


SP.NO.	Yamatake Corporation				製品仕様書 SPECIFICATIONS	
	<p>4.2 Control Output</p> <p>(1) Specifications</p> <p>Control mode : Selectable from followings</p> <ul style="list-style-type: none"> • ON/OFF control • Self-tuning control (Time proportional) • PID control (Time proportional) <p>Control action : Direct/reverse selectable</p> <p>Number of SP : 4 max. (2nd ~ 4th SP are optional)</p> <p>PV bias : -1999~9999 (ranges without decimal point) : -199.9~999.9 (ranges with decimal point)</p> <p>Number of Combination of PID : 1</p> <p>Proportional band : 0.1~999.9%FS (when PID operation)</p> <p>Reset time : 0~3600 sec. (when PID operation, PD when I=0)</p> <p>Rate time : 0~1200 sec. (when PID operation, PI when D=0)</p> <p>Manual reset : 0~100% (PID operation when I is set other than 0)</p> <p>Differential : 1~9999 (ON/OFF operation and ranges without decimal point) : 0.1~999.9 (ON/OFF operation and ranges with decimal point)</p> <p>Output resolution : 1/1000</p> <p>Low limit of manipulated output : 0% fixed</p> <p>High limit of manipulated output : 100% fixed</p> <p>(2) Relay Outputs (Control Output Code : 0D)</p> <p>Type of output : Relay contact output</p> <p>Contact composition : 1a, SPST, Normally Open</p> <p>Contact allowable voltage : AC250V or DC30V (Resistive load)</p> <p>Contact allowable current : 3A (Resistive load)</p> <p>Mechanical life : 5,000,000 cycles min.</p> <p>Electrical life : 100,000 cycles min.</p> <p>Min. switching voltage/current : 5V/100mA</p> <p>Time proportional period : 5~120 sec.</p> <p>(3) Voltage Pulse Outputs (Control Output Code : 6D)</p> <p>Type of output : Binary voltage pulse output</p> <p>Voltage open : DC22.5V ± 15%</p> <p>Internal resistance : 1100 Ω ± 5%</p> <p>Leakage current (OFF) : 100μA max.</p> <p>Time proportional period : 1~120 sec.</p>					
作成 DR.		尺度 SCALE	記入のない公差 TOL.UNLESS NOTED			
I.Harada		~	~			
5-22-98	検図 CHK	形番		C 1 0		
H.Kato	5-22-98	MODEL				
認可 APPD	Kiikunuya	名称		Digital Indicating Controller		
5-22-98	日付 DATE	図番		AD12059E		
改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.	改番 REV.	
頁	改番				5/16	
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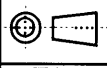
SP.NO.

Yamatake Corporation

製品仕様書
SPECIFICATIONS

Table 4.3.a : Event Operation Type and Related Setting

Event Operation Type		Event Settings		Enable/Disable Related Settings				
No	Name	E1(E2),E1Lo(E2Lo)	E1HI(E2HI)	Direct/ reverse	Stand by	Latch	Hys	ON Delay
0	No	-----	-----	---	---	---	---	---
1	PV high alarm	-1999~9999	-----	○	○	○	○	○
2	PV low alarm	-1999~9999	-----	○	○	○	○	○
3	PV high and low alarms	-1999~E1HI(E2HI)	E1Lo(E2Lo)~9999	○	○	○	○	○
4	Deviation high alarm	-1999~9999	-----	○	○	○	○	○
5	Deviation low alarm	-1999~9999	-----	○	○	○	○	○
6	Deviation high and low alarm	0~9999	0~9999	○	○	○	○	○
7	Heater line break/current high alarm	-1999~E1HI(E2HI)	E1Lo(E2Lo)~9999	○	○	○	○	○
8	Control device short-circuit alarm	-1999~9999	-----	○	○	○	○	○
9	Timer	1~9999	-----	×	×	×	×	×

作成 DR. I.Harada 5-22-98	 尺度 SCALE ~	記入のない公差 TOL.UNLESS NOTED ~.
検図 CHK H.Kato 5-22-98		
認可 APPD Kiikunuya 5-22-98	形番 MODEL C10	
日付 DATE	名称 NAME Digital Indicating Controller	
改番 REV.	図番 NO. AD12059E	改番 REV. 7/16

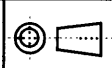
頁	改番	改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.
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SP.NO.

Table 4.3.b : Description of Event Operation

Code	Event	Description
0	No	
1	PV high alarm	<p>ON OFF</p> <p>E1</p>
2	PV low alarm	<p>ON OFF</p> <p>E1</p>
3	PV high and low alarms	<p>ON OFF</p> <p>E1Lo E1HI</p>
4	Deviation high alarm	<p>ON OFF</p> <p>SP+E1</p>
5	Deviation low alarm	<p>ON OFF</p> <p>SP+E1</p>
6	Deviation high and low alarms	<p>ON OFF</p> <p>SP E1Lo E1HI</p>
7	Heater line break/current high alarm	<p>ON OFF</p> <p>E1Lo E1HI</p>
8	Control device short-circuit alarm	<p>ON OFF</p> <p>E1</p>
9	Time	<p>External contact input ON OFF</p> <p>Time</p>

作成 DR. I.Harada 5-22-98 検図 CHK H.Kato 5-22-98 認可 APPD Kiikunuya 5-22-98



尺度 SCALE ~ 記入のない公差 TOL.UNLESS NOTED ~

形番 MODEL C10

名称 NAME Digital Indicating Controller

図番 NO. AD12059E

改番 REV 8/16

改番 REV. 来歴 RECORD : 日付 DATE 担当 BY 検閱 APPD. 5-22-98

SP.NO.

- Note 1: Hys in the table shows differential of event output
- Note 2: Heater line break/Over current alarm and Final control device short-circuit alarm are available only with models having option 02, 03 and 05. Current transformer (order separately) is also required.
- Note 3: Timer event function is available with models having option 02 and 03.

4.4 External Contact Input (Option)

(1) Specifications

- Number of inputs : 2
- Sampling cycle : 100ms
- Min. hold time : 100ms min.
- Parallel connection with other instrument(s) :

Multiple SDC10 series instruments each other and SDC10 and YH SDC20/30/40 instrument(s) can be connected parallel (connect single switch commonly to the external input terminal of said multiple instruments)

- Functions : One of following function can be selected
However, same function can not be assigned to 2 inputs.

- SP switching (OFF: No.0 SP ON: No.1 SP)

External Contact Input 1	External Contact Input 0	Results
0	0	No.0 SP
0	1	No.1 SP
1	0	No.2 SP
1	1	No.3 SP

- RUN/Ready switching (OFF: Ready ON: RUN)
- Event 1 timer activation (OFF: Timer reset ON: Timer start)
- Event 2 timer activation (OFF: Timer reset ON: Timer start)
- Event 1 latch canceling (OFF: Latch enable ON: Latch disable)
- Event 2 latch canceling (OFF: Latch enable ON: Latch disable)
- Auto-tuning start/stop (OFF: AT stop ON: AT start)

(2) Non-insulated type (from PV circuit)

- Type of input : Dry contact or open-collector
- Terminal current voltage (open) : DC5V ± 10% (at operating conditions)
- Terminal current (ON) : Approx. 4mA (at operating conditions)
- Allowable ON contact resistance : 250 Ω max. (contact specification)
- Allowable OFF contact resistance : 100K Ω min. (contact specification)
- Allowable ON residual voltage : 1V max. (open collector specification)
- Leakage current (OFF) : 100μA max.

	作成 DR. I.Harada 5-22-98		尺度 SCALE ~	記入のない公差 TOL.UNLESS NOTED ~
	検図 CHK H.Kato 5-22-98	形番 MODEL C10		
	認可 APPD Kiikunuya 5-22-98	名称 NAME Digital Indicating Controller		
	改番 REV. RECORD	来歴 RECORD	日付 DATE	担当 BY
頁	改番	5-22-98	図番 NO. AD12059E	改番 REV. 9/16

SP.NO.

6. ENVIRONMENTAL CONDITIONS/SPECIFICATIONS

6.1 Standard Conditions

- Ambient temperature : 23±2°C
- Ambient humidity : 60±5%RH (no condensation)
- Power voltage : (AC model)105VAC±1%
(DC model) 24VDC±5%
- Frequency : 50±1Hz (At 50Hz power supply)
60±1Hz (At 60Hz power supply)
- Vibration : 0m/s²
- Shock : 0m/s²
- Mounting angle : (Reference plane)±3°

6.2 Operating Conditions

- Ambient temperature : 0~50°C
- Ambient humidity : 10~90%RH (no condensation)
- Power voltage : (AC model) 85~264VAC
(DC model) 21.6~26.4VDC
- Frequency : 50±2Hz (At 50Hz power supply)
60±2Hz (At 60Hz power supply)
- Vibration : 0~2m/s²
(10~60Hz, 2 hours in each X, Y and Z directions)
- Shock : 0~10m/s²
- Mounting angle : Vertical panel face ±10°

6.3 Shipping and Storage Conditions

- Ambient temperature : -20~+70°C
- Ambient humidity : 10~90%RH (no condensation)
- Vibration : 0~5m/s²
(10~60Hz, 2 hours in each X, Y and Z directions)
- Shock (Panel) : 0~490m/s² (Top and bottom, 3 times)
(Socket) : 0~294m/s² (Top and bottom, 3 times)
- Shipping Drop Test : From 60cm height (Free drop)

改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.	作成 DR. I.Harada 5-22-98		尺度 SCALE ~	記入のない公差 TOL.UNLESS NOTED ~	
					検図 CHK H.Kato 5-22-98		形番 MODEL	C10	
頁	改番	REV.	RECORD	DATE	BY	APPD.	認可 APPD Kiikunuya 5-22-98	名称 NAME	Digital Indicating Controller
							日付 DATE 5-22-98	図番 NO.	AD12059E

7. WIRING DIAGRAM

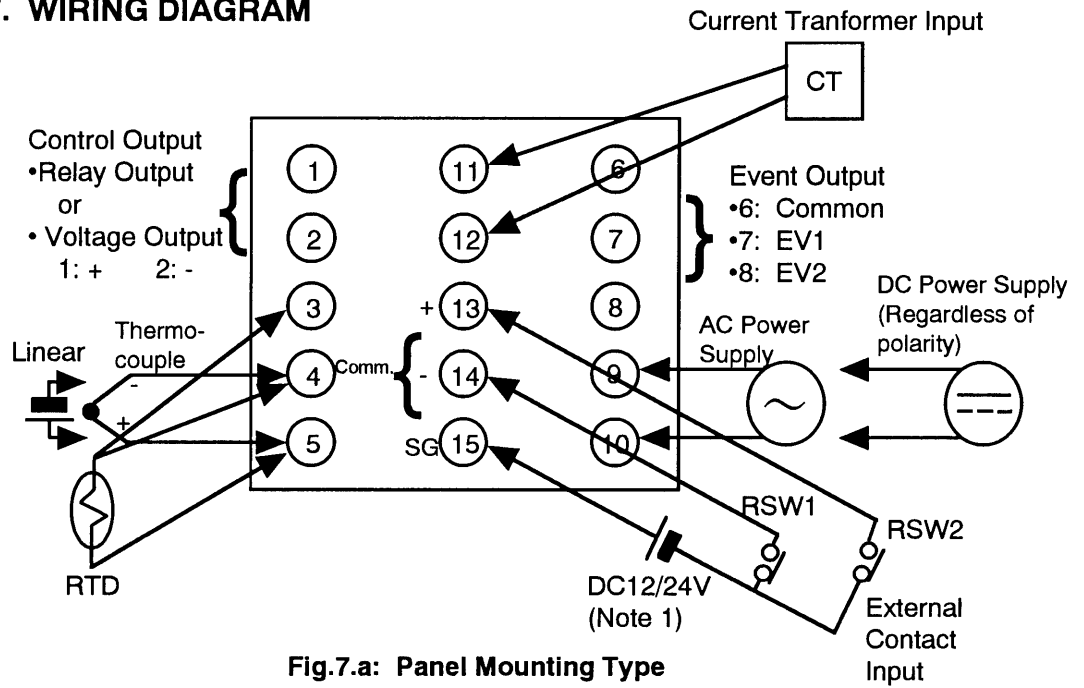


Fig.7.a: Panel Mounting Type

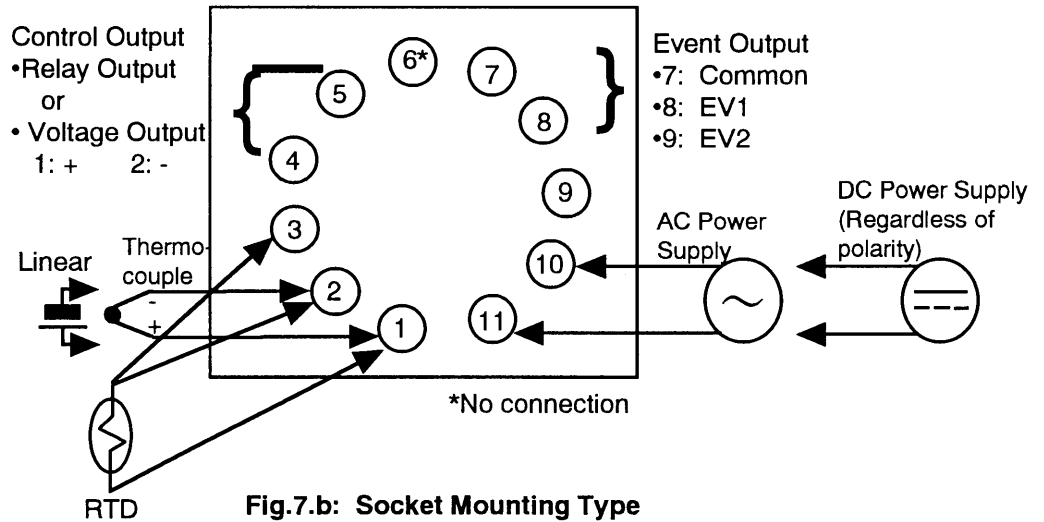


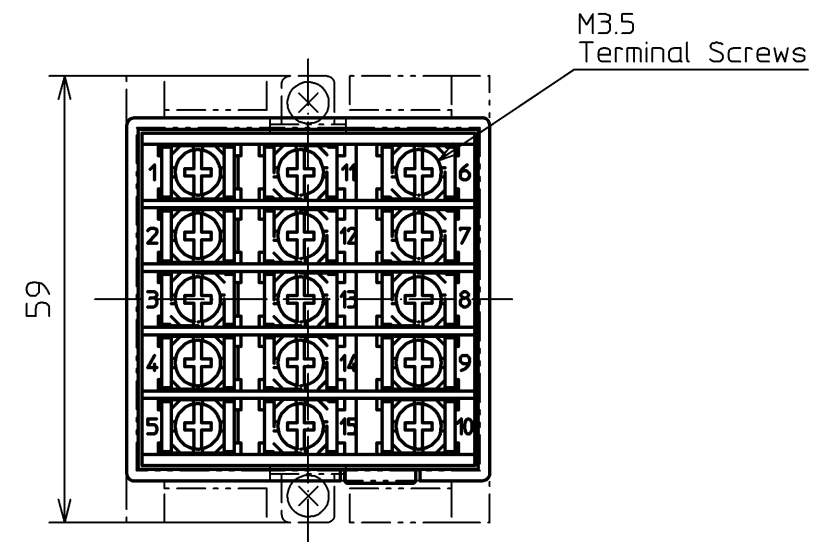
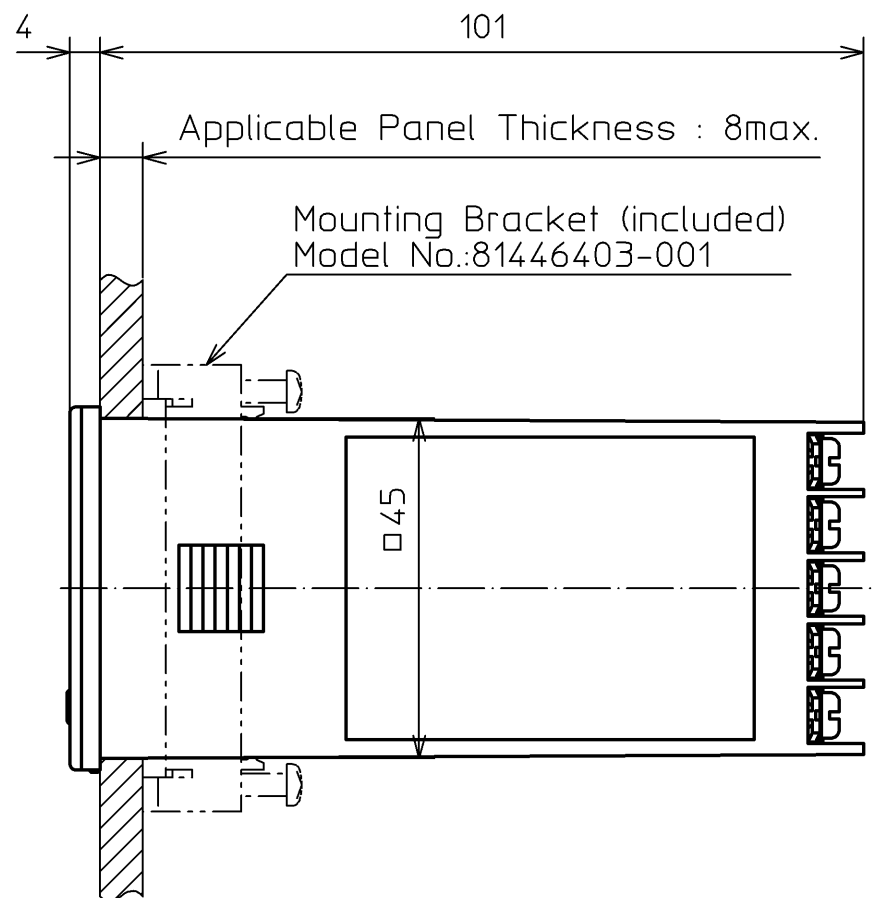
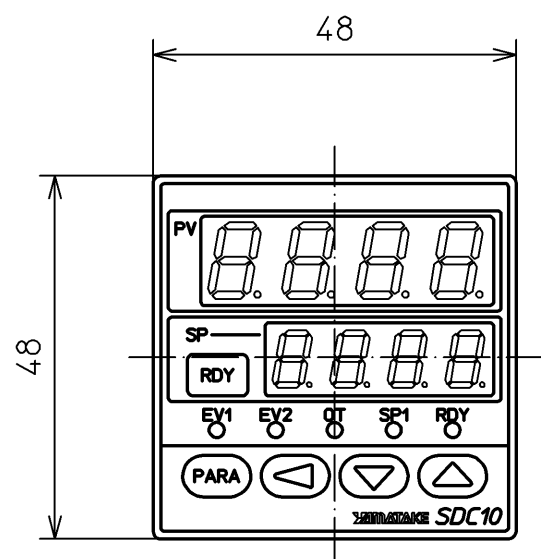
Fig.7.b: Socket Mounting Type

Note 1: External power source is required when use insulated external input model as shown above.
When use non-insulated external input model connect external dry contacts between terminal 15 and 13 and/or 14 directly.

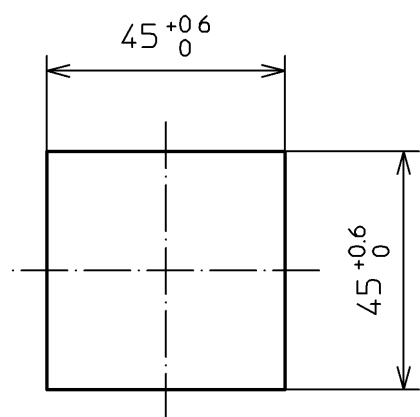
作成 DR. I.Harada 5-22-98	図章	尺度 SCALE	記入のない公差 TOL. UNLESS NOTED
検図 CHK. H.Kato 5-22-98	形番 MODEL C10		
認可 APPD Kiikuniyama 5-22-98	名称 NAME Digital Indicating Controller		
日付 DATE 5-22-98	図番 NO. AD12059E	改番 REV. 00	14 / 16

改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.
改番				

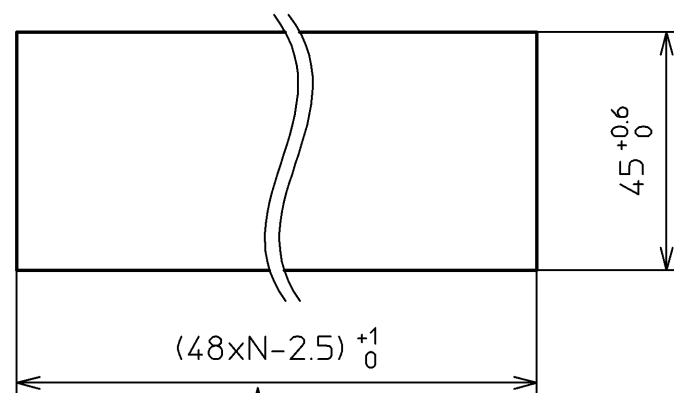
C10T Type



Panel Cut-out Dimensions



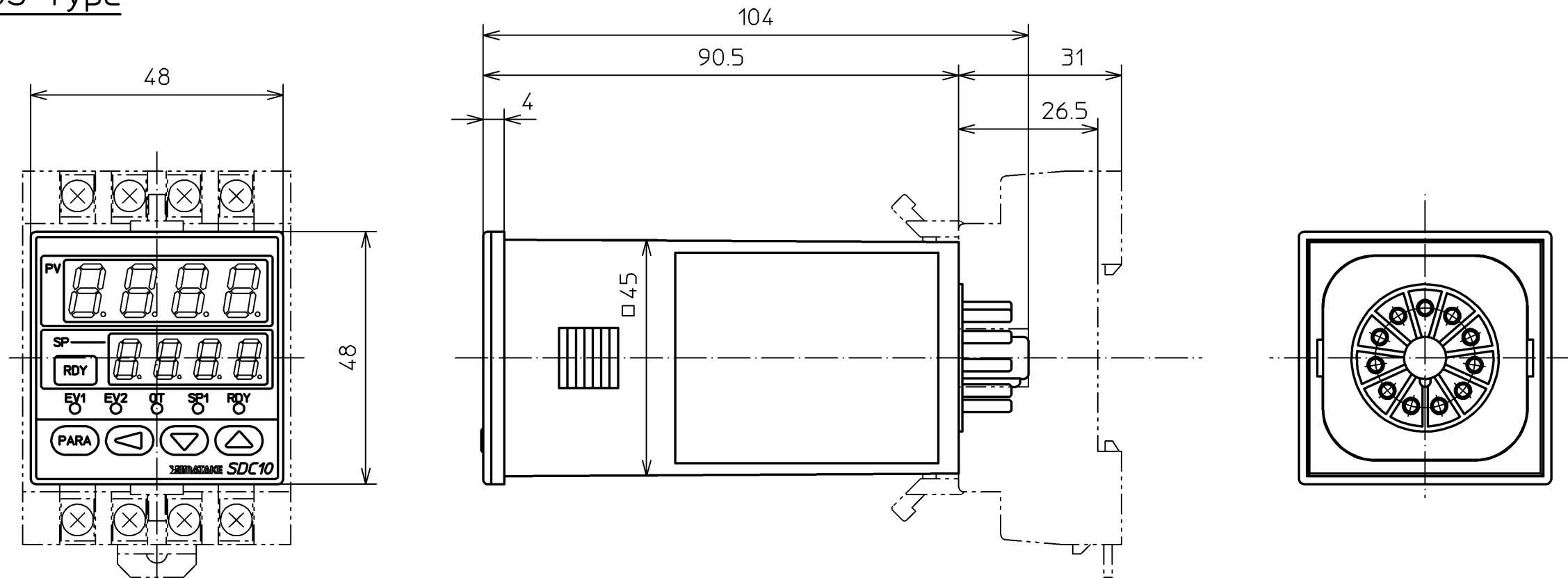
Panel Cut-out Dimensions
(side-by-side mounting)



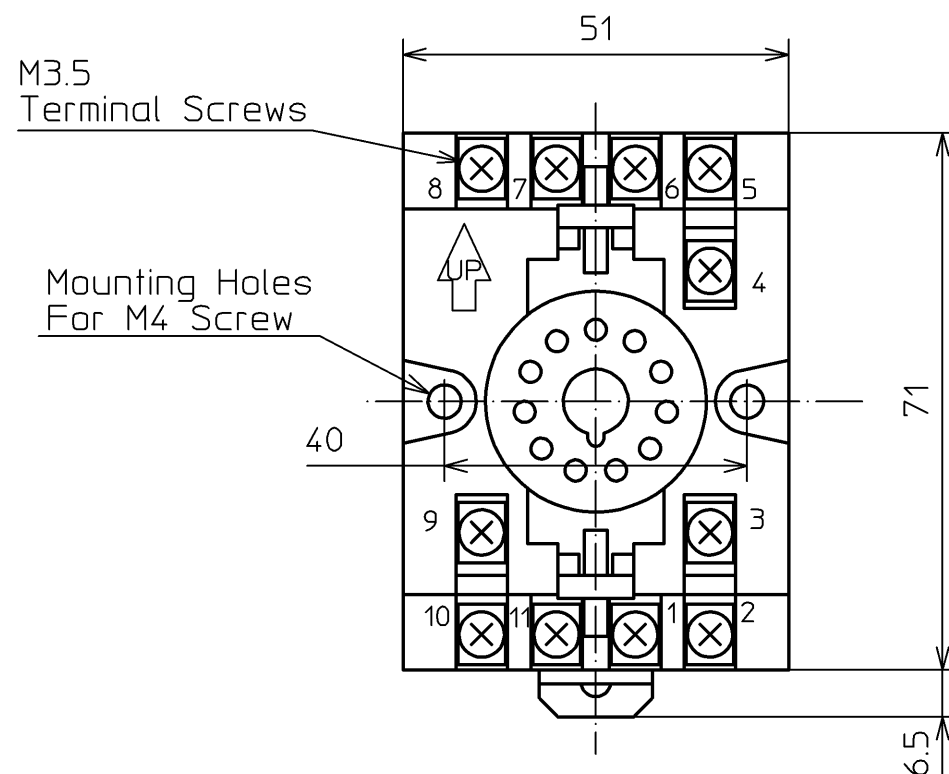
N is the number of mounted units.

作成DR. H.Harada 5.27.'98	検図CHK. T.Akimoto 5.27.'98	認可APPD K.Murata 5.27.'98	日付DATE 5.27.'98	改番REV. 00	15/16
尺度SCALE 記入のない公差 TOL. UNLESS NOTED C10		形番 MODEL C10 名称 NAME Digital Indicating Controller 図番 NO. AD12059E			

C10S Type



Optional Socket
(Model No.:81446391-001)



作成DR. H.Harada 5.27.'98	検図CHK. T.Akimoto 5.27.'98	認可APPD. K.Murata 5.27.'98	日付DATE 5.27.'98	改番REV. 00	16/16	尺度SCALE C/D 記入のない公差TOL. UNLESS NOTED
形番 MODEL		C10				
名称 NAME		Digital Indicating Controller				
図番 NO.		AD12059E		改番REV. 00		

改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.
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