

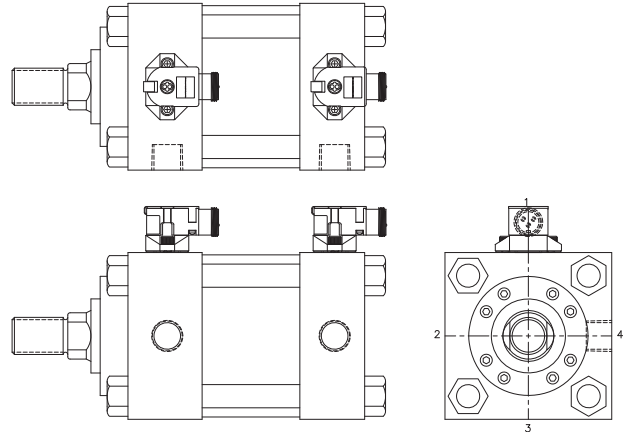
PROXIMITY SWITCHES

FEATURES AND OPTIONS

- Factory installation. No adjustments needed.
- Hydraulic rating up to 3,000 psi.
- Stainless steel probe
- LED indicators
- False pulse protection
- UL listed
- Shock and vibration resistant
- Weld Field and electrical noise immunity
- Series and parallel wiring
- Rotatable switches to ease cable routing
- Optional intrinsically safe
- Optional hi-temp up to 400°F (204°C)
- Optional underwater service to 2,000 foot depths
- Optional solid state operation
- Optional heavy duty operation up to 5,000 psi.

Yates Prox Switch option is available on A4, L4, H4 and H6 series cylinders.

Please consult factory for switch specifications



REED & HALL EFFECT SWITCH DATA

Yates Cylinders Reed and Hall effect switches are designed for use on all types of cylinders with aluminum and non-ferrous barrels. A magnetic band is installed on the cylinder's piston which the Reed and Hall effect switches read through the non ferrous cylinder barrel. The switches then send a signal to programmable controllers and other various electrical circuits.

YATES CYLINDERS REED SWITCH FEATURES:

- Available for 1 1/2" bore through 8" bores.
- Easy to adjust switch bracket mounts to tie rod of cylinder and can be adjusted anywhere along entire stroke.
- Multiple switches may be used on one cylinder to control or sequence several functions.
- LED indicator light for trouble shooting and easy installation.
- Voltage range of 5 to 240 VAC/VDC. (Normally Open)
- 9' Wire Lead is standard.
- Economical sensing solution.
- Zero maintenance.

Part Number	(1 1/2" Bore Only)	(2"-8" Bores)
	YRS-015	YRS-028
Switch Type	Reed Switch MOV & LED	Reed Switch MOV & LED
Function	Normally Open	Normally Open
Working Temp.	-30C - +80C	-30C - +80C
Magnetic Sensitivity	85 GA.	85 GA.
Switching Voltage	5-120 VAC/VDC 50/60 Hz	5-240 VDC/VAC
Switching Current	.5 Amps Max. .005 Amp Min.	1 Amp Max. .005 Amp Min.
Switching Power	10 Watts Max.	30 Watts Max.
Voltage Drop	3.5 Volts	3 Volts

YATES CYLINDERS HALL EFFECT SWITCH FEATURES:

- Available for 1 1/2" to 8" bores.
- Easy to adjust switch bracket mounts to tie rod of cylinder and may be adjusted anywhere along the entire stroke.
- LED indicator light for trouble shooting and easy installation.
- Solid state construction; no moving parts to wear out which provides longer switch life.
- Voltage range of 6-24 VDC
- Available normally open, sinking or sourcing
- 9' wire lead is standard.
- Voltage range of 5 to 240 VAC/VDC. (Normally Open)
- 9' Wire Lead is standard.
- Economical sensing solution.
- Zero maintenance.

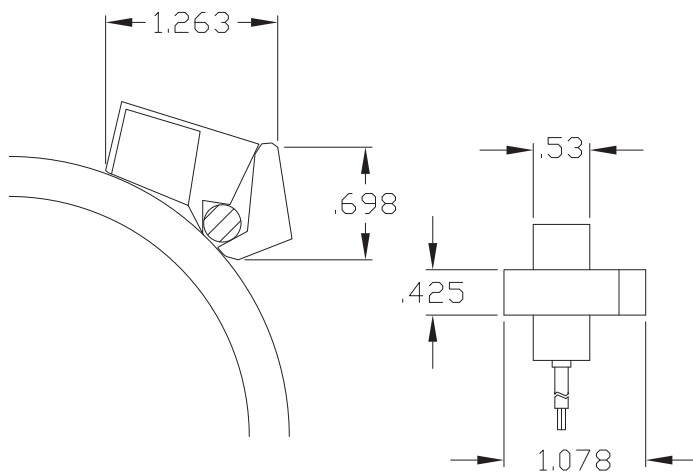
Part Number	1 1/2" Bore Only YHS-015-1	1 1/2" Bore Only YHS-015-2	2"-8" Bores YHS-028-1	2"-8" Bores YHS-028-2
Switch Type	Hall Effect LED Sourcing	Hall Effect LED Sinking	Hall Effect LED Sourcing	Hall Effect LED Sinking
Function	Normally Open	Normally Open	Normally Open	Normally Open
Working Temp.	-30°C - +80°C	-30°C - +80°C	-30°C - +80°C	-30°C - +80°C
Magnetic Sensitivity	85 GA.	85 GA.	85 GA.	85 GA.
Switching Voltage	6-24 VDC	6-24 VDC	6-24 VDC	6-24 VDC
Switching Current	.5 Amp Max.	.5 Amp Max.	1 Amp Max.	1 Amp Max.
Switching Power	12 Watts Max.	12 Watts Max.	24 Watts Max.	24 Watts Max.
Voltage Drop	.5 Volts	.5 Volts	.5 Volts	.5 Volts

REED & HALL EFFECT SWITCH DATA

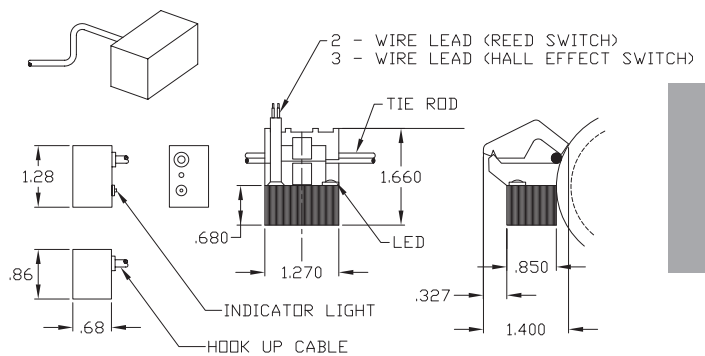
YATES SWITCH INSTALLATION TIPS:

1. Never exceed the current and voltage of the load with the selected switch. Failure to use proper load will ruin the switch. For DC Voltages always observe polarity.
2. On two-wire versions, do not connect directly across the power supply without a series load. Failure to use a series load will damage the switch and possibly the power supply.
3. Never use a filament light bulb as a load test to the switch. Severe inrush currents will damage the switch or cause premature failure.
4. Keep wire runs to a minimum. Longer wire runs will increase capacitive loading which may effect the life of the switch.
5. When actuating a solenoid with a switch, always use an external surge suppression.
6. At all times keep the area around the switch clean and free of potentially magnetic debris.
7. Be sure the sensing area of the switch is installed against the cylinder tube.
8. Consult factory if you have any additional questions regarding Reed and Hall Effect switches.

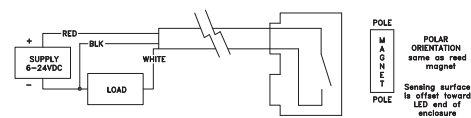
SWITCH & BRACKET FOR 1 1/2" BORE



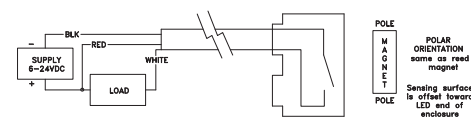
SWITCH & BRACKET FOR 2-8" BORE



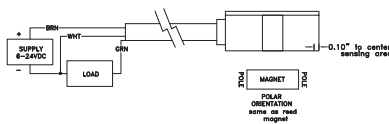
YHS-028-1



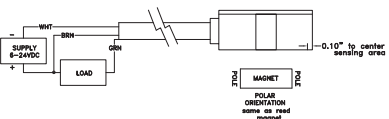
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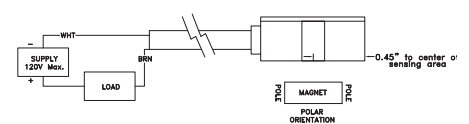
YHS-015-1



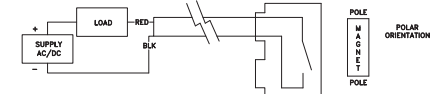
YHS-015-2



YHS-015



YHS-0028

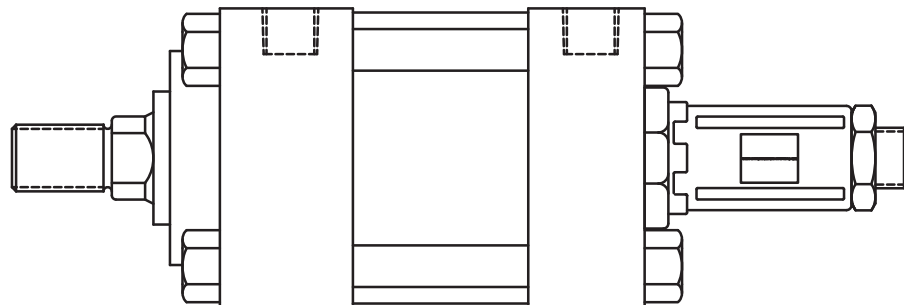
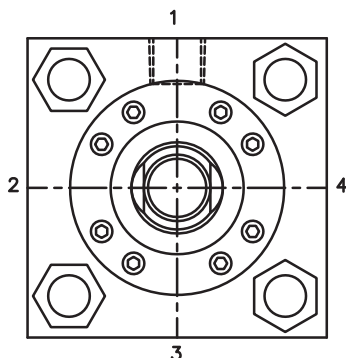
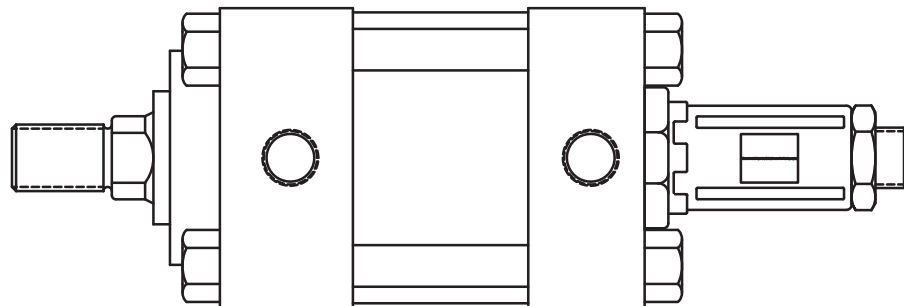


LDT

MAGNETOSTRICTIVE LINEAR DISPLACEMENT TRANSDUCER FOR HIGH SHOCK AND VIBRATION APPLICATIONS.

Standard LDT is lab tested and field proven to survive high shock and vibration. With tested results of 2,000 G's of shock and 30 G's of random vibration with no false signals or mechanical damage , it can survive in the most rugged and demanding applications.

Sensing tube construction is welded stainless steel, suitable for 5000 PSI hydraulic cylinders. The electronics are enclosed inside an aluminum housing with o-ring seals for IP67 indoor applications. Type NEMA 6 rating and stainless steel housings and connectors are available as a special option.



LDT ELECTRICAL INFORMATION

INPUT VOLTAGE	15 VDC to 26 VDC
CURRENT DRAW	<200 mA at 15 VDC
OUTPUT	
ANALOG	Absolute Analog Position via Digital-to-Analog Converter -10 to 10 VDC 16-Bit (65,535) Resolution 0 to 10 VDC 15-Bit (32,768) Resolution -5 to 5 VDC 15-Bit (32,768) Resolution 0 to 5 VDC 14-Bit (16,384) Resolution 4 to 20 mA 16-Bit (65,535) Resolution
DIGITAL	TTL Level Pulse/Pulse, RS422 Pulse/Pulse RS422 Pulse Width Modulated
RESOLUTION	
INTERNAL	.001"
ANALOG OUTPUT	16-Bit (one part in 65,535)
NON-LINEARITY/ ACCURACY	Less than 0.05% of Full Stroke with +/-0.002" (+/-0.05 mm) Maximum
REPEATABILITY	+/- 0.001% of Full Scale or +/-0.0004" (0.102 mm) Maximum
HYSTERESIS	.001" (.025 mm) Maximum
OPERATING TEMPERATURE	
HEAD ELECTRONICS	-40° to 155°F (-40° to 70° C)
GUIDE TUBE	-40° to 220°F (-40° to 105° C)
OPERATING PRESSURE	5000 psi Operational, 10,000 psi Spike
SPAN LENGTH	1" - 300"
NULL ZONE	1.5"
DEAD ZONE	2.25"
CONNECTORS	1/4 Turn MS Style Connector Standard Potted Pigtail Assembly Available Optionally
UPDATE TIME	2 MS Typically
ENCLOSURE	IP67

**SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
 OTHER OPTIONS AVAILABLE. CONSULT FACTORY.**

