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level control switches,
flow indicators,
chemical metering pumps,
chemical injection systems
and
allied products.**

LINC
LEVEL & FLOW
SWITCHES

LEVEL CONTROL SWITCHES

O R D E R I N G

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Or FAX your order anytime to
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our products against defects in
materials.

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Technical service and support
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Many times, our experienced cus-
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resolve problems over the phone or
provide a referral to our authorized
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also offer factory repair facilities in
Snyder, Texas.

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All mail-in purchase orders must
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When ordering please list:

- Quantity
- Description of Items
- Shipping Address
- Billing Address
- Purchase Order Number

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Please send RFQ's to:
YZ Systems, Inc.
Attn.: Customer Service
3101 Pollok Drive
Conroe, Texas 77303
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Freight Charges.

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Special Pricing.

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counts.

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LEVEL CONTROL SWITCHES

I N D E X

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LEVEL CONTROL SWITCHES

LINC - L471 & L471SC SERIES

The LINC-L471 & L471SC Series: Electric Level Control Switches



Application:

Used as a high & low level control, the L471 & L471SC can activate alarms, provide a switch input for control systems, or perform a variety of desired electrical switch operations actuated by a liquid or liquid interface.

Operation:

As the float is moved by varying liquid height, a magnet is moved closer to or further away from a switch enclosure. As the magnet moves closer, a reed switch in the enclosure closes. As the magnet moves further away, the switch opens. The arm containing the magnet also acts as a counterweight for the float.

The float is small and will operate in liquids with a specific gravity as low as 0.4. The interface type will operate with a specific gravity differential as low as 0.1. This small float permits an economical installation in locations where other controls would be cost prohibitive. Available with a relay mounted in an explosion-proof case allowing the control of larger electrical loads. The manual override option allows the operator to manually move the float arm to the test switch position.

Benefits:

- Easy to Repair.....
- Easy to Field Test.....
- No Leaks.....
- Lower Operating Costs.....
- Lower Inventory.....
- Versatile.....
- Safe.....
- Corrosion Resistant.....
- Optional Corrosion Resistant Materials.....
- Reliable.....
- High & Low Pressure Applications.....

Features:

- Repairs on-site in 20 minutes with the Quick-Change switch cartridge
- The Manual Override option enables mechanical and electrical function testing while installed
- Environmentally-isolated design keeps operational fluids away from electrical circuitry
- Quick-Change, inexpensive replacement parts
- One L471 inverts for both High & Low level applications
- One L471 provides both normally open, and normally closed switching by simply inverting the L471
- Certified as explosion-proof¹ for Hazardous Locations: Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; and Class III, Div.1, by CSA a Nationally recognized Testing Laboratory in the U.S. and Canada
- Standard 316 Stainless Steel wetted and housing components for corrosion resistance
- Monel, Kynar, Teflon, Teflon Coated, Hastelloy C, PVC, Polypropylene, and Alloy 20
- Sealed switch cartridge prevents dust, fluids, and corrosion from interfering with electrical circuitry
- Available with Stainless Steel and Polypropylene displacer options for various process pressures

¹ When a relay assembly is used, Class I, Div. 1, is limited to Groups C and D.

LEVEL CONTROL SWITCHES

LINC - L471 & L471SC SERIES

Specifications: L471 & L471SC Series Electric Level Control Switches

Pressure:	1,500 psi standard, available to 5,000 psi, (1,500 psi maximum with the Manual Override option)
Temperature:	-40°F to + 400°F standard, with 500°F optional
Specific Gravity:	0.4 minimum standard; interface 0.1 differential minimum
Materials:	316 stainless steel wetted parts are standard. Available in other austenitic metals and plastics
Switch Rating:	SPST (SPDT optional) 100 V.A. AC, 100W DC, 3 amp inrush capability, maximum of 250 Volts, Hermetically sealed
Connections:	
Electrical:	1/2" conduit standard, with other sizes optional
Process:	1 1/2" NPT standard, available in 2" NPT, 3" flanged or larger, and externally caged
CSA Certification:	Listed as explosion-proof for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; and Class III, Div. 1

Ordering Chart:

Series:

- L471 - Electric level control
- L471SC - Externally caged electric level control. *Note: The body style is always "0" due to ring bolt.* 1,500 psi WP standard; 3,000 psi WP available ²

Body Style:

- 0 - Standard, 1 1/2" NPT (ring bolt on L471SC)
- 1 - Standard, 2" NPT
- 2 - Standard, 1 1/2" NPT, manual override ³
- 4 - Standard, 2" NPT, manual override ³
- 3 - Extd. body ⁴, 2" NPT, vertical displacer
- 6 - Extd. body ⁴, 2" NPT, vertical displacer, manual override
- 7 - Extd. body ⁴, 2" NPT, horizontal displacer
- 8 - Extd. body ⁴, 2" NPT, horizontal displacer, manual override

Type:

- 1 - Standard
- 2 - High pressure, 5,000 psi polypropylene displacer, temp. +180°F max, spec. grav. 0.6 min.
- 3 - Interface, 5,000 psi polypropylene displacer, temp. +180°F max, upper fluid less than: .870 spec. grav; lower fluid more than: .970 spec. grav.
- 4 - Other gravities for interface, specify gravities of fluids (upper & lower)
- 9 - Displacer, 5,000 psi polypropylene displacer, temp. +180°F max, spec. grav. 0.5 min.

Other ⁵:

- 02 - Annulus plug
- 03 - Relay assembly ¹, general purpose plug-in, 24VDC DPDT 10 Amp
- 04 - Relay assembly ¹, general purpose plug-in, 120VAC DPDT 10 Amp
- 08 - Relay assembly ¹, hermetically sealed plug-in, 24VDC DPDT 10 Amp
- 09 - Relay assembly ¹, hermetically sealed plug-in, 120VAC DPDT 10 Amp
- 05 - This number means special; specify your requirements. i.e. 3" flanged 150# RF

Option Number:

- () - Factory will assign an option number based on specified requirements.

¹ When a relay assembly is used, Class I, Div. 1, is limited to Groups C, and D.

² L471SC pressure limitation is 3,000 psi on cage.

³ Not available on L471SC.

⁴ Body style 3, 6, 7, 8 available only Type 9.

⁵ If no further requirements are desired, omit "Other" option codes from the part number.

LINC- _____ - _____ - _____ ()

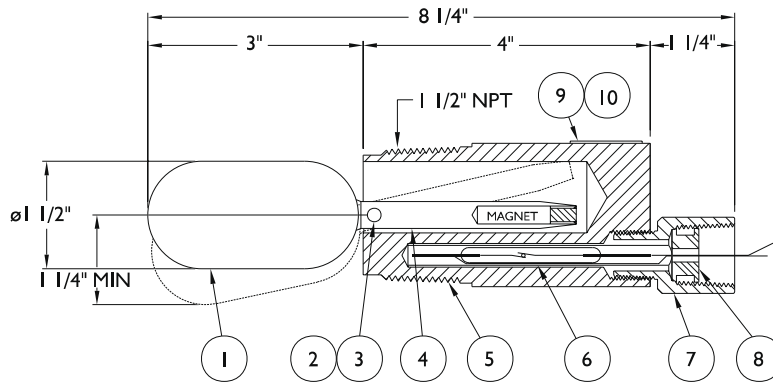
Example: LINC-L471-21-05 electric level control

Specify: 3" - 150# RF, CS flange, 120 VAC relay

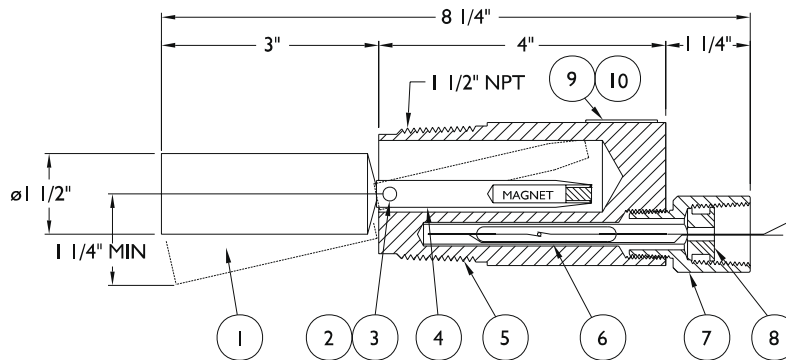
LEVEL CONTROL SWITCHES

LINC - L471 & L471SC SERIES

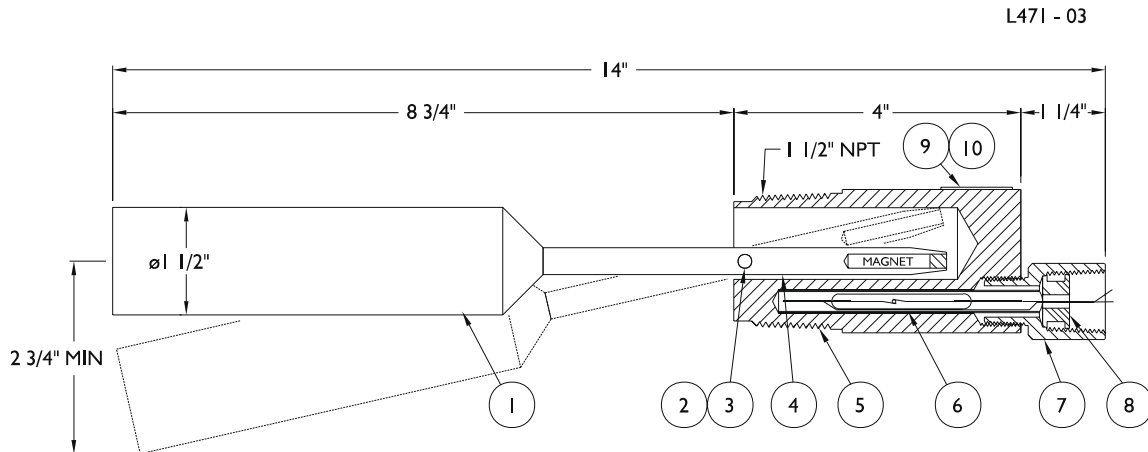
The LINC-L471 Series:
Standard Units, Diagram



L471 - 01



L471 - 02

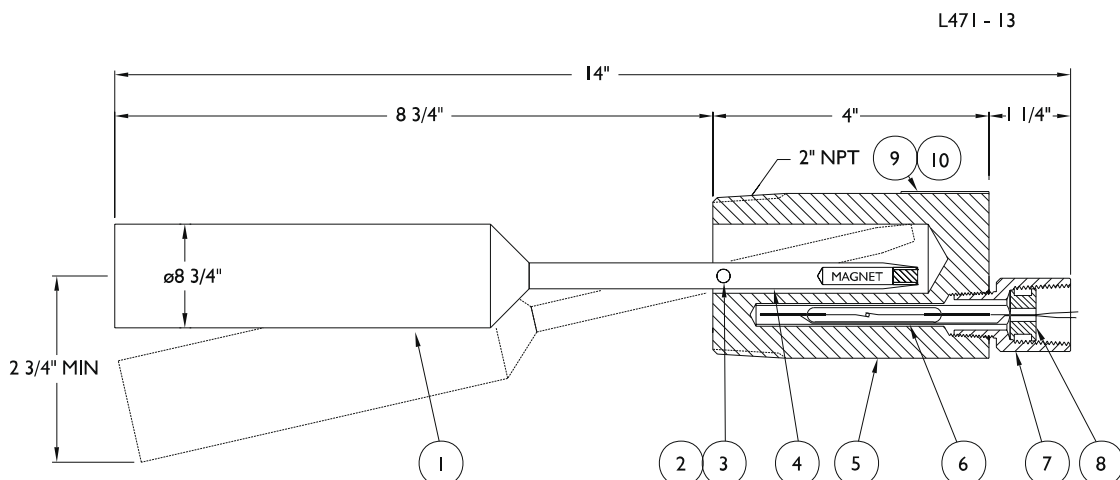
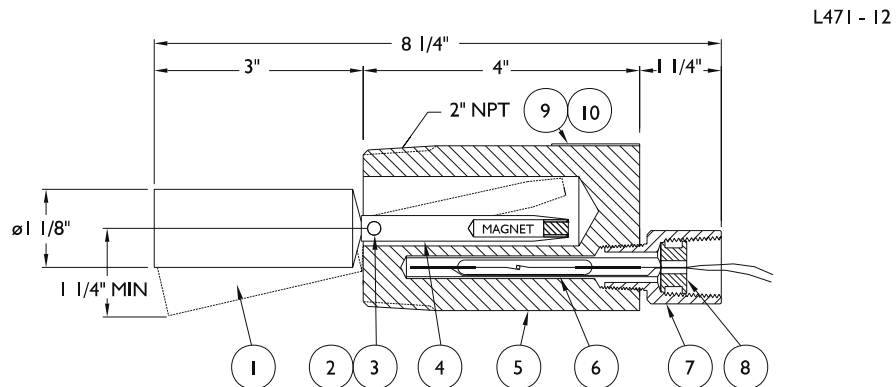
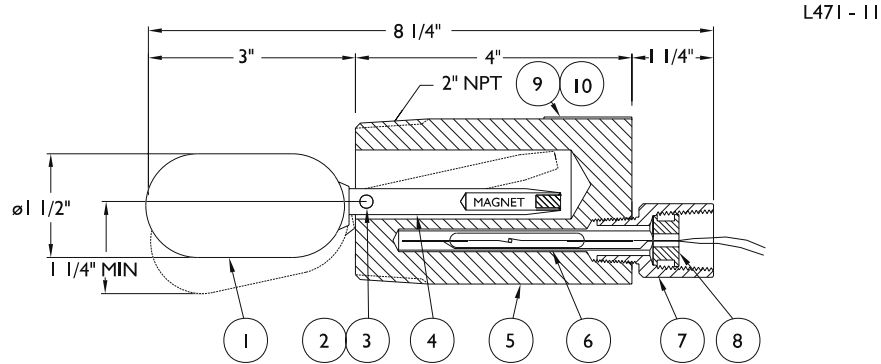


L471 - 03

LEVEL CONTROL SWITCHES

LINC - L471 & L471SC SERIES

The LINC-L471 Series:
Standard Units, Diagram



LEVEL CONTROL SWITCHES

LINC - L471 & L471SC SERIES

The LINC-L471 Series: Standard Units, Parts List

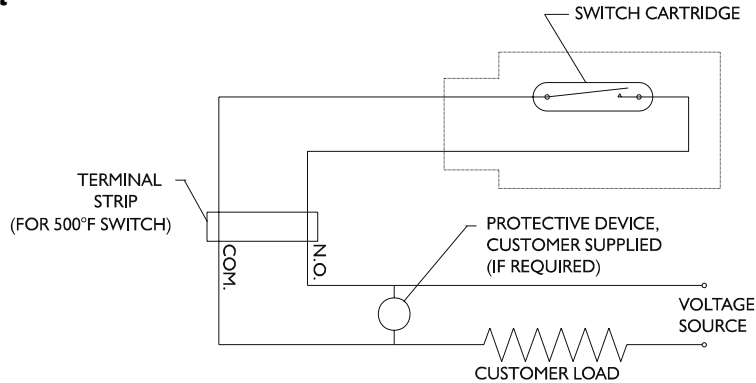
Model Item	L471-01 Part #	L471-02 Part #	L471-03 Part #	Description	Material	Qty
1	10245			Float	316 ss	1
		20149	20136	Float	Polypropylene	1
2	20120	20120	20120	Pin	316 ss	1
3	20121	20121	20121	Spacer	316 ss	1
4	20853	20853	21671	Float/Magnet Arm	316 ss	1
5	30313	30313	30313	Body	316 ss	1
6	See Chart On Page 9			Switch Cartridge	Sealed	1
7	20119	20119	20119	Conduit Adapter	303 ss	1
8	10087	10087	10087	Grommet	Nitrile	1
9	12971	10012	10012	Nameplate	316 ss	1
	10324	10324	10324	Drive Screw (not shown)	18-8 ss	2

Model Item	L471-11 Part #	L471-12 Part #	L471-13 Part #	Description	Material	Qty
1	10245			Float	316 ss	1
		20149	20136	Float	Polypropylene	1
2	20334	20334	20334	Pin	316 ss	1
3	20121	20121	20121	Spacer	316 ss	1
4	20853	20853	21671	Float/Magnet Arm	316 ss	1
5	31071	31071	31071	Body	316 ss	1
6	See Chart On Page 9			Switch Cartridge	Sealed	1
7	20119	20119	20119	Conduit Adapter	303 ss	1
8	10087	10087	10087	Grommet	Nitrile	1
9	10012	10012	10012	Nameplate	316 ss	1
10	10324	10324	10324	Drive Screw (not shown)	18-8 ss	2

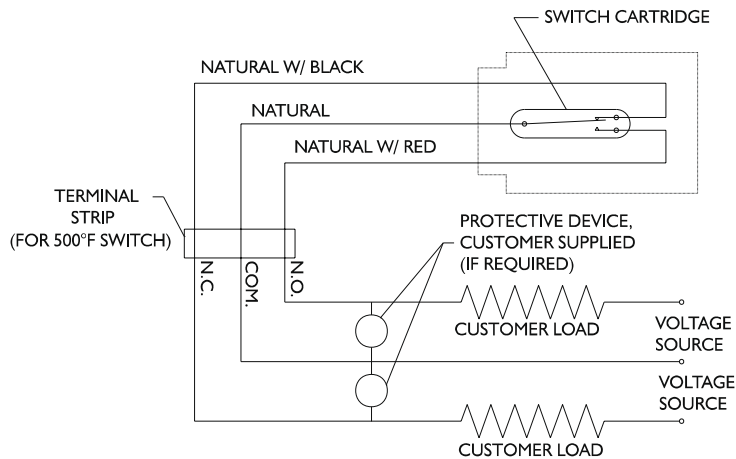
LEVEL CONTROL SWITCHES

LINC - L471 & L471SC SERIES

**The LINC-L471 Series:
High Temperature Switch Cartridges,
Diagram & Parts List**



TYPICAL ELECTRICAL SCHEMATIC
FOR 400°F & 500°F SPST SWITCH



TYPICAL ELECTRICAL SCHEMATIC
FOR 400°F & 500°F SPDT SWITCH

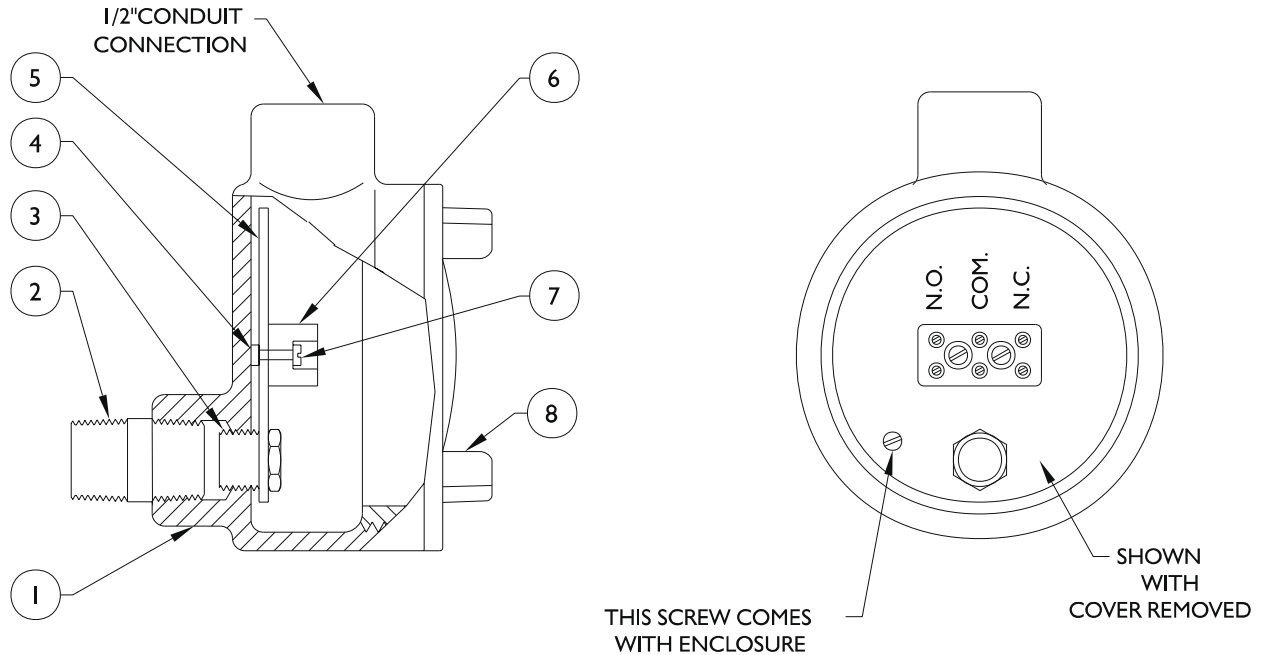
Electric Switch Cartridges

Part #	Description	Availability
20495	Switch Cartridge, SPST, 400°F rating	Standard
24834	Switch Cartridge, SPST, 500°F rating	Optional
24835	Switch Cartridge, SPDT, 500°F rating	Optional
24836	Switch Cartridge, SPDT, 400°F rating	Optional

LEVEL CONTROL SWITCHES

LINC - L471 & L471SC SERIES

**The LINC-L471 Series:
High Temperature Switch Cartridges,
Diagram & Parts List**



Assembly Item	24898 Part #	Enclosure Assembly Description	Qty
1	21707	Enclosure	1
2	10236	Nipple	1
3	10376	Bushing	1
4	13179	Nut	2
5	24987	Mounting Plate	1
6	13178	Ceramic Terminal Strip	1
7	13178	Screw	2
8	10739	Flat Cover	1