LIMIT SWITCH REPLACEMENT - PHASE III

Aberdeen Chemical Plant

July 22, 1986

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LIMIT SWITCH REPLACEMENT PHASE III

Aberdeen Chemical Plant

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Aberdeen Chemical Plant

I. Purpose and Process Description

Lack of positive valve position indication in the control room has the potential to cause safety, operational and environmental problems. The existing limit switches indicate actuator position and not the actual valve stem position. If the coupling fails or is spread, the valve could be open or partially open and still give a closed signal.

This design will provide each of the designated valves in section A of the following table with a new limit switch that indicates valve stem position. These new limit switches will provide accurate indication of valve position to the control room or the Modicon. The limit switches will be mounted on the bracket between the valve and the actuator. Drawings of several different type valves with the new limit switches are attached. Limit switches will be replaced on 80 valves.

II. Valve Location

A. Valves that would cause quality, safety or environmental problems without proper indication.

	General Location	Valve #	Valve Description	Reason
1.	Reactors 741, 742 743, 744, 745 & 700	1-6	Rinse Supply	*2-valve leak, VCM enter rinse. Rinse supply valve leak, water dilute chem wash.
		7-12	Chem Wash (CW) Supply	2-valve leak, VCM enter chem wash. Chem wash supply valve leak, CW in rinse.
		13-18	Clean Reactor	2-valve leak, VCM enter rinse or CW. 2-valve leak, rinse or CW in reactor.
		19-24	Clean Condenser	2-valve leak, VCM enter rinse or CW 2-valve leak, rinse or CW in reactor
		25-30	Steam stripping	1-valve leak, steam in reactor or VCM in steam.
		31-36	Emergency AMS Injection	1-valve leak, AMS in reactor
2.	Reactors 300, 400 500 and 600	37-40	Chem wash to Reactor	2-valve leak, VCM in chem was or chem wash in reactor
		41-44	Chem wash to Condenser	2-valve leak, VCM in chem wash or chem wash in reactor
		45-48	Rinse to Reactor	2-valve leak, VCM in rinse or rinse in reactor
		49-52	Rinse to Condenser	2-valve leak, VCM in rinse or rinse in reactor
		53-56	Steam Stripping	1-valve leak, steam in reactor or VCM in steam
		57-60	Emergency AMS Injection	1-valve leak, AMS in reactor

* Two valves would have to leak in order for this to happen. Such as rinse supply and reactor cleaning valve failure would cause VCM to enter rinse water.

	General Location	Valve No.	Valve Description	Reason
3.	Batch Water Strippers (North & South)	61-64	To Sewer, To Centrate	1-valve leak, VCM contaminated water to sewer.
		65-66	Fill Line	2-valve leak, contaminate vessel in stripping mode
		67-68	VCM Bleed	2-valve leak, contaminate vessel in stripping mode.
		69-70	Recovery	2-valve leak, contaminate vessel in stripping mode.
		71-74	To ERS	2-valve leak, contaminate vessel in stripping mode.
		75	VCM Double Block and Bleed venting to RWS's.	Three way valve-if not in correct position, contaminate vessel in stripping mode.
		76-77	Steam Pressurization	1-valve leak, contaminate vessel in stripping mode.
4.	Chem Wash Tank	78	To Reactors (New Module)	1-valve leak, safety hazzard when a reactor is blanked out.
		79	To Reactor (Old Module)	1-valve leak, safety hazzard when a reactor is blanked out.
5.	Blowdown Tank	80	To Batch Water Strippers	1-valve failure, lead to tank overpressuring and discharging to sewer.

B. Remaining valves that are indicated on the panel or that are tied into the Modicon that will not have limit switches replaced.

General Location	Valve No.	Valve Description
1. New Module		
a. Chem Wash Tank	1	Tank Outlet
	2	Tank Bypass
	3	Tank Inlet
	4	Recirculation
b. Blowdown Tank	5	Recirculation
	6	To Emission Recovery System
	7	To Recovery System
	8	To Recovery System
c. Reactors 741-745	9-13	Inert Vent
	14-18	Steam to Jacket
d. Recovery System	19	*Compressor suction manifold
	20	*Compressor suction manifold
	21	*Suction north compressor
	22	*Suction middle compressor
	23	*Suction south compressor
	24	Pressure equalization valve
	25	*Suction north vacuum pump
	26	*Suction south vacuum pump
	27	*Discharge north vacuum pump
	28	*Discharge south vacuum pump
e. Evacuation	29	EE-200 first stage steam
	30	Evacuation valve to EE-200

* These valves have indication for the open position only.

General Location	Valve No.	Valve Description
f. Colloid charge	31	PVA pump discharge
	32	PVA makeup tank outlet
	33	PVA charge tank inlet
	34	Methocel pump discharge
	35	Methocel makeup tank outlet
	36	Methocel charge tank inlet
g. Hot water charge	37	Pump suction
	38	Primary pump discharge
	39	Secondary pump discharge
	40	Hot water tank make-up
h. Rinse water	41	Rinse water supply
	42	Rinse pump bypass
	43	To top of reactors
	44	Cold water swirl
i. RVCM charge	45	Pump discharge
2. Old Module		
a. Chem Wash	1	Tank outlet
	2	Tank inlet
	3	Tank bypass
	4	Chem wash from EA-357 to FA-776
b. Batch water strippers	5-6	Steam stripping
c. Reactors	7-11	Inert vent
	12-16	Steam to jacket
d. Recovery system	7	Suction east compressor
	8	Suction west compressor
	19	To ERS
	20	From batch water strippers

General Location	Valve No.	Valve Description
e. Emission Recovery System	21	VCM Tank farm recovery
	22	Batch water stripper recovery
f. Evacuation	23	EE-100 first stage steam
	24	Evacuation valve to EE-100
g. Colloid Charge	25	Pump discharge
h. Hot water charge	26	Primary pump discharge
	27	Secondary pump discharge
	28	Pump suction
	29	Hot water tank make-up
i. Rinse water	30	Hot water rinse
	31	Rinse supply
	32	Rinse pump bypass
j. RVCM charge	33	Pump discharge

A

Limit Switch Replacement - Phase III

Aberdeen Chemical Plant

III. Instrument Specification

Item	Description
PLS-101 through 180	Proximity Limit Switches

VISTA

VISTA CHEMICAL COMPANY
GENERAL ENGINEERING
HOUSTON, TEXAS

SPECIFICATION SHEET

SPECIFICATION DATA SHEET
PROJECT NO. _____
A.F.E. NO. _____
P.O. NO. _____
MADE BY F. G. Jeanson
DATE 5-28-86 APP'D BY FC

PLANT Aberdeen Chemical PROJECT Limit Switch Replacement - Phase III

ITEM NO.
SERVICE PLS-101 - 180 Proximity Limit switches

Quantity: 80 sets (There are two limit switches per set - one for OPEN, one for CLOSE)

Service: Valve Indication

Location: On bracket between valve and actuator

Manufacturer: GO , No equal

Model: 713774

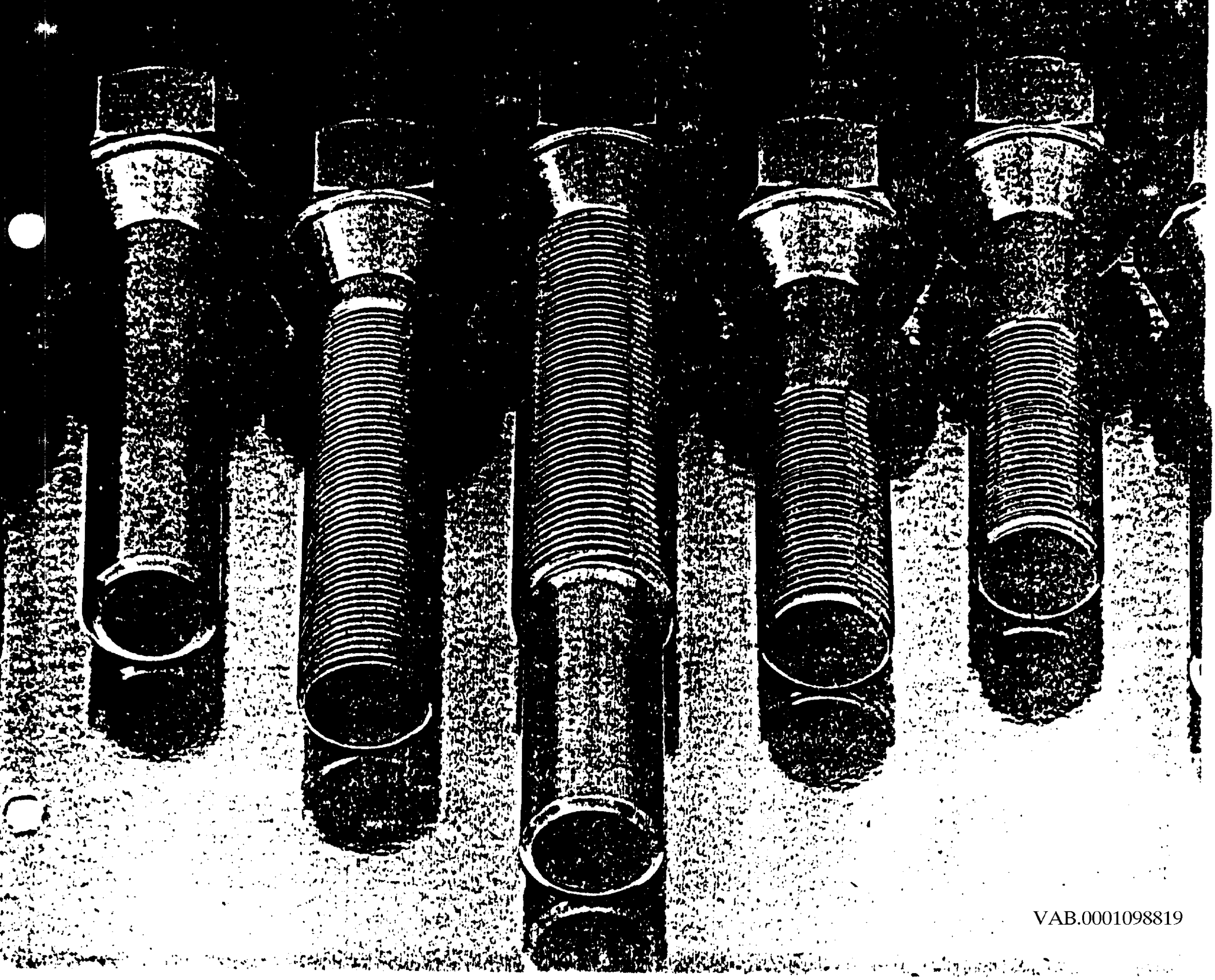
Description: ½" NPT conduit outlet with 18" potted, 3 wire leads, type 300 stainless steel housing with 5/8 - 18 NF x 2.813" threads.

SPEC NO. _____ REV. 0
SHEET 1 OF 1

GO®

Series 70 Switch

A Rugged and Dependable Line of Totally Enclosed Proximity Limit Switches
from General Equipment & Manufacturing Company, Inc.



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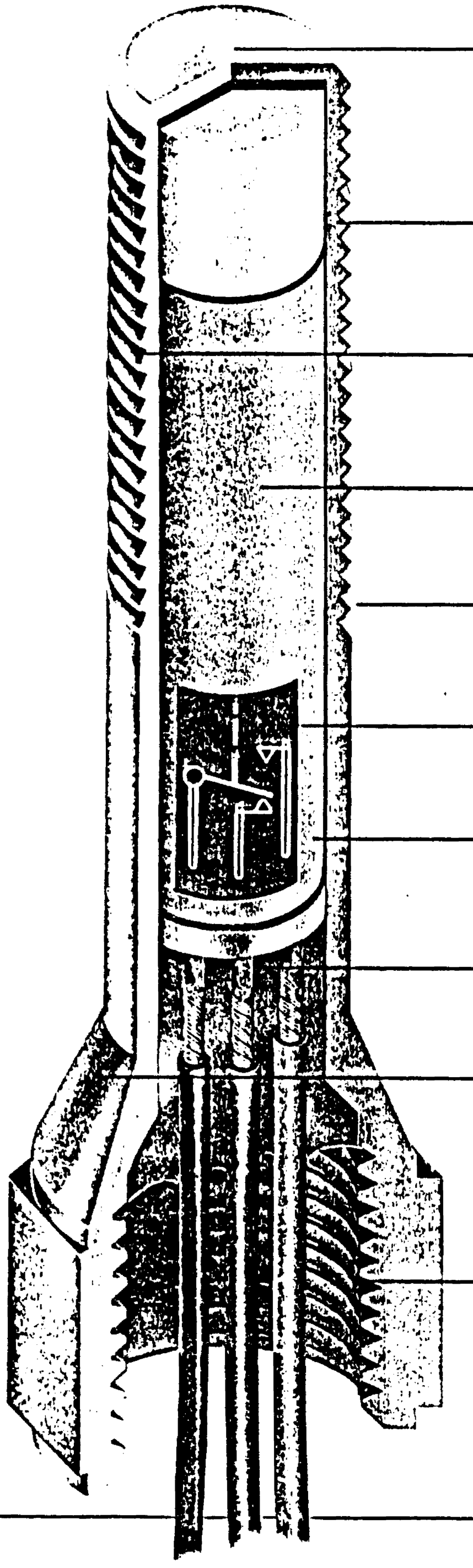


End Cap: .050" Stainless Steel (304) End Cap, available with thicker End Caps for higher pressure.

Pressure Options: Normally the standard 5/8" diameter will withstand 2000 PSI. Larger cases with thicker walls and front End Caps will allow the switch to function at much higher pressures (up to 10,000 PSI). Certification available as factory option.

Case: 300 Series Stainless Steel case, plain or threaded body (5/8-18 NF). Different body lengths available, SEE options on MODELS AVAILABLE.

Magnets: Made with a high energy product magnet. An excellent coercive force which converts into grams of Contact Pressure for reliable operation. Meets MMPA Specifications.

External Threads: Machines to meet SAE 5/8-18 UNF Specifications. Units available with or without threads.

Contacts: Type Silver, Cadmium Oxide, resists welding and is some of the most widely used Contact Material in the industry. Sized to withstand approved ratings. Hermetically Sealed Contact Chamber.

Bearing: Consists of a finely ground Stainless Steel Pin and durable plastic housing. Sized to withstand a wide temperature range. Resists seizing and gives millions of free operations.

Potting: Terminal cavity filled with epoxy resin compound for sealing and mechanical support of wire/cable connections.

Body Tube: Made of Free Mechanical Stainless Steel. Resists most all harsh environments and withstands high working pressures. Impervious to water, oils and gases.

Internal Threads: 1/2-14 NPT. complies with CSA requirements for Explosion Proof Applications. Wire or cable leads available to meet Customer's Specifications.

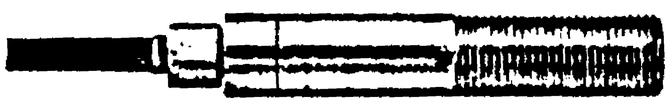
VAB.0001098820

When time, accuracy, and dependability count . . . you can count on the 70 Series GO® Switch. Maintenance free; engineered for precision, performance and reliability.

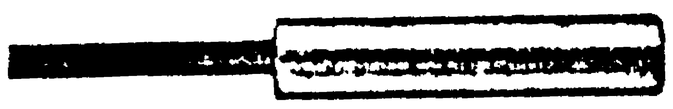
The standard 70 Series GO® Proximity Limit Switch has been designed and built to rugged specifications for use in most industrial and environmental applications. Each switch is totally enclosed, hermetically sealed and capable of operating in hostile environments.

The standard stainless steel housing is impervious to oils, caustic acids, water laden areas and most atmospheric conditions, with a broad operating temperature range. (See specification) Many different models of the switch are available for your design needs. (See ordering information for specifications, detail and options.)

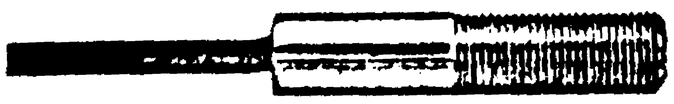
Standard Models



Model 713360
No conduit connection, 18" 3 conductor cable with water resistant squeeze connection, type 300 stainless steel housing with ⅝-18 NF x 1.5" threads with 2 lock nuts.



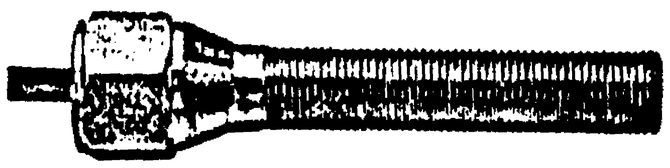
Model 713420
No conduit outlet, 18" potted, 3 conductor cable, type 300 stainless steel housing; no threads.



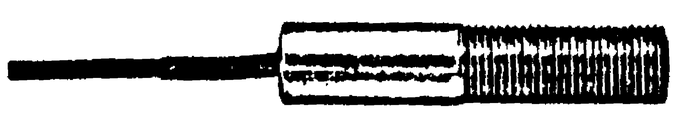
Model 713460
No conduit outlet, 18" potted, 3 conductor cable, type 300 stainless steel housing with ⅝-18 NF x 1.5" threads with 2 lock nuts.

Model 713520
½ NPT conduit outlet, 18" 3 conductor cable, type 300 stainless steel housing, no threads.

Model 713560
½ NPT conduit outlet with 18" 3 conductor cable, type 300 stainless steel housing with ⅝-18 NF x 1.5" threads with 2 lock nuts.



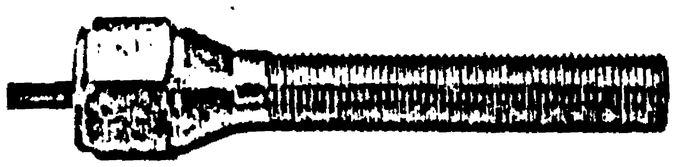
Model 713570
½ NPT conduit outlet, 18" 3 conductor cable, type 300 stainless steel housing with ⅝-18 NF x 2.813" threads with 2 lock nuts.



Model 713660
No conduit outlet, 18" potted, 3 wire leads, type 300 stainless steel housing with ⅝-18 NF x 1.5" threads with 2 lock nuts.

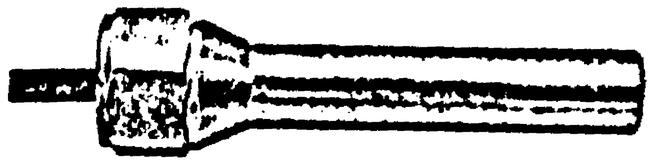
Model 713720
½ NPT conduit outlet with 18" potted, 3 wire leads, type 300 stainless steel housing, no threads.

Model 713760
½ NPT conduit outlet with 18" potted, 3 wire leads, type 300 stainless steel housing with ⅝-18 NF x 1.5" threads with 2 lock nuts.

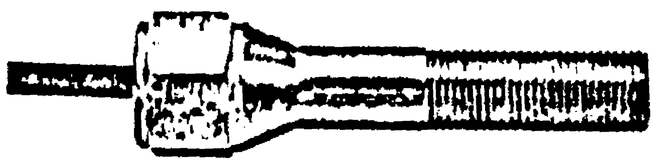


Model 713770
½ NPT conduit outlet, 18" potted 3 wire leads, type 300 stainless steel housing with ⅝-18 NF x 2.813" threads with 2 lock nuts.

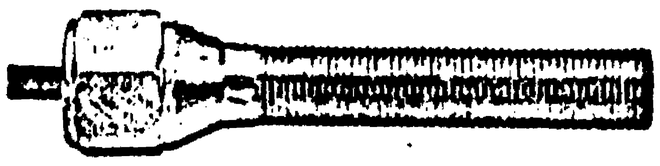
Hazardous Location approved models for Class I, Division 1, All Groups



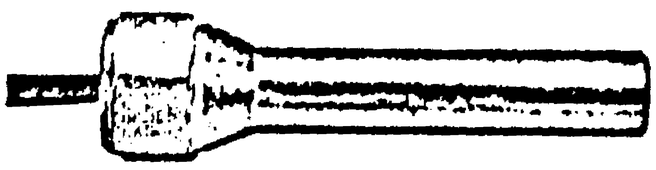
Model 713524
½ NPT conduit outlet with 18" potted, 3 conductor cable, type 300 stainless steel housing, no threads.



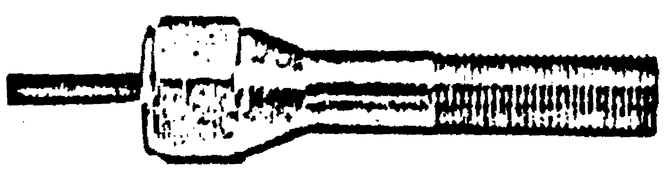
Model 713564
½ NPT conduit outlet with 18" potted, 3 conductor cable, type 300 stainless steel housing with ⅝-18 NF x 1.5" threads with 2 lock nuts.



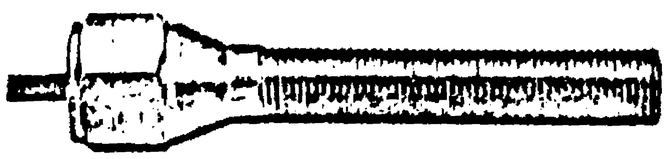
Model 713574
½ NPT conduit outlet with 18" potted, 3 conductor cable, type 300 stainless steel housing with ⅝-18 NF x 2.813" threads with 2 lock nuts.



Model 713724
½ NPT conduit outlet with 18" potted, 3 wire leads, type 300 stainless steel housing, no threads.



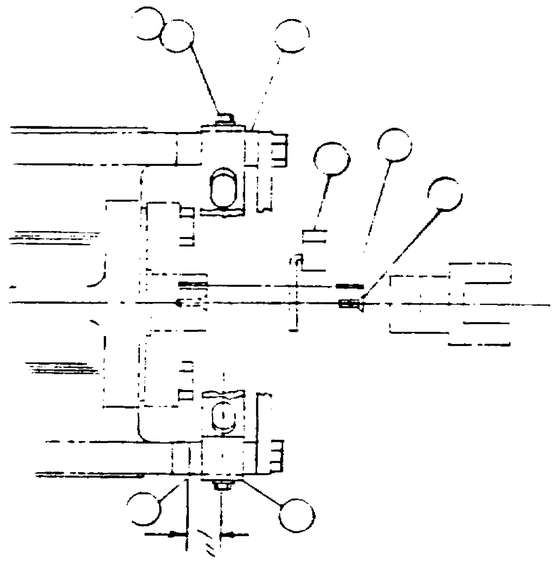
Model 713764
½ NPT conduit outlet with 18" potted, 3 wire leads, type 300 stainless steel housing with ⅝-18 NF x 1.5" threads with 2 lock nuts.

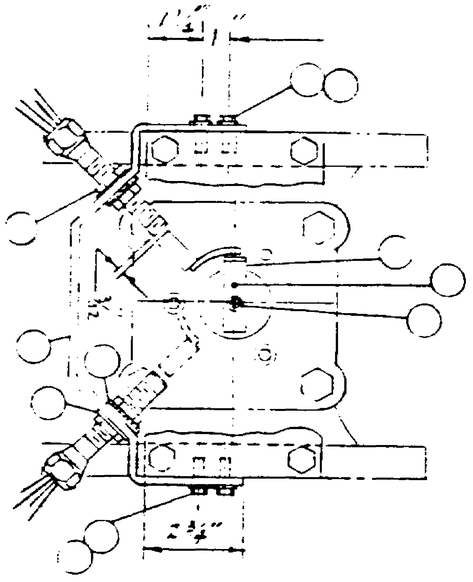


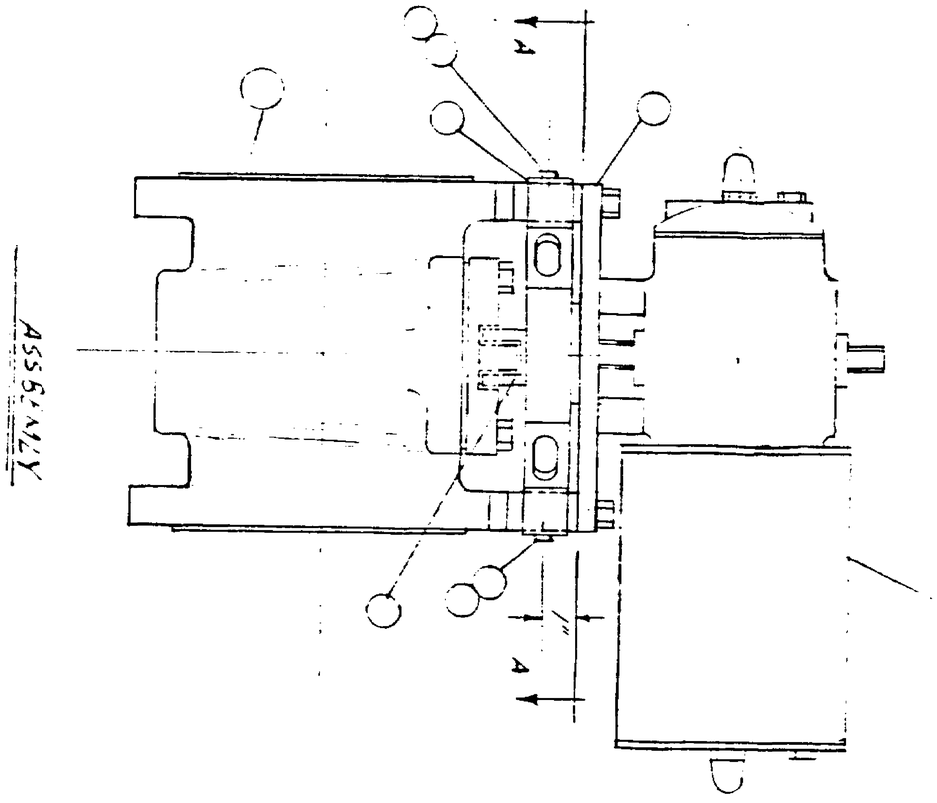
Model 713774
½ NPT conduit outlet with 18" potted, 3 wire leads, type 300 stainless steel housing with ⅝-18 NF x 2.813" threads.

Approved switches are in compliance with current bulletins 1243, 1273 and 1308.

These switches are U/L and CSA approved for industrial control, general purpose use. See hazardous location approved models in Column 3, this page.







REF: 5666					
		ORIGINAL	KEA		
U	DATE	DESCRIPTION	BY	CKD	APD

Vista Polymers Inc.
Aberdeen, Mississippi

SECTION: MS NEW UNIT

TUFLINE PLUG VALVE
VINYL VALVE LIMIT SWITCHES

SCALE: 1/8"

APPD:
DATE:

No. MS-5666-57-[illegible]-C

VAB.0001098822

TOLERANCES Unless otherwise specified
Angles: ± 1°, Fractions ± 1/32", XX ± 01", XXX ± 005"
Surfaces must be Concentric, Parallel, Flat & Square
(as applicable) to each other within ..... T.I.R

NO	REVISION	DATE	BY	APPD.

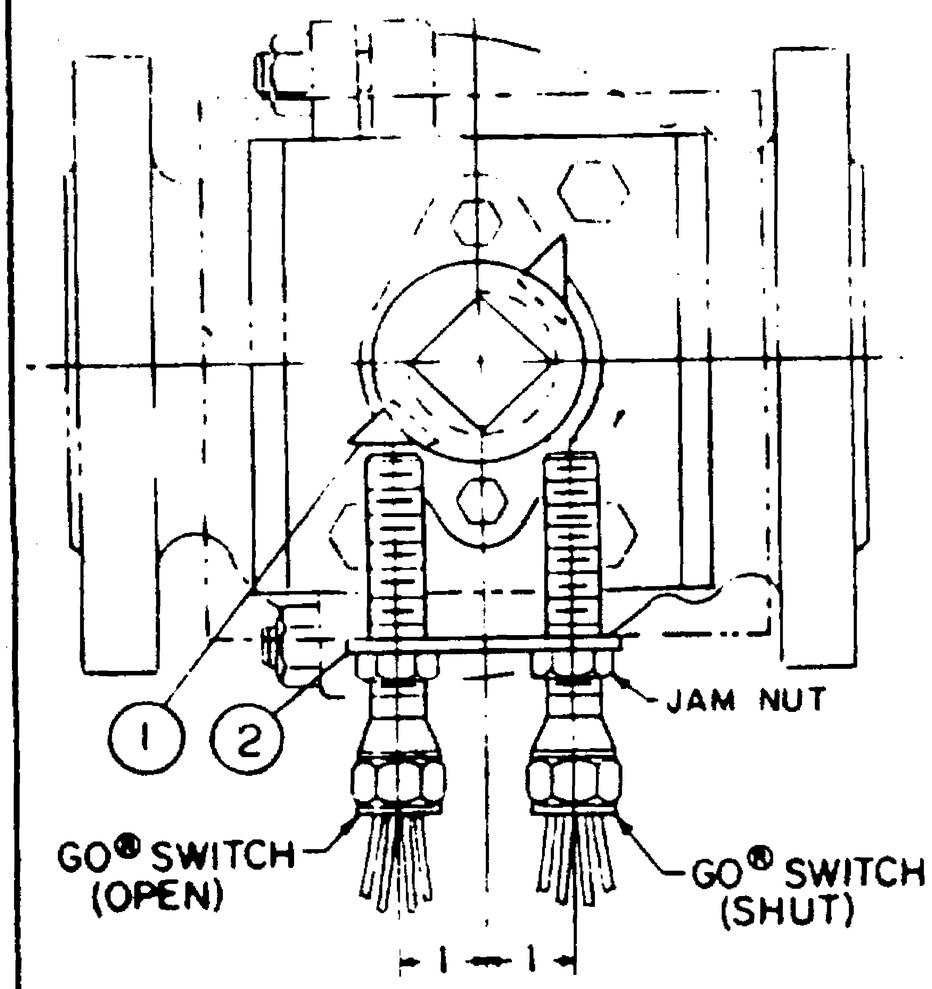


FIG. 1

MATERIAL LIST

Item	Qty.	Description	Dwg. No.
1	1	Switch Activator	V402800-1948
2	1	Mounting plate	V402800-1949
3	3	#10-24 x 1/2 Rd. Hd. Screw	
4	3	#10 Ext. Tooth L.W.	

INSTALLATION INSTRUCTIONS

1. With Valve Actuator removed slide Switch Activator (item 1) onto drive shaft as shown in figure 1.
2. To Mount Mounting Bracket (item 2) match drill and tap for three #10-24 UNC screws. Attach Mounting Plate to Actuator mounting bracket with items 4 & 5.
3. Screw GO Switches into threaded holes on Mounting Bracket (item 2) and secure with jam nuts included with Switches.
4. Adjust Switches to sense triangular bars on Switch Activator when Valve is in full open or full closed positions.

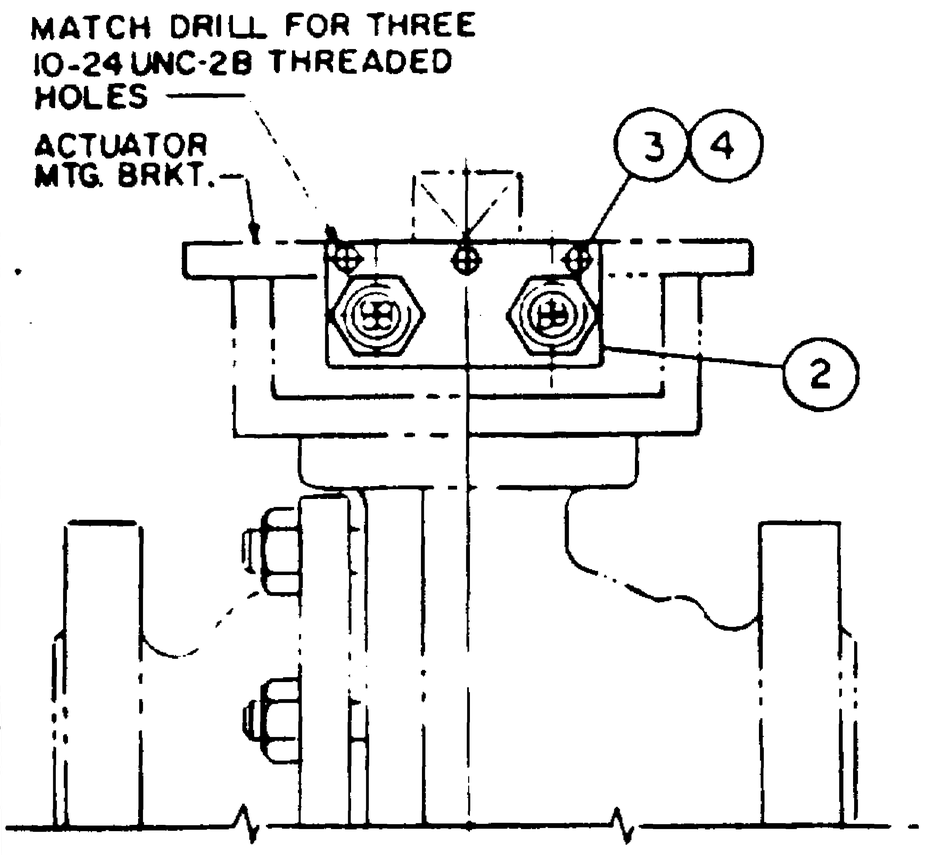


FIG. 2

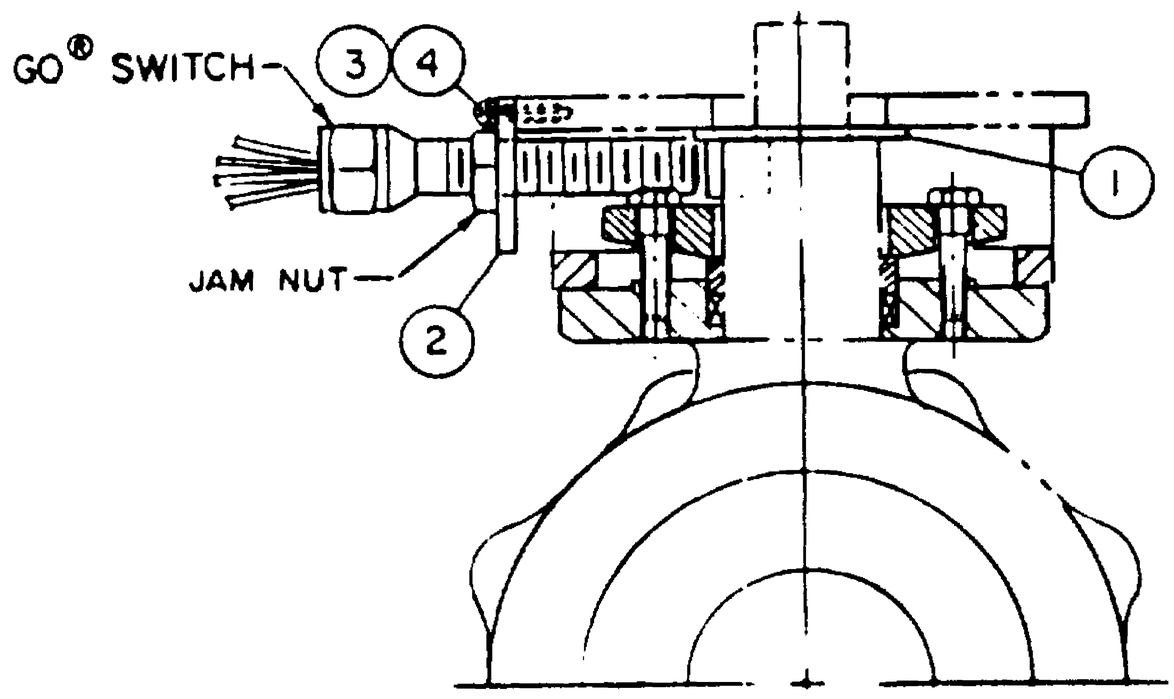


FIG. 3

DWN. BY RON S.	DATE 10-3-85	70 SERIES GO® SWITCH V.I.P. ON 6600 JAMASBURY VALVE WITH BETTIS ACTUATOR FOR VISTA POLYMER	GENERAL EQUIPMENT & MANUFACTURING CO., INC. 3300 FERN VALLEY ROAD P.O BOX 37290 LOUISVILLE, KENTUCKY, USA, 40233 (502) 969-2386, TWX 810-535-2786 GO SYSTEMS
CHK. BY			
APPD.			DWG. NO. V402800-1947 B REV.

TOLERANCES Unless otherwise specified
Angles: ± 1°, Fractions: ± 1/32", .XX ±.01", .XXX ±.005"
Surfaces must be Concentric, Parallel, Flat & Square
(as applicable) to each other within _____ T.I.R.

NO.	REVISION	DATE	BY	APPD.
				A

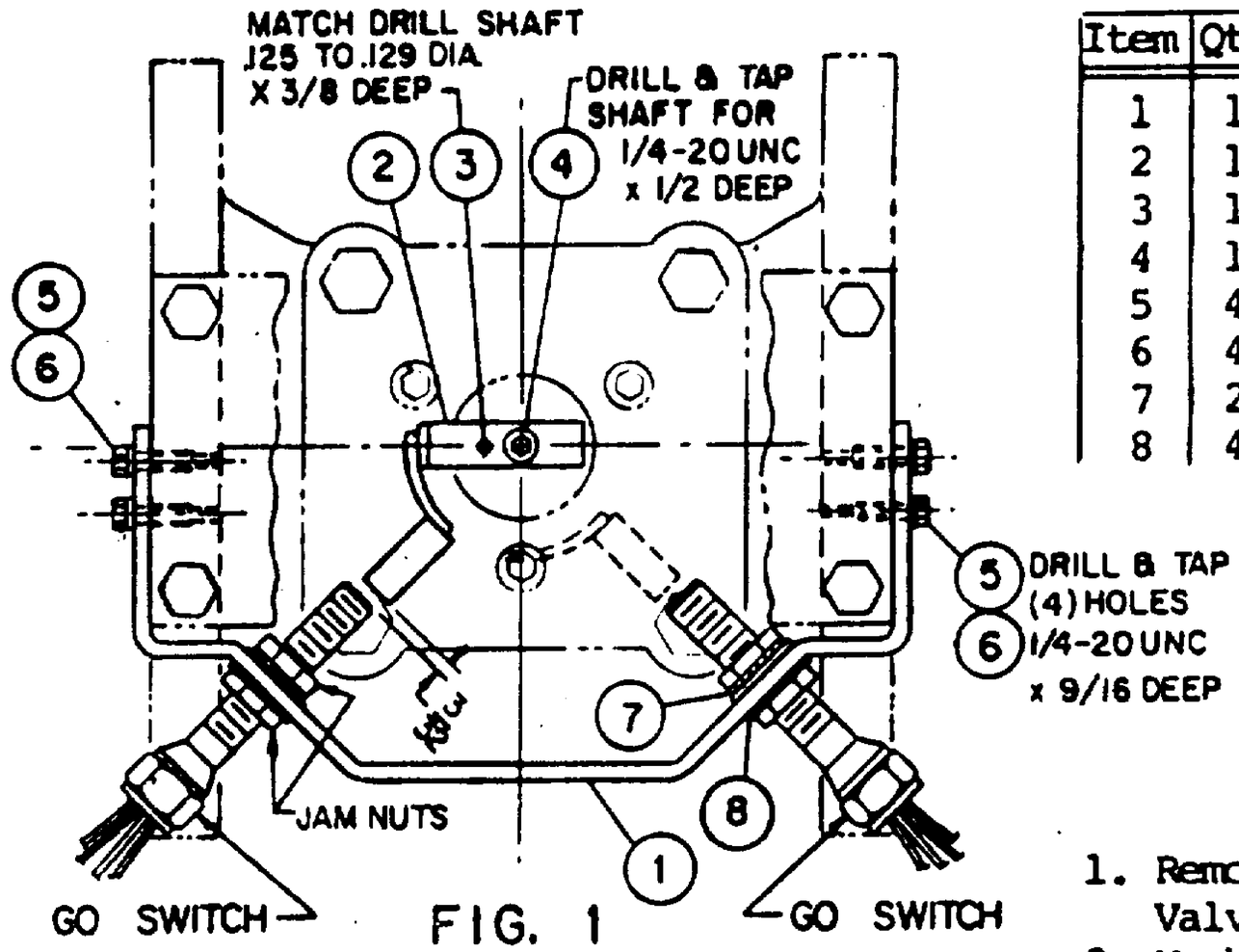


FIG. 1

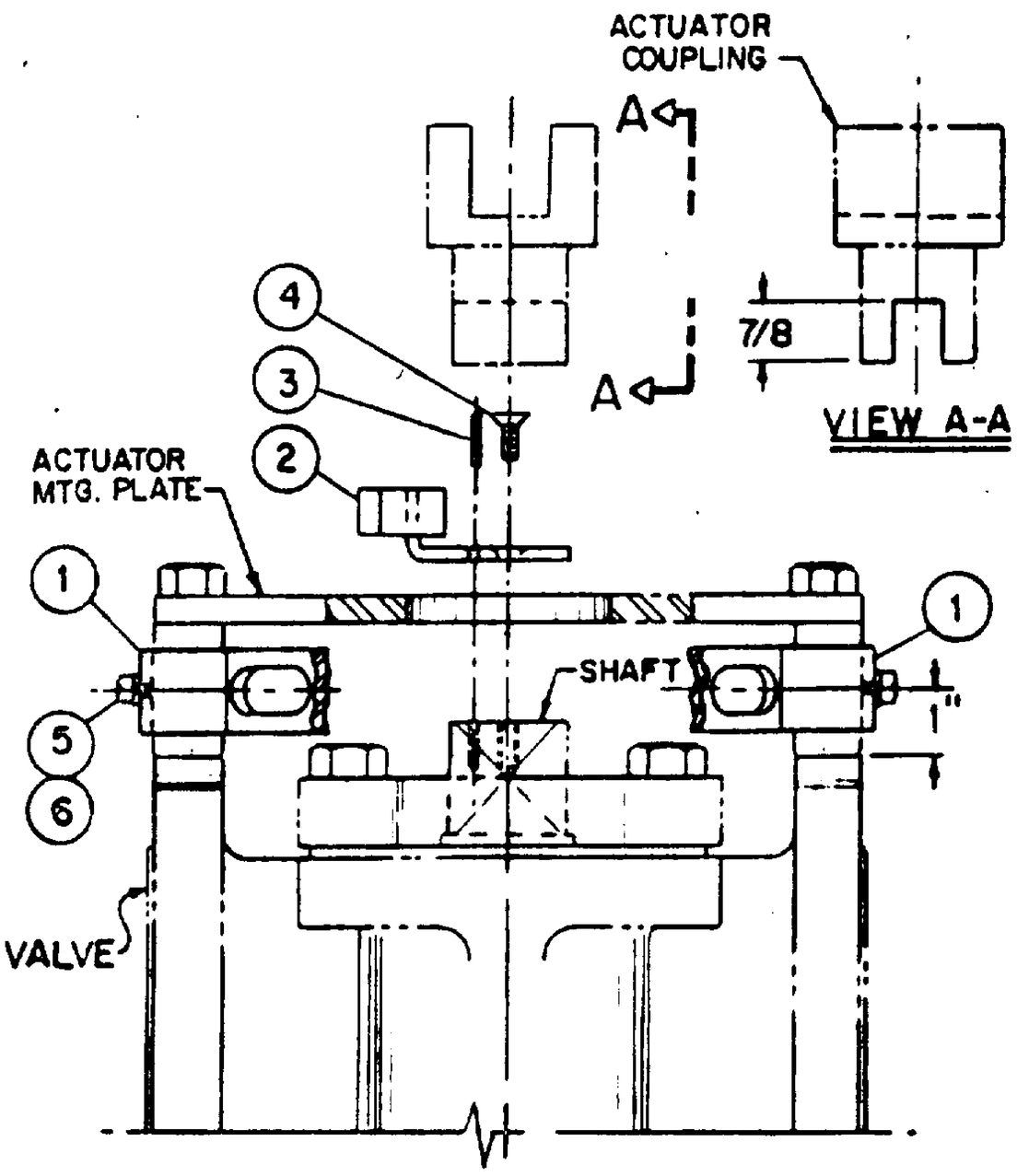


FIG. 2

MATERIAL LIST

Item	Qty.	Description	Dwg. No.
1	1	Mounting Bracket	V782067-1935
2	1	Switch Activator	V782067-1936
3	1	Rollpin 1/8 x 1/2"long	
4	1	1/4-20 x 5/8 Flat Hd. Screw	
5	4	1/4-20 x 3/4 Hex Hd. Screw	
6	4	1/4 L.W.	
7	2	5/8 Ext. Tooth L.W.	
8	4	5/8 F.W. (1-5/16 O.D.)	

INSTALLATION INSTRUCTIONS

1. Remove Valve Actuator and Coupling from Valve.
2. Machine notch in coupling to 7/8" depth as indicated in view A-A.
3. Drill & tap top of shaft for 1/4-20UNC x 1/2" deep hole.
4. Place Switch Activator (item 2) on shaft and secure with flat head screw (item 4). Then orient Switch Activator as shown in figure 1. Match drill shaft with hole in Switch Activator and drive roll-pin (item 3) into hole to prevent rotation.
5. Fit Mounting Bracket (item 1) to sides of Actuator mounting plate support and mark location of four mounnting holes, drill and tap four 1/4-20UNC x 9/16 dp. Then secure Mounting bracket (item 1) with items 5 & 6.
6. Insert GO® Switches into slots on Mtg. Bracket (item 1) and secure with two jam nuts that come with switches and washers items 7 & 8.
7. Adjust Switches to sense Activator (item 2) in full open and full closed positions.

DWN. BY	DATE
RON S.	9-12-83
CHK. BY	
APPD.	

70 SERIES GO® SWITCH V.I.P.
ON TUFLINE 067 6" PLUG VALVE
VALVE SHAFT
INDICATION

GENERAL EQUIPMENT
& MANUFACTURING CO., INC.
3300 FERN VALLEY ROAD
P.O. BOX 37280
LOUISVILLE, KENTUCKY, USA, 40233
(502) 969-2366, TWX 810-535-2786
GO SYSTEMS

DWG. NO. V782067-1934 REV.

TOLERANCES Unless otherwise specified
Angles: ± 1°, Fractions: ± 1/32", .XX ±.01", .XXX ±.005"
Surfaces must be Concentric, Parallel, Flat & Square
(as applicable) to each other within _____ T.I.R.

NO.	REVISION	DATE	BY	APPD.

A

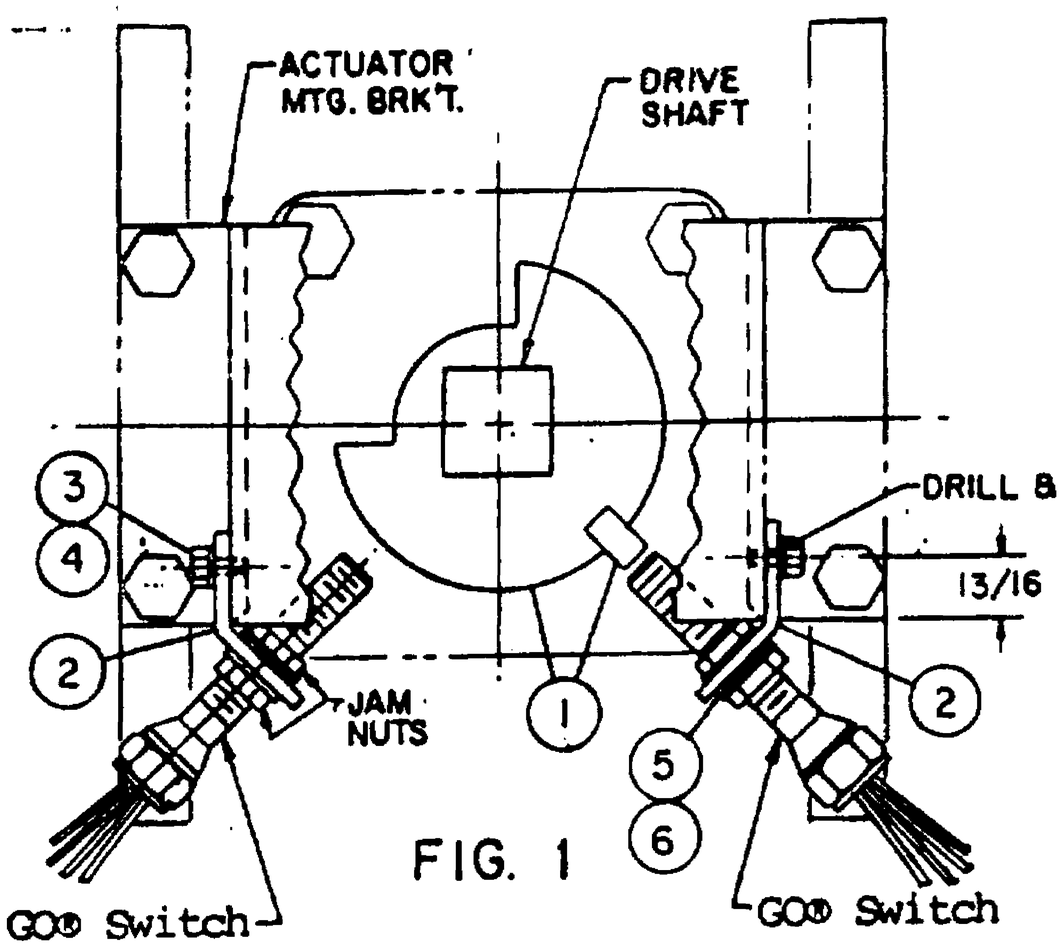


FIG. 1

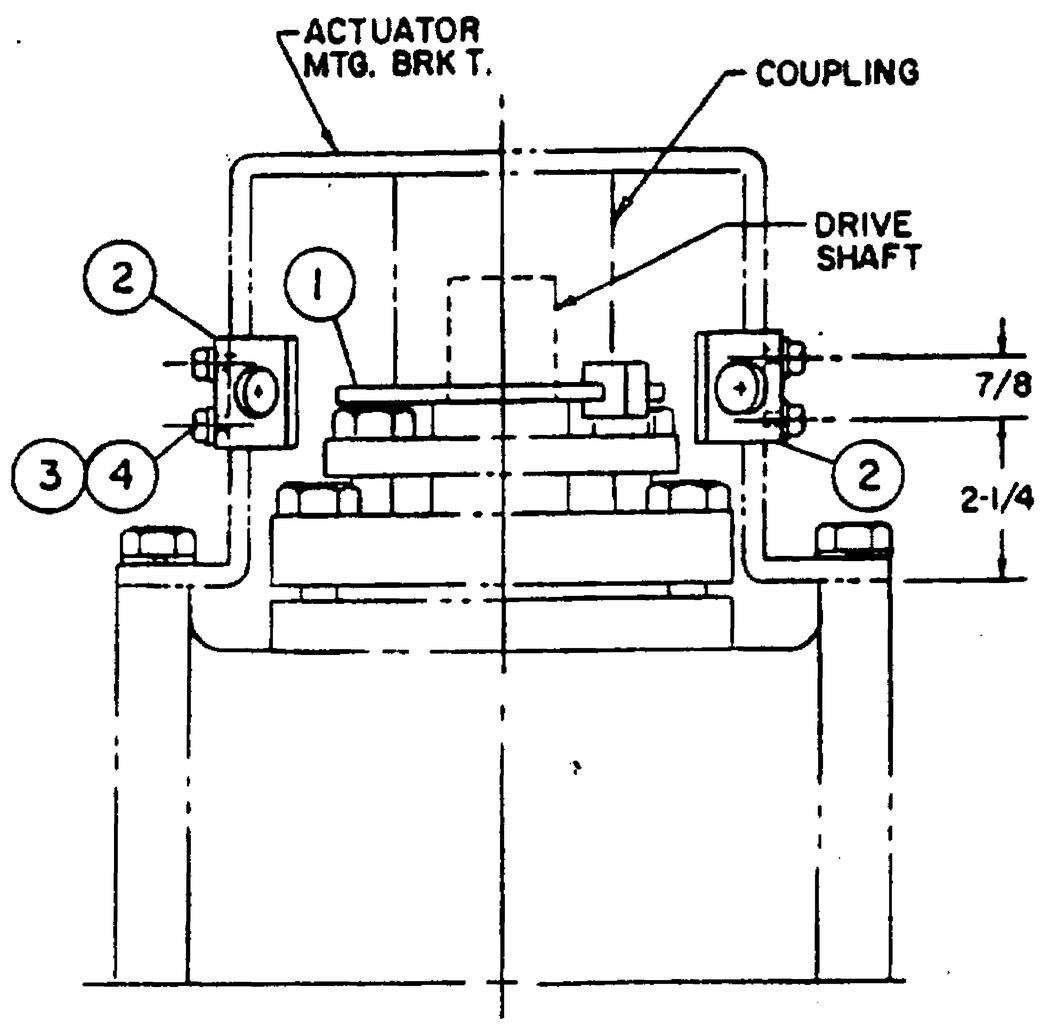


FIG. 2

MATERIAL LIST

Item	Qty.	Description	Dwg. No.
1	1	Switch Activator	V126411-1943
2	2	Mounting Bracket	V126411-1944
3	4	1/4-20 x 1/2 Hex Hd. Screw	
4	4	1/4 L.W.	
5	2	5/8 Shakeproof L.W.	
6	4	5/8 F.W. (1-5/16" O.D.)	

INSTALLATION INSTRUCTIONS

1. Disassemble Actuator and Coupling from Valve and remove existing pointer.
2. Slide Switch Activator (item 1) onto drive shaft.
3. Drill and Tap Actuator Mtg. Brk't. for 1/4-20UNC screws and attach Mounting Bracket (item 2) with items 3 & 4.
4. Mount GO® Switches in Mounting Bracket (item 2) with two jam nuts supplied with switch and washers items 5 & 6.
5. Adjust Switches in slots on Mounting BRacket (item 2) to sense Switch Activator (item 1) in full open and full closed positions.

Note: 1. GO® Switches are not included in V.I.P. (Valve Indication Package) and should be ordered separately.
2. Use Model 713774 GO® Switches.

Tag # 769 BVC

DWN. BY	DATE
RON S.	9-28-83
CHK. BY	
APPD.	

70 SERIES GO® SWITCH V.I.P.
ON DURCO 6" 150# G411 Valve
WITH BETTIS ACTUATOR
FOR CONOCO

GENERAL EQUIPMENT
& MANUFACTURING CO., INC.
3300 FERN VALLEY ROAD
P.O. BOX 37290
LOUISVILLE, KENTUCKY, USA, 40233
(502) 969-2386, TWX 810-535-2786

GO SYSTEMS

DWG. NO.	REV.
V126411-1942	

TOLERANCES Unless otherwise specified
Angles: ± 1°, Fractions: ± 1/32", .XX ±.01", .XXX ±.005"
Surfaces must be Concentric, Parallel, Flat & Square
(as applicable) to each other within _____ T.I.R.

NO.	REVISION	DATE	BY	APPD.
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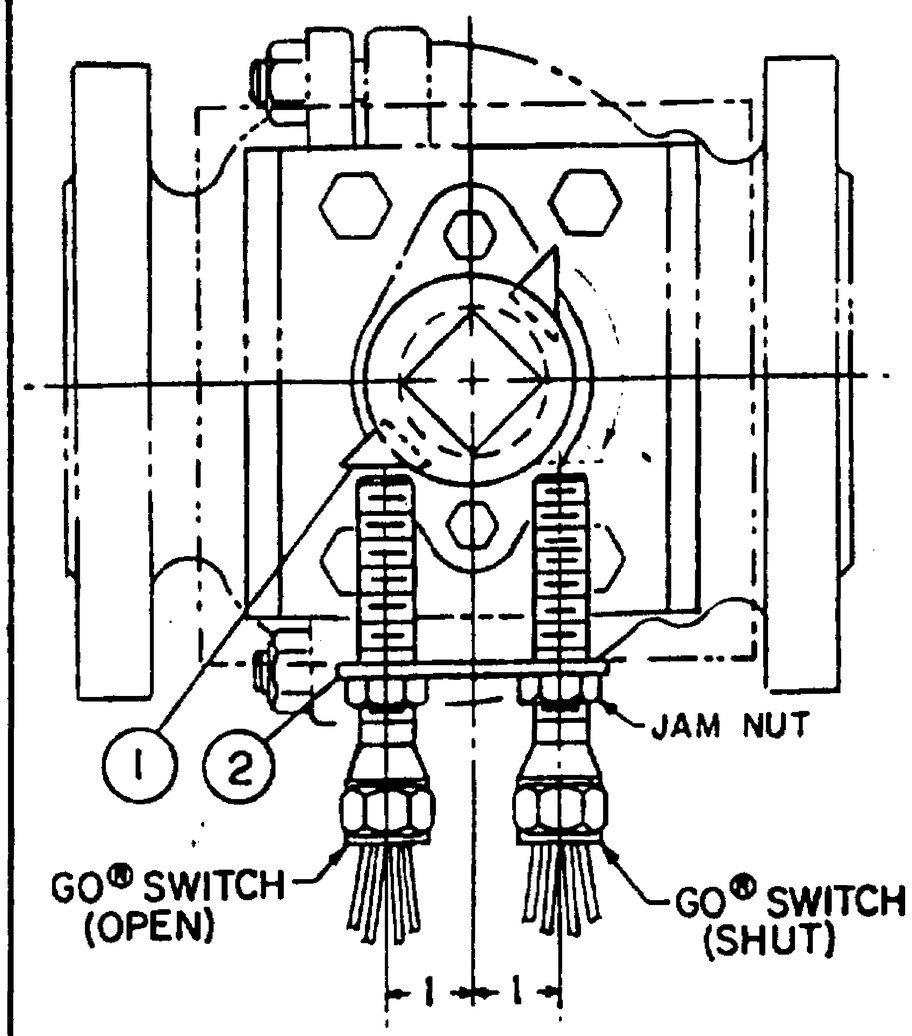

FIG. 1

MATERIAL LIST

Item	Qty.	Description	Dwg. No.
1	1	Switch Activator	V402800-1948
2	1	Mounting plate	V402800-1949
3	3	#10-24 x 1/2 Rd. Hd. Screw	
4	3	#10 Ext. Tooth L.W.	

INSTALLATION INSTRUCTIONS

1. With Valve Actuator removed slide Switch Activator (item 1) onto drive shaft as shown in figure 1.
2. To Mount Mounting Bracket (item 2) match drill and tap for three #10-24 UNC screws and attach item 2 to Actuator mounting bracket with items 4 & 5.
3. Screw GO Switches into threaded holes on Mounting Bracket (item 2) and secure with jam nuts included with Switches.
4. Adjust Switches to sense triangular bars on Switch Activator when Valve is in full open or full closed positions.

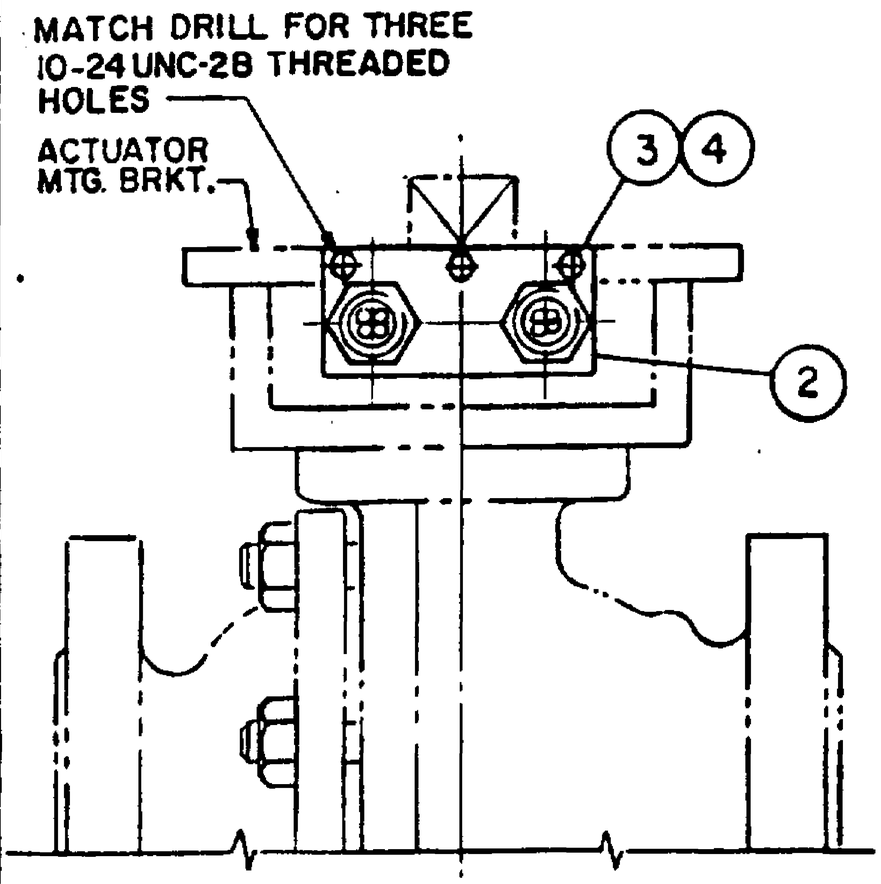

FIG. 2

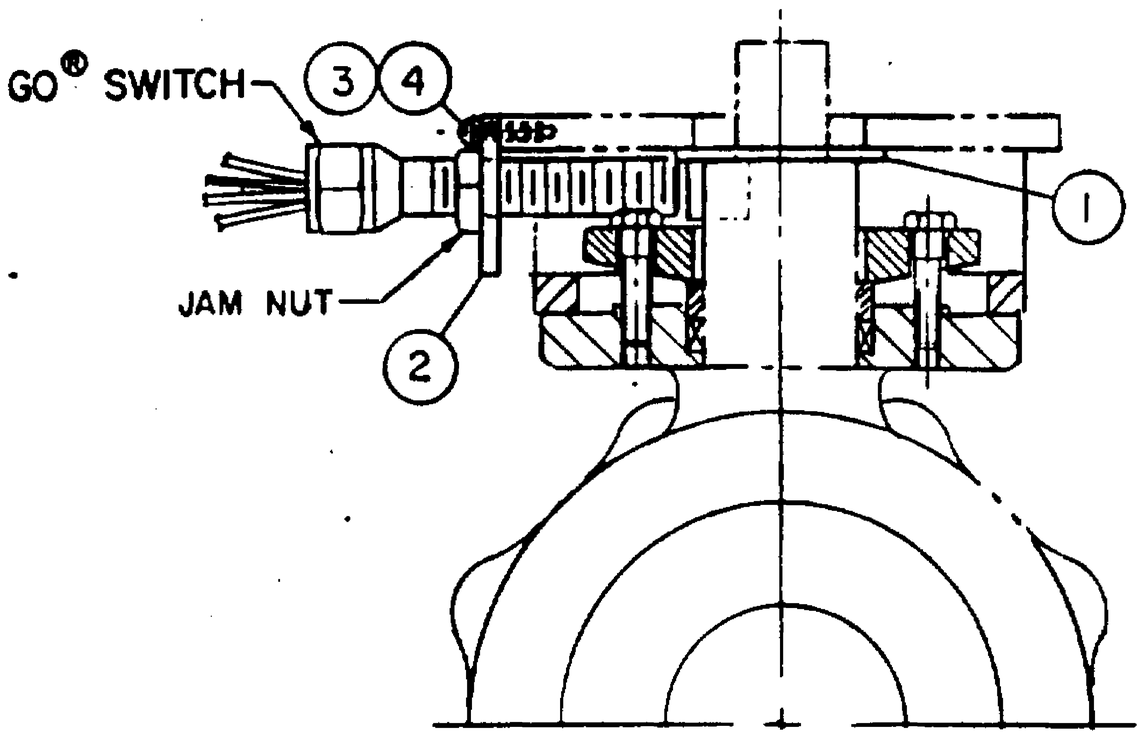

FIG. 3

Tag # CV 340 D 600

DWN. BY RON S.	DATE 10-3-83
CHK. BY	
APPD.	

70 SERIES GO® SWITCH V.I.P.
ON KTM 6" VALVE E0800
WITH JAMESBURY ACTUATOR
FOR CONOCO

GENERAL EQUIPMENT
& MANUFACTURING CO., INC.
3300 FERN VALLEY ROAD
P.O. BOX 37290
LOUISVILLE, KENTUCKY, USA, 40233
(502) 969-2386, TWX 810-535-2786

GO SYSTEMS

DWG. NO.	REV.
V402800-1947	

TOLERANCES Unless otherwise specified
Angles: ± 1°, Fractions: ± 1/32", .XX ±.01", .XXX ±.005"
Surfaces must be Concentric, Parallel, Flat & Square
(as applicable) to each other within _____ T.I.R

NO.	REVISION	DATE	BY	APPD.
				A

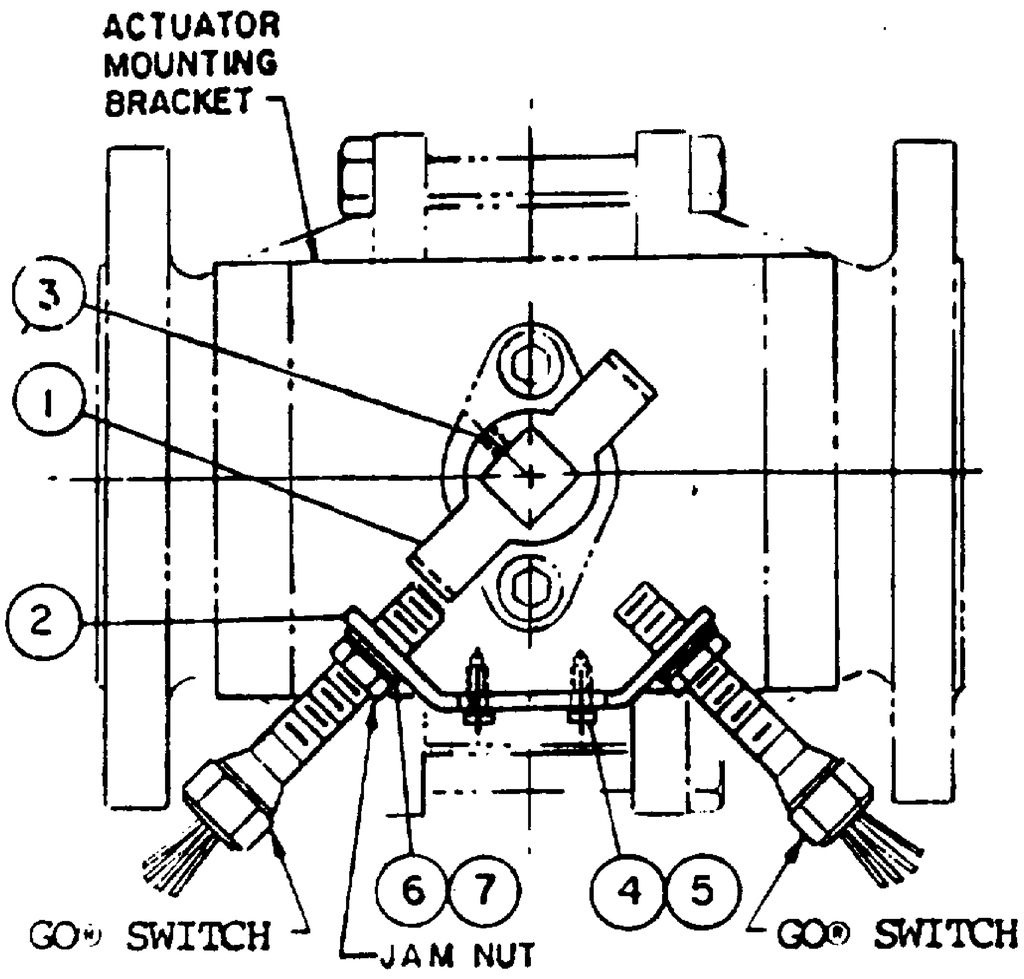

FIG. 1

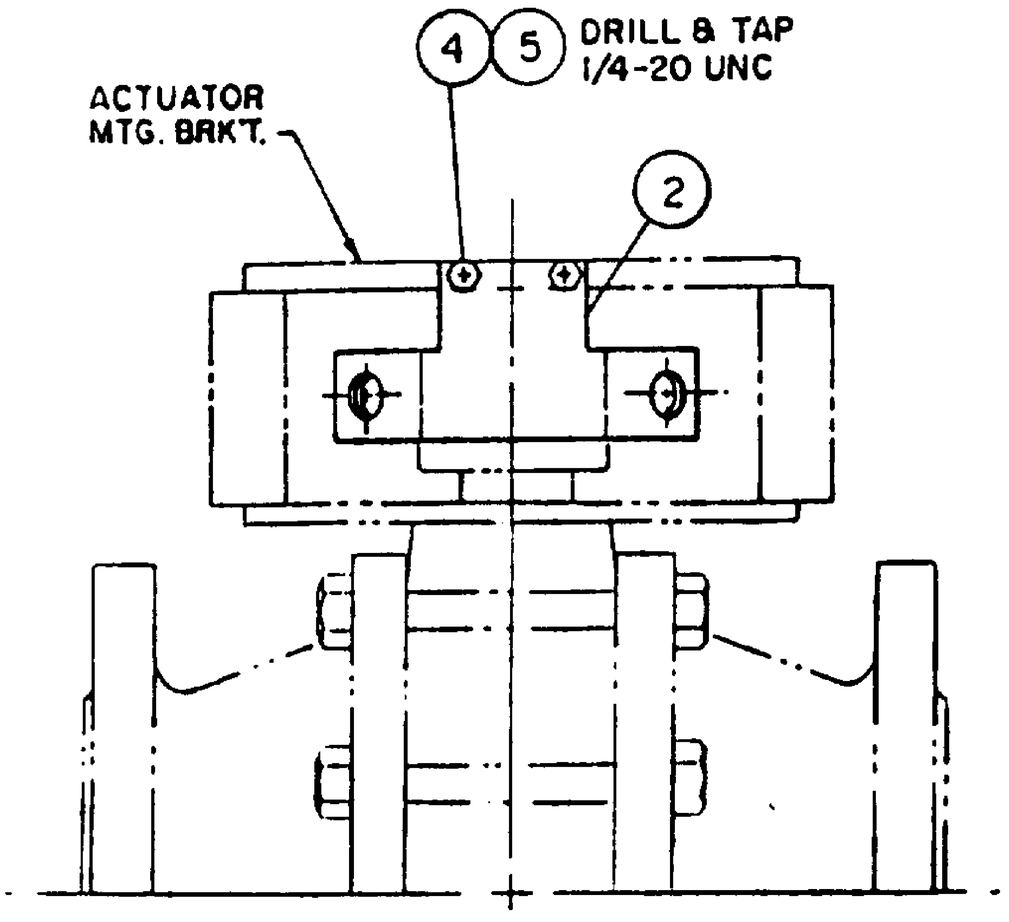

FIG. 2

MATERIAL LIST

Item	Qty.	Description	Dwg. No.
1	1	Switch Activator	V907310-1955
2	1	Mounting Bracket	V907310-1954
3	1	Set Screw #12-24 x 1/4	
4	4	1/4-20 x 1/2 Hex Hd. Screw	
5	4	1/4- L.W.	
6	2	5/8 Ext. Tooth L.W.	
7	2	5/8 F.W.	

INSTALLATION INSTRUCTIONS

1. Remove Actuator, Coupling and Existing position indication plate.
2. Slide Switch Activator (item 1) onto drive shaft and secure with set screw (item 3).
3. Place Mounting Bracket (item 2)onto Actuator Mtg. Brk't. and mark position of two holes. Drill and tap for 1/4-20 UNC holes. Secure Mounting Bracket (item (item 2) with items 4 & 5.
4. Screw GO® Switches into Mounting Brk't. (item 2) till Gap between end of switch & Switch Activator (item 1) is approx. 1/16". Secure with Jam Nuts that are included with Switches and with washers (items 6 & 7).
5. Switches should sense Switch Activator when Valve is in full open and full closed positions.

NOTE: GO® Switches are not included in V.I.P. (Valve Indication Package) and should be ordered as a Separate item.

Tag # CV 758 & CV 760

DWN. BY RON S.	DATE 10-
CHK. BY	
APPD.	

70 SERIES GO® SWITCH V.I.P.
ON
W-K-M 310 BALL VALVE 6"
FOR
CONOCO

GENERAL EQUIPMENT
& MANUFACTURING CO., INC.
3300 FERN VALLEY ROAD
P.O. BOX 37290
LOUISVILLE, KENTUCKY, USA. 40233
(502) 969-2366. TWX 810-535-2786

GO SYSTEMS

DWG. NO.	REV.
V 907310-1953	

TOLERANCES Unless otherwise specified
Angles: ± 1°, Fractions: ± 1/32", .XX ±.01", .XXX ±.005"
Surfaces must be Concentric, Parallel, Flat & Square
(as applicable) to each other within _____ T.I.R.

NO.	REVISION	DATE	BY	APPD.

A

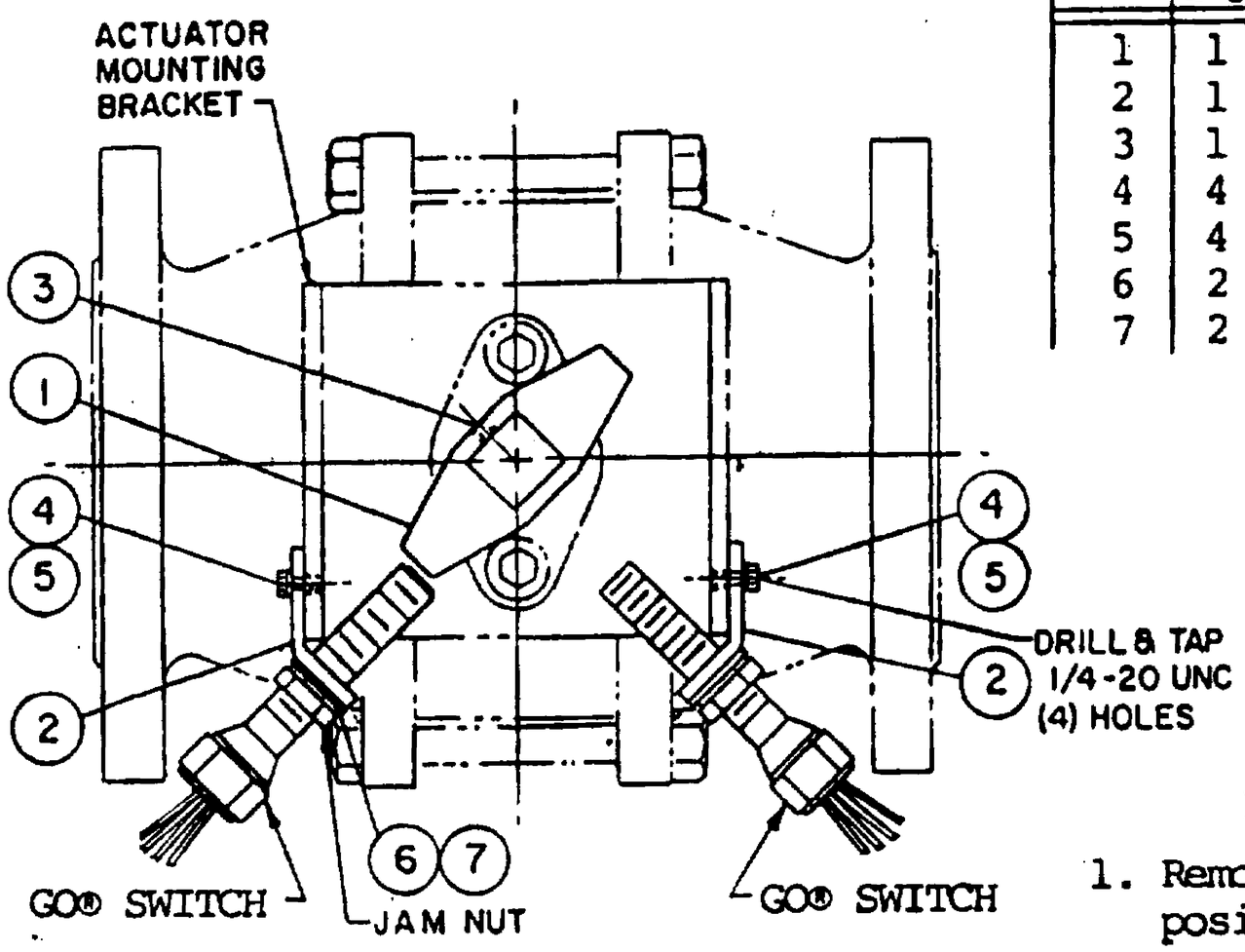

FIG. 1

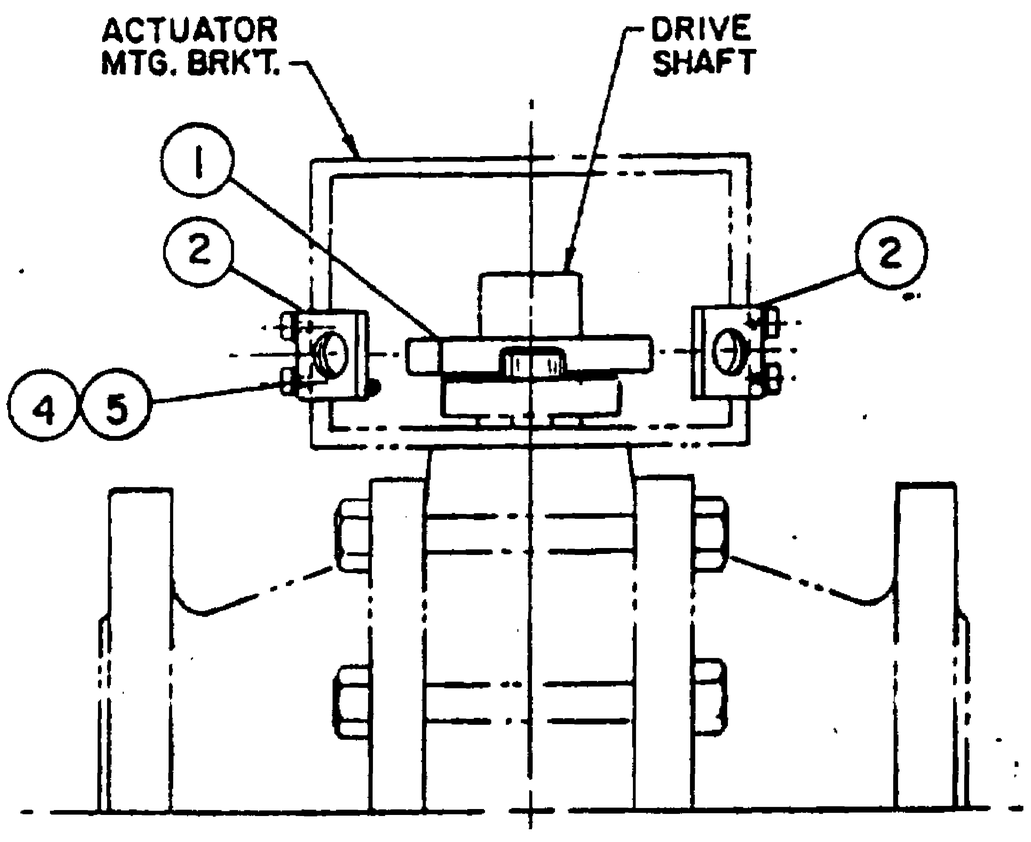

FIG. 2

MATERIAL LIST

Item	Qty.	Description	Dwg. No.
1	1	Switch Activator	V907310-1951
2	1	Mounting Bracket	V907310-1952
3	1	Set Screw #12-24 x 1/4	
4	4	1/4-20 x 1/2 Hex Hd. Screw	
5	4	1/4- L.W.	
6	2	5/8 Ext. Tooth L.W.	
7	2	5/8 F.W.	

INSTALLATION INSTRUCTIONS

1. Remove Actuator, Coupling and Existing position indication plate.
2. Slide Switch Activator)item 1) onto drive shaft and secure with set screw (item 3).
3. Assemble GO® Switches to Mounting Bracket (item 2) with Jam Nuts supplied with switches and washers items 6 & 7.
4. Place Switch mounted on bracket on sides of Actuator mounting bracket and align switch with Activator (item 1) then match drill Actuator mounting bracket with holes in Mounting Bracket (item 2). Secure with items 4 & 5.
5. Switches should sense Switch Activator when Valve is in full open and full closed positions.

NOTE: GO® Switches are not included in V.I.P. (Valve Indication Package) and should be ordered as a Separate item.

Tag # CV 755

DWN. BY	DATE
RON S.	10-5-83
CHK. BY	
APPD.	

70 SERIES GO® SWITCH V.I.P.
ON
W-K-M 310 BALL VALVE 4"
FOR
CONOCO

GENERAL EQUIPMENT
& MANUFACTURING CO., INC.
3300 FERN VALLEY ROAD
P.O. BOX 37290
LOUISVILLE, KENTUCKY, USA, 40233
(502) 969-2386, TWX 810-535-2786

GO SYSTEMS

DWG. NO.	REV.
V 907310-1950	

VAB.0001098828