2" (50 mm) from the center of the lower bolt. The sensor is supplied with power cable 11.8" (30 cm) in length and M8 male connector; on request it is possible to provide a separate connection cable of 9.8" (250 cm) meter complete with female M8 connector.
- Float element made of technopolymer containing a Neodymium magnet that activates the electric contact when it reaches the level switch sensor REED.
- Temperature executions: MLMT-ELG-A, MLMT-ELG-C (electrical contact normally open) – MLMT-ELG-B, MLMT-ELG-D (electrical contact normally closed)
- Operation features: The vertical level gauge MLMT-ELG in allows for a visual oil level inspection provides an electrical signal when the float element reaches the preset minimum level, the result is the closure of the electrical circuit. The MLMT-ELG gauge in addition provides an electrical signal when the temperature of the oil in the reservoir reaches a specified preset switching temperature (see temperature switching chart below).The model MLMT-ELG-NO the electrical circuit is closed once it reaches the preset temperature of 140°F or 158°F. The model MLMT-ELG-NC the electrical circuit is opened once it reaches the preset temperature of 140°F or 158°F.
- MLMT-ELG- NO: the level sensor closes the electric circuit when it reaches the pre-set minimum level; the maximum temperature sensor closes the electric circuit at the pre-set threshold temperature.
- MLMT-ELG- NC: the level sensor closes the electric circuit when it reaches the pre-set minimum level; the maximum temperature sensor opens the circuit to the pre-set temperature threshold.



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Item	Description
1	Polycarbonate transparent tube
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3	Flanged hex M12, 1/2"-13 UNC nut
4	Plastic end caps
5	NBR seal
6	Hollow bolt M12, 1/2"-13 UNC
7	Magnetic floating element
8	"REED" sensor with male connector
9	MAX temperature sensor
10	Aluminum U-shape guard

Electrical characteristics	Minimum level REED sensor switch
Supply voltage	3-30 VAC/DC
Electrical contacts	NO normally open
Switching current	.2 AMPS
Maximum temperature	176°F (80°C)
Protection degree	IP67
Electrical characteristics	**Maximum temperature electrical sensor**
Supply voltage	3-30 VAC/DC
Electrical contacts	NO normally open / NC normally closed
Protection degree	IP65
*Switching temp.	140°F (60°C) or 158°F (70°C)
Precision	±5C (data referred to a room temp. = 68°F/20°C)

*See temperature options chart page 46b