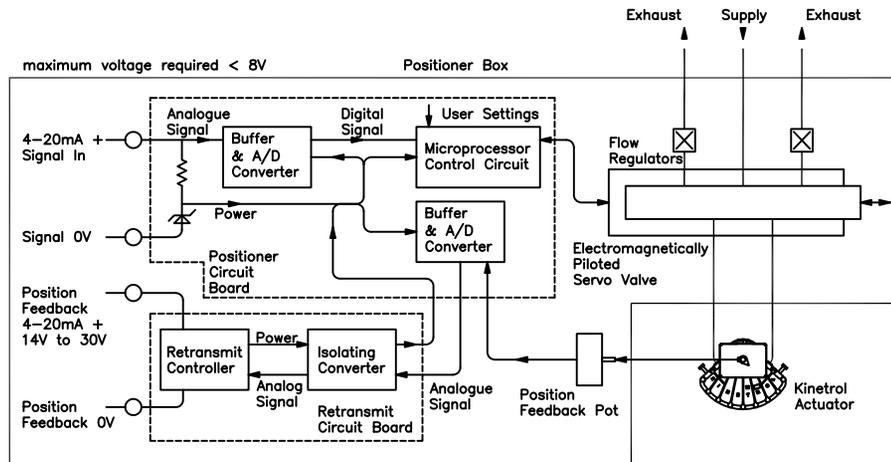


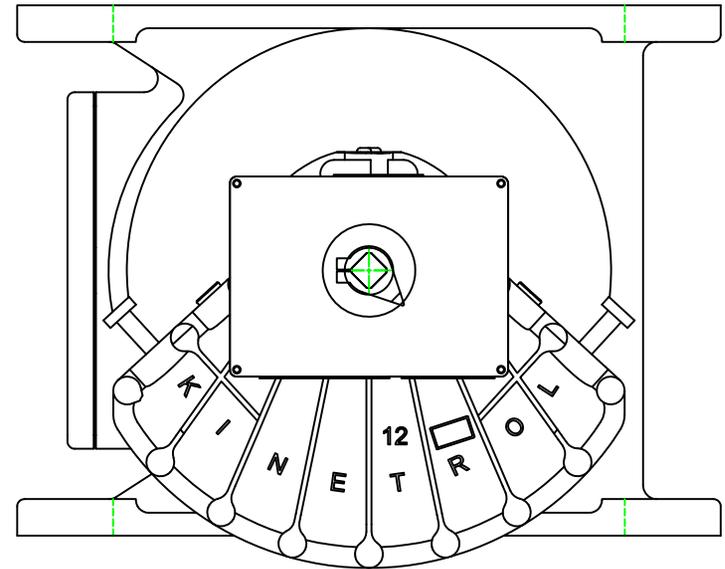
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SCHEMATIC FUNCTIONAL DIAGRAM OF KINETROL 127-700EL1000M DIGITAL EL POSITIONER

SCHEMATIC FUNCTIONAL DIAGRAM

FULLER MODEL 116-72-4-1006-00
 12" X 12" SILO WITHDRAWAL VALVE.



KINETROL MODEL 127-700EL1000M DOUBLE ACTING ROTARY ACTUATOR WITH DIGITAL EL POSITIONING.

AIR SUPPLY:
 CONNECT AIR SUPPLY (PRESSURE BETWEEN 3.5 AND 7 BAR, 50 AND 100 PSI) TO THE SUPPLY PORT. IT IS ESSENTIAL THAT THE AIR IS CLEAN, DRY, AND OIL-FREE, 5 MICRON MAXIMUM PARTICLE SIZE.

POSITIONER SIGNAL:
 THE POSITIONER SIGNAL MUST BE 4-20mA. THE POSITIONER GIVES A POSITIONING RESPONSE BETWEEN 0 AND 90 DEGREES LINEARLY OR NON-LINEARLY RELATED TO THE SIGNAL. THE POSITIONER IS LOOP POWERED - THAT IS THE SIGNAL ITSELF SUPPLIES ALL THE ELECTRICAL POWER, AND NO SEPARATE POWER SOURCE IS NEEDED. IN ORDER TO SUPPLY ENOUGH POWER, THE UNIT NEEDS BETWEEN APPROXIMATELY 6 AND 8 VOLTS TO DRIVE THE SIGNAL CURRENT THROUGH IT - IT BEHAVES ELECTRICALLY LIKE A RESISTOR IN SERIES WITH A ZENER DIODE. A TYPICAL 4-20mA SOURCE WITH A 24V DC SUPPLY IS COMPATIBLE WITH THIS INPUT, AND CAN DRIVE A MAXIMUM OF 2 UNITS IN SERIES ON ONE LOOP.

ANGLE RETRANSMIT SUPPLY:
 THE OPTIONAL ANGLE RETRANSMIT CIRCUIT IS ALSO LOOP POWERED, REQUIRING 14 TO 30 VOLTS DC TO DRIVE THE 4-20mA CURRENT THROUGH IT - THE CURRENT PASSED IS LINEARLY PROPORTIONAL TO THE ACTUAL POSITIONER SHAFT ANGLE. THE RETRANSMIT CIRCUIT READS THE SAME ANGLE TRANSDUCING POTENTIOMETER AS THE POSITIONER CIRCUIT - HOWEVER, THE ANGLE RETRANSMIT CIRCUIT REMAINS FUNCTIONAL ON LOSS OF POSITIONING SIGNAL AND/OR AIR SUPPLY, AND THE POSITIONER REMAINS FUNCTIONAL AS LONG AS THE SIGNAL IS PRESENT, EVEN IF THE ANGLE RETRANSMIT CIRCUIT IS FITTED AND THERE IS NO SUPPLY TO ENERGISE ITS LOOP. NEVERTHELESS, THE ANGLE RETRANSMIT CIRCUIT IS ELECTRICALLY ISOLATED FROM THE POSITIONER SIGNAL CIRCUIT.

PROFILE VIEW AND OPERATIONAL DESCRIPTION