



**Smart G4 Relay Actuator Modules**  
Simplified Usage & selection Manual 2021



## **This Manual is Made to Help Installer in:**

Knowing The Power Ratings (Loads)  
Selecting The accurate product for the right usage  
Getting Fast Features  
Fast Compare



## How to Mainly categorize the Types

DIN Rail  
Trail Click  
Mini Relays

Big Load  
Small Load  
Mix

## Terminology meanings at different countries

Channel = Fold = Circuit = Load = Output Control

Dry Contact = Volt Free Port = Input Port

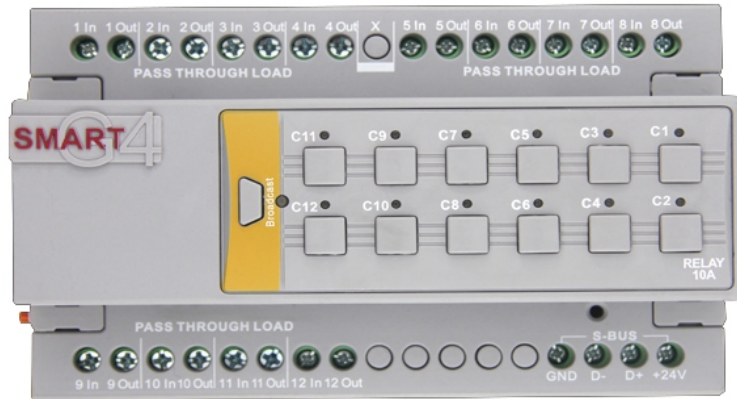
Relay = Actuator = Contactor



# BIG Load Relays DIN Mount

(8P Size)

Length Mounted on DIN rail: 145 mm



(1.1P Size)

Length Mounted on DIN rail: 23 mm



(4P Size)

Length Mounted on DIN rail: 72 mm



## **SB-RLY4c20A-DN**

4Ch = 20A per channel (Inside 90A Each)

## **SB-RLY6c16A-DN**

6Ch = 16A per channel (Inside 60A Each)

## **SB-RLY8c16A-DN**

8Ch = 16A per channel (Inside 60A Each)

## **SB-RLY12c10A-DN**

12Ch = 10A per channel (Inside 30A Each)

## **SB-ESR16c10A-DN SB-ESR16+DN**

## **SB-Gladiator16-DN SB-RMAX16+DN**

16Ch = 10A per channel (Inside 30A Each)

## **SB-1B0-10V-TC**

1Ch = 16A (Inside 30A relay)

## **SB-Gladiator8-DN SB-ESR8p+DN**

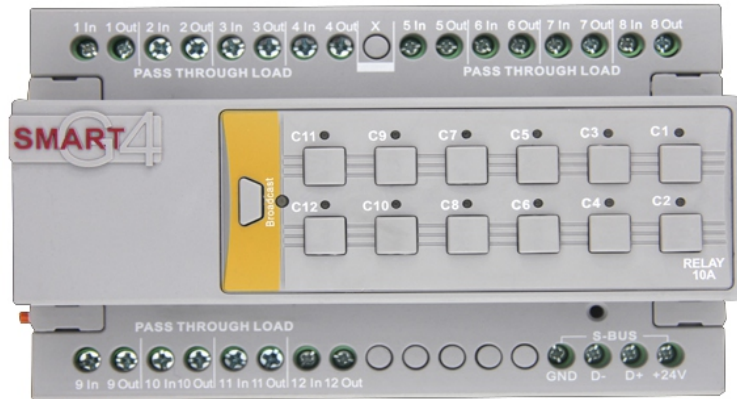
8Ch = 10A per channel (Inside 30A Each)



# Mid and Small Load Relays

(8P Size)

Length Mounted on DIN rail: 145 mm



### SB-ZBeast23-DN

12Ch 11+1 = 6A per channel (Inside 12A Each) +1ch 16A

### SB-MIX24-DN

20ch = 5A per channel (Inside 10A Each)

### SB-ESR24-DN

24Ch = 2A per channel (Inside 5A Each)

### SB-ESR28-DN

28Ch 24+4 = 2A per channel (Inside 5A Each) + 4ch 1.5A

(1.1P Size)

Length Mounted on DIN rail: 23 mm



### SB-1R-TC SB-1D1R-TC

1Ch = 5A (Inside 7A relay)

### SB-2R-TC SB-1D2R-TC

2Ch = 5A (Inside 7A relay Each)

### SB-3R-TC

3Ch = 5A (Inside 7A relay Ech)

(4P Size)

Length Mounted on DIN rail: 72 mm



### SB-ESR10-DN SB-ERS5M-DN

10Ch = 2A per channel (Inside 5A Each)



### SB-2R-UN

2Ch = 5A (Inside 7A relay Ech)

### SB-3R-UN

3Ch = 0.5A (Inside 2A relay Ech)

# Usage and Features

## Category 1 - Latching Type (8P Size)

### SB-RLY4c20A-DN

**Features:** 4 Universal Isolated Latching Type Relays, Works as switch-over and as 3 Phase, Accepts mixed voltage

**Recommended Usage:** Solar System Powered Installations, Heavy Loads Control, 3Phase Heavy motors,

### SB-RLY6c16A-DN

**Features:** 6 Universal Isolated Latching Type Relays, Works as switch-over and as 3 Phase, Accepts mixed voltage

**Recommended Usage:** Solar System Powered Installations, Heavy Loads Control, 3Phase Heavy motors,

### SB-RLY8c16A-DN

**Features:** 6 Universal Isolated Latching Type Relays, Works as switch-over and as 3 Phase, Accepts mixed voltage

**Recommended Usage:** Solar System Powered Installations, Heavy Loads Control, 3Phase Heavy motors,



## Category 2 - Momentary Type (8P Size)

### ★ SB-RLY12c10A-DN

**Features:** 12 Universal Isolated Momentary Type Relays, Works as switch-over and as 3 Phase, Accepts mixed voltage

**Recommended Usage:** ON/Off Loads Control, Curtain Motors, Under Floor Heating, FCU ON/Off, 3Phase motors,

### ★ SB-ESR16+DN SB-RMAX16+DN

**Features:** 16 Universal Isolated Momentary Type Relays, Works as switch-over and as 3 Phase, Accepts mixed voltage,  
Built in 29 Universal Dry Contacts

**Recommended Usage:** ON/Off Loads Control, Curtain Motors, 3Phase motors, HVAC, Dry inpus for Security, Dumb Switches

### ★ ★ ★ SB-Gladiator16-DN SB-RMAX16+DN / SB-Gladiator8-DN

**Features:** 16/8 Universal Isolated Momentary Type Relays, Works as switch-over and as 3 Phase, Accepts mixed voltage,  
Built in 29 Universal Dry Contacts, Built in Logic Module, Built in Central Time clock, built in 0-10V x2 and Temp sensors

**Recommended Usage:** ON/Off Loads Control, Curtain Motors, 3Phase motors, HVAC, Dry inpus for Security, Dumb Switches, UFH  
This Product is Best for Full Apartment Control, Villa Wings Control. It Has All Features, Logic, Inputs and outputs



# Usage and Features

## Category 3 - Mix Type (8P Size)



### SB-ZBeast23-DN

**Features:** Whole Suite Control, Lights, FCU/HVAC, Curtain, Water Heater, Underfloor heating, VAV, Temp with 3 LE Dimming

**Recommended Usage:** Full Control of Luxury Studio, 1BR, Hotel Room and J.Suite, Bedroom Suite (With Standard FCU)

### SB-MIX24-DN

**Features:** Multi Usage Module that has 20 relays and 4 L.E. Dimmer channels divided into 3 electrical Line sections

**Recommended Usage:** Full Apartment or Simple Villa Control Needs of Dimming, Lighting, Curtain, Floor heating

**Note:** Dimmer Channels can also be used for lights or other as On/Off

## Category 4 - Momentary Type (4Psize)/(8Psize) Industrial use like PLC



### SB-ESR10-DN / SB-ESR24-DN SB-ESR28-DN

**Features:** 10-28 Momentary Type low power Relays that **requires Contactors**, with 29 universal Dry Contact Input Ports

**Recommended Usage:** Industrial Controls, BMS that requires PLC like controls, Or for Curtain Motors, Shutters and Drapes Direct

**Note:** these products are best for Motor Control of shutters and curtains Direct and do not need Contactors

## Category 5 - Momentary Type (Mini Size) Add on and DIY



### SB-1R-TC SB-2R-TC SB-3R-TC SB-1B0-10V-TC / SB-1D1R-TC SB-2D1R-TC SB-1D2R-TC

**Features:** 1-3 channels Mid power Relay / Relay and Dimmer Mix, also has Built in 4 Dry contact per each module

**Recommended Usage:** Semi Retrofit Installations, Add ons for control of Lights, Curtain/Shutter motors, Siren, Gate Motor, Lock Release, Valves control, dampers control ++

**Note:** Trail Click Modules can install behind Switch and or on DIN rail locally or in central DB and can cascade



### SB-2R-UN SB-3R-UN

**Features:** 2 / 3 Momentary Type low power Relays for local simple use

**Recommended Usage:** Shutter and curtain Motors, Siren/Flasher, Valve, Gate, Lock, and similar.



### Relay Products List fast Comparison (Smart G4)

Abbreviation	4R	6R	8R	12R	ESR16+ Rmax	Gladiator 8	Gladiator16	ESR10	ESR24	0-10-TC	Zbeast	Mix24	1R-TC, 2RTC, 3RTC	1D1R-TC, 1D2R-TC, 2D1R-TC	2R	3R
Model	SB-RLY4c20A-DN	SB-RLY6c16A-DN	SB-RLY8c16A-DN	SB-RLY12c10A-DN	B-RMAX16+D	Gladiator8	SB-Gladiator16-DN	SB-ESR10-DN	SB-ESR24-DN	SB-1B0-10V-TC	SB-ZBeast23-D	SB-MIX24-DN			SB-2R-UN	SB-3R-UN
Electrical DIN Size	8P	8P	8P	8P	8P	8P	8P	4P	8P	1P	8P	8P	1P	1P	Mini	Mini
Mount Type	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail + TC	DIN Rail	DIN Rail	DIN Rail + TC	DIN Rail + TC	Free	Free
On Off Channels	4	6	8	12	16	8	16	10	24	1	11+1	20	1, 2, 3	1, 2, 1	2	3
Rated Load in Amp	20	16	16	10	10	10	10	2	2	16	5 / +16	5	5	5	5	0.5
Universal Isolated Sections	4	6	8	12	16	8	16	10	10	1	5	3	1	1	1	1
Multi Voltage at same time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	Limited	No	No	No	No
Dimmer Channels (L.E)	0	0	0	0	0	0	0	0	0	0	3	4	0	1, 1, 2	0	0
Max Motors	2	3	4	6	8	4	8	5	12	0	3	10	0, 1, 1	0, 1, 0	1	1
Max HVAC/FCU full functionality	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0
Maximum AC On/Off based on Desired temp	0	0	0	12	0	1	2	0	0	0	1	0	0	0	0	0
Max UFH	4	6	8	12	16	8	16	0	0	1	3	6	1, 2, 3	1,2,1	0	0
VAV 0-10	0	0	0	0	0	1	2	0	0	1	1	0	0	0	0	0
Built in Temp Sensor	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0
Built in Dry Input	0	0	0	0	29	29	29	24	24	4	0	0	4	4	0	0
Can Use As Door Bell momentary	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Can use As On/Off Contactor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Can Use As 3Phase	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No
Sequence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Que	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Scene	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
Groups	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
Built in Logic module	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No
Built in Time central clock	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	No
Best Recommended Usage	Very heavy Loads	Motorhomes/Boats	Solar and UPS	Floor Heating	Villa	Small APT	Full Apartment Needs	Shutter Motors	Shutter Motors	Ballast/Damper	Full Suite	Home Lights	Semi DIY add on	Semi DIY add on	S/F, Curtain	Somfi
Recommended add On	4Z	Mini I/O	24Z	24Z	Harness	Harness	wi-Harness	Harness	Harness		Display Panel	24Z	IPG	IPG		





CUTTING EDGE

ELEGANT

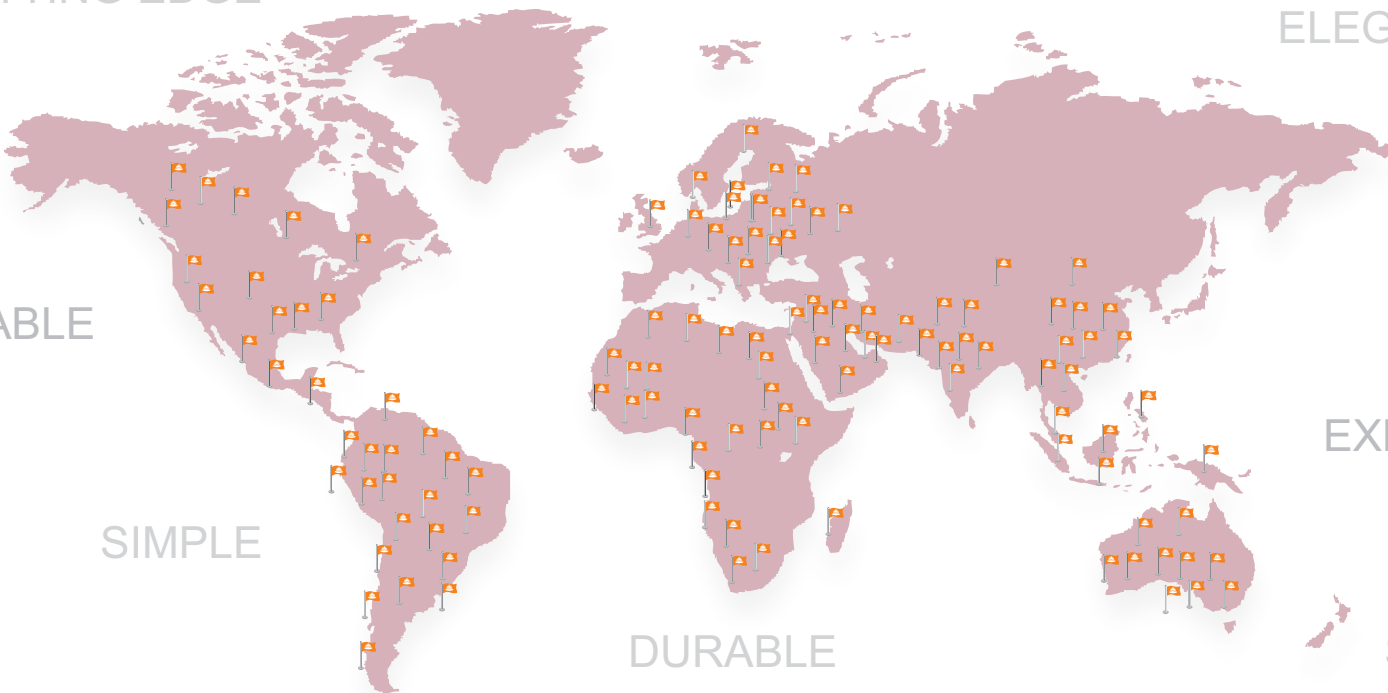
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