



Wireless Input/ Output Pad
WIOP208-8DC





Wireless Input/ Output Pad

WIOP208-8DC

Technical description

Draft

V 6

Please note the following

Target group

This description is intended for the use of trained specialists in electrical installation and control and automation engineering, who are familiar with the applicable national standards.

Safety requirements

The responsible staff must ensure that the application or use of the products described satisfy all the requirements for safety, including all the relevant laws, regulations, guidelines and standards.

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference, and
- 2) this device must accept any interference received, including interference that may cause undesired operation.

Warning:

Changes or modifications made to this equipment not expressly approved by **ABB STOTZ-KONTAKT GmbH** may void the FCC authorization to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada

IMPORTANT NOTE:

Radiofrequency Radiation Exposure Information:

The radiated output power of the device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Liability

The documentation has been prepared with care. The products described are, however, constantly under development. For that reason the documentation is not in every case checked for consistency with performance data, standards or other characteristics, and does not represent an assurance of characteristics in the sense of § 459, Para. 2 of the German Civil Code. In the event that it contains technical or editorial errors, we retain the right to make alterations at any time and without warning.

No claims for the modification of products that have already been supplied may be made on the basis of the data, diagrams and descriptions in this documentation.

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Purpose and short description

The wireless input/output pad collects 24 V inputs and outputs like standard bus distribution boxes and uses a standard 24 V power supply. The actuator voltage is fed separately to enable flexible emergency stop concepts.

The WIOP208-8DC has 8 configurable inputs/outputs which can be both, input or output, depending on the use on the fieldbus/PLC.

The WIOP208 communicates by means of the WISA¹ Wireless Communication Technology with an WDIO input/output module (base station). The WDIO connects one of several fieldbuses (e. g. PROFIBUS, DeviceNet, Modbus, ...) using a FieldBusPlug (FBP).



Fig. 1: WIOP208

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¹ WISA **W**ireless **I**nterface for **S**ensors and **A**ctuators



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Connector, Indicator and Operating Element Overview

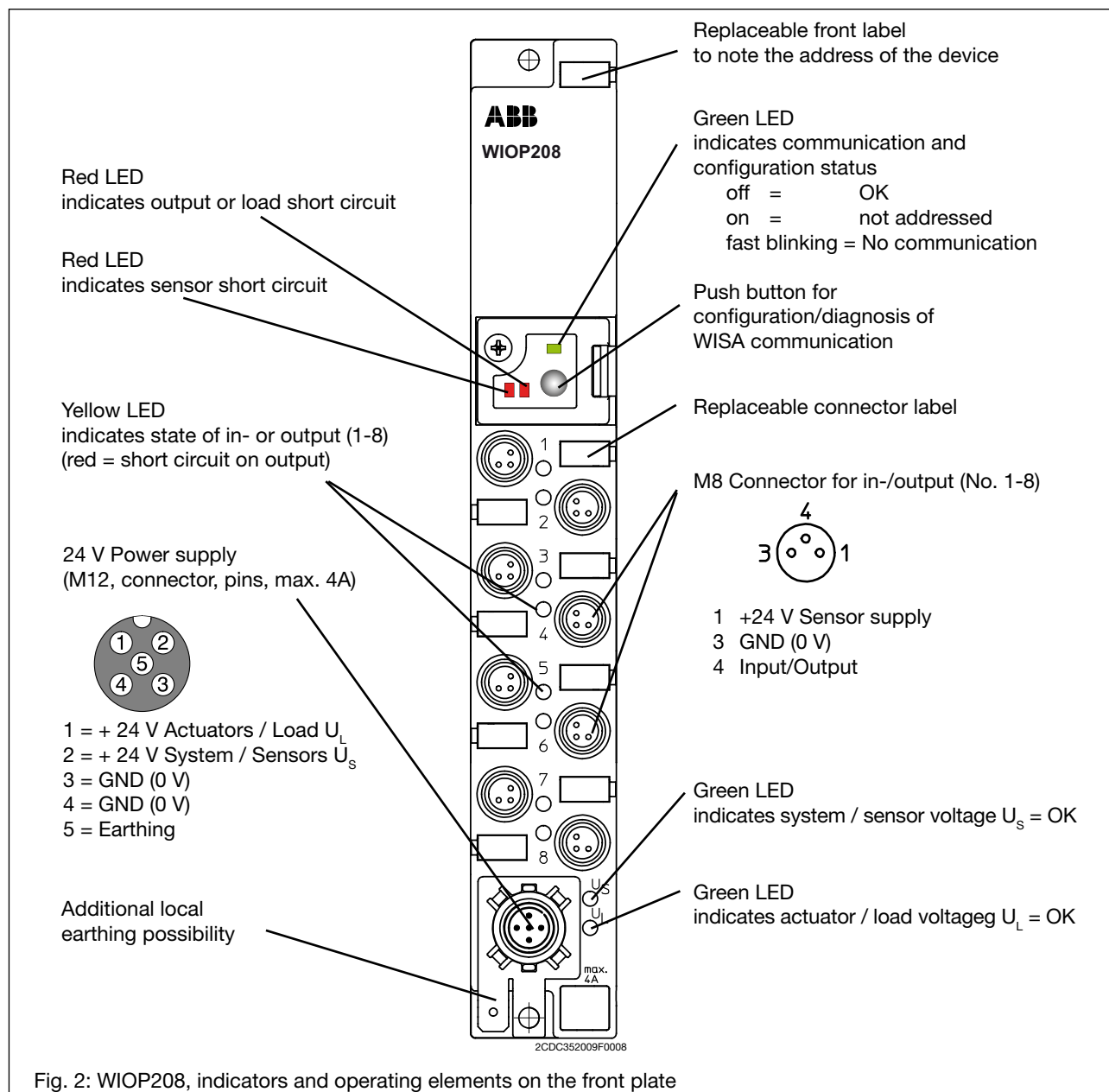
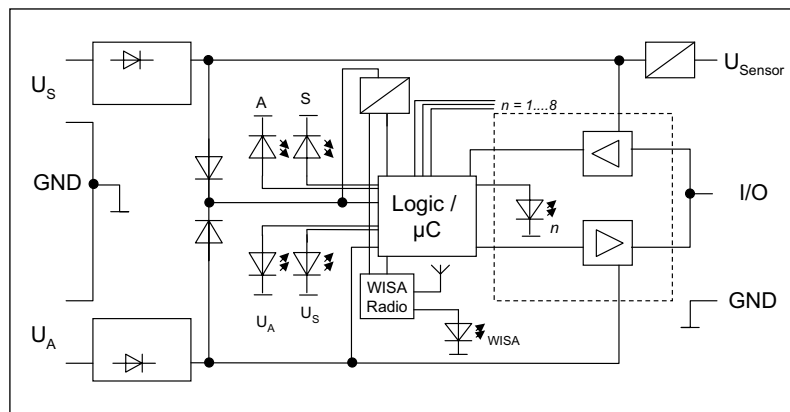


Fig. 2: WIOP208, indicators and operating elements on the front plate

Block diagram



Bit assignment M8 sockets

Bit	7	6	5	4	3	2	1	0
M8 Output area								
Byte 0	8	7	6	5	4	3	2	1
M8 Input area								
Byte 0	8	7	6	5	4	3	2	1
Byte 1	("0" = not used)							



Technical data

WIOP208-8DC	
Number of digital configurable in-/outputs	8
Type of connectors	
signals	M8 - 3 pole female, screwable ("nano")
power	M12 - 5 pole male ("micro")
Galvanic isolation	No (common ground)
Operating temperature	0 ... 70° C (output current derating above 60° C, see below)
Degree of protection	IP 67
Weight	200 g
Housing	PBT
System/Sensor Power Supply U_s	
Rated voltage	24 V DC
Voltage range	19-30 V DC
Under voltage level	18 V
Rising U_s at power-on	min. 10 V/s
Power consumption (w/o sensors)	20 mA
Reverse polarity protection	Yes
Indication	Green LED
Power supply to sensors	
Voltage range	Min. ($U_s - 1.5$ V)
Sensor current	Max. 350 mA per module (Tamb 30° C)
Short circuit proof	Yes
Inputs	Type 3 acc. to IEC 61131-2
Rated input voltage	24 V DC
Channel type N.O.	p-switching
Channel status indicator	Yellow LED per channel
Diagnosis indicator "S"	Red LED per module (summary indication for overload)
Input filtering	Adjustable 1 ms preset, 5 ms, 10 ms (preset = 1 ms)
Power Supply to outputs U_L	
Rated voltage	24 V DC
Voltage range	19 - 30 V DC
Reverse polarity protection	Yes
Indication	Green LED
Diagnosis indication „L“	Red LED per module (Summary indication for overload)

continuation ...



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Technical data continuation

WIOP208-8DC	
Outputs	
Output type	24 V DC / 500 mA
Nominal output current	0.5 A _{max.} ; Derating above 60° C: 5% per ° C (250mA at 70° C) or only 4 outputs at 500 mA at a time)
Reverse polarity output	max. -10 V DC
Short circuit proof	YES (limited to 700mA, short circuits at several outputs at a time may lead to Pin 1 supply currents > 4A -> consider fusing)
Overload-proof	Yes
Channel type	N.O. p-switching
Channel status indicator	Yellow LED per Channel, red when short circuit

Approvals and authorizations

Approvals

	
UL / CSA USA / Canada	FCC / IC
■	■

■ = Approval available; rating plates carry the test symbol, if sign obligation exists.

□ = Approval submitted

Ordering data

Type	Designation	Ordering number	EAN number
WIOP208-8DC	WISA Input/Output Pad 8M, 8DC	1SAF975100R1000	4013614397493
Accessories:			
WDI0100-CONF-FBP	Input / Output module for wireless devices with FBP-connector	1SAF960300R2000	4013614397509



Mechanical dimensions

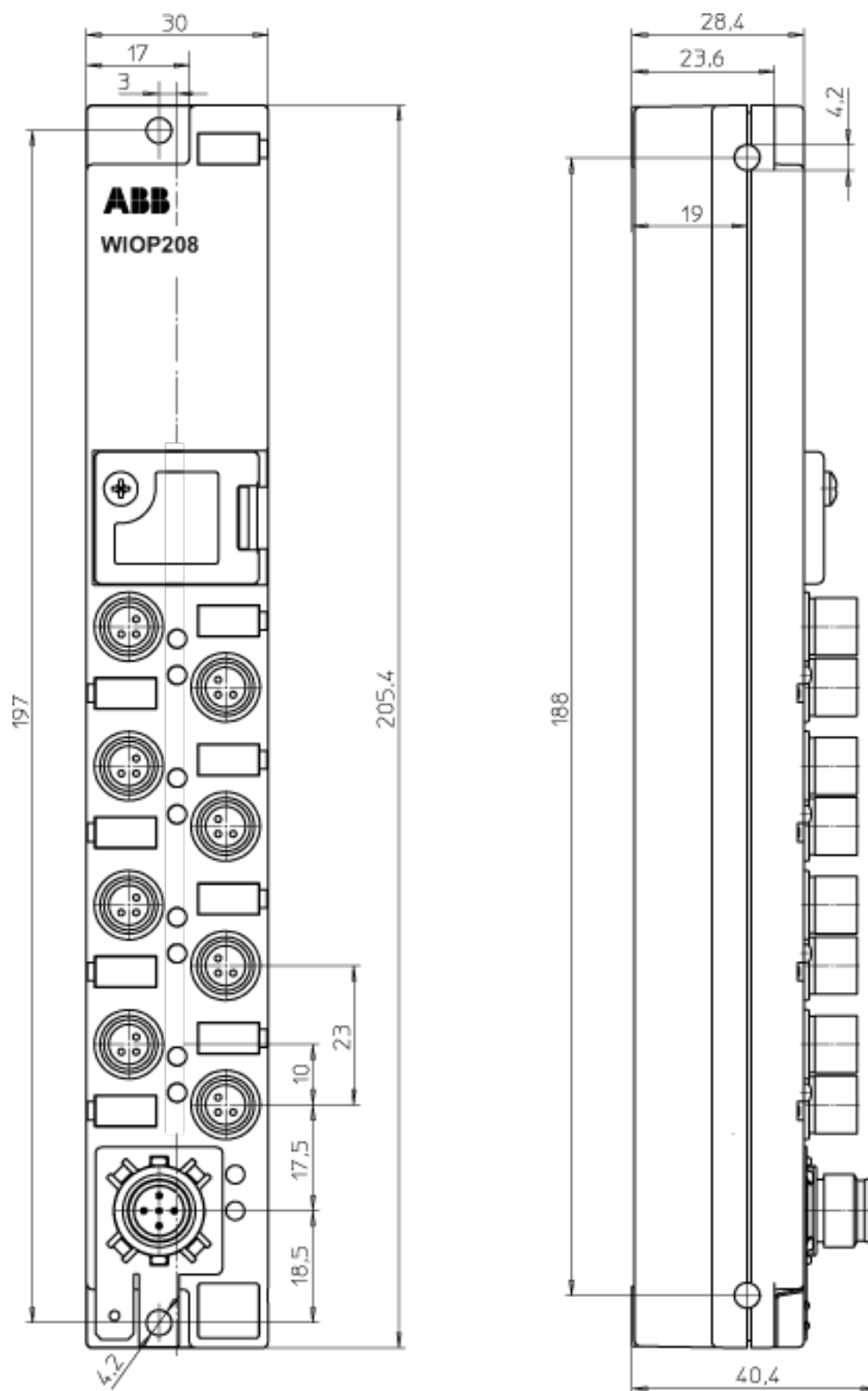


Fig. 3: WIOP208, Mechanical dimensions

All dimensions in mm

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