Uninterruptible power supply (UPS)

S8BA & BU_2RWL series

- Small size: 800g (Li-Ion batteries)
- Life expectancy of 10 years
- Plug-in installation

industrial.omron.eu/s8ba

Let nothing interrupt your power

To ensure stable power supply, also in less stable supply networks around the world, we are constantly expanding our range to include UPS systems. The S8BA series is ideal as a countermeasure for instantaneous voltage drop and power interruptions.

Life-expectancy of 10 years

Lightweight, allows S8BA to be directly mounted on the DIN-rail

Push-in terminal blocks provide effortless installation

In/Output DC24V

Li-Ion

I/O - USB RS-232

Battery HOT Swapping

S8BA
Uninterruptible Power Supply (UPS)

Hot - swappable batteries provide uninterrupted operation at all time

Hot - swappable batteries

LED indicators show the status of the power supply

Smallest in the market with weight of just 800 g (Li-Ion batteries)contributes towards downsizing of the panels

3X Connection
USB - RS232C - I/O

Communication connections, allow compatibility with a variety of factory automation controllers & PC's.

c UL us LISTED

CE

Downsizing

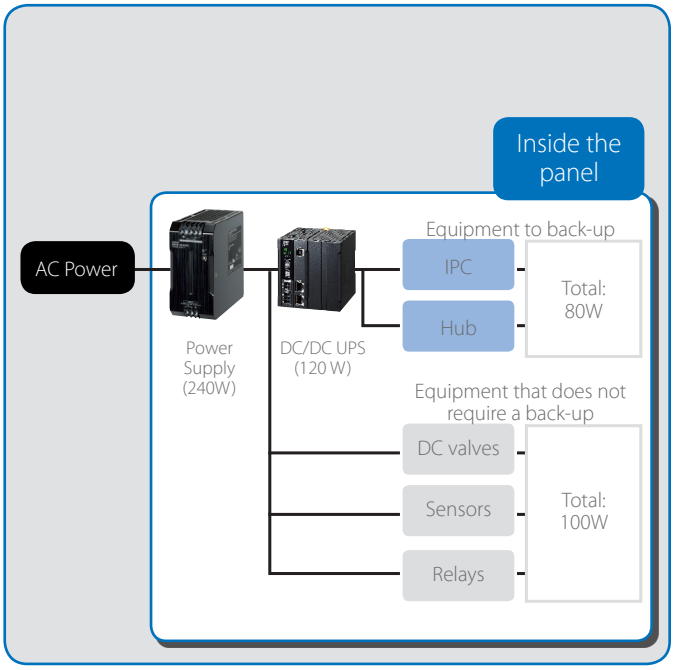
Free software

How big is the machine or panel you would like to back up?

Where do you want to install the UPS?

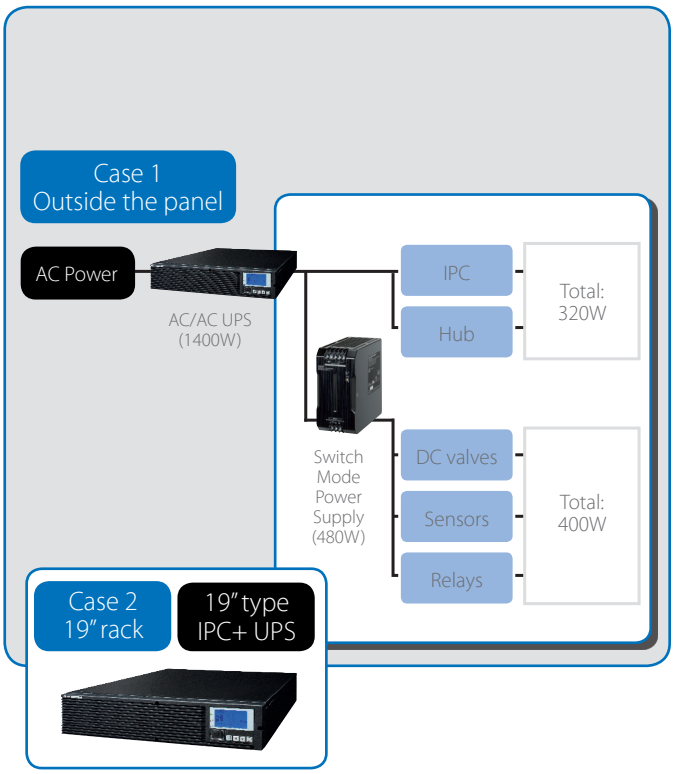
Small back-up capacity DC/DC UPS in control panel or on DIN-rail

Ideal for when only a single piece of equipment or a small machine needs to be backedup. Suitable for harsh environments. Also at just 800g this UPS can be installed in the panel, mounted on DIN-rail.

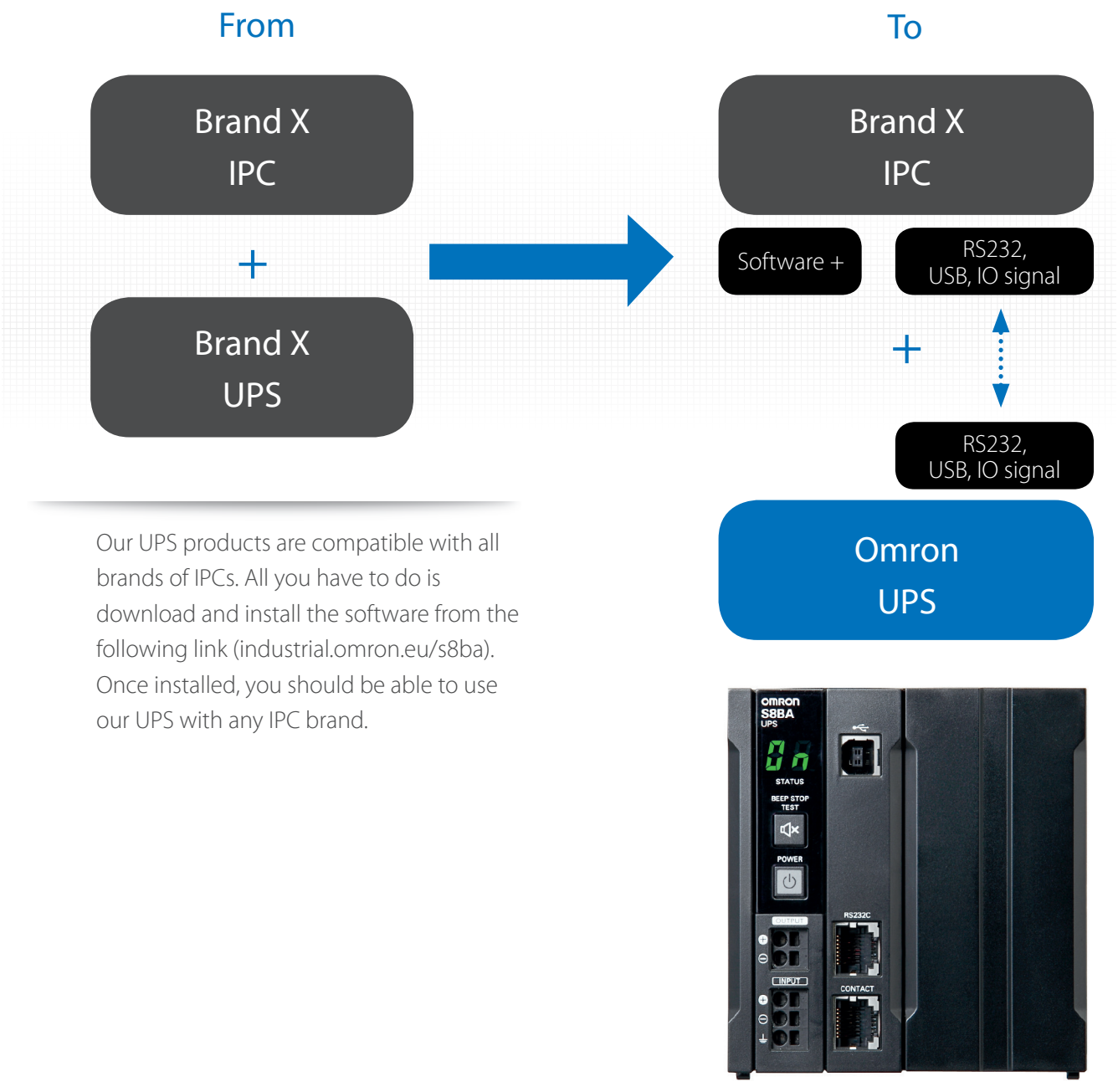


Large back-up capacity AC/AC UPS in free-space or in a 19" rack

When an entire system needs to be backed up. This UPS can be placed outside of the panel. Multiple mounting online AC-AC type can be used as a standalone device or can be mounted in a 19" rack.



Flexibility of our UPS products



Our UPS products are compatible with all brands of IPCs. All you have to do is download and install the software from the following link (industrial.omron.eu/s8ba). Once installed, you should be able to use our UPS with any IPC brand.

S8BA Series

Additional features:

- Wide range of power failure detection (DC24V±5%/±10%/±12.5%)
- Support 6 IO signals: Backup(BU), Low level(BL), Trouble(TR), Battery replacement(WB) Input: UPS stop (BS), Remote On/OFF
- S8BA can supply a stable power as the DC/DC converter adjusts the output voltage of the battery to 24Vdc.
- S8BA helps back-up data in IA controllers such as NX/ NJ and IPC and servo / motor systems

BU_2RWL Series

Features and benefits:

- Multiple mounting online type UPS
- Online power supply method: continuous power supply against instantaneous voltage drop or power interruptions
- LCD operation without PC & multiple mounting methods.
- Standardised single product for use in different environments.
- Variety of connections for industrial automation needs Input / Output Terminal block, USB, RS-232C, I/O port for communication and external remote on/off signal
- Hot-swappable batteries: Ensure clean, uninterrupted power to protected equipment while batteries are being replaced

Our UPS product family to fulfill your back up application.

Capacity

	DC/DC UPS	AC/AC UPS
3500W (5000VA)		BU5002RWLG 
2100W (3000VA)		 BU3002RWLG
1400W (2000VA)		 BU2002RWLG
480W (20A)	S8BA-24D24D480LF 	
360W (15A)	 S8BA-24D24D360LF	
240W (10A)	 S8BA-24D24D240LF	
120W (5A)	 S8BA-24D24D120LF	Input / Output
	In/Output DC24V · Li_Ion · I/O - USB RS-232	In/Output AC200-240V · Pb · I/O RS-232

Our UPS family is structured into two different products (S8BA & BU_2RWL). Products are able to support various applications such as packaging, material handling, Food & Beverage, and machine tools.

Compact DC-DC UPS with a DIN-rail for mounting, best suited for the prevention of voltage drop and power failure in industrial PCs (IPC)/controllers

- System reliability greatly improved because 24 VDC power supply is backed up for a certain period of time in the event of voltage drop or power failure.
- Compact, weight reduction, and long battery life thanks to the adoption of a lithium-ion battery.
- Push-in terminal block adopted for the power input and output connections.
- Shutdown in conjunction with the IPC or controller realized by the USB, RS-232C, I/O port installed in the UPS.

Ordering information

Uninterruptible power supply (UPS)

Input voltage	Output voltage	Output current/capacity	Battery type	Terminal block shape	Order code
24 VDC	24 VDC	5 A/120 W	Lithium-ion battery	Push-in terminal block	S8BA-24D24D120LF
		10 A/240 W			S8BA-24D24D240LF
		15 A/360 W			S8BA-24D24D360LF
		20 A/480 W*1			S8BA-24D24D480LF

*1 16.7 A/400 W for use as a UL compliant device.

Communication cable

Specifications	Type	Length	Order code
For RS-232C port	RJ45/Dsub9Pin	2 m	S8BW-C01
For Contact port	RJ45/Discrete wire x 8P	2 m	S8BW-C02

Specifications

Item		Capacity	120 W	240 W	360 W	480 W*1
DC input	Rated input voltage		24 VDC			
	Input voltage range	(When standard voltage sensitivity is set)	24 VDC±10%			
		(When low voltage sensitivity is set)	24 VDC±12.5%			
		(When high voltage sensitivity is set)	24 VDC±5%			
	Input maximum current	(for rated input voltage)	5.9 A	11.7 A	17.5 A	23.3 A*2
	Input terminal		Push-in terminal block			
	Inrush current		12 A max., 0.1 ms max.	14 A max., 0.1 ms max.	16 A max., 0.1 ms max.	
DC output	Rated current	(for rated output voltage)	5 A	10 A	15 A	20 A*3
	Switching time		Uninterrupted			
	Output voltage	Normal operation	Output of input voltage as-is			
		Backup operation	24 V±5%			
	Output terminal		Push-in terminal block			
Battery	Type		Lithium-ion battery			
	Rated voltage		14.4 VDC			
	Rated capacity		1600 mAh × 1 parallel	1600 mAh × 2 parallel	1600 mAh × 3 parallel	1600 mAh × 4 parallel
	Expected battery life*4		2.5 years (50°C), 5 years (40°C), 10 years (25°C)			
	Replacement by user		Yes (Hot swapping)			
	Charging time		4 hours*5			
Backup time (25°C, initial characteristics)			6 min. (120 W)	6 min. (240 W)	6 min. (360 W)	6 min. (480 W)
Environment	Operating ambient temperature/humidity		0 to 55°/10 to 90% (with no condensation)			
	Storage ambient temperature/humidity		–20° to 55°/10 to 90% (with no condensation)			
Enclosure	Dimensions (W × D × H mm)		94 × 100 × 100	148 × 100 × 100	270 × 100 × 100	
	Weight of unit		Approx. 0.8 kg	Approx. 1.3 kg	Approx. 2.0 kg	Approx. 2.3 kg
	Cooling method		Natural cooling			
Safety standard compliance			UL508/CE/C22.2 No.107.1-01			
Internal power consumption (normal*6/maximum*7)			7 W/22 W	11 W/41 W	14 W/60 W	18 W/80 W
Serial communication	RS232C (Interface terminal)		Yes (RJ45)			
	USB (interface terminal)		Yes (B connector)			
I/O signal			Yes (RJ45)			

*1 400 W for use as a UL compliant device.
*2 20 A for use as a UL compliant device.
*3 16.7 A for use as a UL compliant device.
*4 An estimated value for standard mounting. Not a guaranteed value.

*5 When using in an environment at a high temperature, charging may be paused by charging temperature protection, then the charging time will be longer than specified time. "CS" will be displayed when charging temperature protection is operated.
*6 Conditions: With rated loads connected, at a rated input voltage, and with the battery fully charged.
*7 Conditions: With rated loads connected, at a rated input voltage, and at the maximum battery charging current.

Backup time table (Time unit: minutes)

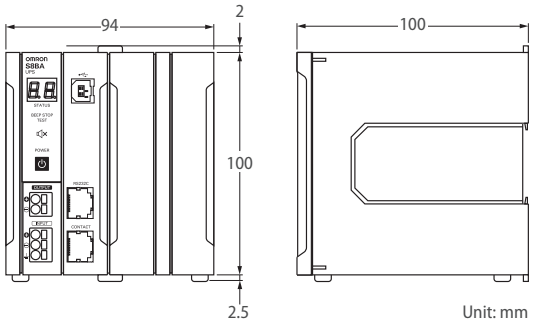
For devices that use the A indication, convert the capacity into W: W = A × 24

	Capacity (W)									
	30	60	90	120	180	240	300	360	420	480
120 W	29	14	9	6	–	–	–	–	–	–
240 W	58	29	19	15	9	6	–	–	–	–
360 W	87	43	28	22	14	10	8	6	–	–
480 W	119	59	39	29	19	15	11	9	8	6

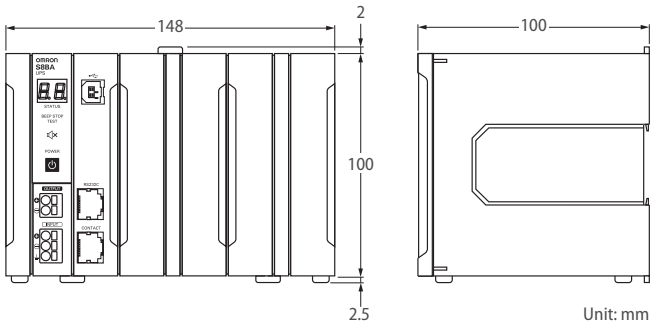
Note: The above backup times are for reference only. They may change depending on the battery life and external environment (such as temperature).

Dimensions

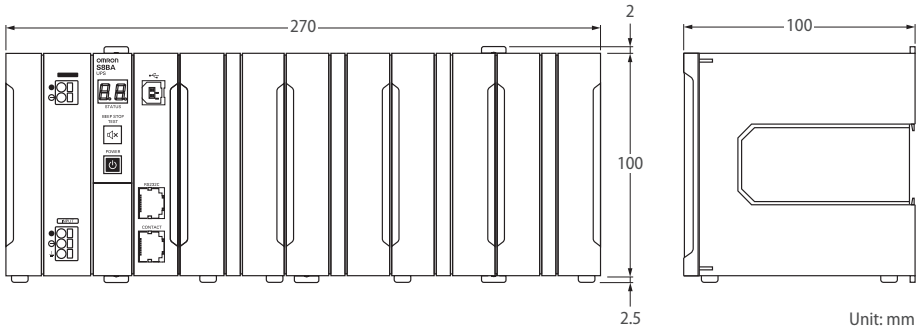
S8BA-24D24D120LF (120 W)



S8BA-24D24D240LF (240 W)



S8BA-24D24D360LF (360 W)
S8BA-24D24D480LF (480 W)



Multiple mounting online AC-AC type UPS, useful in a variety of applications

- Online power supply method: Continuous power supply against instantaneous voltage drop or power interruptions
- Easy LCD operation without PC & multiple mounting methods.
- Multiple connections, input/output terminal block and RS232-C, I/O for external communication, plus external remote ON/OFF signal
- Hot-swappable batteries: Ensures clean, uninterrupted power to protect equipment during battery replacement

Ordering information

Input voltage	Output voltage	Capacity	Type	Order code
200/208/220/230/240 VAC	200/208/220/230/240 VAC	2000 VA/1400 W	Rackmount[*1], Multi voltage power, Low power consumption	BU2002RWLG
		3000 VA/2100 W		BU3002RWLG
		5000 VA/3500 W		BU5002RWLG

[*1] Can also use the included vertical stand when positioning the unit vertically

Specifications

		BU2002RWLG	BU3002RWLG	BU5002RWLG
Operation method		Full-time inverter supply method (high efficiency)		
AC input	Rated input voltage	200/208/220/230/240 VAC		
	Startup voltage range	200 V mode: 160±2 to 288±2 VAC, 208 V mode: 167±2 to 278±2 VAC 220 V mode: 176±2 to 278±2 VAC, 230 V mode: 184±2 to 278±2 VAC 240 V mode: 192±2 to 278±2 VAC, 100 V mode: 160±2 to 288±2 VAC		
	Input voltage range	200 V mode: 170±2 to 278±2 VAC, 208 V mode: 177±2 to 278±2 VAC 220 V mode: 186±2 to 278±2 VAC, 230 V mode: 194±2 to 278±2 VAC 240 V mode: 202±2 to 278±2 VAC, 100 V mode: 170±2 to 278±2 VAC		
	Input frequency	50/60 Hz±1, 3, 5, or 14% (5% in the factory settings)		
	Maximum current (at rated voltage)	9 A	14 A	23 A
	Phase	Single-phase, two-wire (grounded)		
	Input plug	Terminal block		NEMA L6-30P / Terminal block
AC output	Output capacity (upper limit)	2000 VA/1400 W (1000 VA/700 W in 100 V mode)	3000 VA/2100 W (1500 VA/1050 W in 100 V mode)	5000 VA/3500 W (2500 VA/1750 W in 100 V mode)
	Rated current (at rated voltage)	10 A	15 A	25 A
	Switching time	Uninterrupted		
	Output voltage (commercial operation)	200 V mode: 200 VAC±2%, 208 V mode: 208 VAC±2% 220 V mode: 220 VAC±2%, 230 V mode: 230 VAC±2% 240 V mode: 240 VAC±2%, 100 V mode: 100 VAC±5%		
	Output voltage (backup operation)	200 V mode: 200 VAC±2%, 208 V mode: 208 VAC±2% 220 V mode: 220 VAC±2%, 230 V mode: 230 VAC±2% 240 V mode: 240 VAC±2%, 100 V mode: 100 VAC±5%		
	Output frequency (commercial operation)	Synchronized with input frequency		
	Output frequency (backup operation)	50/60±0.5 Hz		
	Output waveform (in commercial power mode/battery mode)	Sine wave/Sine wave		
	Phase	Single-phase, two-wire		
	Output receptacles	Terminal block		NEMA L6-30R × 2, terminal block
Battery	Sealed lead battery life expectancy	5 years (ultralong operating life) (ambient temperature 25°C)		
	Battery capacity (V/Ah) (× Quantity)	12 VDC/9 Ah (× 4)	12 VDC/9 Ah (× 6)	12 VDC/9 Ah (× 12)
	Charging time	8 hours		
Backup time (25°C, initial characteristics)		5 min (1400 W)	5 min (2100 W)	5 min (3500 W)
Dimensions in mm (W × D × H)		430×660×88 (2U)		430×700×132 (3U)
Weight of unit		Approx. 28 kg	Approx. 33 kg	Approx. 61 kg
Operating environment temperature/humidity		0 to 40°C/25% to 85% with no condensation		
Storage environment temperature/humidity		–15 to 50°C/10% to 90% (with battery fully charged, stored with no condensation)		
Noise regulation		VCCI Class A compliant		
Safety standard compliance		UL1778/CE/RoHS compliance		
Internal power consumption (normal[*1]/maximum[*2])		70 W/145 W	148 W/265 W	249 W/480 W
Cooling method		Forced air cooling		
Serial communication (RS-232C) (interface)		■ (D-sub 9pin)		
Contact signal (interface)		■ (D-sub 9pin)		

[*1] Rated load/rated input voltage/when fully charged
[*2] Rated load/rated input voltage/when battery charge current is at maximum

Backup time table (Time unit: minutes)

Model	Capacity (W)																	
	20	50	100	200	300	400	600	800	1000	1200	1400	1600	1800	2000	2100	2700	3000	3500
BU5002RWLG	660	480	320	200	140	106	68	50	39	31	25	21	18	16	15	10	8	5
BU3002RWLG	450	260	165	93	63	45	28	19	15	11	9	7.5	6	5.2	5	–	–	–
BU2002RWLG	360	190	110	60	39	27	16	12	9.5	7	5	–	–	–	–	–	–	–

Note: These backup times are for reference only. Times may vary according to battery life and external environmental conditions (temperature, etc.)

Would you like to know more?

OMRON UNITED KINGDOM
+44 (0) 1908 258 258
industrial.omron.co.uk
linkedin.com/company/omron

Sales & Support Offices

Austria
Tel: +43 (0) 2236 377 800
industrial.omron.at

Belgium
Tel: +32 (0) 2 466 24 80
industrial.omron.be

Czech Republic
Tel: +420 234 602 602
industrial.omron.cz

Denmark
Tel: +45 43 44 00 11
industrial.omron.dk

Finland
Tel: +358 (0) 207 464 200
industrial.omron.fi

France
Tel: +33 (0) 1 56 63 70 00
industrial.omron.fr

Germany
Tel: +49 (0) 2173 680 00
industrial.omron.de

Hungary
Tel: +36 1 399 30 50
industrial.omron.hu

Italy
Tel: +39 02 326 81
industrial.omron.it

Netherlands
Tel: +31 (0) 23 568 11 00
industrial.omron.nl

Norway
Tel: +47 (0) 22 65 75 00
industrial.omron.no

Poland
Tel: +48 22 458 66 66
industrial.omron.pl

Portugal
Tel: +351 21 942 94 00
industrial.omron.pt

Russia
Tel: +7 495 648 94 50
industrial.omron.ru

South Africa
Tel: +27 (0)11 579 2600
industrial.omron.co.za

Spain
Tel: +34 902 100 221
industrial.omron.es

Sweden
Tel: +46 (0) 8 632 35 00
industrial.omron.se

Switzerland
Tel: +41 (0) 41 748 13 13
industrial.omron.ch

Turkey
Tel: +90 212 467 30 00
industrial.omron.com.tr

More Omron representatives
industrial.omron.eu

CD_EN-INT-01_S8BA