YAMATAKE

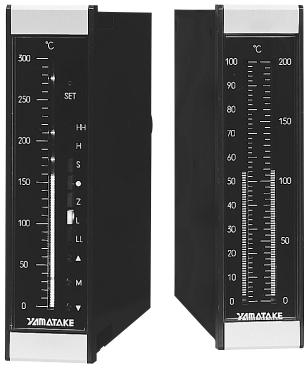
Specification

DIGITRONIK™ Smart Indicator with LED Bar Graph Indicator SI Series

FEATURES

The Smart Indicator is a compact, lightweight, highly reliable single-point process faceplate, featuring DIN-sized LED bar graph indication of process variables.

- *Bar graph features high-intensity custom LED's*
- *Three bar display colors available: red, green and yellow*
- *Alarm setting and zero span adjustment easily performed*

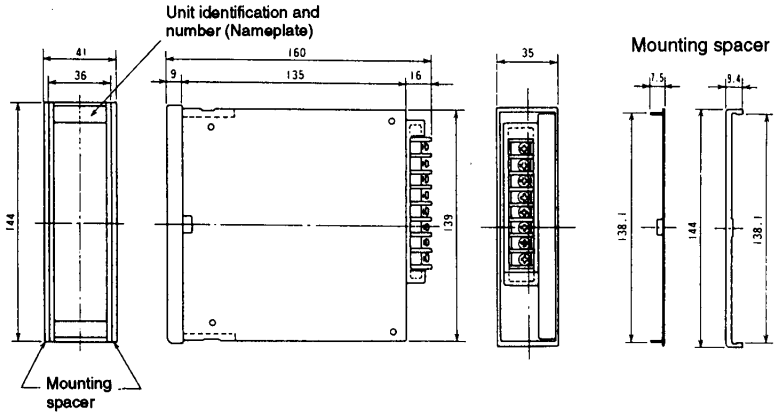


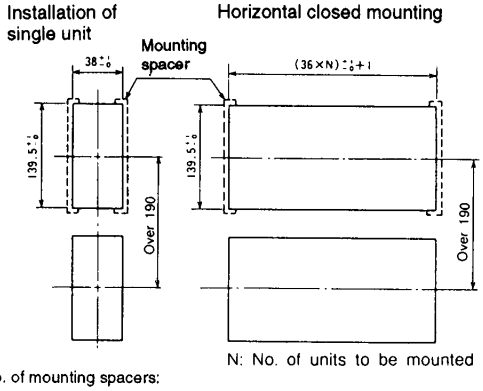
SPECIFICATIONS

Model	Model No.	SIA	SIB	SIC	SID
	No. of indicating points	1	2	1	1
	Alarm	–	–	High/low limit	High high limit/low low limit
Input	Input	4 to 20mAdc and 0 to 1mAdc, or voltage 1 to 5Vdc 0 to 1Vdc or 0 to 5Vdc			
	Response time	0.5 sec.			
	Input Impedance	Lower than 10Ω at 4 to 20mAdc input, higher than 250kΩ at 1 to 5Vdc input			
	Zero span adjustment	±10% FS			
Indicating action	Signals	Red, green, yellow LED bar dots (color selection) Display flashes (SIA, SIB only) when input is complete.			
	Range	0 to 100% FS			
	Accuracy	±1% FS ±1 dig			
Setting alarms (SIC-SID)	Range	High/low limit	High limit value (H) 100% FS to (low limit value + 1% FS)		
			Low limit value (L) (High limit value to 1% FS) to 0%		
		High-high limit/low-low-limit	High high limit value (HH) 100% FS to (High limit value + 1% FS)		
			High limit value (H) (High high limit value – 1% FS) to (Low limit value + 1% FS)		
			Low limit value (L) (Low limit value – 1% FS) to (Low low limit value + 1% FS)		
			Low low limit value (LL) (Low limit value – 1% FS) to 0%		
Output		Dry contact 125Vac 0.5A, 30Vdc 24 resistive load			
Design	Ambient temperature	0 to 50°C			0 to 45°C
	Weight	approx. 500g		approx. 590g	approx. 400g
	Storage temperature	–20 to +70°C			
	Rated voltage	100/110, 200/220, 120, 240Vac 50/60Hz or 24Vdc			
	Allowable voltage	90 to 121V (100/110V), 180 to 242V (200/220V), 102 to 132V (120V), 240 to 264V (240V), 20.4 to 27.6Vdc (24Vdc)			
	Construction	Case: ABS rein Cover: Acryl resin Nameplate: ABS resin			
	Standard colors	Scale: Black aluminum Bezel case: Moss green Munsell 2.5GY3/1			
	Mounting	Embedded mounting into indoor panel			
	Standard accessories	Mounting spacer (2)			

DIMENSIONS

[in mm]





No. of mounting spacers:
One spacer on both sides of panel
either for single-unit or multi-unit installation.

MODEL SELECTION GUIDE

Example = (1) SIA, SIC, SID Types:

I	II	III	IV	
SIA	8	C	R	A32X

(2) SIB Type:

I	II	III	IV		V	
SIB	8	C	R	A32X	G	F50W

Item	Selection	Code			No. of Displays	Number of Alarms
I	Basic Model Number	SIA	↓		1	0
		SIB		↓	2	0
		SIC	↓		1	2 (High low limits)
		SID	↓		1	4 (High high and low low limits)
II	Power Supply Voltage	1	0	0	100/110Vac 50/60Hz	
		2	0	0	200/220Vac 50/60Hz	
		5	0	0	120Vac 50/60Hz	
		6	0	0	240Vac 50/60Hz	
		8	0	0	24Vdc	
III	Input	C	0	0	4 to 20mAdc	
		F	0	0	0 to 1mAdc	
		L	0	0	0 to 1 Vdc	
		V	0	0	1 to 5 Vdc	
		Y	0	0	0 to 5 Vdc	
IV	No.1 Display Colour	R	0	0	Red	
		G	0	0	Green	
		Y	0	0	Yellow	
	No.1 Display Range	(*)	0	0	(See Range code selection table)	
V	No.2 Display Colour	R		0	Red	
		G		0	Green	
		Y		0	Yellow	
	No.2 Display Range	(*)		0	(See Range code selection table)	

* Range Code Selection Table

↓	Selection		Code availability																	
○		→	A	C	D	F	G	H	I	O	Q	X	Y	Z	U	S	T	V	W	–	–
	Unit		m³/h [N]	%	m³/h	mmH_2O	kgf/cm²	l/min	°C	pH	Kcal/h	m	mm	none	ppm	hPa	Pa	kPa	MPa	–	–
○		→	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J
	Mantissa		1	2	3	4	5	6	7	8	9	15	25	35	45	55	65	75	85	95	14
○		→	7	8	9	0	1	2	3	4	5	6	–	–	–	–	–	–	–	–	–
	Index		10^{-3}	10^{-2}	10^{-1}	10^{0}	10^{1}	10^{2}	10^{3}	10^{4}	10^{5}	10^{6}	–	–	–	–	–	–	–	–	–
○	Hi/Lo	→	X									W									
	Range Limits		Minimum value: 0									Minimum value = – (maximum value), as ±50°C (mid range: 0)									

Example:

(1) SIA 8C R A32X E

Range: 0 to 300 Nm³/h

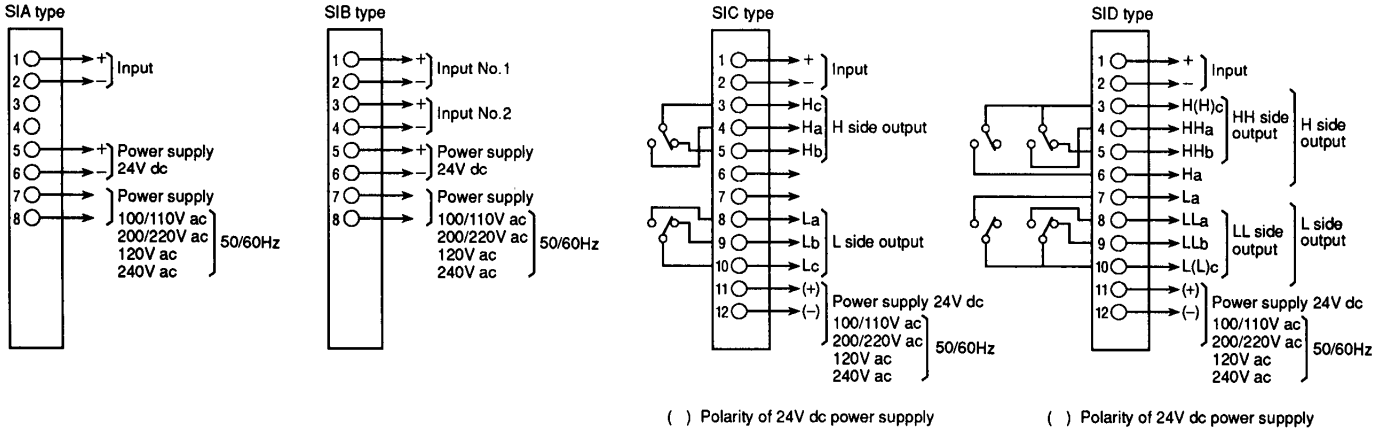
- A (Unit)
- 3 (Mantissa) — 3×10² —
- 2 (Index)
- X (0 low limit)

(2) SIB 8C R A32X G F50W E

Range: ± 5 mmH_2O

- F (Unit)
- 5 (Mantissa) — 5×10⁰ —
- 0 (Index)
- W (0 low limit)

WIRING



⚠ RESTRICTIONS ON USE

This product has been designed, developed and manufactured for general-purpose application in machinery and equipment. Accordingly, when used in the applications outlined below, special care should be taken to implement a fail-safe and/or redundant design concept as well as a periodic maintenance program.

- **Safety devices for plant worker protection**
- **Start/stop control devices for transportation and material handling machines**
- **Aeronautical/aerospace machines**
- **Control devices for nuclear reactors**

Never use this product in applications where human safety may be put at risk.

DIGITRONIK is a trademark of Yamatake Corporation.

Specifications are subject to change without notice.

YAMATAKE

Yamatake Corporation
Advanced Automation Company

Totate International Building
2-12-19 Shibuya Shibuya-ku
Tokyo 150-8316 Japan
URL:http://www.yamatake.com

Printed on recycled paper.

(04)

Printed in Japan. (H)
1st Edition: Issued in May, 1994
3rd Edition: Issued in Mar., 2005

No part of this publication may be reproduced or duplicated without the prior written permission of Yamatake Corporation.