

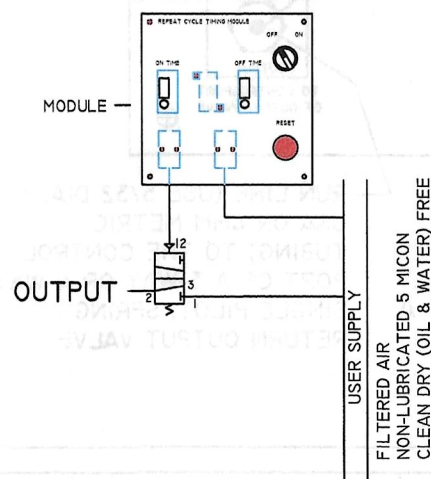
## 5IRCM PNEUMATIC REPEAT CYCLE TIMING MODULE

THE 5IRCM IS DESIGNED TO OPERATE THE CONTROL (VIA THE CONTROL PORT) OF 3-WAY & 4-WAY, SINGLE PILOT, SPRING RETURN OUTPUT VALVES. THE FOLLOWING KUHNKE VALVES ARE COMPATIBLE WITH THIS MODULE:

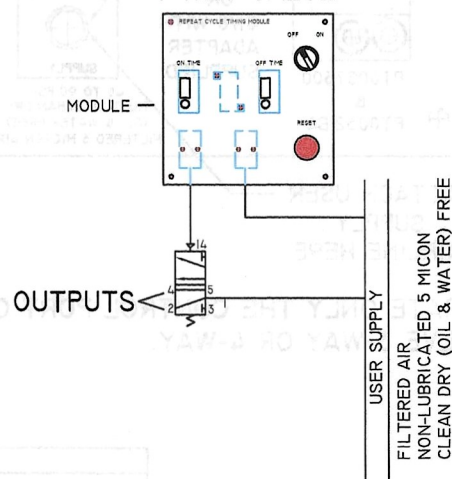
PORT THD. SIZE	CATALOG NUMBERS (USA STD. PORTS)		FLOW RATE (SCFM)	
	3-WAY VALVES	4-WAY VALVES	@45 PSI	@100 PSI
10-32	79012	81012	3	7
1/8 NPT	N/A (87 SERIES)	87122	10	25
1/8 NPT	75022-71-21	75023-71-41	17	32
1/4 NPT	N/A (75 SERIES)	75043-81-41	22	39

PORT THD. SIZE	CATALOG NUMBERS (METRIC PORTS)		FLOW RATE (SCFM)	
	3-WAY VALVES	4-WAY VALVES	@45 PSI	@100 PSI
M5	79012	81012	3	7
G 1/8	85022	87022	10	25
G 1/8	76022-71-21	76023-71-41	17	32
G 1/4	N/A (75 SERIES)	76043-81-41	22	39

OPERATION  
SETUP FOR  
3-WAY VALVE



OPERATION  
SETUP FOR  
4-WAY VALVE



NOTE: THIS PRODUCT IS DESIGNED TO OPERATE ONLY THE CONTROL PORT OF A CLOSED VOLUME SPRING RETURN VALVE 3-WAY OR 4-WAY.

## OPERATION:

WHEN OFF/ON SWITCH IS TURNED "ON" - AIR FLOWS THRU PORT#2 OF DOUBLE PILOT VALVE TURNING THE OUTPUT "ON" AND STARTING THE "ON TIME" TIMER. AT THE END OF THE SET TIME DELAY, DOUBLE PILOTED VALVE TRANSFERS AND AIR NOW FLOWS THRU PORT#4. THIS TURNS "OFF" OUTPUT, RESETS ON TIMER AND STARTS OFF TIMER. AT THE END OF OFF TIMER SET TIME DELAY THE DOUBLE PILOT VALVE IS RETURNED TO ITS ORIGINAL POSITION. TIMED CYCLING IS REPEATED UNTIL ON/OFF SWITCH IS TURNED OFF.

NOTE: THE RESET BUTTON IS USED (BEFORE STARTING CIRCUIT) WHEN ON/OFF SWITCH IS IN THE OFF POSITION. MOMENTARY DEPRESS AND RELEASE TO BIAS CIRCUIT SO THAT IT ALWAYS STARTS WITH ON TIMER. ALSO USED FOR CIRCUIT RESET.

## ENVIRONMENT:

NOT SUITABLE FOR EXTERNAL OR HARSH ENVIRONMENTS. PROTECT FROM CORROSION, MOISTURE AND DIRTY ENVIRONMENTS. GENERAL ADVISE IS TO HOUSE WITHIN A PROPERLY VENTED ENCLOSURE WITH SUITABLE PROTECTION.

## EXHAUST:

AIR WILL EXHAUST FROM THIS MODULE AS PART OF THE OPERATING SEQUENCE. THE EXHAUSTED AIR CAN BUILD UP PRESSURE IN AN ENCLOSURE WHICH MAY EFFECT OPERATION. CONSEQUENTLY, THE ENCLOSURE SHOULD BE PROPERLY VENTED.

## TECHNICAL SPECIFICATION FOR 5IRCM MODULE:

OPERATING PRESSURE RANGE	40 TO 90 PSI
TEMPERATURE RANGE	32° TO 122°F (0° TO 50°C)
SUPPLY AIR QUALITY	CLEAN, DRY, OIL FREE AIR TO INSTRUMENT QUALITY STANDARDS. 5 MICRON FILTERED, DRY NON-LUBRICATED AIR OR NON-AGGRESSIVE GAS.
TIME SETTING	VIA ROTARY KNOB. NOTE: SET TIME DELAY ONLY WHEN SEQUENCE IS NON-OPERATIONAL "OFF".
TIMER SETTING ACCURACY	30 SEC. (+/- 0.6s) 120 SEC. (+/- 3.0s) 300 SEC. (+/- 6.0s)
TIMER REPEAT ACCURACY	30 SEC. (+/- 0.3s) 120 SEC. (+/- 1.2s) 300 SEC. (+/- 3.0s)

NOTE: THE USER MUST SUPPLY AN ON/OFF VALVE AT THE SUPPLY TO THIS PRODUCT. OTHERWISE AIR PRESSURE WILL BE PRESENT AT THE START & RESET STOP VALVES.

## DISCLAIMER:

ELLIS KUHNKE CONTROLS ACCEPTS NO RESPONSIBILITY FOR THE APPLICATION OF THIS PRODUCT. IT IS UP TO THE PURCHASER/SPECIFIER/END USER TO COME UP WITH AN ACCEPTABLE DESIGN.

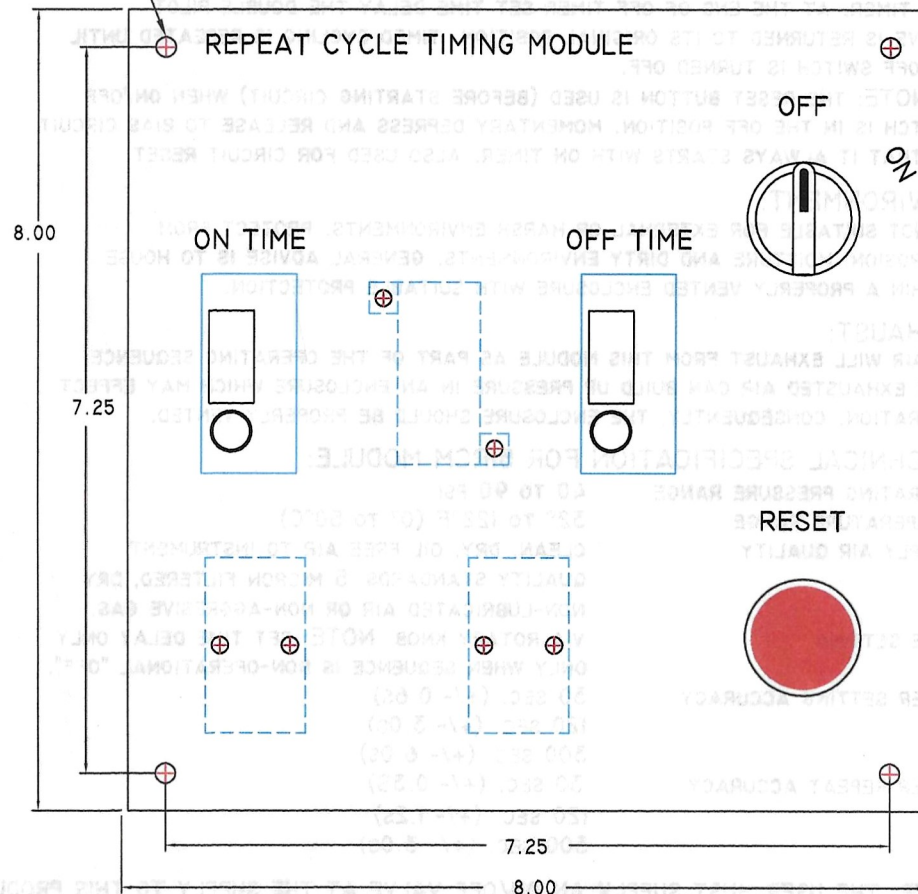
ELLIS/KUHNKE CONTROLS			
APPROVALS	DATE	OPERATING INSTRUCTIONS FOR 5IRCM REPEAT CYCLE TIMING MODULE	
DRAWN E.J.L.	7/11/23		
CHECKED			
ISSUED			
SIZE C	FSCM NOL	BVG. NO.	SIMINI REPEAT CYCLE INSTRUCTIONS-2
			SHEET 2 OF 2



PANEL CUTOUT = 7.00 INCHES SQUARE

Ø.203 TYP  
(4 PL)

## FRONT VIEW



### HOW TO ORDER:

5IRCM \*\* \*\*

- OFF TIMER IDENTIFIER
  - 33 = 0.2 TO 3 SECONDS
  - 03 = 2 TO 30 SECONDS
  - 34 = 8 TO 120 SECONDS
  - 30 = 20 TO 300 SECONDS

- ON TIMER IDENTIFIER
  - 33 = 0.2 TO 3 SECONDS
  - 03 = 2 TO 30 SECONDS
  - 34 = 8 TO 120 SECONDS
  - 30 = 20 TO 300 SECONDS

PRODUCT IDENTIFIER

5IRCM-REPEAT CYCLE TIMING MODULE

NOTE: THIS PRODUCT IS DESIGNED TO OPERATE ONLY THE CONTROL PORT OF A CLOSED VOLUME SPRING RETURN VALVE 3-WAY OR 4-WAY.

EXAMPLE: 5IRCM0330 = REPEAT CYCLE TIMING MODULE

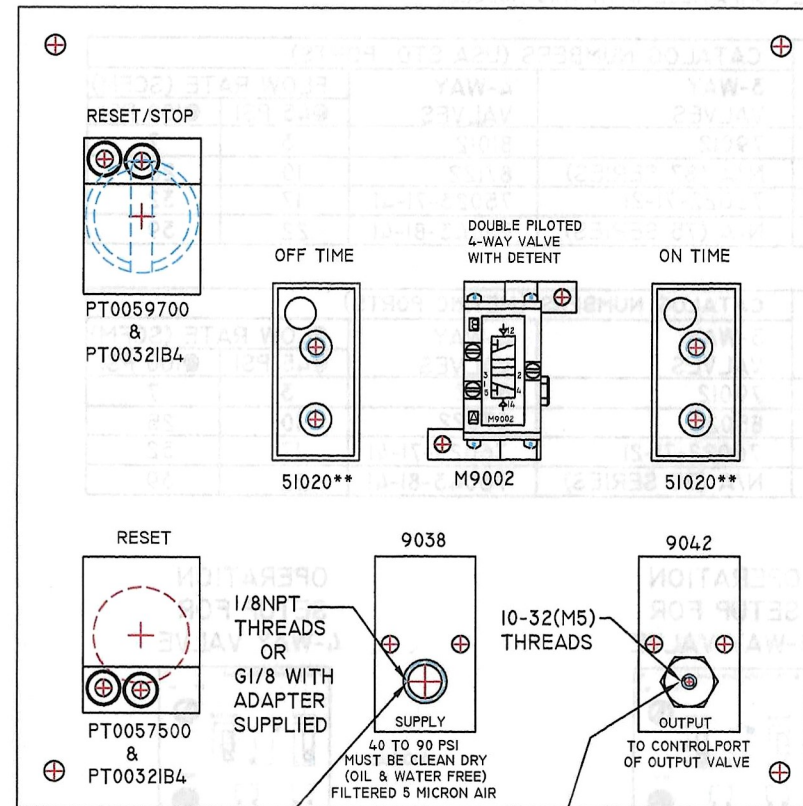
ON TIME RANGE = 2 TO 30 SECONDS

OFF TIME RANGE = 20 TO 300 SECONDS

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## REAR VIEW



ATTACH USER  
SUPPLY  
AIRLINE HERE

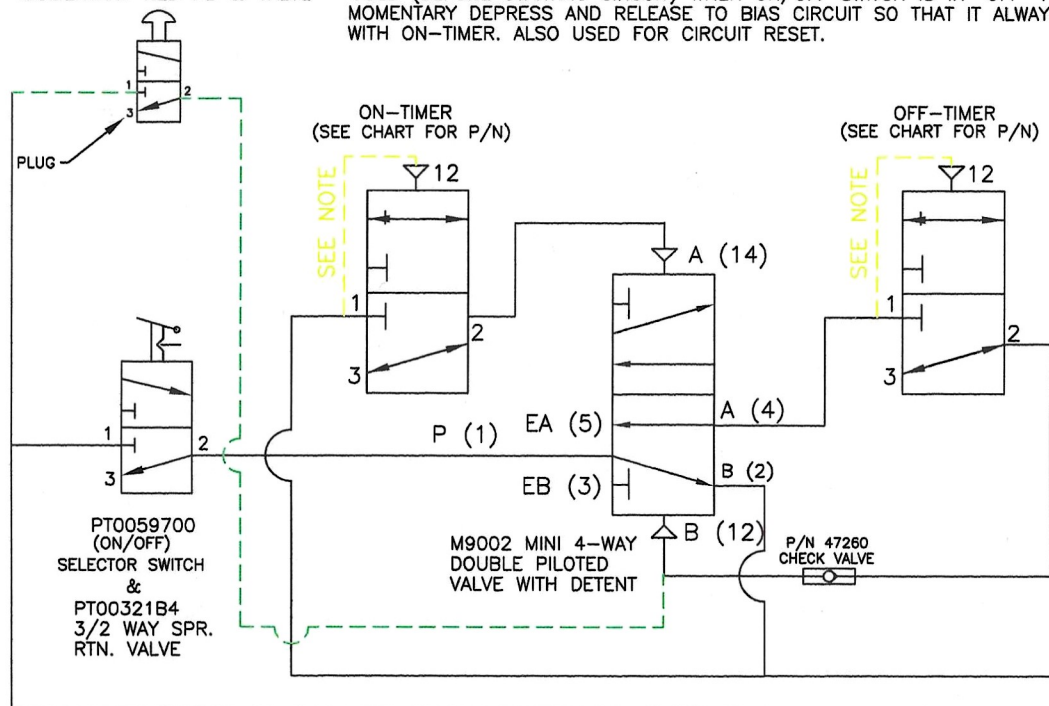
RUN LINE (USE 5/32 DIA.  
USA OR 4MM METRIC  
TUBING) TO THE CONTROL  
PORT OF A 3-WAY OR 4-WAY,  
SINGLE PILOT, SPRING  
RETURN OUTPUT VALVE.

APPROVALS				DATE				ELLIS/KUHNKE CONTROLS			
DRAWN		EUL		7/11/23				OPERATING INSTRUCTIONS FOR 5IRCM REPEAT CYCLE TIMING MODULE			
CHECKED											
ISSUED											
SIZE		FSCM NO.		DWG. NO.				5IMINI REPEAT CYCLE INSTRUCTIONS			
C								SHEET 1 OF 2			

PT0057500 & PT00321B4

MOMENTARY RED PB & VALVE - USED (BEFORE STARTING CIRCUIT) WHEN ON/OFF SWITCH IS IN "OFF" POSITION  
MOMENTARY DEPRESS AND RELEASE TO BIAS CIRCUIT SO THAT IT ALWAYS STARTS  
WITH ON-TIMER. ALSO USED FOR CIRCUIT RESET.

DISCLAIMER: ANY AND ALL CIRCUIT DIAGRAMS SUPPLIED BY ELLIS KUHNKE CONTROLS  
ARE SUGGESTED WAYS TO DO A PARTICULAR FUNCTION. ALL COMPONENTS  
MUST BE USED WITHIN THEIR SPECIFICATIONS. NO BACKUP AND/OR SAFETY  
CIRCUIT ALTERNATIVES ARE SPECIFIED. ONLY BASIC CIRCUITS WITHOUT AN  
ENCLOSURE ARE PROVIDED. IT IS UP TO THE PURCHASER/SPECIFIER/END  
USER TO COME UP WITH AN ACCEPTABLE DESIGN FOR THEIR PARTICULAR  
APPLICATION. EKC IS NOT RESPONSIBLE FOR THE CUSTOMERS FINAL  
CIRCUIT DESIGN.



TIME RANGE SELECTION CHART

PART NO.	TIME RANGE
51020-33	0.2 TO 3 SECONDS
51020-03	2 TO 30 SECONDS
51020-34	8 TO 120 SECONDS
51020-30	20 TO 300 SECONDS

NOTE: TIMER IS SUPPLIED WITH THIS  
CONNECTION (1 TO 12) MADE  
INTERNALLY.

10-32 (M5) THREADED PORT  
RUN LINE TO CONTROL PORT  
OF OUTPUT VALVE.

OUTPUT MANIFOLD  
ASSEMBLY P/N 9042

SUPPLY MANIFOLD  
ASSEMBLY P/N 9038

CLEAN DRY (OIL & WATER FREE)  
FILTERED (5 MICRON) AIR 40  
TO 90 PSI

OPERATION: WHEN ON/OFF SWITCH IS TURNED "ON"-AIR FLOWS THRU PORT#2 OF DOUBLE PILOT VALVE TRANSFERRING OUTPUT. IN ADDITION,  
ON-TIMER IS STARTED. AT END OF TIME DELAY, DOUBLE PILOTED VALVE IS TRANSFERRED AND AIR NOW FLOWS THRU PORT#4  
THIS RESETS ON-TIMER, TURNS OFF OUTPUT AND STARTS OFF-TIMER. AT END OF OFF-TIMER DELAY THE DOUBLE PILOT  
VALVE IS RETURNED TO ITS ORIGINAL POSITION. CYCLE IS THEN REPEATED UNTIL ON/OFF SWITCH IS TURNED "OFF".

#### COMPONENT LIST:

QTY	PART NUMBER	DESCRIPTION
1	PT0057500	MOMENTARY "RED" PUSH BUTTON ASSEMBLY
1	PT0059700	SHORT LEVER SELECTOR (TWO POSITIONS) BISTABLE ASSEMBLY
2	PT00321B4	3/2-WAY SPRING RETURN TO NORMALLY CLOSED VALVE BODY ACTUATORS
2	51020-**-	51MINI PNEUMATIC TIMERS (SELECT TIME RANGES FROM CHART)
1	M9002	4-WAY MINI VALVE ASSEMBLY WITH DETENT
1	9042	OUTPUT MANIFOLD ASSEMBLY
1	9038	SUPPLY MANIFOLD ASSEMBLY
1	47260	CHECK VALVE ASSEMBLY

ELLIS/KUHNKE CONTROLS

DRAWN BY EJL 4/24/23

CHECKED

ISSUED

REPEAT CYCLE CIRCUIT

SIZE  
B

FSCM NO.

DWG. NO.

51MINI-RCM-SCHEMATIC

SHEET