OP294-V05

SELEC TC544A / TC244AX / TC344AX / DTC204A-2 / DTC324A-2

Operating Instructions

SPECIFICATIONS

Display

Q-H-Q-¢§¥§²I-T-±£¥«£¬²-¢§¥§²~ª ¢§±®ª~·

Q-¢§¥§²¤-°-aq`OMQ^JO-L-aq`POQ^JO

LED Indications

N-I ³²®³²-N-I k

O-I ³²®³²-O-I k

q-^³²-±²³¬£

p-a µ£ªª²§«£°* E^®®ª§¡~ ª£¤-°-q`uQQ^L^uF

Keys

P-©£·±¤-°-¢§¥§²~ª±£²²§¬¥

INPUT SPECIFICATIONS

Input Signal

q¦£°«-¡-³®ª£-gIhIqIoIpF-L-oqa-Em²NMMF

Sampling time

ORM-«±

Input Filter (FTC)

MKO-²--NMKM-±£¡

Resolution

0.1/1°¤-°-TC/oqa-§¬®³²-c§¶£¢-N°¤-°-o-C-p²·®£-q`§¬®³²F

Temperature Unit

`` / °F selectable

Indication Accuracy

cor TC inputs : MKOR B-¤-F.S ±N°

For R & S inputs : 0.5% of F.S ± 2°

EOM-«§¬-¤-µ~°«-³®²§«£¤-°-q`§¬®³²F

cor RTD inputs : MKN B-¤-F.S ±N°

E F.S Z-c³ªª-p¡~ª£F

FUNCTIONAL SPECIFICATIONS

Control Method

NF-mfa-¡-¬²°-ª-µ§²¦-~³²-²³¬§¬¥

OF-I kJ I cc-¡-¬²°-ª

PF-e£~²J`--ª£µ§²¦-~³²-J²³¬§¬¥F

Proportional Band (P)

N.O-²--QMMKM°

Integral Time (I)

M-²--VVVV-±£¡

Derivative Time (D)

M-²--VVVV-±£¡

Cycle Time

MKN-²--VVKV-±£¡

Hysteresis Width

MKN-²--VVKV°

Dwell Timer

M-²--VVVV-«§¬-£-¬ª·¤-°-q`uQQ^L^uF

Manual Reset Value

JNVKV-²--NVKV°

HEAT COOL PID

Control Method

PID

Proportional Band-Cool

0.0 to 400.0°

Cycle Time-Cool

0.1 to 99.9 sec.

Dead Band

pmi i-²--pme i-Em°-¥°~««~ ª£F

OUTPUT:

Control Output: (Relay or SSR user selectable) :

Relay Contact (SPDT):

MR-^-°£±§±²§´£] ORMs-^`-L-PMs-a`-Eq`RQQ^-pmpq-o ivF-

NM-^-°£±§±²§´£G] ORMs-^`-L-PMs-a`

EGc-°-aq`OMQ^JO-L-aq`POQ^JO-F

SSR Drive Output (Voltage Pulse)

NOs-a`I-RM-«^

Auxiliary Output :

Relay Contact (SPDT)

MR-^-°£±§±²§´£] ORMs-^`-L-PMs-a`Eq`RQQ^-pmpq-o ivF

SSR Drive Output (Voltage Pulse)

NOs-a`I-RM-«^

POWER SUPPLY

Supply Voltage

UR-²--OTMs ^`La`-E^`- RM--°-SM-e¸-F

I®²§-¬~ª-J-OQs-^`La`

Power Consumption

S-s^-«~¶] OPMs-^`

Temperature

I®£°~²§¬¥ : M-²--RM°`

p²-°~¥£ : -JOM-²--TR°`

Humidity E¬-¬J¡-¬¢£¬±§¬¥F

VRB-oe

Weight

q`RQQ^ ========NQO-¥«±

q`OQQ^u-L-aq`OMQ^JO-OMM-¥«±

q`PQQ^u-L-aq`POQ^JO-ORO-¥«±

SAFETY PRECAUTIONS

^ªª-±~¤£²·-°£ª~²£¢-¡-¢§¤§¡~²§-¬±I-±·« -ª±-~¬¢-§¬±²°³¡²§-¬± ²¦~²-®®£~°-§¬-²¦§±-®£°~²§¬¥-«~¬³ªª-°-¬²¦£-£¯³§®«£¬²-« ³±² £- ±²°§¡²ª·-¤-ªª-µ£¢- ²-£¬±³°£ ²¦£ ±~¤£²·-¤ ²¦£ -®£°~²§¬¥ ®£°±-¬¬£ª~±-µ£ªª ~± ²¦£ £¯³§®«£¬²K

f¤ ²¦£ £¯³§®«£¬² §± ¬-² ¦~¬¢ª£¢ §¬ ~ «~¬¬£° ±®£¡§¤§£¢ ·- ²¦£ «~¬³¤~¡²³°£° §² «§¦² §«®~§° ²¦£ ®°-²£¡²§-¬ ®°-´§¢£¢ ·- ²¦£ £¯³§®«£¬²K

o£~¢ ¡-«®ª£²£ §¬±²°³¡²§-¬± ®°§-° ²- §¬±²~ªª~²§-¬ ~¬¢ -®£°~²§-¬ -¤ ²¦£ ³¬§²K

WARNING : o§±© -¤ £ª£¡²°§¡ ±¦-¡©K

WIRING GUIDELINES

WARNING :

NK q- ®°£´£¬² ²¦£ °§±© -¤ £ª£¡²°§¡ ±¦-¡© ®-µ£° ±³®®ª· ²- ²¦£ £¯³§®«£¬² «³±² £ ©£®² lcc µ¦§ª£ ¢-§¬¥ ²¦£ µ§°§¬¥ ~°°~¬¥£«£¬²K a- ¬-² 2³¡¦ ²¦£ ²£°«§¬~ª± µ¦§ª£ ®-µ£° §± £§¬¥ ±³®®ª§£¢K

OK q- £ª§«§¬~²£ £ª£¡²°-«~¥¬£²§¡ §¬²£°¤£°£¬¡£ ³±£ ±¦-°² µ§°£ µ§²¦ ~¢£¯³~²£ °~²§¬¥ ~¬¢ ²µ§±²± -¤ ²¦£ ±~«£ §¬ £¯³~ª ±§¸£ ±¦~ªª £ ³±£¢K c-° ²¦£ §¬®³² ~¬¢ -³²®³² ±§¥¬~ª ª§¬£± £¬±³°£ ²¦~² ²¦£ª ~°£ ~±±-¡§~²£¢ ©£®² ~µ~· ¤°-« ²¦£ ®-µ£° ~¬¢ -²¦£° ª§¬£±K

PK `~ª£ ³±£¢ ¤-° ¡-¬¬£¡²§¬¥ ®-µ£° ±³®®ª· ±¦-³ª¢ ¦~´£ ~ ¡°-±± ±£¡²§-¬ -¤ N«« -° ¥°£~²£°K q¦£±£ µ§°£± ±¦-³ª¢ ¦~´£ §¬±³ª~²§-¬ ¡~®~¡§²· «~¢£ -¤ ~² ª£~±² NKR©sK

QK t¦£¬ £¶²£¬¢§¬¥ ²¦£ ²¦£°«-¡-³®ª£ ª£~¢ µ§°£± ~ªµ~·± ³±£ ²¦£°«-¡-³®ª£ ¡-«®£¬±~²§-¬ µ§°£ ¤-° µ§°§¬¥K c-° ²¦£ oqa ~®®ª§¡~²§-¬ ³±£ ~ª-µ °£±§±²~¬¡£ ²¦°££ ¡-°£ ¡~ª£K q¦£ ²¦§¡©¬£±± ~¬¢ ª£¬¥²¦ -¤ µ§°§¬¥ ±¦-³ª¢ £ ±~«£K

RK ^ £³²£° ~¬¢ ±µ§²¦ -° ¡§°¡³§² °£~©£° ±¦-³ª¢ £ ³±£¢ £²µ££¬ ®-µ£° ±-³°¡£ ~¬¢ ±³®®ª· ²£°«§¬~ª± ²- ¤~¡§ª§²~²£ ®-µ£° Ž-¤¤Ž ¤³¬¡²§-¬K

MAINTENANCE

NK q¦£ £¯³§®«£¬² ±¦-³ª¢ £ ¡ª£~¬£¢ °£¥³ª~°ª· ²- ~´-§¢ ¡ª-¥¥§¬¥ -¤ ²¦£ ´£¬²§ª~²§-¬ ®-°²±K

OK `ª£~¬ ²¦£ £¯³§®«£¬² µ§²¦ ~ ¡ª£~¬ ±-¤² ¡ª-²¦K a- ¬-² ³±£ ~¬· ±-ª´£¬²K

INSTALLATION GUIDELINES

NK q¦§± £¯³§®«£¬²I £§¬¥ ³§ª²J§¬J² ®£I ¬-°«~ªª· £¡-«£± ~ ®~°² -¤ ~¬ £ª£¡²°§¡ ¡-¬²°-ª ¡~§¬£² -° ®~¬£ª ~¬¢ ²¦£ ²£°«§¬~ª± ~°£ ¬-² ~¡¡£±±§ª£ ²- ²¦£ -®£°~²-° ~¤²£° §¬±²~ªª~²§-¬ ~¬¢ ¤§¬~ª ~±±£«ª·K

OK a- ¬-² ~ªª-µ ®§£¡£± -¤ «£²~ª µ§°£ ~¬¢ -²¦£° ¤-°£§¥¬ «~²£°§~ª ²- £¬²£° ²¦£ ®-¢³¡² ~± ²¦£· «~· ¡~³±£ ~ «~ª¤³¬¡²§-¬ -¤ ²¦£ £¯³§®«£¬²K

PK `§°¡³§² °£~©£° -° «~§¬± ±µ§²¦ ±¦-³ª¢ £ §¬±²~ªª£¢ £²µ££¬ ²¦£ ®-µ£° ±-³°¡£ ~¬¢ ±³®®ª· ²£°«§¬~ª± ²- ¤~¡§ª§²~²£ ®-µ£° lcc -¬ Ž-¤¤Ž ¤³¬¡²§-¬K e-µ£´£° ²¦§± ±µ§²¦ -° ¡§°¡³§² °£~©£° «³±² £ §¬±²~ªª£¢ §¬ ~ ¡-¬´£¬§£¬² ®-±§²§-¬ ¬-°«~ªª· ~¡¡£±±§ª£ ²- ²¦£ -®£°~²-°K

QK r±£ ~¬¢ ±²-°£ ²¦£ ²£«®£°~²³°£ ¡-¬²°-ªª£° µ§²¦§¬ ²¦£ ±®£¡§¤§£¢ ~«§£¬² ²£«®£°~²³°£ ~¬¢ ¦³«§¢§²· °~¬¥£± ~± «£¬²§-¬£¢ §¬ ²¦§± «~¬³~ªK

CAUTION

NK t¦£¬ ®-µ£°§¬¥ ³® ²¦£ ¤§°±² ²§«£ ¢-¬² ¤-°¥£² ²- ²³°¬ ²¦£ -³²®³² -¤¤K

OK c³±£ m°-²£¡²§-¬ q¦£ ³±£ §¬±²°³«£¬² §± ¬-°«~ªª· ±³®®ª§£¢ µ§²¦-³² ~ ®-µ£° ±µ§²¦ -° ¤³±£±K j~©£ ±³°£ ²¦~² ~ ¤³±£ ~¬¢ ~ ®-µ£° ±µ§²¦ ~°£ ®³² §¬ ±£°§£± µ§²¦ ²¦£ ®-µ£° ±³®®ª· ²- ²¦£ §¬±²°³«£¬²K EO ®-ª£ ¤³±£ °~²§¬¥ OTRs ^`-IN^-¤-° £ª£¡²°-«£¡¦~¬§¡~ª ²·®£ -¤ ²³°¬ -¤¤F

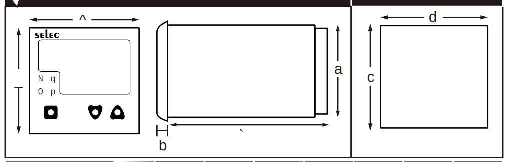
PK p§¬¡£ ²¦£ ±§±²£« ³±£¢ §¬ ²¦£ £¯³§®«£¬² §± -®£°~²£¢ ·- ~ «§¡°-¡-¬²°-ªª£° ~¬¢ ²¦£ ¡-¬²°-ª ²¦£°«-¡-³®ª£ ²¦£ £¯³§®«£¬² p³¡¦ ~± ²¦£ £¯³§®«£¬² ±¦-³ª¢ ¬-² £ ³±£¢ ¤-° ¡§°¡³«±²~¬¡£± b j flb j `~¬¢ ®£°±-¬~ª ±~¤£²· £¯³§®«£¬² ±£® ~°~²£¢ _pb k SNPOSJN ~¬¢ _pb k SNMNM ®£±®£¡§¤§£¢K

QK q¦£ °~¢§-~¡²§´£ ¢§±±§®~²§-¬ -¤ ²¦£ £¯³§®«£¬² §± «£¢§³«... ´£¬²§ª~²§-¬ ~ª±- ~¦~¬¢ £¯³§®«£¬²K

RK q¦£ -³²®³² °£ª~·± ³±£¢ §¬ ²¦£ £¯³§®«£¬² ¦~´£ ~ ª§«§²£¢ ª§¤£K

MECHANICAL INSTALLATION

Outline Dimensions | **Panel Cutout**



MODELS / DIM	A	B	C	D	E	F	G
TC544A	52	52	94	45	4	46	46
TC244AX / DTC204A-2	72	72	83.7	67	4.5	69	69
TC344AX / DTC324A-2	96	96	73	90.5	5	92	92

NK m°£®~°£ ²¦£ ®~¬£ª ¡³²-³² µ§²¦ ®°-®£° ¢§«£¬±§-¬± ~± ±¦-µ¬ ~-´£K

OK c§² ²¦£ ³¬§² §¬²- ²¦£ ®~¬£ª µ§²¦ ²¦£ ¦£ª® -¤ ¡ª~«® ®°-´§¢£¢K

PK q¦£ £¯³§®«£¬² §¬ §²± §¬²£¬¢£¢ ¤-° «-³¬²§¬¥ §¬ ~ ¡-¬²°-ª ®~¬£ª ®-±§²§-¬ µ§²¦ ¡~®~¡§²· ²- §¬±§¢£ ±¦-³ª¢ ®°-´§¢£ ¤-° ¡-°°£¡² «-³¬²§¬¥K

QK r±£ ²¦£ £¯³§®«£¬² ~±±£«ª· §± ¬-² ¢§±²³°£¢ ... ¡~¬ £ ±£¡³°£ ~¬¢ ²§¥¦²£¬£¢ µ§²¦ ²¦£ ¡ª~«® ~´-§¢§¬¥ ¢~«~¥£ -¤ ²¦£ ³¬§²K

RK a-¬¬-² ´£¬²§ª~²§-¬ ®-±§²§-¬ ²- ²¦£ ´£¬² ¦-ª£± ~¬¢ ³¬-¡¡³®§£¢ ®-±§²§-¬ -¤ ²¦£ ®~¬£ª ±¦-³ª¢ £ ´£°· ³±£¤³ª ¤-° °£¢³¡§¬¥ -´£°¦£~²§¬¥K

EMC GUIDELINES

NK r±£ ®°-®£° §¬®³² ®-µ£° ¡~ª£± µ§²¦ ±¦-°²£±² ¡-¬¬£¡²§-¬± ~¬¢ ²µ§±²£¢ ®~§°±K

OK i~·-³² -¤ ¡-¬¬£¡²§¬¥ ¡~ª£± ±¦-³ª¢ £ ~µ~· ¤°-« ~¬· §¬²£°¬~ª £j f ±-³°¡£K

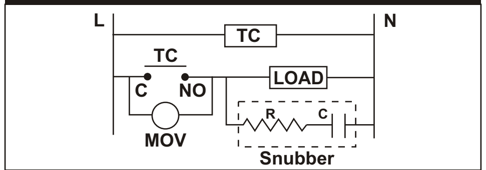
LOAD CONNECTIONS

NK q¦£ ª§¤£ -¤ ²¦£ -³²®³² °£ª~· ¡-¬²~¡²± ¢£®£¬¢± -¬ ²¦£ ±µ§²¦§¬¥ ¡³°°£¬² ... ²¦£ ¡-¬²~¡²± ¬£¢ ²- £ ®°-²£¡²£¢ ... ²¦£ ¡-¬²~¡²± -¤ ²¦£ ª-~¢K

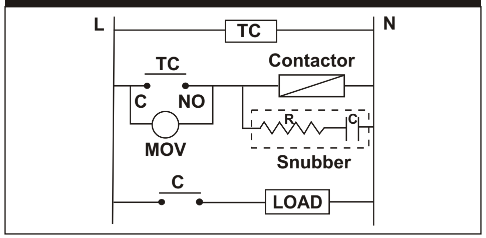
OK ^¬ ~¢¢§²§-¬~ª °£ª~· -° ¡-¬²~¡²-° ±¦-³ª¢ £ ³±£¢ ¤-° ª-~¢± RLNM ~« ®± ... ²¦£ ¡-¬²~¡²-° ... ²¦£ -³²®³² °£ª~·K

PK ^ª~·± ³±£ ~ ±¬³££° ¡°-±± ²¦£ ¡-¬²~¡²± -¤ ²¦£ -³²®³² ... ²¦£ ±µ§²¦§¬¥ ²°~¬±§£¬²± ~¬¢ ²¦£ ¡-¬²~¡² ... ²¦£ ª-~¢K

For load current less than 0.5A



For bigger loads, use interposing relay / contactor



ELECTRICAL PRECAUTIONS DURING USE

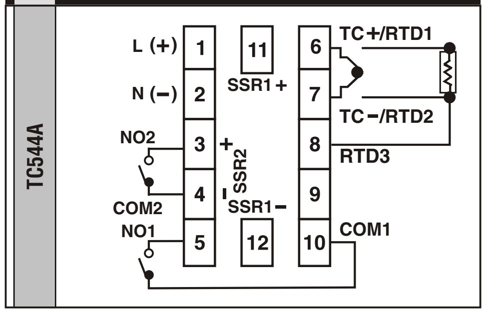
bª£¡²°§¡~ª ¬-§±£ ¥£¬£°~²£¢ ·- ±µ§²¦§¬¥ -¤ §¬¢³¡²§´£ ª-~¢± ¡~¬ ¡°£~²£ «-«£¬²~°· ¢§±°³®²§-¬ £°°~²§¡ ¢§±®ª~· ª~²¡¦ ³® ®°-¥°~« °£±£² ~¬¢ ~¬¢ §¬¡-°°£¡² ¤³¬¡²§-¬§¬¥ -¤ ²¦£ ±§¥¬~ªK

- **To reduce noise:**

~F r±£ -¤ ±¬³££° ~¡°-±± ²¦£ ¡-§ª± -¤ ±³¡¦ ¡-¬²~¡²-°± ~±£ ±³¥¥£±²£¢ ... ®°-¡£¢³°£K

F r±£±£®~°~²£ ±¦§£ª¢£¢ µ§°£± ¤-° §¬®³²K

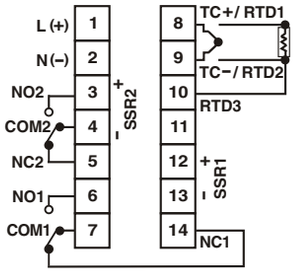
TERMINAL CONNECTIONS



a-¡K-k~«£-I m-fkpq ===== q`RQQ^-L-q`OQQ^u-L-q`PQQ^u-L-aq`OMQ^JO-L-aq`POQ^JO ===== I mOVQJs MR-Em~¥£-N--¤-PF

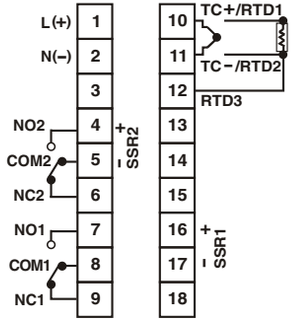
TERMINAL CONNECTIONS

TC244AX / DTC204A-2



* SSR2 Not applicable for DTC204A-2

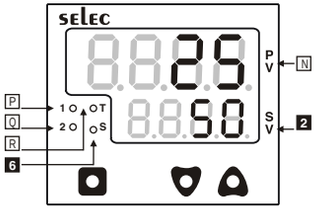
TC344AX / DTC324A-2



* SSR2 Not applicable for DTC324A-2

Use only the correct thermocouple wire or compensating cable from the probe to instrument terminals avoiding joints in the cable if possible. Failure to use the correct wire type will lead to inaccurate readings.
Ensure that the input sensor connected at the terminals and the input type set in the temperature controller configuration are the same.

FRONT PANEL DESCRIPTION



N	m°-¡£±±J´~³£-£mSF-L m~°~«£²£°=¬~«£-¢$±@ª~·.
O	m~°~«£²£°=±£²²§¬¥¢$±@ª~·.
P	`-¬²°-ª=-³²@³²=N=§¬¢$¡~²§-¬
Q	`-¬²°-ª=-³²@³²=O=§¬¢$¡~²§-¬
R	q³¬£
S	aµ£ªª-²§«£°

NF=a$±@ª~·±~-®°-¡£±±´~³£-£mSF(
OF=a$±@ª~·±²¦£-®~°~«£²£°=±·« -ª=±
====~²=¡-¬¤¥³°~²§-¬=«-¢£L-¬²§-¬£-«£¬³(
PF=a$±@ª~·±=ms=£°°-°=¡-¬£²§-¬±(=
====£°£±£°=q~ ª£=O=-¬=®~¥£=OF

NF=a$±@ª~·±²¦£-®~°~«£²£°=±£²²§¬¥±=
===~²=¡-¬¤¥³°~²§-¬=«-¢£L-¬²§-¬£-«£¬³(
(Not applicable for DTC204A-2 / DTC324A-2)

q¦£=iba=±=²§²=µ¦£¬²¦£=¡-¬²°-ª=
-³²@³²=N=±=lk

q¦£=iba=±=²§²=µ¦£¬²¦£=¡-¬²°-ª=
-³²@³²=O=±=lk

^³²-²³¬£=_²§¬¢$¬¥=

a µ£ªª-²§«£°

¯²§¬¢$¬¥=a µ£ªª-²§«£°=±=§¬=®°-¥°£±±(
¯-¬²§¬³-³±=lk=q§«£=´£°(
(Not applicable for DTC204A-2 / DTC324A-2)

FRONT KEYS DESCRIPTION

FUNCTIONS	KEY PRESS
ONLINE	
q-=´§£µ=i£´£ª=N	m°£±±=▼=©£·=¤-°=P=±£¡(=
q-=´§£µ=i£´£ª=O	m°£±±=▼=©£·=¤-°=P=±£¡(=
q-=´§£µ=m°-²£¡²§-¬=i£´£ª	m°£±±=▲=H=▼=©£·±=¤-°=P=±£¡(=
TCX44A/AX q-=´§£µ=-¬§¬£= ®~°~«£²£°±	i-µ£°=¢$±@ª~·=±£ª£¡²~ ª£= £²µ££¬= pbqNLpbqOLqfjb ³±§¬¥▲=©£·(=

NOTE :-bª~®±£¢=²§«£Lo£«~§¬§¬¥=²§«£=¢£®£¬¢£¬²=-¬=²¦£= ±£ª£¡²§-¬ -=lki=®~°~«£²£°§¬ª£´£ª%(Ek-²=~®®%¡~ ª£=¤-°=aq`OMQ^JO=L=aq`POQ^JOF=

DTC204A-2 / DTC324A-2 q-=´§£µ=--¬%¬£= ®~°~«£²£°±	ã±§®ª~·=±£ª£¡²~ ª£= £²µ££¬=pbq NL pbq O=³±§¬¥▲=©£·(= **Note :**=a±§®ª~·=±¦-µ±=®~°~«£²£° pbq NL=pbq O¤-°=N ±£¡(
q-=¡¦~~¥£=--¬%¬£= ®~°~«£²£°=´~³£±±	m°£±±=▲=H=▲=L=▼=²--=¡¦~~¥£ ®~°~«£²£°=´~³£(=

PROGRAMMING MODE

q-=´§£µ=®~°~«£²£°±=-¬=²¦£=±~«£ª£²=´§£µ=²¦£=¬£¶²=-°= ®£´§-³±¤³¬¡%-¬§¬=-®£°~%=-¬~ª=«£¬³(	▲=-°=▼=©£·=--¬¡£²=-=´§£µ=²¦£=¬£¶²=-°= ®£´§-³±¤³¬¡%-¬§¬=-®£°~%=-¬~ª=«£¬³(
q-%¬¡°£~±£=-°-°¢£¡°£~±£=~¬~¢=▲=H=▼=²-= ¢£¡°£~±£=²¦£¤³¬¡%-¬=´~³£((	▲=H=▲=²-=%¬¡°£~±£=~¬~¢=▲=H=▼=²-= ¢£¡°£~±£=²¦£¤³¬¡%-¬=´~³£(**Note :** m~°~«£²£°=´~³£=µ§ª=¬-²=~ª²£° µ¦£¬=°£±@£¡%´£ª£´£ª±±ª-¡©£¢(
klqb=q¦£=³¬§²=µ§ª=~³²-=£¶§²=®°-¥°~««-§¬¥=«-¢£=~¬²£°=PM=±£¡(=-¤= ==========§¬~¡%´§²·(= **OR** _·=®°£±±§¬¥=²¦£=▲=-°=▼=-°=▲=H=▼=©£·±¤-°=P=±£¡(	

INPUT RANGES (Table 1)

FOR RTD

INPUT		RANGES	
Resolution		N	MKN
Pt100	°`	JNRM=²-=URM	JNRM=²-=URM
	°F	JOPU=²-=NRSO	JNVV=²-=VVV

FOR THERMOCOUPLE

INPUT		RANGES	
Resolution		N	MKN
J	°`	JNVV=²-=TRM	JNVV=²-=TRM
	°F	JPOU=²-=NPUO	JNVV=²-=VVV
K	°`	JNVV=²-=NPRM	JNVV=²-=VVV
	°F	JPOU=²-=OQSO	JNVV=²-=VVV
T	°`	JNVV=²-=QMM	JNVV=²-=QMM
	°F	JPOU=²-=TRM	JNVV=²-=TRM
R & S	°`	M=²-=NTRM	kL^
	°F	PO=²-=PNUO	kL^

ERROR DISPLAY (Table 2)

t¦£¬=¬=£°°-°=¦~±=-¡¡³°£¢!²¦£=³®®£°=¢$±@ª~·=§¬¢$¡~²£±=£°°-°= ¡-¢£±=~±=¥§´£¬=£ª-µ(

Error	Meaning	Control Output Status
S.bΠ	p£¬±-°=°£~©=L= -´£°=°=~¬¥£=¡-¬¢$²§-¬	Icc
S.ΠE	p£¬±-°=°£´£°±£=L= ³¬¢£°=°=~¬¥£=¡--¬¢$²§-¬	Icc

TCX44A/AX

Programming online parameters

Setpoint 1 — **Default : 50**

=o~¬¥£=lpmii=²-=pmei
f¤=³®®£°=¢$±@ª~·=±±=£ª£¡²£¢=~±=5£ŧ±=²¦£¬l
m°£±±§¬¥▲=©£·=µ§ª=±¦-µ=-¬=r®®£°=¢$±@ª~·=l=5£ŧl
i-µ£°=¢$±@ª~·=l=YRM[
m°£±±=▲=H=▲=L=▼=©£·±²-=§¬¡°£«£¬²=L=¢£¡°£«£¬²=5£ŧ±=== ´~ª³£(=

Setpoint 2 / Dead band — **Default : 0**

=o~¬¥£=lpmii=²-=pmei
f¤=³®®£°=¢$±@ª~·=±±=£ª£¡²£¢=~±=5£ŧ±²=dЬ=²¦£¬l
m°£±±§¬¥▲=©£·=µ§ª=±¦-µ=-¬=r®®£°=¢$±@ª~·=l5£ŧ±²=dЬ
==========i-µ£°=¢$±@ª~·=l=YM[
m°£±±=▲=H=▲=L=▼=©£·±²-=§¬¡°£«£¬²=L=¢£¡°£«£¬² 5£ŧ±²=dЬ=´~ª³£(=

Dwell Timer — **Default : OFF**

=o~¬¥£=l lccl=N=²-=VVVV=«§¬
f¤=³®®£°=¢$±@ª~·=±±=£ª£¡²£¢=~±=£.Pf=¬L£.£ŧ±P=²¦£¬l=
m°£±±§¬¥▲=©£·=µ§ª=±¦-µ=-¬=r®®£°=¢$±@ª~·=l=ŧ lΠ£
==========i-µ£°=¢$±@ª~·=l=Y lcc[
m°£±±=▲=H=▲=L=▼=©£·±²-=§¬¡°£«£¬²=L=¢£¡°£«£¬² ₫Ųŧŧŧŧŧ=²§«£=´~ª³£(

DTC204A-2 / DTC324A-2

Programming online parameters

Setpoint 1 — **Default : 50**

=o~¬¥£=lpmii=²-=pmei
f¤=¬%¬£=®~°~«£²£°=±±±£ª£¡²£¢=~±=5£ŧ±²=²¦£¬l
m°£±±§¬¥▲=©£·=µ§ª=±¦-µ=-¬=¢$±@ª~·=l=5£ŧ±²=C²¦£¬=YRM[
m°£±±=▲=H=▲=L=▼=©£·±²-=§¬¡°£«£¬²=L=¢£¡°£«£¬² 5£ŧ±²=´~ª³£(=

Setpoint 2 / Dead band — **Default : 0**

=o~¬¥£=lpmii=²-=pmei
f¤=³®®£°=¢$±@ª~·=±±=£ª£¡²£¢=~±=5£ŧ±²=dЬ=²¦£¬l
m°£±±§¬¥▲=©£·=µ§ª=±¦-µ=-¬=¢$±@ª~·=l5£ŧ±²=dЬC=
²¦£¬=YM[
m°£±±=▲=H=▲=L=▼=©£·±²-=§¬¡°£«£¬²=L=¢£¡°£«£¬² 5£ŧ±²=dЬ=´~ª³£(=

CALIBRATION CERTIFICATE

Date :

Model No :

Claimed Accuracy=:
cor TC inputs=: MKORB=-¤=FS ±N°
For R & S inputs=: 0.5% of F.S ± 2°
(20 min of warm up time for TC input)=
cor RTD=inputs=l=MKNB=-¤=FS ±N°

Sources calibrated against :

Multimeter calibration report no :

q¦£=¡-²§ °~²§-¬=-¤=²¦§±=³-§²=¦~±= ££¬=´£°§¤$¢=~²=²¦£= ¤-ª-µ§¬¥=´~ª³£±=l

SENSOR	CALIBRATION TEMP (°C)	DISPLAY VALUE (°C)
J	PRKM	PRKM
	PMMKM	PMMKM
	SMMKM	SMMKM
K	PRKM	PRKM
	TMMKM	TMMKM
	NPRM	NPRM
PT100	MKM	MKM
	QMMKM	QMMKM
	UMMKM	UMMKM

q¦£=²¦£°«-¡-³®ª£=l=oqa=¡³°´£±=~°£=ª§¬£~°§±£¢=§¬=²¦§±= «§¡°-®°-¡£±±-°= ~±£¢=®°-¢³¡²(=~¬¢=¦£¬¡£=²¦£=´~ª³£±= §¬²£°®-ª~²£¢= £²µ££¬=²¦£=£~¢§¬¥±=±¦-µ¬=~ -´£=~°£=~ª±=-= £¯³~ª.=~¡¡³°~²£(=~²£´£°-®-§¬²§¬=²¦£=¡³°´£(=

r¬§²=§±=~¡¡£®²¢=~±=~¡¡³°~¡-=±=µ§²¦§¬=²¦£=±®£¡§¤$£¢=ª§«§²=-¤= ¡ª~§«£¢=~¡¡³°~¡-=~¡£°²§¤§¡~²£±±=´~ª§¢=³®²-=-=¬£·£~°¤°-«= ²¦£¢~²£=-¤±±³£(

CHECKED BY :

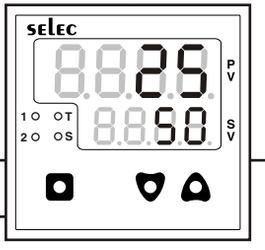
CONFIGURATION INSTRUCTIONS

KEY FUNCTIONS

▲ ⇨	Press once to view online parameters	Press for 3 sec to enter Level 2	Press once to view next parameter in configuration menu
▼ ⇨	Press for 3 sec to enter Level 1	Press once to view previous parameter in configuration menu	▲+▼ ⇨ Press for 3 sec to enter protection Level
■ + ▲ or ■ + ▼ ⇨	Allows the user to increase or decrease associated parameter value	▲ or ▼ or ▲+▼ ⇨	To exit configuration menu press any of these keys for 3 sec

OPERATIONAL MENU

POWER ON



Note : =^²=®-µ£°=lk=³-µ£°=¢§±®ª~·=±¦-µ±=E«--«£¬²~°·F=§¬®³²=²·®£=±£ª£¡²£¢=§¬=i£´£ª=NK
==========Gi-µ£°=¢§±®ª~·=¬-²=~®®ª§¡~ ª£=¤-°=aq`OMQ^JOLaq`POQ^JO=

m°£±±▼©£·¤-°=P±£¡K

m°£±±▲©£·¤-°=P±£¡K

m°£±±▲+▼©£·±¤-°=P±£¡K

Level 1

a§±®ª~·	a£±¡°§®²§-¬	a£¤~³ª² s~ª³£	o~¬¥£	a§±®ª~· `-¬¢$²§-¬
InPt	f¬®³²=²·®£= Eo£¤£°=q~ ª£=NF	J	gLhlqLolpLoqa	—
PESL	a§±®ª~·=o£±-ª³²§-¬	I	NLMKN	k-²=®°-«®²£¢ ¤-°=o=C=p=²·®£
UnIt	q£«®£°~²³°£=³¬§²	°C	°`l°c	—
SPLL	p£²=®-§¬²=ª-µ=§«§²	-199	j§¬=°~¬¥£=-¤=±£¬±-°= ±£ª£¡²£¢=²-=pmei	—
SPHL	p£²=®-§¬²=¦§¥¦=§«§²	750	pmii²-=j~¶=°~¬¥£ -¤=±£¬±-°=±£ª£¡²£¢=	—
FtC	c§²£°=²§«£=¡-¬±²~¬²	1.0	MKO=²-NMKM=±£¡	—
ACtI	`-¬²°-ª=~¡²§-¬=¤-° °£ª~·=N	PE	oblca	k-²=®°-«®²£¢= ¤-°=e`Zvbp
**CntL	`-¬²°-ª=ª-¥§¡	Pid / Onf	mfalIkc	—
OUt	`-¬²°-ª=I³²®³²=±£ª£¡²§-¬	rLY	obi^vlppo	—
*dYEL	aµ£ª²=«-¢£=£¬~ ª£	n0	kIlvbp	—
HC	e£~²]j-·ª=«-¢£= ±£ª£¡²§-¬=	n0	kIlvbp	—
ACt2	`-¬²°-ª=~¡²§-¬=¤-° °£ª~·=O	PE	oblcalqfjb*	t¦£¬=e`ZkIK qfjb=®°-«®²£¢ µ¦£¬=atbi Zvbp
n0d2	o£ª~·=O=²·®£	dEU	absL^_p	t¦£¬ ^ ⌟qOZoblca
*0nL	I¬ª§¬£=«£¬³¤-°=²§«£°	PEnn	objkIbimp	t¦£¬=atbi Zvbp
APY	^¬²§]°£±£²=µ§¬¢³®=B	25.0	NKM=²-=NMMKMB	t¦£¬=`kqi Zmfa
PSt	c~¡²-°·=¢£¤~³ª² Eo£±£²=~ªª=	n0	kIlvbp	—

Level 2

a§±®ª~·	a£±¡°§®²§-¬	a£¤~³ª² s~ª³£	o~¬¥£	a§±®ª~· `-¬¢$²§-¬
tUnE	q³¬£=	OFF	IccLIk	=c-°=`kqiZmfa
P	m°-®-°²§-¬~ª= ~¬¢	10	1.0 to 400.0°	=c-°=`kqiZmfa
I	f¬²£¥°~ª=²§«£	120	M=²-=VVVV=±£¡	=c-°=`kqiZmfa
d	a£°§´~²§´£=²§«£	30	M=²-=VVVV=±£¡	=c-°=`kqiZmfa
CYC.n	`·¡ª£=²§«£=«-¢£	AUt0	^rqlLrpoK c	=c-°=`kqiZmfa
CYC.t	`·¡ª£=²§«£	15.0	MKN=²-=VVKV=±£¡	=c-°=`kqiZmfa
HYSI	e·±²£°£±§±=N	1.0	MKN=²-=VVKV°	c-°=`kqiZIkc
nnLP	j~¬³~ª=°£±£²	0.0	JNVKV=²-=HNVKV°	c-°=`kqiZmfa C=fZM
Pb.C	m°-®-°²§-¬-ª= ~¬¢Jj--ª	10	NKM=²-=QMMKM°	c-°=`kqiZmfa C=HC=YES
CYt.C	`·¡ª£=²§«£Jj--ª	15.0	MKN=²-=VVKV=±£¡	c-°=`kqiZmfa C=HC=YES
HYS2	e·±²£°£±§±=O	1.0	MKN=²-=VVKV°	c-°=e`ZkI=-° e`Zvbp=C `kqiZIkc
*tIntE	aµ£ª²=²§«£	OFF	IccI=N=²-=VVVV=«§¬	When DWEL =YES
dSP.b	a§±®ª~·= §~±	0.0	JNVKV=²-=NVKV°	—

*m~°~«£²£°=«~°©£¢=¬-²=~®®ª§¡~ ª£¤-°=aq`OMQ^JO=C=aq`POQ^JO
**a£¤~³ª²´~ª³£=-¤=£nt=t=Z=0nF=¤-°=aq`OMQ^JO=C=aq`POQ^JO

Protection Level

a§±®ª~·	a£±¡°§®²§-¬	a£¤~³ª² s~ª³£	o~¬¥£	a§±®ª~· `-¬¢$²§-¬
SP1	i-¡©=±£²®-§¬²=N	UnLY	rkihLil`h	—
SP2	i-¡©=±£²®-§¬²=O	UnLY	rkihLil`h	—
LuLI	i-¡©=ª£´£ª=N	UnLY	rkihLil`h	—
LuL2	i-¡©=ª£´£ª=O	UnLY	rkihLil`h	—
*dYEL	i-¡©=¢µ£ªª=²§«£	UnLY	rkihLil`h	m°-«®²£¢=µ¦£¬ atbiZvbp

Note

=Nk=i-¡©§¬¥=®~°~«£²£°±=EisiN=-°=isiO=-°=pm=-°=atbiF=µ§ªª=¬-²=®£°«§²= ¡¦~¬¥£=§¬=²¦£=´~ª³£=-¤=°£±®£¡²§´£ª´£ª=®~°~«£²£°±k
Time value (online) can be altered only when DWEL is not locked in protection level.
=Ok`-¬¬²§¬³-³±=-®£°~²§-¬=-¤=▣H▣L=▼=©£·±¤-°=pm=-°=-²¦£°=®~°~«£²£°±= «~©£±=³®¢~²£=±®££¢=¤~±²£°=§¬=P=±²~¥£±=~ª²£°=P=±£¡K

Ep®£¡§ª§¡~²§-¬±=~°£=±³ ¨£¡²=²-=¡¦~¬¥£I=±§¬¡£=¢£´£ª-®«£¬²=§±=~= =¡-¬²§¬³-³±=®°-¡£±±=F

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a-¡K=k~«£=Im=fkpq==========q`RQQ^=L=q`OQQ^u=L=q`PQQ^u=L= aq`OMQ^JO=L=aq`POQ^JO========== ImOVQJsMR=Em~¥£=P=-¤=PF