

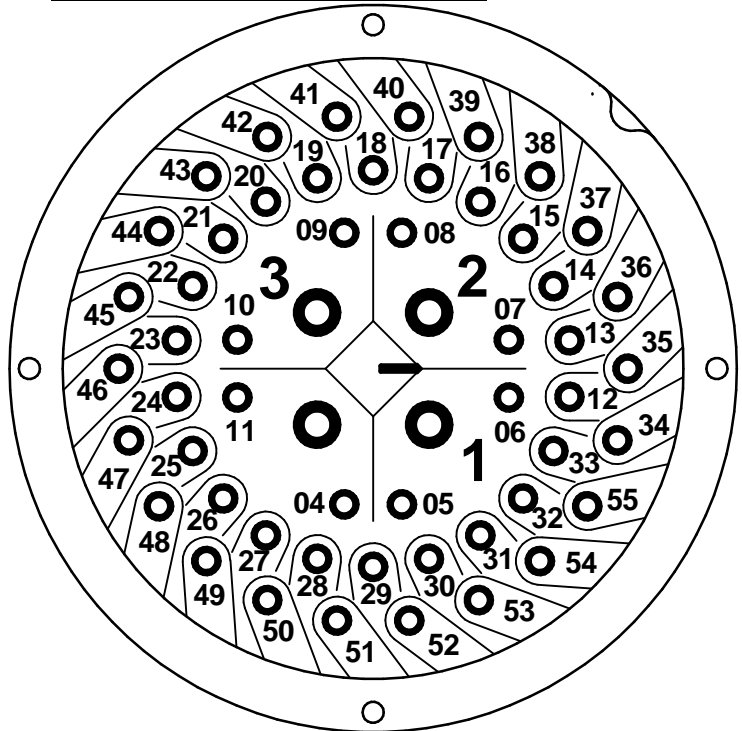
M012000S

DISTRIBUCION CONECTOR PLUG AND SOCKET
PLUG-AND-SOCKET CONNECTOR LAYOUT

LEGENDS: LEYENDAS:

- M1** MOTOR ELECTRICO
ELECTRIC MOTOR
- CTS** SWITCH PAR CERRADO
CLOSE TORQUE SWITCH
- OTS** SWITCH PAR ABIERTO
OPEN TORQUE SWITCH
- CLS** SWITCH LIMITE CERRADO
CLOSE LIMIT SWITCH
- OLS** SWITCH LIMITE ABIERTO
OPEN LIMIT SWITCH
- TRM** DISPOSITIVO PROTECCION TERMICA(BOBINADO MOTOR)
THERMAL PROTECTION DEVICE (MOTOR WIND)
- HT** CALENTADOR ANTI-CONDENSACION
ANTI-CONDENSATION HEATER
- BLK** BLINKER SWITCH
BLINKER SWITCH
- POT** POTENCIOMETRO (SEÑAL POSICION VALVULA)
POTENTIOMETER (VALVE POSITION SIGNAL)
- CPT** TRANSMISOR DE POSICION (SEÑAL POSICION VALVULA)
CURRENT POSITION TRANSMITTER (VALVE POSITION SIGNAL)

- ACTS** SWITCH PAR CERRADO AUXILIAR
AUXILIARY CLOSE TORQUE SWITCH
- AOTS** SWITCH PAR ABIERTO AUXILIAR
AUXILIARY OPEN TORQUE SWITCH
- ACLS** SWITCH LIMITE CERRADO AUXILIAR
AUXILIARY CLOSE LIMIT SWITCH
- AOLS** SWITCH LIMITE ABIERTO AUXILIAR
AUXILIARY OPEN LIMIT SWITCH
- IP1** SWITCH POSICION INTERMEDIA POSICION (No 1)
VALVE MIDDLE TRAVEL POSITION SWITCH (No 1)
- IP2** SWITCH POSICION INTERMEDIA POSICION (No 2)
VALVE MIDDLE TRAVEL POSITION SWITCH (No 2)
- IP3** SWITCH POSICION INTERMEDIA POSICION (No 3)
VALVE MIDDLE TRAVEL POSITION SWITCH (No 3)
- IP4** SWITCH POSICION INTERMEDIA POSICION (No 4)
VALVE MIDDLE TRAVEL POSITION SWITCH (No 4)
- DSM** RELOJERIA DIGITAL (SEÑALES DE POSICION Y PAR ELECTRONICAS).
DIGITAL SWITCH MECHANISM (ELECTRONIC VALVE POSITION AND TORQUE SIGNALS).



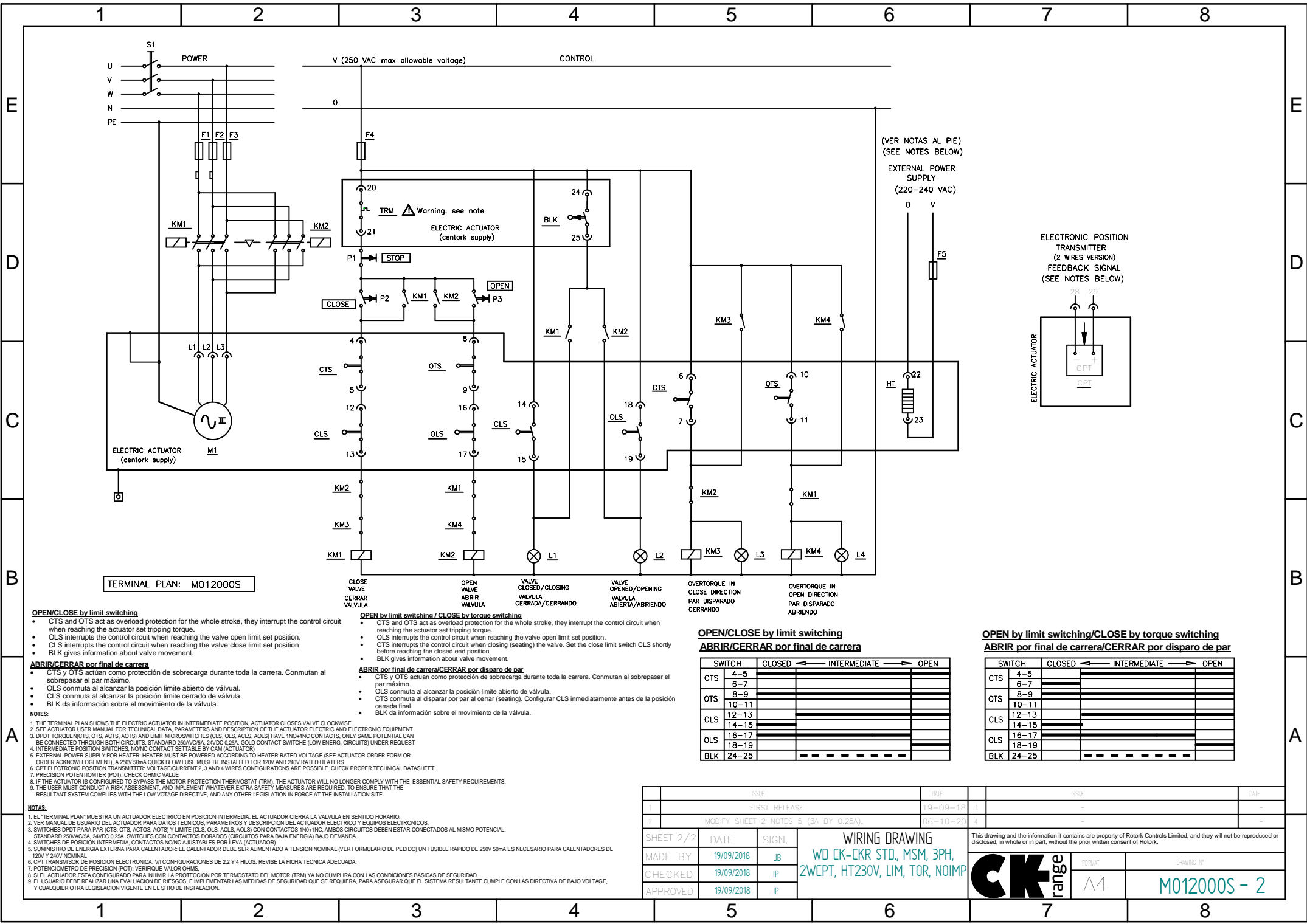
- NOTAS:**
- EL "TERMINAL PLAN" MUESTRA UN ACTUADOR MULTIVUELTA EN POSICION INTERMEDIA. ACTUADOR CERRANDO VALVULA HORARIA.
 - VER MANUAL USUARIO Y DATASHEETS DEL ACTUADOR PARA DATOS TECNICOS, PARAMETROS Y DESCRIPCIONES ACTUADOR ELECTRICO Y EQUIPO ELECTRONICO.
 - SI EL ACTUADOR ES CONFIGURADO PARA IGNORAR EL TERMOSTATO DE PROTECCION DEL MOTOR, EL ACTUADOR DEJARA DE CUMPLIR CON LAS CONDICIONES DE SEGURIDAD BASICA.
 - EL USUARIO DEBE INCLUIR RELE DE SOBRECARGA CLASE 10. EL RELE DEBERA SER DIMENSIONADO COMO DISPOSITIVO DE PROTECCION DE SOBRECORRIENTE PARA EL MOTOR.
 - VER HOJA DE DATOS DEL MOTOR PARA ESTE VALOR. EL RELE DE SOBRECARGA DEBE SER DIMENSIONADO PARA GARANTIZAR QUE DISPARA ANTES DE 10 SEGUNDOS EN CONDICION DE FALLO.
 - EL USUARIO DEBE REALIZAR UNA EVALUACION DE RIESGOS E IMPLEMENTAR LAS MEDIDAS NECESARIAS PARA GARANTIZAR QUE EL SISTEMA RESULTANTE CUMPLE CON LA LEGISLACION VIGENTE.
- NOTES:**
- THE TERMINAL PLAN SHOWS THE MULTI-TURN ELECTRIC ACTUATOR IN INTERMEDIATE POSITION, ACTUATOR CLOSING VALVE CLOCKWISE.
 - SEE ACTUATOR USER MANUAL AND DATASHEETS FOR TECHNICAL DATA, PARAMETERS AND DESCRIPTION OF THE ACTUATOR ELECTRIC AND ELECTRONIC EQUIPMENT.
 - IF THE ACTUATOR IS CONFIGURED TO BYPASS THE MOTOR PROTECTION THERMOSTAT (TRM), THE ACTUATOR WILL NO LONGER COMPLY WITH THE ESSENTIAL SAFETY REQUIREMENTS.
 - THE USER MUST FIT A CLASS 10 OVERLOAD RELAY. THE RELAY MUST BE SIZED ACCORDING TO THE OVERCURRENT PROT. DEVICE SETTING VALUE FOR THE MOTOR.
 - REFER TO THE MOTOR DATA SHEET FOR THIS VALUE. THE OVERLOAD RELAY MUST BE SIZED TO ENSURE THAT IT TRIPS WITHIN 10 SECONDS IN A FAULT CONDITION.
 - THE USER MUST COMPLETE A RISK ASSESSMENT AND IMPLEMENT WHATEVER MEASURES ARE REQUIRED TO ENSURE THAT THE RESULTANT SYSTEM COMPLIES WITH ALL APPLICABLE LEGISLATION.

| PARAMETER/ PARAMETRO | VALUE VALOR | DESCRIPTION/ DESCRIPCION |
|---|-------------|---|
| TYPE TIPO | M | Multi-turn electric actuator, standard unit (syncroset), MECHANICAL SWITCH MECH. Actuador Electrico Multivuelta, Standard (Syncroset), Relojeria Mecanica MSM |
| MAIN POWER SUPPLY/ALIMENTACION PRINCIPAL | 0 | A.C. THREE PHASE A.C. TRIFASICO |
| FEEDBACK ANALOG POS. SIG./SEÑAL FEEDBACK ANALOG. POS. | 1 | 0/4-20mA CPT CURRENT POSITION TRANSMITTER, 2 WIRES 0/4-20 mA 0/10V CPT Transmisor de Posicion Actual |
| HEATER CALEFACTOR | 2 | ANTI-CONDENSATION HEATER, 220-240 VDC Calefaccion Anticondensacion, 220-240VAC |
| LIMIT SWITCHES SWITCHES DE LIMITE | 0 | STANDARD: 1 open and 1 close limit switches (IPDT) ESTANDAR: Switches de Limite 1 Abierto y 1 Cerrado (IPDT) |
| TORQUE SWITCHES SWITCHES DE PAR | 0 | STANDARD: 1 open and 1 close torque switches (IPDT) ESTANDAR: switches de Par 1 Abierto y 1 Cerrado (IPDT) |
| AUX. MIDDLE TRAVEL SWITCH | 0 | STANDARD: NOT INCLUDED (WITHOUT) ESTANDAR: NO incluido (Sin) |

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| 2 | MODIFY SHEET 2 NOTES 3 (3A BY 0.25A) | 06-10-20 | |

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|-----------|------------|-------|--|---|
| SHEET 1/2 | DATE | SIGN. | TERMINAL PLAN WD CK-CKR STD, MSM, 3PH, 2WCPT, HT230V, LIM, TOR, NOIMP | This drawing and the information it contains are property of Rotork Controls Limited, and they will not be reproduced or disclosed, in whole or in part, without the prior written consent of Rotork. |
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| CHECKED | 19/09/2018 | JP | | |
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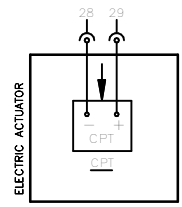
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| A4 | M012000S - 2 |



(VER NOTAS AL PIE)
(SEE NOTES BELOW)

EXTERNAL POWER SUPPLY
(220-240 VAC)

ELECTRONIC POSITION TRANSMITTER
(2 WIRES VERSION)
FEEDBACK SIGNAL
(SEE NOTES BELOW)



TERMINAL PLAN: M012000S

OPEN/CLOSE by limit switching

- CTS and OTS act as overload protection for the whole stroke, they interrupt the control circuit when reaching the actuator set tripping torque.
- CLS interrupts the control circuit when reaching the valve open limit set position.
- CLS interrupts the control circuit when reaching the valve close limit set position
- BLK gives information about valve movement.

ABRIR/CERRAR por final de carrera

- CTS y OTS actúan como protección de sobrecarga durante toda la carrera. Conmutan al sobrepasar el par máximo.
- OLS conmuta al alcanzar la posición límite abierto de válvula.
- CLS conmuta al alcanzar la posición límite cerrado de válvula.
- BLK da información sobre el movimiento de la válvula.

NOTAS:

- THE TERMINAL PLAN SHOWS THE ELECTRIC ACTUATOR IN INTERMEDIATE POSITION. ACTUATOR CLOSES VALVE CLOCKWISE
- SEE ACTUATOR USER MANUAL FOR TECHNICAL DATA, PARAMETERS AND DESCRIPTION OF THE ACTUATOR ELECTRIC AND ELECTRONIC EQUIPMENT.
- DPDT TORQUE/CTS, OTS, ACTS, ACTS) AND LIMIT MICROSWITCHES (CLS, OLS, AOLS, AOLS) HAVE 1NO+1NC CONTACTS. ONLY SAME POTENTIAL CAN BE CONNECTED THROUGH BOTH CIRCUITS. STANDARD 250VAC/5A, 24VDC 0.25A. GOLD CONTACT SWITCHES (LOW ENERG. CIRCUITS) UNDER REQUEST
- INTERMEDIATE POSITION SWITCHES, NO/NC CONTACT SETTABLE BY CAM (ACTUATOR)
- EXTERNAL POWER SUPPLY FOR HEATER. HEATER MUST BE POWERED ACCORDING TO HEATER RATED VOLTAGE (SEE ACTUATOR ORDER FORM OR ORDER ACKNOWLEDGEMENT). A 250V 50mA QUICK BLOW FUSE MUST BE INSTALLED FOR 120V AND 240V RATED HEATERS
- CPT ELECTRONIC POSITION TRANSMITTER: VOLTAGE/CURRENT 2, 3 AND 4 WIRES CONFIGURATIONS ARE POSSIBLE. CHECK PROPER TECHNICAL DATASHEET.
- POTENTIOMETER (POT): CHECK OHMIC VALUE
- IF THE ACTUATOR IS CONFIGURED TO BYPASS THE MOTOR PROTECTION THERMOSTAT (TRM), THE ACTUATOR WILL NO LONGER COMPLY WITH THE ESSENTIAL SAFETY REQUIREMENTS.
- THE USER MUST CONDUCT A RISK ASSESSMENT, AND IMPLEMENT WHATEVER EXTRA SAFETY MEASURES ARE REQUIRED, TO ENSURE THAT THE RESULTANT SYSTEM COMPLIES WITH THE LOW VOLTAGE DIRECTIVE, AND ANY OTHER LEGISLATION IN FORCE AT THE INSTALLATION SITE.

NOTAS:

- EL "TERMINAL PLAN" MUESTRA UN ACTUADOR ELECTRICO EN POSICION INTERMEDIA. EL ACTUADOR CIERRA LA VALVULA EN SENTIDO HORARIO.
- VER MANUAL DE USUARIO DEL ACTUADOR PARA DATOS TECNICOS, PARAMETROS Y DESCRIPCION DEL ACTUADOR ELECTRICO Y EQUIPOS ELECTRONICOS.
- SWITCHES DPDT PARA PAR (CTS, OTS, ACTOS, ACTS) Y LIMITE (CLS, OLS, AOLS, AOLS) CON CONTACTOS 1NO+1NC. AMBOS CIRCUITOS DEBEN ESTAR CONECTADOS AL MISMO POTENCIAL. STANDARD 250VAC/5A, 24VDC 0.25A. SWITCHES CON CONTACTOS DORADOS (CIRCUITOS PARA BAJA ENERGIA) BAJO DEMANDA.
- SWITCHES DE POSICION INTERMEDIA, CONTACTOS NO/NC AJUSTABLES POR LEVA (ACTUADOR).
- SUMINISTRO DE ENERGIA EXTERNA PARA CALENTADOR: EL CALENTADOR DEBE SER ALIMENTADO A TENSION NOMINAL (VER FORMULARIO DE PEDIDO) UN FUSIBLE RAPIDO DE 250V 50mA ES NECESARIO PARA CALENTADORES DE 120V Y 240V NOMINAL.
- CPT TRANSMISOR DE POSICION ELECTRONICA: V/I CONFIGURACIONES DE 2 Y 4 HILOS. REVISE LA FICHA TECNICA ADECUADA.
- POTENCIOMETRO DE PRECISION (POT): VERIFIQUE VALOR OHMICO.
- SI EL ACTUADOR ESTA CONFIGURADO PARA INHIBIR LA PROTECCION POR TERMOSTATO DEL MOTOR (TRM) YA NO CUMPLIRA CON LAS CONDICIONES BASICAS DE SEGURIDAD.
- EL USUARIO DEBE REALIZAR UNA EVALUACION DE RIESGOS, E IMPLEMENTAR LAS MEDIDAS DE SEGURIDAD QUE SE REQUIERA, PARA ASEGURAR QUE EL SISTEMA RESULTANTE CUMPLE CON LAS DIRECTIVA DE BAJO VOLTAGE, Y CUALQUIER OTRA LEGISLACION VIGENTE EN EL SITIO DE INSTALACION.

OPEN by limit switching / CLOSE by torque switching

- CTS and OTS act as overload protection for the whole stroke, they interrupt the control circuit when reaching the actuator set tripping torque.
- OLS interrupts the control circuit when reaching the valve open limit set position.
- CLS interrupts the control circuit when closing (seating) the valve. Set the close limit switch CLS shortly before reaching the closed end position
- BLK gives information about valve movement.

ABRIR por final de carrera/CERRAR por disparo de par

- CTS y OTS actúan como protección de sobrecarga durante toda la carrera. Conmutan al sobrepasar el par máximo.
- OLS conmuta al alcanzar la posición límite abierto de válvula.
- CLS conmuta al disparar por par al cerrar (seating). Configurar CLS inmediatamente antes de la posición cerrada final.
- BLK da información sobre el movimiento de la válvula.

OPEN/CLOSE by limit switching
ABRIR/CERRAR por final de carrera

| SWITCH | CLOSED | INTERMEDIATE | OPEN |
|--------|--------|--------------|------|
| CTS | 4-5 | | |
| | 6-7 | | |
| | 8-9 | | |
| OTS | 10-11 | | |
| | 12-13 | | |
| | 14-15 | | |
| CLS | 16-17 | | |
| | 18-19 | | |
| OLS | | | |
| | | | |
| BLK | 24-25 | | |

OPEN by limit switching/CLOSE by torque switching
ABRIR por final de carrera/CERRAR por disparo de par

| SWITCH | CLOSED | INTERMEDIATE | OPEN |
|--------|--------|--------------|------|
| CTS | 4-5 | | |
| | 6-7 | | |
| | 8-9 | | |
| OTS | 10-11 | | |
| | 12-13 | | |
| | 14-15 | | |
| CLS | 16-17 | | |
| | 18-19 | | |
| OLS | | | |
| | | | |
| BLK | 24-25 | | |

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