File Information

Customer Name	
Delivery Destination	
Device Name	
Model Name	
Order No.	
Serial Number	
Author	
Date Created	
Specification Number	
Revision No.	
Function Overview	

Memo

System Data

Name	Set Value
Model and suffix codes :	UT35A-002-11-00/DC
PARAMETER VERSION	R1.06.03
LADDER SEQUENCE FUNCTION	USE
MCU VERSION	R1.06.04
DCU VERSION	R1.02.01
ECU-1 VERSION	R-.--.--
ECU-3 VERSION	R1.01.02
ECU-4 VERSION	R-.--.--
PRODUCT VERSION	S11.01

Setup Parameter - CTL

D Register Symbol	Name	Set Value	Unit
CNT_L1	CONTROL TYPE	PID:PID control	
SPGR.	NUMBER OF SP GROUPS	4	
ZON	ZONE PID SELECTION	0:SP group number selection 1	
PIDG.	NUMBER OF PID GROUPS	2	

Setup Parameter - PV

D Register Symbol	Name	Set Value	Unit
IN	PV INPUT TYPE	4-20:4.00 to 20.00mA	
UNIT	PV INPUT UNIT	-:No unit	
RH	MAXIMUM VALUE OF PV INPUT RANGE	20.00	
RL	MINIMUM VALUE OF PV INPUT RANGE	4.00	
SDP	PV INPUT SCALE DECIMAL POINT POSITION	2:###.##	
SH	MAXIMUM VALUE OF PV INPUT SCALE	10.00	
SL	MINIMUM VALUE OF PV INPUT SCALE	0.00	
BSL	PV INPUT BURNOUT ACTION	OFF:Disable	
A.BS	PV ANALOG INPUT BIAS	0.00	
A.FL	PV ANALOG INPUT FILTER	OFF	s

Setup Parameter - MPV_L1

D Register Symbol	Name	Set Value	Unit
P.UNI_L1	CONTROL PV INPUT UNIT	-:No unit	
P.DP_L1	CONTROL PV INPUT DECIMAL POINT POSITION	2:###.##	
P.RH_L1	MAXIMUM VALUE OF CONTROL PV INPUT RANGE	10.00	
P.RL_L1	MINIMUM VALUE OF CONTROL PV INPUT RANGE	0.00	
SPH_L1	SP HIGH LIMIT	10.00	
SPL_L1	SP LOW LIMIT	0.00	

Setup Parameter - OUT

D Register Symbol	Name	Set Value	Unit

Setup Parameter - OUT

D Register Symbol	Name	Set Value	Unit
OT.H	HEATING-SIDE CONTROL OUTPUT SELECTION	02:OUT terminals (current)	
CT	CONTROL OUTPUT CYCLE TIME	600.0	s
RTS	RETRANSMISSION OUTPUT TYPE OF RET	OUT1:OUT (Valve opening: 0 to 100 % in Position proportional control)	
O1RS	RETRANSMISSION OUTPUT TYPE OF OUT CURRENT OUTPUT	OUT1:OUT (Valve opening: 0 to 100 % in Position proportional control)	
OU.A	OUT CURRENT OUTPUT RANGE	4-20:4 to 20 mA	
RET.A	RET CURRENT OUTPUT RANGE	4-20:4 to 20 mA	

Setup Parameter - ETHR_E3

D Register Symbol	Name	Set Value	Unit
HSR_E3	HIGH-SPEED RESPONSE MODE	1	
BPS_E3	BAUD RATE	38400:38.4k bps	
PRI_E3	PARITY	EVEN:Even	
IP1_E3	IP ADDRESS 1	192	
IP2_E3	IP ADDRESS 2	168	
IP3_E3	IP ADDRESS 3	1	
IP4_E3	IP ADDRESS 4	1	
SM1_E3	SUBNET MASK 1	255	
SM2_E3	SUBNET MASK 2	255	
SM3_E3	SUBNET MASK 3	255	
SM4_E3	SUBNET MASK 4	0	
DG1_E3	DEFAULT GATEWAY 1	0	
DG2_E3	DEFAULT GATEWAY 2	0	
DG3_E3	DEFAULT GATEWAY 3	0	
DG4_E3	DEFAULT GATEWAY 4	0	
PRT_E3	PORT NUMBER	502	
IPAR_E3	IP ACCESS RESTRICTION	OFF:Disable	
1.IP1_E3	PERMITTED IP ADDRESS 1-1	255	
1.IP2_E3	PERMITTED IP ADDRESS 1-2	255	
1.IP3_E3	PERMITTED IP ADDRESS 1-3	255	
1.IP4_E3	PERMITTED IP ADDRESS 1-4	255	
2.IP1_E3	PERMITTED IP ADDRESS 2-1	255	
2.IP2_E3	PERMITTED IP ADDRESS 2-2	255	
2.IP3_E3	PERMITTED IP ADDRESS 2-3	255	
2.IP4_E3	PERMITTED IP ADDRESS 2-4	255	

Setup Parameter - KEY

D Register Symbol	Name	Set Value	Unit

Setup Parameter - KEY

D Register Symbol	Name	Set Value	Unit
F1-K	USER FUNCTION KEY-1 ACTION SETTING	OFF:Disable	
F2-K	USER FUNCTION KEY-2 ACTION SETTING	OFF:Disable	
Fn-K	USER FUNCTION KEY-N ACTION SETTING	PID:PID tuning switch	

Setup Parameter - DISP

D Register Symbol	Name	Set Value	Unit
PCMD_L1	ACTIVE COLOR PV DISPLAY SWITCH	0:Fixed in white	
BAR1	BAR-GRAPH DISPLAY REGISTRATION	5:Deviation	
BDV_L1	BAR-GRAPH DEVIATION DISPLAY BAND	0.10	
GUID	GUIDE DISPLAY ON/OFF	ON:Display	
ECO	ECONOMY MODE	OFF:Disable	
BRI	BRIGHTNESS	3	
MLSD	LEAST SIGNIFICANT DIGITAL MASK OF PV DISPLAY	OFF:With least significant digit	
MKTP	METHOD FOR LEAST SIGNIFICANT DIGITAL MASK OF PV DISPLAY	0:Round down	

Setup Parameter - CSEL

D Register Symbol	Name	Set Value	Unit
CS1	SELECT DISPLAY-1 REGISTRATION	OFF	
CS2	SELECT DISPLAY-2 REGISTRATION	OFF	
CS3	SELECT DISPLAY-3 REGISTRATION	OFF	
CS4	SELECT DISPLAY-4 REGISTRATION	OFF	
CS5	SELECT DISPLAY-5 REGISTRATION	OFF	

Setup Parameter - KLOC

D Register Symbol	Name	Set Value	Unit
COM.W	COMMUNICATION WRITE ENABLE/DISABLE	OFF:Enable	
DATA-L	FRONT PANEL PARAMETER DATA KEY LOCK	OFF:Unlock	
A/M-L	FRONT PANEL A/M KEY LOCK	OFF:Unlock	

Setup Parameter - DI.SL

D Register Symbol	Name	Set Value	Unit
A/M-D	AUTO/MAN SWITCH	X_DI1	
R/L_L1-D	REMOTE/LOCAL SWITCH	OFF	
S/R-D	STOP/RUN SWITCH	X_DI2	
AUTO-D	SWITCH TO AUTO	OFF	
MAN-D	SWITCH TO MAN	OFF	
REM_L1-D	SWITCH TO REMOTE	OFF	
LCL_L1-D	SWITCH TO LOCAL	OFF	
AT-D	AUTO-TUNING START/STOP SWITCH	OFF	
LAT-D	LATCH RELEASE	OFF	
LCD-D	LCD BACKLIGHT ON/OFF SWITCH	OFF	
PVRW_L1-D	PV RED/WHITE SWITCH	OFF	

Setup Parameter - DI.NU

D Register Symbol	Name	Set Value	Unit
SP.B0-D	BIT-0 OF SP NUMBER	OFF	
SP.B1-D	BIT-1 OF SP NUMBER	OFF	
SP.B2-D	BIT-2 OF SP NUMBER	OFF	
PN.B0-D	BIT-0 OF PID NUMBER	OFF	
PN.B1-D	BIT-1 OF PID NUMBER	OFF	
PN.B2-D	BIT-2 OF PID NUMBER	OFF	
MP.B0_L1-D	BIT-0 OF MANUAL PRESET OUTPUT NUMBER	OFF	
MP.B1_L1-D	BIT-1 OF MANUAL PRESET OUTPUT NUMBER	OFF	
MP.B2_L1-D	BIT-2 OF MANUAL PRESET OUTPUT NUMBER	OFF	
SP.BC-D	BIT CHANGING METHOD OF SP NUMBER	0:Status switch 1 (Operation by key keystrokes or via communication is enabled according to the conditions.)	

Setup Parameter - ALM

D Register Symbol	Name	Set Value	Unit
AL1.S	AL1 FUNCTION SELECTION	ALO1_L1	
AL2.S	AL2 FUNCTION SELECTION	ALO2_L1	
AL3.S	AL3 FUNCTION SELECTION	ALO3_L1	
OR.S	OUT RELAY FUNCTION SELECTION	OFF	

Setup Parameter - SYS

D Register Symbol	Name	Set Value	Unit
R.MD	RESTART MODE	CONT:Continue action set before power failure.	
R.TM	RESTART TIMER	0	s
EPO	INPUT ERROR PRESET OUTPUT	0:Preset output	
FREQ	POWER FREQUENCY	60:60Hz	
QSM	QUICK SETTING MODE	OFF	
LANG	GUIDE DISPLAY LANGUAGE	ENG:English	

Setup Parameter - LVL

D Register Symbol	Name	Set Value	Unit
LEVL	PARAMETER DISPLAY LEVEL	STD:Standard setting mode	

Operation Parameter - ALRM_L1

D Register Symbol	Name	Set Value	Unit
AL1.T_L1	ALARM-1 TYPE	1:PV high limit	
AL1.W_L1	ALARM-1 STAND-BY ACTION	1:With Stand-by action	
AL1.D_L1	ALARM-1 ENERGIZED/DE-ENERGIZED	0:Energized	
AL1.L_L1	ALARM-1 LATCH	1:Latch action 1	

Operation Parameter - ALRM_L1

D Register Symbol	Name	Set Value	Unit
AL2.T_L1	ALARM-2 TYPE	2:PV low limit	
AL2.W_L1	ALARM-2 STAND-BY ACTION	0:Without Stand-by action	
AL2.D_L1	ALARM-2 ENERGIZED/DE-ENERGIZED	0:Energized	
AL2.L_L1	ALARM-2 LATCH	0:OFF	
AL3.T_L1	ALARM-3 TYPE	1:PV high limit	
AL3.W_L1	ALARM-3 STAND-BY ACTION	0:Without Stand-by action	
AL3.D_L1	ALARM-3 ENERGIZED/DE-ENERGIZED	0:Energized	
AL3.L_L1	ALARM-3 LATCH	0:OFF	
AL4.T_L1	ALARM-4 TYPE	2:PV low limit	
AL4.W_L1	ALARM-4 STAND-BY ACTION	0:Without Stand-by action	
AL4.D_L1	ALARM-4 ENERGIZED/DE-ENERGIZED	0:Energized	
AL4.L_L1	ALARM-4 LATCH	0:OFF	
VT1_L1	PV VELOCITY ALARM TIME SETPOINT 1	1.00	m.s
VT2_L1	PV VELOCITY ALARM TIME SETPOINT 2	1.00	m.s
VT3_L1	PV VELOCITY ALARM TIME SETPOINT 3	1.00	m.s
VT4_L1	PV VELOCITY ALARM TIME SETPOINT 4	1.00	m.s
HY1_L1	ALARM-1 HYSTERESIS	0.10	
HY2_L1	ALARM-2 HYSTERESIS	0.10	
HY3_L1	ALARM-3 HYSTERESIS	0.10	
HY4_L1	ALARM-4 HYSTERESIS	0.10	
DYN1_L1	ALARM-1 ON-DELAY TIMER	0.00	m.s
DYN2_L1	ALARM-2 ON-DELAY TIMER	0.00	m.s
DYN3_L1	ALARM-3 ON-DELAY TIMER	0.00	m.s
DYN4_L1	ALARM-4 ON-DELAY TIMER	0.00	m.s
AMD_L1	ALARM MODE	0:Always active	

Operation Parameter - SP_L1 - Group1

D Register Symbol	Name	Set Value	Unit
SP_L1_1	TARGET SETPOINT	6.10	
PIDN_L1_1	PID NUMBER SELECTION	1	
A1_L1_1	ALARM-1 SETPOINT	7.50	
A2_L1_1	ALARM-2 SETPOINT	0.00	
A3_L1_1	ALARM-3 SETPOINT	0.00	
A4_L1_1	ALARM-4 SETPOINT	0.00	

Operation Parameter - SP_L1 - Group2

D Register Symbol	Name	Set Value	Unit
SP_L1_2	TARGET SETPOINT	0.00	
PIDN_L1_2	PID NUMBER SELECTION	1	
A1_L1_2	ALARM-1 SETPOINT	0.00	
A2_L1_2	ALARM-2 SETPOINT	0.00	

Operation Parameter - SP_L1 - Group2

D Register Symbol	Name	Set Value	Unit
A3_L1_2	ALARM-3 SETPOINT	0.00	
A4_L1_2	ALARM-4 SETPOINT	0.00	

Operation Parameter - SP_L1 - Group3

D Register Symbol	Name	Set Value	Unit
SP_L1_3	TARGET SETPOINT	0.00	
PIDN_L1_3	PID NUMBER SELECTION	1	
A1_L1_3	ALARM-1 SETPOINT	0.00	
A2_L1_3	ALARM-2 SETPOINT	0.00	
A3_L1_3	ALARM-3 SETPOINT	0.00	
A4_L1_3	ALARM-4 SETPOINT	0.00	

Operation Parameter - SP_L1 - Group4

D Register Symbol	Name	Set Value	Unit
SP_L1_4	TARGET SETPOINT	0.00	
PIDN_L1_4	PID NUMBER SELECTION	1	
A1_L1_4	ALARM-1 SETPOINT	0.00	
A2_L1_4	ALARM-2 SETPOINT	0.00	
A3_L1_4	ALARM-3 SETPOINT	0.00	
A4_L1_4	ALARM-4 SETPOINT	0.00	

Operation Parameter - SPS_L1

D Register Symbol	Name	Set Value	Unit
RT_L1	REMOTE INPUT RATIO	1.000	
RBS_L1	REMOTE INPUT BIAS	0.00	
UPR_L1	SP RAMP-UP RATE	OFF	
DNR_L1	SP RAMP-DOWN RATE	OFF	
TMU_L1	SP RAMP-RATE TIME UNIT	HOUR:Ramp-up rate or ramp-down rate per hour	
SPT_L1	SP TRACKING SELECTION	ON	
PVT_L1	PV TRACKING SELECTION	OFF	

Operation Parameter - PVS_L1

D Register Symbol	Name	Set Value	Unit
BS_L1	PV INPUT BIAS	0.00	
FL_L1	PV INPUT FILTER	OFF	s

Operation Parameter - PID_L1 - Group1

D Register Symbol	Name	Set Value	Unit
P_L1_1	PROPORTIONAL BAND	3.0	%
I_L1_1	INTEGRAL TIME	100	s
D_L1_1	DERIVATIVE TIME	OFF	s
OH_L1_1	CONTROL OUTPUT HIGH LIMIT	100.0	%

Operation Parameter - PID_L1 - Group1

D Register Symbol	Name	Set Value	Unit
OL_L1_1	CONTROL OUTPUT LOW LIMIT	0.0	%
MR_L1_1	MANUAL RESET	50.0	%
DR_L1_1	DIRECT/REVERSE ACTION SWITCH	RVS:Reverse action	
PO_L1_1	PRESET OUTPUT	30.0	%

Operation Parameter - PID_L1 - Group2

D Register Symbol	Name	Set Value	Unit
P_L1_2	PROPORTIONAL BAND	5.0	%
I_L1_2	INTEGRAL TIME	240	s
D_L1_2	DERIVATIVE TIME	60	s
OH_L1_2	CONTROL OUTPUT HIGH LIMIT	100.0	%
OL_L1_2	CONTROL OUTPUT LOW LIMIT	0.0	%
MR_L1_2	MANUAL RESET	50.0	%
DR_L1_2	DIRECT/REVERSE ACTION SWITCH	RVS:Reverse action	
PO_L1_2	PRESET OUTPUT	0.0	%

Operation Parameter - TUNE_L1

D Register Symbol	Name	Set Value	Unit
SC_L1	SUPER FUNCTION	1:Overshoot suppressing function (normal mode)	
AT.TY_L1	AUTO-TUNING TYPE	1:Stability	
AR_L1	ANTI-RESET WINDUP	AUTO	%
OPR_L1	OUTPUT VELOCITY LIMITER	OFF	%
MPON_L1	MANUAL PRESET OUTPUT NUMBER SELECTION	OFF:Hold the control output in AUTO mode (bumpless)	
MPO1_L1	MANUAL PRESET OUTPUT 1	0.0	%
MPO2_L1	MANUAL PRESET OUTPUT 2	0.0	%
MPO3_L1	MANUAL PRESET OUTPUT 3	0.0	%
MPO4_L1	MANUAL PRESET OUTPUT 4	0.0	%
MPO5_L1	MANUAL PRESET OUTPUT 5	0.0	%

Operation Parameter - ZONE_L1

D Register Symbol	Name	Set Value	Unit
RP1_L1	REFERENCE POINT 1	10.00	
RHY_L1	ZONE PID SWITCHING HYSTERESIS	0.05	
RDV_L1	REFERENCE DEVIATION	OFF	

Operation Parameter - PPAR

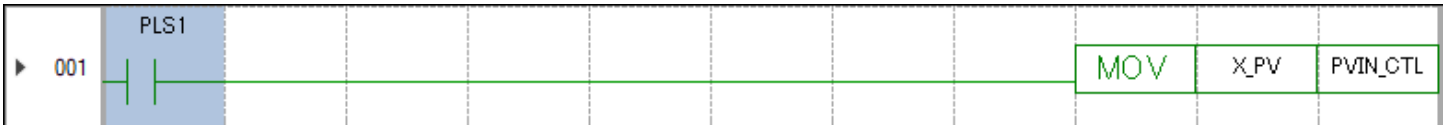
D Register Symbol	Name	Set Value	Unit
P01D	P01 DECIMAL POINT POSITION	1:####.#	
P02D	P02 DECIMAL POINT POSITION	1:####.#	
P03D	P03 DECIMAL POINT POSITION	0:#####	

Operation Parameter - PPAR

D Register Symbol	Name	Set Value	Unit
P04D	P04 DECIMAL POINT POSITION	0:#####	
P05D	P05 DEICMAL POINT POSITION	0:#####	
P06D	P06 DECIMAL POINT POSITION	0:#####	
P07D	P07 DECIMAL POINT POSITION	0:#####	
P08D	P08 DECIMAL POINT POSITION	0:#####	
P09D	P09 DECIMAL POINT POSITION	0:#####	
P10D	P10 DECIMAL POINT POSITION	0:#####	
P01	P01 PARAMETER	7.5	
P02	P02 PARAMETER	0.0	
P03	P03 PARAMETER	0	
P04	P04 PARAMETER	0	
P05	P05 PARAMETER	0	
P06	P06 PARAMETER	0	
P07	P07 PARAMETER	0	
P08	P08 PARAMETER	0	
P09	P09 PARAMETER	0	
P10	P10 PARAMETER	0	

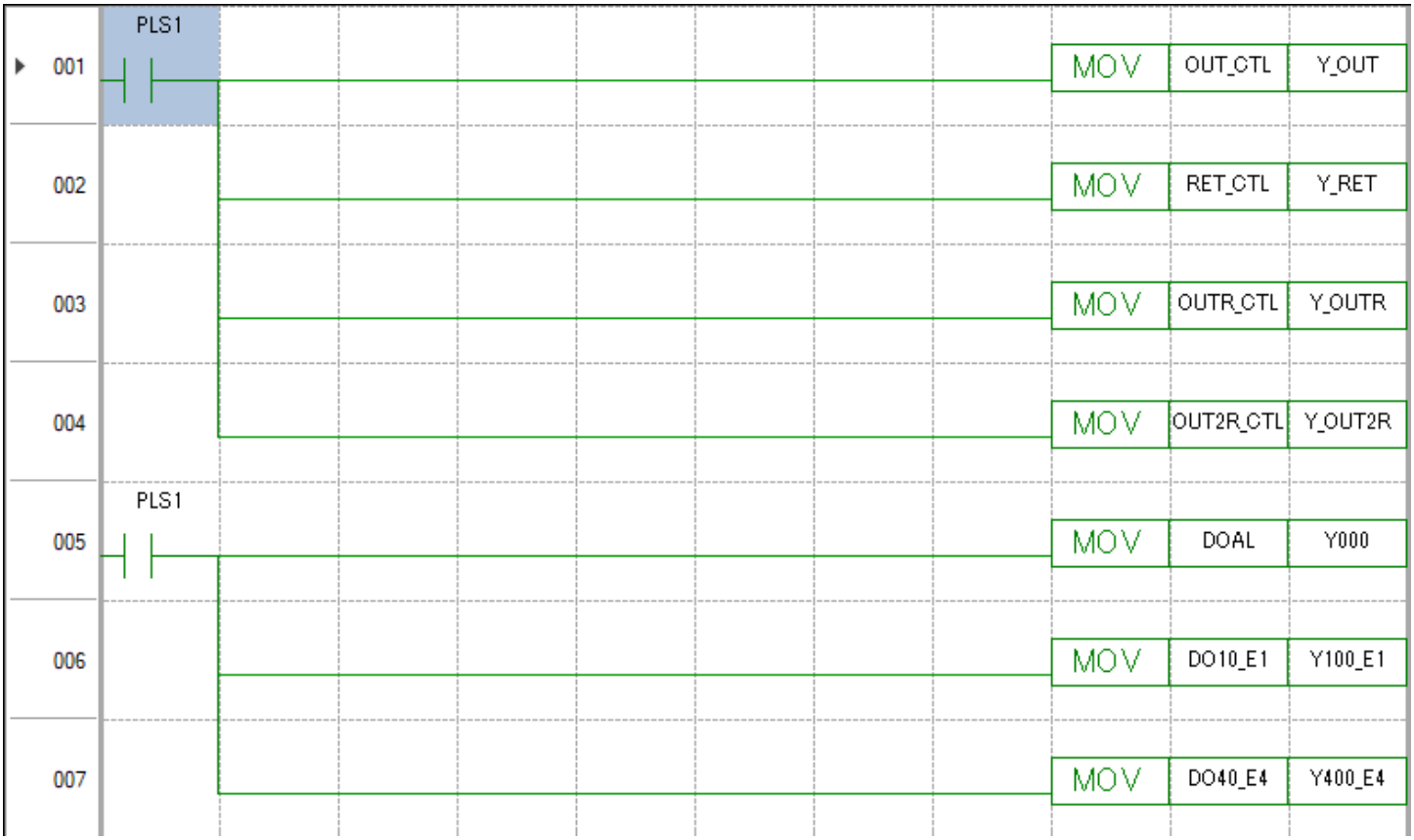
Ladder Program Name:Logic

Input Ladder Calculation PAGE1



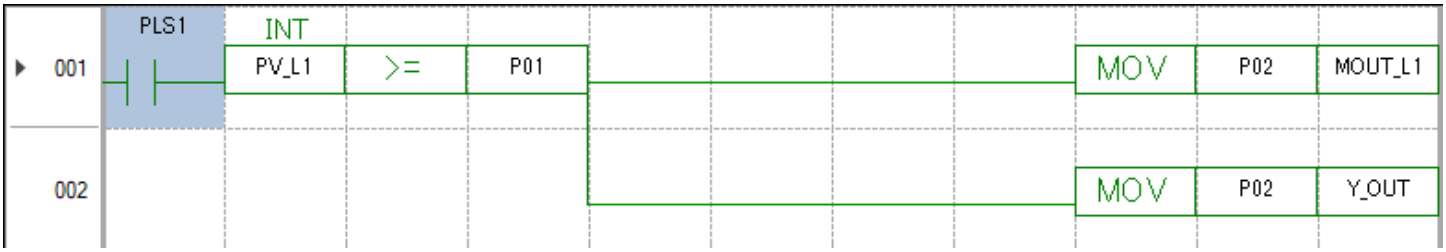
Ladder Program Name:Logic

Output Ladder Calculation PAGE1



Ladder Program Name:Logic

User Ladder PAGE1



Constant

Ladder Program Name:Logic

	Constant	Decimal point position
K01	0	0:#####
K02	0	0:#####
K03	0	0:#####
K04	0	0:#####
K05	0	0:#####
K06	0	0:#####
K07	0	0:#####
K08	0	0:#####
K09	0	0:#####
K10	0	0:#####
K11	0	0:#####
K12	0	0:#####
K13	0	0:#####
K14	0	0:#####
K15	0	0:#####
K16	0	0:#####
K17	0	0:#####
K18	0	0:#####
K19	0	0:#####
K20	0	0:#####
K21	0	0:#####
K22	0	0:#####
K23	0	0:#####
K24	0	0:#####
K25	0	0:#####
K26	0	0:#####
K27	0	0:#####
K28	0	0:#####
K29	0	0:#####
K30	0	0:#####