TITLE: MULTI-TURN CK ACTUATORS WITH CENTRONIK UNITS. TERMINAL AND WIRING DIAGRAMS
MODELS: CKC, CKRC

Code

P	0	0	0	0	0	2	0	X	–	1

Revision issue

Progresive number. First version, nº 1

Language

X	English version

Type

P	Multi-turn electric actuator, with CENTRONIK (MECHANICAL SWITCH MECH.)
K	Multi-turn electric actuator, with CENTRONIK (DIGITAL SWITCH MECH.)
R	Multi-turn electric actuator, with CENTRONIK (MECHANICAL SWITCH MECH.), remote mounting version
J	Multi-turn electric actuator, with CENTRONIK (DIGITAL SWITCH MECH.), remote mounting version

Main power supply

0	A.C. Three phase
1	A.C. single phase
2	DC

Extra card nº1 / Extra card nº2

0	NO (without)
1	PROFIBUS DP
2	PROFIBUS DP dual channel
3	MODBUS RTU
4	MODBUS RTU dual channel
5	FOUDATION FIELDBUS (ITK6)
6	HART
7	PROFIBUS DP with BUS Disconnect card
8	PROFIBUS DP dual channel with BUS Disconnect card
9	……
A	4 EXTRA RELAY CARD
B	POSITIONER in/out analog signal
C	CPT (position) analog output
D	CTT (Torque) analog output
E	CPT (position) analog output -loop powered-
F	CTT (Torque) analog output -loop powered-
G	POSITIONER in/out analog signal -loop powered-
H	DeviceNet
I	PAKSCAN P3
J	Positioner + Control
K	Positioner Loop Powered + Control
L	DIO CARD
M	
N	
O	
P	
Q	
R	
S	
T	
U	
V	
W	
X	
Y	
Z	

Motor starter

0	Contactors
1	Solid state relayS (Thyristors)

Customer Supply (Auxiliary Output) and BLUETOOTH remote setting tool

0	24VDC ±20% at MAX. Pow. output 5W.
1	115VAC
2	24VDC ±20% at MAX. Pow. output 5W, and BLUETOOTH card for remote setting tool
3	115VAC,and BLUETOOTH card for remote setting tool

Backup Supply and heater

0	No backup supply, and NO heater
1	YES (Backup supply) and NO heater
2	No backup supply. Heater included
3	YES (Backup supply). Heater included

EXTRA switches

0	STANDARD: without
1	Extra limit switches: 1 open and 1 close limit switches (DPDT)
2	Extra torque switches: 1 open and 1 close torque switches (DPDT)
3	2 Middle travel switches (Settable NO/NC contact, by cam), and Visual Indication disc
4	4 Middle travel switches (Settable NO/NC contact, by cam), and Visual Indication Disc
5	……
6	……
7	Extra limit switches: 1 open and 1 close limit switches (DPDT), for CCW
8	Extra torque switches: 1 open and 1 close torque switches (DPDT), for CCW
9	……
A	Visual indicator disc (see note 1)
B	Potentiometer (see note 2)
C	……

CK range actuators have an assigned wiring diagram and terminal plan for the specific build of the subject actuator. These are incorporated into one document that details the electrical connections and terminal allocations within the unit. Each document has an assigned code that will be required for actuator commissioning support.

NOTES

Due to technical and engineering constrains, no all configurations/variants are possible. Check that required wiring diagram (WD) exist and is available. Special variants under request. For any additional clarification, contact with Rotork.

- Valve position visual indication disc: The visual indication is mounted on the AID additional Indication drive. When middle travel switches, potentiometer, CPT card or positioner in/out card are selected, the valve position visual indication be included as default. If NOT, it will be necessary to select "A" option.
- Potentiometer element is used for the valve position analogue signal, for EMSM versions: Positioner in/out, CPT and Hart options, actuators already include a potentiometer in the EMSM unit, as default. It will be necessary to select "B" option, when Valve position indication (%) is required on centronik frontal panel or through the fieldbus. Remote mounting version, potentiometer is not recommended, so a 2 wires CPT current transmitter will be mounted instead in the actuator

The centronik units admit up to two extra electronic cards, (Extra card nº1 and Extra card nº2), the availability of these both cards combinations is depicted on next chart.

			-NO (without)	BPRO-PROFIBUS DP	BPRO2-PROFIBUS DP dual channel	MOD-MODBUS RTU	MOD2-MODBUS RTU dual channel	FF-FOUDATION FIELDBUS (ITK6)	HRT-HART	BPRODS-PROFIBUS DP with BUS Disconnect card	BPRODS2-PROFIBUS DP dual channel with BUS Disconnect card	-.....	REL-4 EXTRA RELAY CARD	POS-POSITIONER in/out analog signal	CPT-CPT (position) analog output	CTT-CTT (Torque) analog output	CPT.LP-CPT (position) analog output -loop powered-	CTT.LP-CTT (Torque) analog output -loop powered-	POS.LP-POSITIONER in/out analog signal -loop powered-	DEV-DeviceNet	PAK-PAKSCAN P3
			Extra card nº 1																		
			0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I
extra card nº 2	-NO (without)	0	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1
	BPRO-PROFIBUS DP	1	0	0	0	0	0	0	0	0	0		0	1	0	0	0	0	1	0	0
	BPRO2-PROFIBUS DP dual channel	2	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	MOD-MODBUS RTU	3	0	0	0	0	0	0	0	0	0		0	1	0	0	0	0	1	0	0
	MOD2-MODBUS RTU dual channel	4	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	FF-FOUDATION FIELDBUS (ITK6)	5	0	0	0	0	0	0	0	0	0		0	1	0	0	0	0	1	0	0
	HRT-HART	6	0	0	0	0	0	0	0	0	0		0	1	0	0	0	0	1	0	0
	BPRODS-PROFIBUS DP w ith BUS Disconnect card	7	0	0	0	0	0	0	0	0	0		0	1	0	0	0	0	1	0	0
	BPRODS2-PROFIBUS DP dual channel w ith BUS Disconnect car	8	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	-.....	9																			
	REL-4 EXTRA RELAY CARD	A	0	1	1	1	1	1	1	1	1		1	1	0	0	0	0	1	1	1
	POS-POSITIONER in/out analog signal	B	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	CPT-CPT (position) analog output	C	0	1	0	1	0	1	1	1	0		1	0	0	0	0	0	0	1	1
	CTT-CTT (Torque) analog output	D	0	1	0	1	0	1	1	1	0		1	1	1	0	0	0	1	1	1
	CPT.LP-CPT (position) analog output -loop pow ered-	E	0	1	0	1	0	1	1	1	0		1	0	0	0	0	0	0	1	1
	CTT.LP-CTT (Torque) analog output -loop pow ered-	F	0	1	0	1	0	1	1	1	0		1	1	0	0	1	0	1	1	1
	POS.LP-POSITIONER in/out analog signal -loop pow ered-	G	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	DEV-DeviceNet	H	0	0	0	0	0	0	0	0	0		0	1	0	0	0	0	1	0	0
	PAK-PAKSCAN P3	I	0	0	0	0	0	0	0	0	0		0	1	0	0	0	0	1	0	0

1 Possible 0 Not available

For any special or non-existing combination, contact with Rotork.