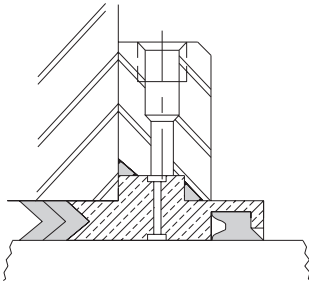


**BEARING DRAINBACK PORT (HYD. MODELS)**  
**ROD SEAL LUBE PORT (AIR MODELS)**

A 1/8 NPTF port is available on hydraulic models to permit fluid that accumulates between the primary rod seal and outer wiperseal to be drained back to the system reservoir. This port, usually located in the bearing retainer, may be specified at any one of the four numbered side positions used to designate operating port location.



Air cylinders may be modified in the same way to permit lubrication of rod seal and inner bearing surfaces.

**PROXIMITY SWITCH OPTION**

Proximity switches to signal “end of stroke” position may be ordered at either one or both ends of all cylinders for operation with air or hydraulic service to 3000 PSI.

Proximity switch housings contain epoxy potted, solid state electronics with sealed sensing probe that extends into cylinder to detect presence of rod mounted actuator with no surface contact. Switches operate with no parts subject to wear, adjustment, or tampering.

Preferred cylinder construction is suitable for use with either Turck Series “CRS” or Namco Style “EE 230” switches. Other commercial brand switches may be used to suit customer preference, but availability is dependent on construction modifications necessary.

Cylinders may be ordered with or without the proximity switch included. If ordered without the switch, Lynair, Inc. will advise the proper probe length necessary for operation.

Proximity switches may be located at any one of the four numbered side positions not occupied by an operating port or obstructed by the cylinder mounting.

“Stroke To Go” refers to the stroke travel remaining when the switch actuates. Lynair, Inc. cylinders are designed to give a standard stroke to go distance of 3/16 inch. Cylinders can be furnished with custom “Stroke To Go” dimensions to suit customer requirements.

Switch detail dimensions, electrical specifications, and related technical data are detailed in Lynair, Inc. Bulletin “PS”.

**REED OR HALL EFFECT SWITCH OPTIONS**

Series “AL” cylinders with piston mounted magnet option are available for use with tie rod mounted Reed or Hall Effect Switches.

Switch positions on tie rods may be adjusted to sense end

of stroke or intermediate stroke positions. Multiple switches may be used as desired.

Switch detail dimensions, electrical specifications, and related technical data are detailed in Lynair, Inc. Bulletin “AL”.

**PORT SIZE OPTIONS**

Standard cylinders are equipped with NPTF taper pipe thread ports usually of the largest size that will fit into either the front or rear end cap.

Ports smaller than standard will be supplied upon request in all models at no additional cost.

Oversize ports, either NPTF or SAE straight thread style one size larger than standard may be ordered, but a construction modification may be necessary. If the port cannot be placed directly in the end cap, a welded extension that protrudes from the head surface housing the port will be attached.

Use of an oversize port does not insure that increased flow volume can enter the cylinder without restriction. Component sizes not subject to alteration may limit internal flow capabilities, especially when cushions are included. Cylinders designed to have oversize ports with “full flow” capability may be ordered, but special construction necessary may alter basic envelope dimensions.

**NON-ROTATING PISTON ROD**

Internal modifications that prevent the piston rod from rotating during operation may be ordered as a construction feature with restrictions on model availability and length of stroke.

A guide rod anchored in the center of the rear end cap slides through a mating sleeve fixed within a hollow area in the piston rod preventing rotary motion.

A minimum rod diameter of 1.000 inch is necessary and inclusion of a blind end cushion is not possible without modifications affecting basic envelope dimensions.

The non-rotating feature is not designed to support or prevent rotation resulting from externally applied offset loads. The function of this feature is to prevent the inherent rotation that will occur when the cylinder is operated with an unguided rod end. Consult Lynair, Inc. for additional information when this feature is desired.

**ELECTRONIC POSITION SENSING**

Hydraulic cylinders constructed to include an integrally mounted Linear Displacement Transducer (LDT) are available in bore sizes 2” thru 14”. This non-contact, magnetostrictive sensing device is installed through the middle of the rear end cap with its wave guide probe centered within a hollow section of the cylinder piston rod. Reliable, solid state electronics provide highly accurate measurements of piston position and/or velocity during stroke operation. Detail information on LDT electrical specifications, available options, and modified cylinder dimensions are available from Lynair, Inc. upon request.