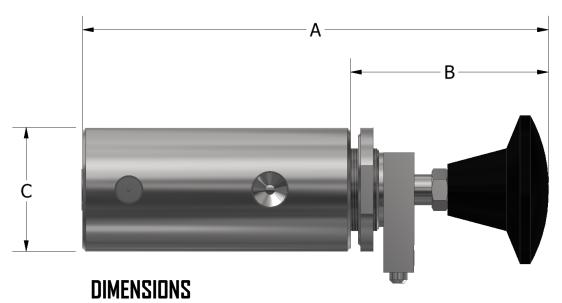
### **OPERATION**

The Ruelco MP-4 relay is a pilot operated, spring return manual relay. It operates as a 3-way, block and bleed, normally closed relay valve with a palm knob for position indication and manual operation. In the closed position, the inlet signal will be blocked from reaching the outlet port, until the knob is manually pulled into service. The detent will allow the relay to maintain this state until a pilot signal becomes present. Once in this configuration, the relay is armed and will shut, venting the outlet pressure, with a drop in pilot signal or a manual push on the knob. The relay will remain closed until the knob is manually pulled into service again.

### **FEATURES**

- 316 stainless steel construction (models to N.A.C.E. MR0175 available)
- Large Cv factor assures fast system response
- Lock Closed design prevents relay from automatically opening
- Design minimizes malfunctions due to supply system debris
- Inconel X-750 springs assures dependability in most corrosive environments



A (CLOSED/OPEN)	5.61"/5.98" (142.4 / 151.9 mm)
B (CLOSED/OPEN)	2.36" / 2.73" (60 / 69.3 mm)
С	1.50" (38.1 mm)
INLET AND OUTLET CONNECTION PORTS	1/4" FNPT
PILOT CONNECTION PORT	1/8" FNPT
PANEL MOUNT HOLE	1.0" (25.4 mm)
MAXIMUM PANEL THICKNESS	.18" (4.6 mm)
WEIGHT	1.6 LBS(.72 kg)

# MP-4 MANUAL RESET RELAY

# **PARTS LIST**

ITEM	QUANTITY	DESCRIPTION	MATERIAL
1A	1	BLACK KNOB	PHENOLIC
1B	-	RED KNOB	PHENOLIC
1C	-	GREEN KNOB	PHENOLIC
2	1	LOCK NUT	316 ST. STL.
3A	1	DETENT ASSEMBLY	316 ST. STL.
3B	-	DETENT REPLACEMENT	DELRIN
4	1	SCREW	316 ST. STL.
5	1	PANEL MOUNT NUT (OPTIONAL)	316 ST. STL.
6	3	SHAFT SEAL	FLUOROCARBON
7	1	SHAFT ASSEMBLY	316 ST. STL.
8	1	BODY	316 ST. STL.
9A	1	SPRING 20 PSI)	INCONEL X-750
9В	-	SPRING (30 PSI)	INCONEL X-750
10*	1	BODY SEAL	FLUOROCARBON
11*	1	PISTON SEAL	NITRILE
12*	1	BASE SEAL	FLUOROCARBON
13	1	RETAINING RING	316 ST. STL.
14	1	BASE	316 ST. STL.

<sup>\*</sup>Indicates item(s) contained in the Repair Kit

# MP-4 MANUAL RESET RELAY

# **SPECIFICATIONS**

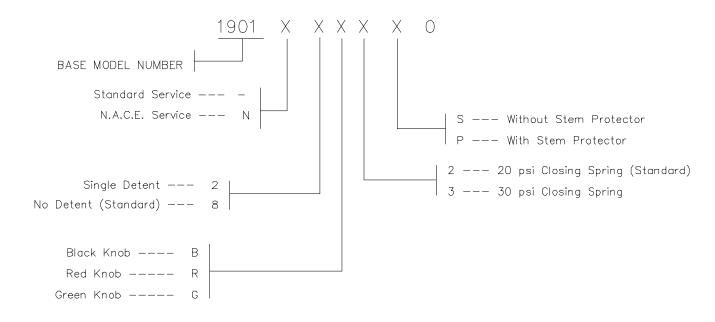
MAXIMUM WORKING PRESSURE	250 PSI (17.2 BAR)
MAXIMUM PILOT CAP PRESSURE	125 PSI (8.6 BAR)
ANADIENT TEMPEDATURE DANICE	-20 TO 250° F
AMBIENT TEMPERATURE RANGE	-29 TO 122° C
MINIMUM PILOT TO SIGNAL	27 PSI (1.9 BAR) WITH 20 PSI SPRING
PRESSURE TO HOLD RELAY OPEN	35 PSI (2.4 BAR) WITH 30 PSI SPRING
Cv FACTOR	.34

# **REPAIR KIT**

• 19-006-000

OTHER TEMPERATURE RANGES AND SEAL COMPOUNDS AVAILABLE UPON REQUEST

# **ORDERING CODE**

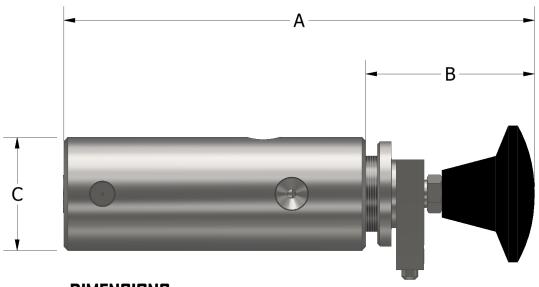


### **OPERATION**

The Ruelco Universal Manual Reset Relay is a pilot operated, spring return, universally ported, manual relay. It operates as a 3-way, block and bleed, relay valve with a palm knob for position indication and manual operation. It can be used as either in the Normally Open or Normally Closed position. In the closed position, the inlet signal will be blocked from reaching the outlet port, until the knob is manually pulled into service. The detent will allow the relay to maintain this state until a pilot signal becomes present. Once in this configuration, the relay is armed and will shut, venting the outlet pressure, with a drop in pilot signal or a manual push on the knob. The relay will remain closed until the knob is manually pulled into service again.

### **FEATURES**

- 316 stainless steel construction (models to N.A.C.E. MR0175 available)
- Large Cv factor assures fast system response
- Lock Closed design prevents relay from automatically opening
- Design minimizes malfunctions due to supply system debris
- Inconel X-750 springs assures dependability in most corrosive environments



# **DIMENSIONS**

A (CLOSED/OPEN)	6.25"/6.62" (158.75 / 168.27 mm)
B (CLOSED/OPEN)	2.36" / 2.73" (60 / 69.3 mm)
С	1.50" (38.1 mm)
INLET AND OUTLET CONNECTION PORTS	1/4" FNPT
PILOT CONNECTION PORT	1/8" FNPT
PANEL MOUNT HOLE	1.0" (25.4 mm)
MAXIMUM PANEL THICKNESS	.18" (4.6 mm)
WEIGHT	2.06 LBS(.93 kg)

# **PARTS LIST**

ITEM	QUANTITY	DESCRIPTION	MATERIAL
1A	1	BLACK KNOB	PHENOLIC
1B	-	RED KNOB	PHENOLIC
1C	-	GREEN KNOB	PHENOLIC
2	1	LOCK NUT	316 ST. STL.
3A	1	DETENT ASSEMBLY	316 ST. STL.
3B	-	DETENT REPLACEMENT	DELRIN
4	1	SCREW	316 ST. STL.
5	1	PANEL MOUNT NUT (OPTIONAL)	316 ST. STL.
6	3	SHAFT SEAL	FLUOROCARBON
7	1	SHAFT ASSEMBLY	316 ST. STL.
8	1	BODY	316 ST. STL.
9A	1	SPRING 20 PSI)	INCONEL X-750
9В	-	SPRING (30 PSI)	INCONEL X-750
10*	1	BODY SEAL	FLUOROCARBON
11*	1	PISTON SEAL	NITRILE
12*	1	BASE SEAL	FLUOROCARBON
13	1	RETAINING RING	316 ST. STL.
14	1	BASE	316 ST. STL.

<sup>\*</sup>Indicates item(s) contained in the Repair Kit

# **SPECIFICATIONS**

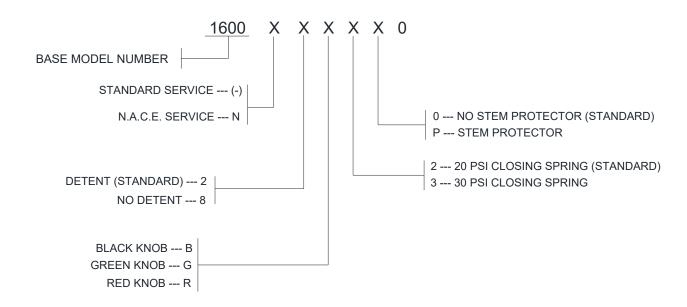
MAXIMUM WORKING PRESSURE	250 PSI (17.2 BAR)
MAXIMUM PILOT CAP PRESSURE	125 PSI (8.6 BAR)
ANADIENT TENADEDATURE DANIGE	-20 TO 250° F
AMBIENT TEMPERATURE RANGE	-29 TO 122° C
MINIMUM PILOT TO SIGNAL	27 PSI (1.9 BAR) WITH 20 PSI SPRING
PRESSURE TO HOLD RELAY OPEN	35 PSI (2.4 BAR) WITH 30 PSI SPRING
Cv FACTOR	.34

# **REPAIR KIT**

• 16-052-000

OTHER TEMPERATURE RANGES AND SEAL COMPOUNDS AVAILABLE UPON REQUEST

# **ORDERING CODE**

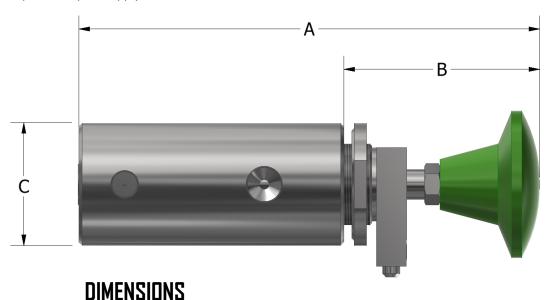


### **OPERATION**

The Ruelco AR-4 relay is a pilot operated, spring return automatic relay. It operates as a 3-way, block and bleed, normally closed relay valve with a palm knob for position indication and manual operation. In the closed position, the inlet signal will be blocked from reaching the outlet port, until a pilot supply is applied. The detent will also allow the relay to be manually pulled into service without a pilot signal present. Once in this configuration, the relay is armed and will shut, venting the outlet pressure, with a drop in pilot signal or a manual push on the knob. The relay will reopen if the pilot supply is restored.

### **FEATURES**

- 316 stainless steel construction (models to N.A.C.E. MR0175 available)
- Large Cv factor assures fast system response
- Design minimizes malfunctions due to supply system debris
- Inconel X-750 springs assures dependability in most corrosive environments



### A (CLOSED/OPEN) 5.61"/5.98" (142.4 / 151.9 mm) B (CLOSED/ OPEN) 2.36" / 2.73" (60 / 69.3 mm) C 1.50" (38.1 mm) INLET AND OUTLET CONNECTION PORTS 1/4" FNPT PILOT CONNECTION PORT 1/8" FNPT PANEL MOUNT HOLE 1.0" (25.4 mm) MAXIMUM PANEL THICKNESS .18" (4.6 mm) WEIGHT 1.6 LBS (.72 kg)

# **PARTS LIST**

ITEM	QUANTITY	DESCRIPTION	MATERIAL
1A	1	BLACK KNOB	PHENOLIC
1B	-	RED KNOB	PHENOLIC
1C	-	GREEN KNOB	PHENOLIC
2	1	LOCK NUT	316 ST. STL.
3A	1	DETENT ASSEMBLY	316 ST. STL.
3B	-	DETENT REPLACEMENT	DELRIN
4	1	SCREW	316 ST. STL.
5	1	PANEL MOUNT NUT (OPTIONAL)	316 ST. STL.
6	3	SHAFT SEAL	FLUOROCARBON
7	1	SHAFT ASSEMBLY	316 ST. STL.
8	1	BODY	316 ST. STL.
9A	1	SPRING 20 PSI)	INCONEL X-750
9В	-	SPRING (30 PSI)	INCONEL X-750
10*	1	BODY SEAL	FLUOROCARBON
11*	1	PISTON SEAL	NITRILE
12*	1	BASE SEAL	FLUOROCARBON
13	1	RETAINING RING	316 ST. STL.
14	1	BASE	316 ST. STL.
15	1	PLUG	316 ST. STL.
16	1	PLUG SEAL	FLUOROCARBON

<sup>\*</sup>Indicates item(s) contained in the Repair Kit

# **SPECIFICATIONS**

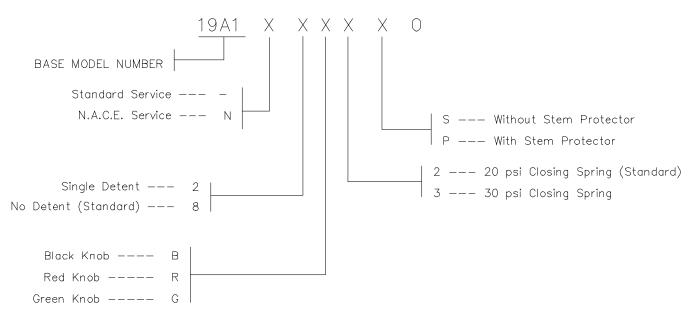
MAXIMUM WORKING PRESSURE	250 PSI (17.2 BAR)
MAXIMUM PILOT CAP PRESSURE	125 PSI (8.6 BAR)
ANADIENT TEMPEDATURE DANCE	-20 TO 250° F
AMBIENT TEMPERATURE RANGE	-29 TO 122° C
MINIMUM PILOT TO SIGNAL	27 PSI (1.9 BAR) WITH 20 PSI SPRING
PRESSURE TO HOLD RELAY OPEN	35 PSI (2.4 BAR) WITH 30 PSI SPRING
Cv FACTOR	.34

# **REPAIR KIT**

• 19-031-000

OTHER TEMPERATURE RANGES AND SEAL COMPOUNDS AVAILABLE UPON REQUEST

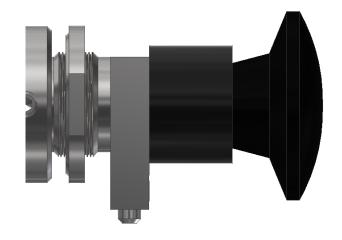
# **ORDERING CODE**



# STEM PROTECTOR

# **OPERATION**

The optional Ruelco stem protector is designed to prevent debris such as ice or dust from allowing the relay to open or shut properly. The stem protector shields the entire spool from the exposed elements, yet still allows the operator to open and close the relay.



### **PARTS LIST**

ITEM	QUANTITY	DESCRIPTION	MATERIAL
1	1	STEM PROTECTOR HOUSING	DELRIN
2	1	STEM PROTECTOR WASHER	DELRIN
3#	1	STEM PROTECTOR SEAL	NITRILE

<sup>#</sup> Indicates item(s) contained in the Repair Kit

# **REPAIR KIT**

• 15-003-000

OTHER TEMPERATURE RANGES AND SEAL COMPOUNDS AVAILABLE UPON REQUEST