

Field Sensitive Magnetic Proximity Cycle Switch

313230F

EN

For use with MS, MH & MX Valve Sections. Not recommended for MGO series divider valves operating at less than 10 cycles per minute. For professional use only.

Part No. 557747

3500 psi (24 MPa, 241 bar) Maximum Operating Pressure






Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment.
Save these instructions.



Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 WARNING	
 	<p>ELECTRIC SHOCK HAZARD</p> <p>This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none">• Turn off and disconnect power at main switch before disconnecting any cables and before servicing or installing equipment.• Connect only to grounded power source.• All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Recycling and Disposal** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Recycling and Disposal** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.



SKIN INJECTION HAZARD

High-pressure fluid from dispensing device, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**

- Do not point dispensing device at anyone or at any part of the body.
- Do not put your hand over the fluid outlet.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the Pressure Relief Procedure in your pump instruction manual when you stop dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses and couplings daily. Replace worn or damaged parts immediately.

Valve Assembly Installation

Grounding



The equipment must be grounded to reduce the risk of static and electric shock by providing an escape wire for the electric current due to static build up or in the event of a short circuit.

Assemblies not originally equipped with cycle pin indicator pin/switch

1. Determine which valve section and side is the most convenient location for the switch.
2. Disconnect the electrical system.
3. Relieve pressure. See Pressure Relief Procedure in the pump instruction manual included with your operating system.

NOTICE

Do not over torque. Excessive torque will cause switch failure.

4. Remove piston plug and discard.
5. Install the appropriate proximity switch into the piston chamber using the supplied seal/gasket. For MS and MH valve sections, torque to 6-8 ft-lb (8 - 10.8 N•m) for o-ring seal; 10 ft-lb (13.6 N•m) for gasket seals. For MX and MGO torque adapter to 25-30 ft-lb (33.9 - 40.7 N•m) and the switch to 6-8 ft-lb (8 - 10.8 N•m).
6. Connect the electrical system.

NOTICE

Do not reuse gasket. If switch is removed for any reason, replace with new gasket.

Assemblies equipped with cycle pin indicator/electrical micro-switch

(Two options: Method A or Method B)

Method A: Installation in any piston chamber not occupied by the cycle pin indicator

1. Determine which valve section and side is the most convenient location for the switch.
2. Disconnect the electrical system.
3. Relieve pressure. See Pressure Relief Procedure in the pump instruction manual included with your operating system.
4. Remove the piston plug. (Do not discard plug if removing the cycle indicator pin. It is reinstalled in step 6e.)
5. Install the appropriate proximity switch into the piston chamber using the supplied seal/gasket. For MS and MH valve sections, torque to 6-8 ft-lb (8 - 10.8 N•m) (for o-ring seal; 10 ft-lb (13.6 N•m) for gasket seals. For MX and MGO torque adapter to 25-30 ft-lb (33.9 - 40.7 N•m) and the switch to 6-8 ft-lb (8 - 10.8 N•m).

NOTICE

Do not over torque. Excessive torque will cause switch failure.

NOTICE

Do not reuse gasket. If switch is removed for any reason, replace with new gasket.

6. Either leave the cycle indicator pin installed for visual indication of cycle or remove as follows:
 - a. Unscrew cycle indicator body from valve and discard.
 - b. Grasp indicator pin and pull pin/piston assembly out of the feeder.

NOTICE

Piston is a ground part and all caution must be taken to avoid nicking, scratching or contaminating this part or the feeder piston bore.

- c. Remove the indicator pin by sliding it through the slot on models equipped with this arrangement (MS and late model MX type) or drive out cross pin using a brass rod (old MX type).
 - d. Discard the pin.
 - e. Carefully insert piston back into the bore.
 - f. Plug the hole with piston plug removed in step 4. Torque to 12 ft-lb (16.3 N•m) for MSP, 35 ft-lb (47.5 N•m) for MX.
7. Make electrical connection.

Method B: Replacing existing cycle indicator pin/switch

1. Determine which valve section and side is the most convenient location for the switch.
2. Relieve pressure. See Pressure Relief Procedure in the pump instruction manual included with your operating system.

NOTICE

Do not over torque. Excessive torque will cause switch failure.

3. Remove the existing cycle indicator pin/switch.
4. Reverse piston so the proximity switch does not sense slot end of piston.
5. Install the appropriate proximity switch into the piston chamber using the supplied seal/gasket. For MS and MH valve sections, torque to 6-8 ft-lb (8 - 10.8 N•m) for o-ring seal; 10 ft-lb (13.6 N•m) for gasket seals. For MX and MGO torque adapter to 25-30 ft-lb (33.9 - 40.7 N•m) and the switch to 6-8 ft-lb (8 - 10.8 N•m).

Wiring Instructions

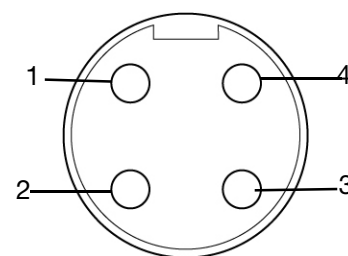


The equipment must be grounded to reduce the risk of static and electric shock by providing an escape wire for the electric current due to static build up or in the event of a short circuit.

In order to make proper electrical connections, a “CH” style connector cable must be used.

Connecting Cable Wiring Code:

- 1- Black = Common
- 2 - White = Normally Open
- 3 - Not Used
- 4 - Green = Ground









Recycling and Disposal

End of Product Life


At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Relieve pressure using the Pressure Relief Procedure in the pump instruction manual included with your operating system.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Deliver remaining product to a recycling facility.

Technical Specifications

Series A				
Switch	Current Rating	Temperature Range	Approvals	
557747	0.1A @ 28 VDC (UL)	-22° - 250° F (-30° - 121° C)	  	Ordinary Location
Series B				
Switch	Current Rating	Temperature Range	Approvals	
557747	2A @ 240 VAC 4A @ 110 VAC 3A @ 24 VDC	-40° F - 212° F (-40° - 100 ° C)	  	Ordinary Location
Other Specifications				
Switch Type		Normally open contacts		
Maximum Cycle Rate		125 cycles/min.		
Maximum Operating Pressure		3500 psi (24 MPa, 241 bar)		
Material		Switch - Stainless steel		
		Adapter - Nickel plated steel		

California Proposition 65

 **WARNING:** This product can expose you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65warnings.ca.gov.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

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In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

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For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6928 **or Toll Free:** 1-800-533-9655, **Fax:** 612-378-3590

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
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Original instructions. This manual contains English. MM 313230

Graco Headquarters: Minneapolis

International Offices: Belgium, China, Japan, Korea

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