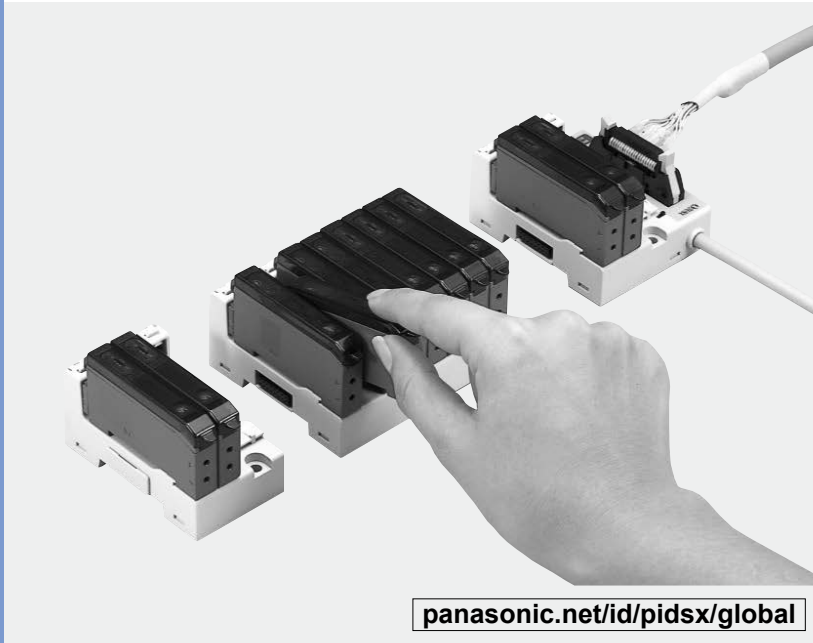



Sensor Block for Simple Wiring SL-BMW/BW

Related Information

■ General terms and conditions..... F-3

■ SU-7 / SH..... P.377~





- Never use this product in a device for personnel protection.
- In case of using devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

Quick connection of 16 sensors

ORDER GUIDE

Designation	Appearance	Model No.	Description	
Sensor block	Plug-in unit sensor main block		SL-BMW	One sensor main block allows four plug-in units to be connected, and if three extension blocks are used, total 16 plug-in units can be connected. A commercial MIL connector cable links it to a PLC input module. (The ORed output of the self-diagnosis outputs of the connected sensors can be output as Channel 0. However, in this case, a plug-in unit cannot be connected at Channel 0.)
	Plug-in unit extension block		SL-BX	Four plug-in units can be connected to one extension block.
	Snap-connector extension block (Note 1)		SL-BXJ	Eight input devices can be connected to one extension block. The connections are simple using snap-female connectors.
	Plug-in unit 4-channel sensor block	 The photo above shows a plug-in unit attached.	SL-BW	Four plug-in units can be connected to one extension block. The attached cable links it to a PLC input module. (The ORed output of the self-diagnosis outputs of the connected sensors can be output as Channel 0. However, in this case, a plug-in unit cannot be connected at Channel 0.)
Plug-in unit	Amplifier-separated photoelectric sensor		SU-7J	Its thickness is merely 10 mm 0.394 in. The sensitivity is automatically set with ease. 12 kinds of sensor heads are suitable with it. [Refer to SU-7 / SH series (p.377~) for details.]
	Input terminal unit (Note 1)		SL-TJ1	It allows connection of 1 No. of various kinds of input devices, such as, a photoelectric sensor, an inductive proximity sensor or a limit switch.
4-pin type snap female connector	 (Note 2)	SL-CJ1 (White)	For 0.08 to 0.2 mm ² (Conductor cross-section area) Wire dia.: ø0.7 to ø1.2 mm ø0.028 to ø0.047 in	It is used to connect an input device to the snapconnector extension block SL-BXJ . Compatible crimping pliers: SL-JPC (Refer to p.1013.) 10 pcs. per set
	 (Note 2)	SL-CJ2 (Black)	For 0.3 mm ² (Conductor cross-section area) Wire dia.: ø1.1 to ø1.6 mm ø0.043 to ø0.063 in	

Notes: 1) PNP output device cannot be connected.
2) Contact us for UL compatibility.

- FIBER SENSORS
- LASER SENSORS
- PHOTOELECTRIC SENSORS
- MICRO PHOTOELECTRIC SENSORS
- AREA SENSORS
- SAFETY LIGHT CURTAINS / SAFETY COMPONENTS
- PRESSURE / FLOW SENSORS
- INDUCTIVE PROXIMITY SENSORS
- PARTICULAR USE SENSORS
- SENSOR OPTIONS
- SIMPLE WIRE-SAVING UNITS
- WIRE-SAVING SYSTEMS
- MEASUREMENT SENSORS
- STATIC CONTROL DEVICES
- LASER MARKERS
- PLC
- HUMAN MACHINE INTERFACES
- ENERGY MANAGEMENT SOLUTIONS
- FA COMPONENTS
- MACHINE VISION SYSTEMS
- UV CURING SYSTEMS
- For Large Scale System
- Other Products
- SL-BMW/BW**

SPECIFICATIONS

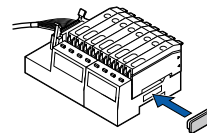
Sensor blocks

Item	Designation	Plug-in unit sensor main block	Plug-in unit extension block	Snap-connector extension block	Plug-in unit 4-channel sensor block
	Model No.	SL-BMW	SL-BX	SL-BXJ (Note 2)	SL-BW
Supply voltage		Depends on used input device	—————	Supplied from sensor main block	Depends on used input device
Current consumption		Depends on the number and characteristics of the connected input devices (Note 3)		6 mA/channel (excluding connected users' devices)	Depends on the number and characteristics of the connected input devices (Note 3)
Input channel No.		4 inputs (Max. 16 inputs with extension blocks) (Note 4)			4 inputs (Note 5)
Ambient temperature		0 to +55 °C +32 to +131 °F (No dew condensation allowed), Storage: -20 to +70 °C -4 to +158 °F			
Ambient humidity		35 to 85 % RH, Storage: 35 to 85 % RH			
Material		Enclosure: Heat-resistant ABS, Connector: PBT, Case cover (SL-BXJ only): Polycarbonate			
Cable		0.3 mm ² 2-core cabtyre cable, 2 m 6.562 ft long	—————	—————	0.2 mm ² 6-core cabtyre cable, 2 m 6.562 ft long
Weight		Net weight: 130 g approx.	Net weight: 30 g approx.	Net weight: 60 g approx.	Net weight: 130 g approx.
Accessories		Extension connector cap: 1 pc. Plug-in connector cap: 1 set (Note 6)	—————	Input designation label set: 1 sheet Socket seal: 8 sheets	Plug-in connector cap: 1 set (Note 6)

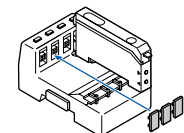
Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C **+68 °F**.

- 2) PNP output device cannot be connected.
- 3) Neither **SL-BMW**, **SL-BX** or **SL-BW** consumes current by itself.
- 4) Maximum 15 inputs are allowed if the self-diagnosis output is used.
- 5) Maximum 3 inputs are allowed if the self-diagnosis output is used.
- 6) Use the extension connector cap and the plug-in connector cap to cover each exposed connector. Three plug-in connector caps are joined together. If two, or less, are to be used, cut to separate them.

Extension connector cap



Plug-in connector cap



Plug-in units

Item	Designation	Amplifier-separated photoelectric sensor	Input terminal unit
	Model No.	SU-7J	SL-TJ1
Supply voltage		12 to 24 V DC ±10 % (24 V DC supplied from sensor block)	24 V DC ±10 % (24 V DC supplied from sensor block)
Current consumption		35 mA or less	0 mA (7.5 mA or less when the indicator lights up, excluding connected users' device)
Output		Sensing output and self-diagnosis output	—————
Applicable sensor heads		SH series	NPN output transistor, DC 2-wire type or relay output sensor, switch, etc. (Signal conditions depend on the input conditions of the PLC connected to the sensor block.)
Sensing range		Thru-beam type: 2 m 6.562 ft with SH-33R Reflective type: 100 mm 3.937 in with SH-32R	—————
Functions		Automatic sensitivity setting, Sensitivity shift Stability margin indication, Interference prevention 0 to 5 sec. variable ON and OFF-delay timers	Indicators (Red LED: lights up when the sensor input is ON Yellow LED: lights up when the self-diagnosis input is ON)
Connecting method		Connector	Connector (Screw-on-terminal connection of users' input device)
Ambient temperature		-10 to +55 °C +14 to +131 °F (Note 2), Storage: -20 to +70 °C -4 to +158 °F	-10 to +50 °C +14 to +122 °F (Note 2), Storage: -20 to +70 °C -4 to +158 °F
Ambient humidity		35 to 85 % RH, Storage: 35 to 85 % RH	
Material		Enclosure: Heat-resistant ABS, Cover: Polycarbonate Cable lock lever: PPS	Enclosure: Heat-resistant ABS, Cover: Polycarbonate
Weight		Net weight: 65 g approx.	Net weight: 20 g approx.
Accessories		MS-DIN-2 (Amplifier mounting bracket): 1 pc. Mode indication label: 1 sheet	—————

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C **+68 °F** (**SU-7J**: +23 °C **+73.4 °F**).

- 2) Please take care that the rated ambient temperature of the sensor block is 0 to +55 °C **+32 to +131 °F**.

FIBER
SENSORSLASER
SENSORSPHOTO-
ELECTRIC
SENSORSMICRO
PHOTO-
ELECTRIC
SENSORSAREA
SENSORSSAFETY LIGHT
CURTAINS/
SAFETY
COMPONENTSPRESSURE /
FLOW
SENSORSINDUCTIVE
PROXIMITY
SENSORSPARTICULAR
USE
SENSORSSENSOR
OPTIONSSIMPLE
WIRE-SAVING
UNITSWIRE-SAVING
SYSTEMSMEASURE-
MENT
SENSORSSTATIC
CONTROL
DEVICESLASER
MARKERS

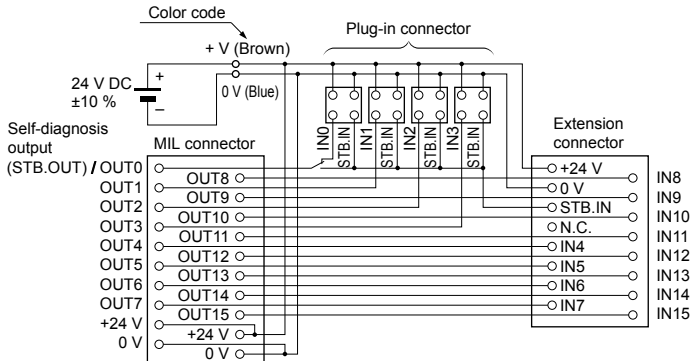
PLC

HUMAN
MACHINE
INTERFACESENERGY
MANAGEMENT
SOLUTIONSFA
COMPONENTSMACHINE
VISION
SYSTEMSUV
CURING
SYSTEMSFor Large Scale
System
Other
Products**SL-BMW/
BW**

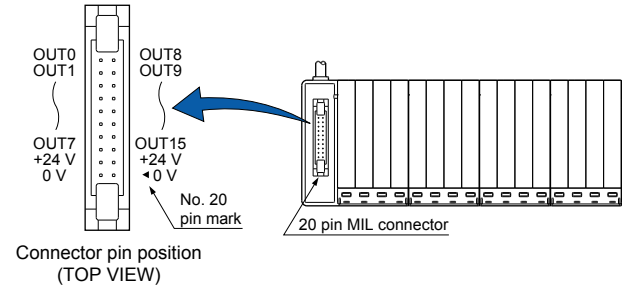
I/O CIRCUIT AND WIRING DIAGRAMS

SL-BMW

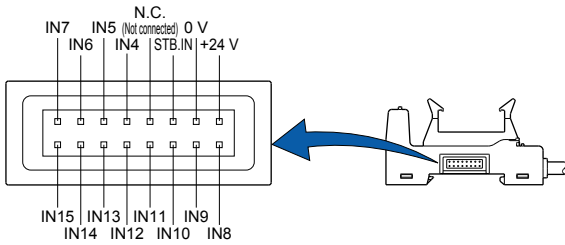
I/O circuit diagram



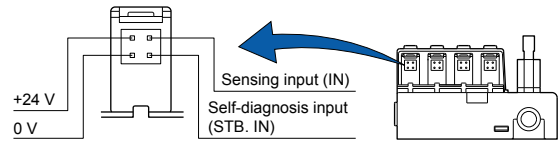
MIL connector pin position



Extension connector pin position

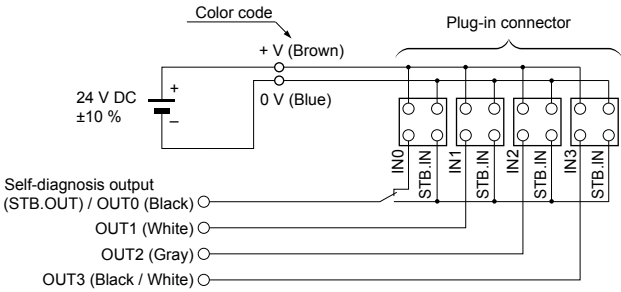


Plug-in connector pin position



SL-BW

I/O circuit diagram

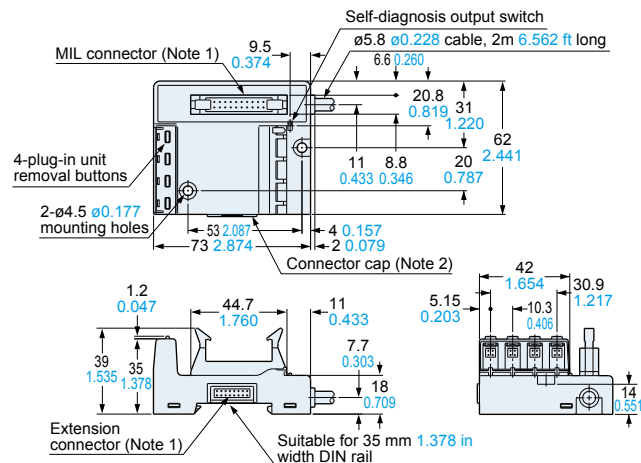


DIMENSIONS (Unit: mm in)

The CAD data can be downloaded from our website.

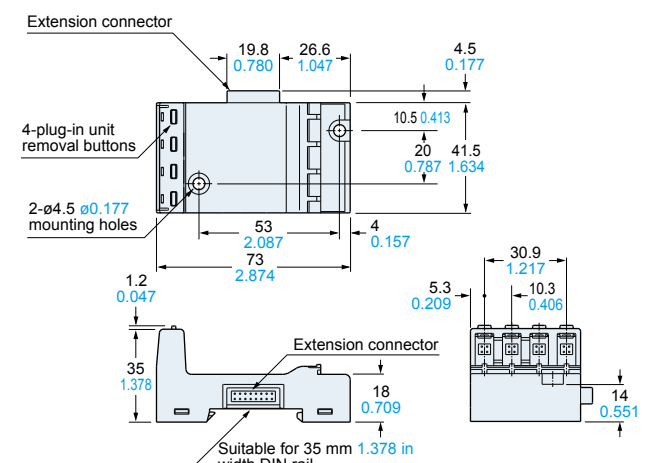
SL-BMW

Plug-in unit sensor main block
Plug-in unit 4-channel sensor block



SL-BX

Plug-in unit extension block

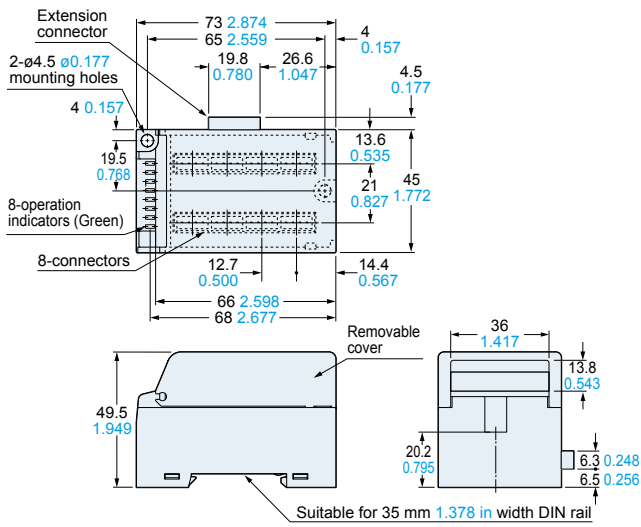


Notes: 1) Not incorporated on **SL-BW**.
2) Do not remove it from **SL-BW**.

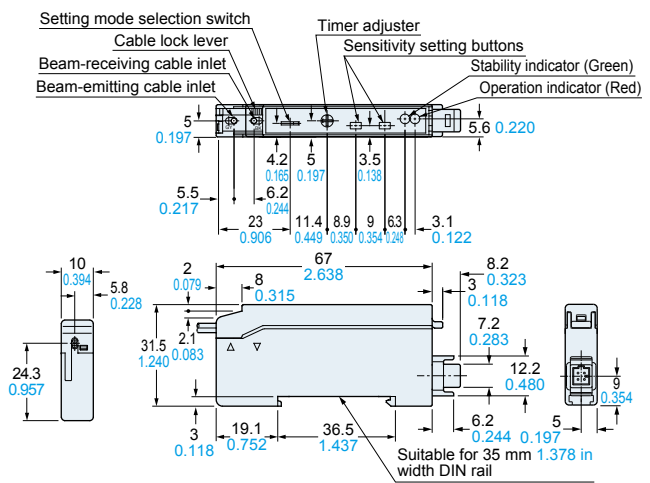
DIMENSIONS (Unit: mm in)

The CAD data can be downloaded from our website.

SL-BXJ Snap-connector extension block

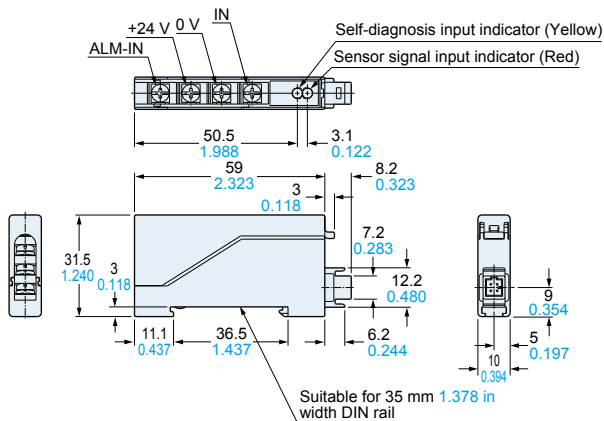


SU-7J Plug-in unit (Amplifier-separated photoelectric sensor)



Note: The top view is shown without the cable and the cover.

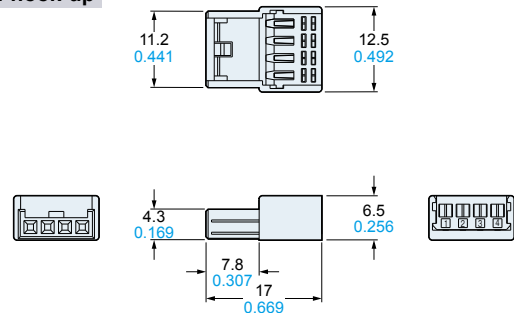
SL-TJ1 Plug-in unit (Input terminal unit)



Note: The top view is shown without the cover.

SL-CJ1 SL-CJ2 Snap-female connector

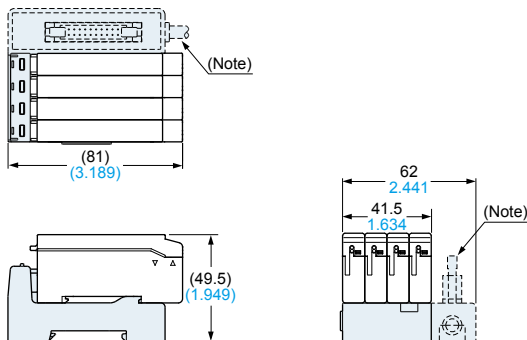
After hook-up



Sensor block + Plug-in unit

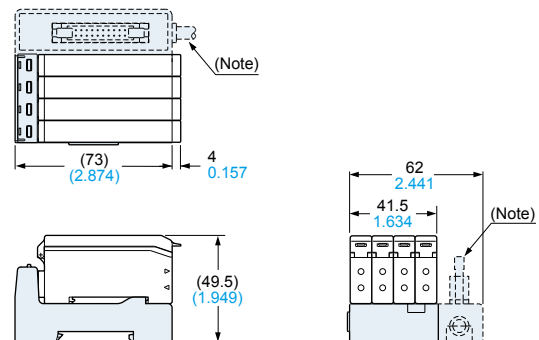
Assembly dimensions of plug-in unit block + plug-in units

SU-7J



Note: The dotted line shows the SL-BMW shape.

Others



Note: The dotted line shows the SL-BMW shape.

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- PLC
- HUMAN MACHINE INTERFACES
- ENERGY MANAGEMENT SOLUTIONS
- FA COMPONENTS
- MACHINE VISION SYSTEMS
- UV CURING SYSTEMS

For Large Scale System
Other Products

SL-BMW/BW