PLUG-IN CARDS
OMR 700

INPUT CARDS
OUTPUT CARDS
POWER SUPPLY CARDS

Outstanding Measurement Value

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INPUT CARDS

OUTPUT CARD

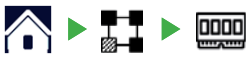
SENSOR SUPPLY CARDS

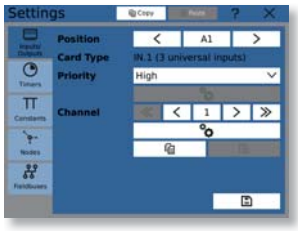
IN.01
3x UNIVERSAL INPUT - ISOLATED

UNIVERSAL INPUT

DC	±60 / ±150 / ±300 / ±1 200 mV
PM	0...5 mA / 0...20 mA / 4...20 mA / ±5 mA / ±20 mA 0...2 V / 0...5 V / 0...10 V / 0...40 V / ±2 V / ±5 V / ±10 V / ±40 V
OHM	0...100 Ω / 0...300 Ω / 0...1 kΩ / 0...3 kΩ / 0...10 kΩ / 0...30 kΩ
Pt	Pt 50 / Pt 100 / Pt 500 / Pt 1 000
Ni	Ni 1 000 / Ni 10 000
Cu	Cu 50 / Cu 100
T/C	J / K / T / E / B / S / R / N / L
DU	Linear potentiometer

CARD SETTINGS





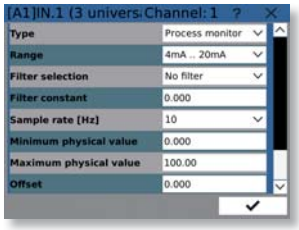
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◀ ▶ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◀ ◀◀ ▶▶ ▶ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

> **!**
> When changing measurement type, the new selection must be stored first (button ✓). Only then further items can be edited.

Type	DC V-A meter ▸ Process monitor ▸ Ohmmeter ▸ Thermometer Pt xxx ▸ Thermometer Cu xxx ▸ Thermometer Ni xxx ▸ Thermometer T / C ▸ Lin. potentiom.
Range	**DC** ±60 mV ▸ ±150 mV ▸ ±300 mV ▸ ±1 200 mV **PM** 0...5 mA ▸ 0...20 mA ▸ 4...20 mA ▸ ±5 mA ▸ ±20 mA ▸ 0...2 V ▸ 0...5 V ▸ 0...10 V ▸ 0...40 V ▸ ±2 V ▸ ±5 V ▸ ±10 V ▸ ±40 V **OHM** 100 Ω ▸ 300 Ω ▸ 1 kΩ ▸ 10 kΩ ▸ 10 kΩ ▸ 30 kΩ **Pt** Pt 50-3580 ▸ Pt 100-3580 ▸ Pt 500-3580 ▸ Pt 1 000-3580 **Cu** Cu 50-4280 ▸ Cu 100-4280 **Ni** Ni 1000-6180 ▸ Ni 10000-6180 **T / C** J ▸ K ▸ T ▸ E ▸ B ▸ S ▸ R ▸ N ▸ L **DU** Lin. potentiometer
Filter selection	Floating floating arithmetic average of the number of measured values Exponential integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Rate	5...320 measurements / s
Min. physic. values	value that corresponds to the minimum selected range of the input values
Max. physic. values	value that corresponds to the maximum selected range of input values
Tare	to reset the values by non-zero input signals

* In temperature measurements (Pt, Ni, Cu, T / C) the conversion to a physical value (temperature) is carried out by the sensor regardless of the values.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.01
TECHNICAL DATA

INPUTS

Number		3, isolated		
DC	Range	±60 mV / ±150 mV / ±150 mV ±1 200 mV	> 10 MΩ > 10 MΩ	3 3
PM	Range	0...5 mA / 0...20 mA / 4...20 mA ±5 mA / ±20 mA 0...2 V / 0...5 V / 0...10 V / 0...40 V ±2 V / ±5 V / ±10 V / ±40 V	10 Ω 10 Ω > 0,5 MΩ > 1 MΩ	1 1 2 2
OHM	Range	0...100 Ω / 0...300 Ω 0...1 kΩ / 0...3 kΩ / 0...10 kΩ / 0...30 kΩ		5
	Connection*	2, 3 or 4 wire		
Pt	Type	Pt 100 / 500 / 1 000 Ω - 3 850 ppm	-50°...450°C	5
	Connection*	2, 3 or 4 wire		
Ni	Type	Ni 1 000 / Ni 10 000 - 6 180 ppm / °C	-200°...250°C	5
	Connection*	2, 3 or 4 wire		
Cu	Type	Cu 50 / Cu 100 - 4 280 ppm / °C	-200°...200°C	5
	Connection*	2, 3 or 4 wire		
TC	Type	J (Fe-CuNi) K (NiCr-Ni) T (Cu-CuNi) E (NiCr-CuNi) B (PtRh30-PtRh6) S (PtRh10-Pt) R (Pt13Rh-Pt) N (Omegalloy) L (Fe-CuNi)	-200°...900°C -200°...1 300°C -200°...400°C -200°...690°C 300°...1 820°C -50°...1 760°C -50°...1 740°C -200°...1 300°C -200°...900°C	3
DU	Lin. potentiom. power supply	2,5 VDC / 6 mA min resistance of input is 500 Ω		4

* When using inputs in 2-wire or 3-wire connection, it is essential to connect unused inputs on the terminal board using jumpers (2w • E+ / S+, E- / S-, 3w • E- / S-)

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,15 % of range (valid for 10 measur. / s)
Rate	5...320 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Compen. of conduct	max. 40 Ω / 100 Ω
Cold junction compensation (CJC)	automatic or manual
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

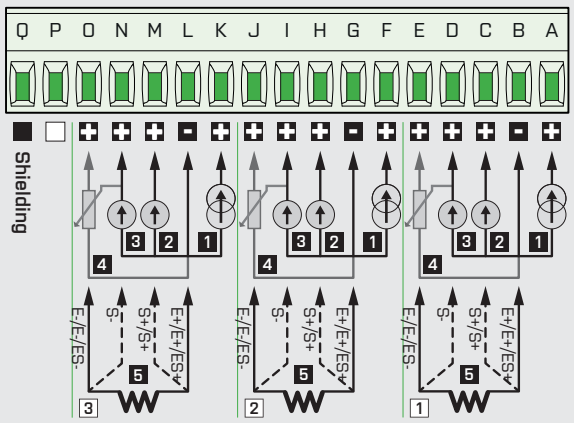
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) Input / Input - 150 V (PI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, par.6

* PI - Primary insulation, DI - Double insulation

IN.01
CONNECTION

IN.01



1 **PM:** 0...5/20 mA/4...20 mA
2 **PM:** ±2 V/±5 V/±10 V/±40 V
3 **DC:** ±60/±150/±300/±1 200 mV
T/C: J/K/T/E/B/S/R/N/L
4 **DU:** Lin. potentiometer (> 500 Ω)
5 **OHM:** 0...0,1/0,3/1/3/10/30 kΩ
RTD: Pt 50/100/500/1 000
Cu: Cu 50/100
Ni: Ni 1 000/10 000

IN.01
ORDER CODE

IN.01		**-** ☐
Specifications	Used only for customised versions	**00**

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MINI-TECHDOK - OMR 700 - IN.01 - 2019.2 - en

IN.02
4x CURRENT / VOLTAGE INPUT, ISOLATED

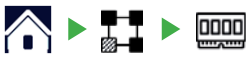
DC CURRENT / VOLTAGE INPUT

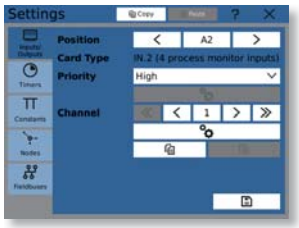
PM 0...5 mA / 0...20 mA / 4...20 mA
±5 mA / ±20 mA
0...2 V / 0...5 V / 0...10 V / 0...40 V
±2 V / ±5 V / ±10 V / ±40 V

Rate
< 320 measurements / s

Accuracy
0,2 % of range

CARD SETTINGS





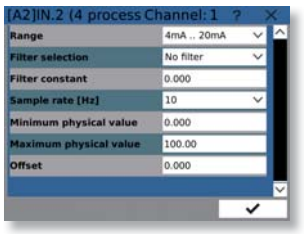
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Range	PM 0...5 mA ▸ 0...20 mA ▸ 4...20 mA ▸ ±20 mA ▸ ±20 mA ▸ 0...2 V ▸ 0...5 V ▸ 0...10 V ▸ 0...40 V ▸ ±2 V ▸ ±5 V ▸ ±10 V ▸ ±40 V
Filter selection	Floating floating arithmetic average of the number of measured values Exponential integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Rate	5...320 measurements / s
Min. physic. values	value that corresponds to the minimum selected range of the input values
Max. physic. values	value that corresponds to the maximum selected range of input values
Tare	to reset the values by non-zero input signals

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.02
TECHNICAL DATA

INPUTS

Number		4, isolated		
PM	Range	0...5 mA / 0...20 mA / 4...20 mA	15 Ω	1
		±5 mA / ±20 mA	15 Ω	1
		0...2 V / 0...5 V / 0...10 V / 0...40 V	> 250 kΩ	2
		±2 V / ±5 V / ±10 V / ±40 V	> 250 kΩ	2

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,2 % of range (valid for 10 measur. / s)
Rate	5...320 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

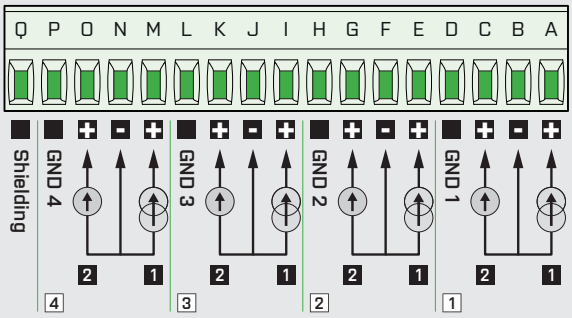
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm^2
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) Input / Input - 150 V (PI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, par.6

* PI - Primary insulation, DI - Double insulation

IN.02
CONNECTION

IN.02



1 **DC - I:** ±5/±20 mA, 0...20/4...20 mA

2 **DC - U:** ±2/±5/±10/±40 V, 0...2/5/10/40 V

IN.02
ORDER CODE

IN.02		**-** ☐
Specifications	Used only for customised versions	**00**

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IN.03
4x INPUT FOR Pt xxx, Cu xxx, Ni xxx, ISOLATED

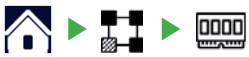
INPUT FOR RESISTIVE SENSORS

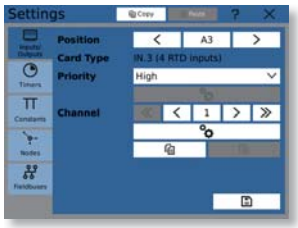
OHM	0...100 Ω / 0...300 Ω / 0...1 kΩ / 0...3 kΩ / 0...10 kΩ / 0...30 kΩ
Pt	Pt 50 / Pt 100 / Pt 500 / Pt 1 000
Ni	Ni 1 000 / Ni 10 000
Cu	Cu 50 / Cu 100

Rate
< 320 measurements / s

Accuracy
0,2 % of range

CARD SETTINGS





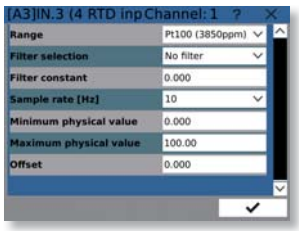
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Type	Ohmmeter ▸ Thermometer Pt xxx ▸ Thermometer Cu xxx ▸ Thermometer Ni xxxx
Range	OHM 100 Ω ▸ 300 Ω ▸ 1 kΩ ▸ 3 kΩ ▸ 10 kΩ ▸ 30 kΩ Pt Pt 50-3580 ▸ Pt 100-3580 ▸ Pt 500-3580 ▸ Pt 1 000-3580 Cu Cu 50-4280 ▸ Cu 100-4280 Ni Ni 1000-6180 ▸ Ni 10000-6180
Filter selection	Floating floating arithmetic average of the number of measured values Exponential integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Rate	5...320 measurements / s
Min. physic. values*	value that corresponds to the minimum selected range of the input values
Max. physic. values*	value that corresponds to the maximum selected range of the input values
Tare*	to reset the values by non-zero input signals

* In temperature measurements (Pt, Ni, Cu, T / C) the conversion to a physical value (temperature) is carried out by the sensor regardless of the values.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.03
TECHNICAL DATA

INPUTS

Number		4, isolated
OHM	Range	0...100 Ω / 0...300 Ω 0...1 kΩ / 0...1 kΩ / 0...3 kΩ / 0...10 kΩ / 0...30 kΩ
	Connection*	2 or 3 wire
Pt	Type	Pt 100 / 500 / 1 000 Ω, s 3 850 ppm -50°...450°C
	Connection*	2 or 3 wire
Ni	Type	Ni 1 000 / Ni 10 000 s 6 180 ppm / °C -200°...250°C
	Connection*	2 or 3 wire
Cu	Type	Cu 50 / Cu 100 s 4 280 ppm / °C -200°...200°C
	Connection*	2 or 3 wire

* In case of measurements with 2-wire connection it is necessary to connect the unused inputs (2d • E+ / S+, E- / S-).

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,2 % of range (valid for 10 measur. / s)
Rate	5...320 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Compen. of conduct	max. 40 Ω / 100 Ω
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

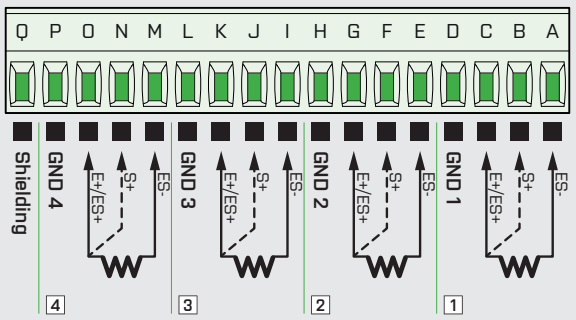
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) Input / Input - 150 V (PI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.03
CONNECTION

IN.03



OHM: 0...0,1/0,3/1/3/10/30 kΩ
RTD: Pt 50/100/500/1 000
Cu: Cu 50/100
Ni: Ni 1 000/10 000

IN.03
ORDER CODE

IN.03		**-☐**
Specifications	Used only for customised versions	**00**

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IN.04
4x INPUT FOR THERMOCOUPLES, ISOLATED

INPUT FOR THERMOCOUPLES

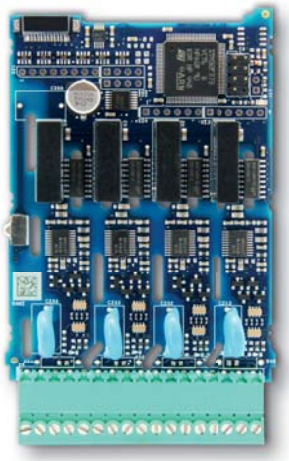
T/C J/K/T/E/B/S/R/N/L

Rate

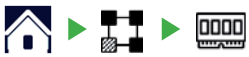
< 320 measurements / s

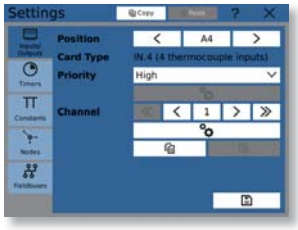
Accuracy

0,2 % of range



CARD SETTINGS





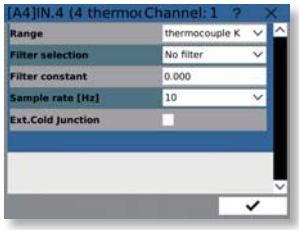
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Range	T/C J ▸ K ▸ T ▸ E ▸ B ▸ S ▸ R ▸ N ▸ L
Filter selection	**Floating** floating arithmetic average of the number of measured values **Exponential** integration filter of the first order with a time constant measurement
Filter constant	Indicates the size of the filter
Rate	5...320 measurements / s

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.04
TECHNICAL DATA

INPUTS

Number		4, isolated	
TC	Type	J (Fe-CuNi)C	-200°...900°C
		K (NiCr-Ni)	-200°...1 300°C
		T (Cu-CuNi)	-200°...400°C
		E (NiCr-CuNi)	-200°...690°C
		B (PtRh30-PtRh6)	300°...1 820°C
		S (PtRh10-Pt)	-50°...1 760°C
		R (Pt13Rh-Pt)	-50°...1 740°C
		N (Omegalloy)	-200°...1 300°C
		L (Fe-CuNi)	-200°...900°C

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,2 % of range (valid for 10 measur./s)
Rate	5...320 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Cold junction compensation (CJC)	automatic
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

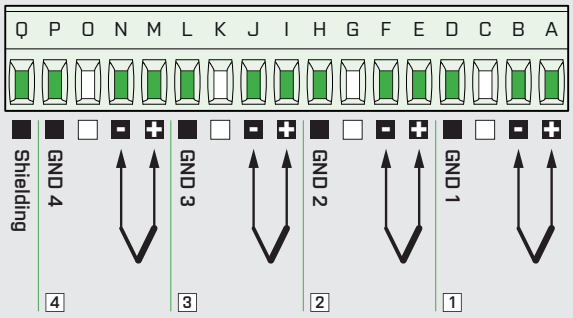
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm^2
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) Input / Input - 150 V (PI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.04
CONNECTION

IN.04



T/C: J/K/T/E/B/S/R/N/L

IN.04
ORDER CODE

IN.04		-☐
Specifications	Used only for customised versions	00

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IN.05
5x INPUT FOR PT xxx, CU xxx, NI xxx

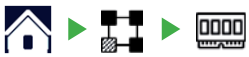
INPUT FOR RESISTIVE SENSORS

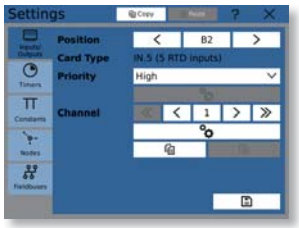
OHM	0...100 Ω / 0...300 Ω / 0...1 kΩ / 0...3 kΩ / 0...10 kΩ / 0...30 kΩ
Pt	Pt 50 / Pt 100 / Pt 500 / Pt 1 000
Ni	Ni 1 000 / Ni 10 000
Cu	Cu 50 / Cu 100

Rate
< 320 measurements / s

Accuracy
0,2 % of range

CARD SETTINGS





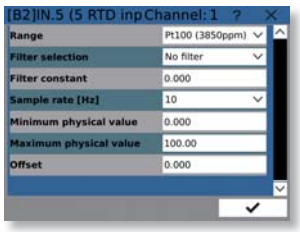
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Type	Ohmmeter ▸ Thermometer Pt xxx ▸ Thermometer Cu xxx ▸ Thermometer Ni xxxx
Range	OHM 100 Ω ▸ 300 Ω ▸ 1 kΩ ▸ 3 kΩ ▸ 10 kΩ ▸ 30 kΩ Pt Pt 50-3580 ▸ Pt 100-3580 ▸ Pt 500-3580 ▸ Pt 1 000-3580 Cu Cu 50-4280 ▸ Cu 100-4280 Ni Ni 1000-6180 ▸ Ni 10000-6180
Filter selection	Floating floating arithmetic average of the number of measured values Exponential integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Rate	5...320 measurements / s
Min. physic. values*	value that corresponds to the minimum selected range of the input values
Max. physic. values*	value that corresponds to the maximum selected range of the input values
Tare*	to reset the values by non-zero input signals

* In temperature measurements (Pt, Ni, Cu, T / C) the conversion to a physical value (temperature) is carried out by the sensor regardless of the values.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.05
TECHNICAL DATA

INPUTS

Number		5	
OHM	Range	0...100 Ω / 0...300 Ω 0...1 kΩ / 0...1 kΩ / 0...3 kΩ / 0...10 kΩ / 0...30 kΩ	
	Connection*	2 or 3 wire	
Pt	Type	Pt 100 / 500 / 1 000 Ω, s 3 850 ppm	-50°...450°C
	Connection*	2 or 3 wire	
Ni	Type	Ni 1 000 / Ni 10 000 s 6 180 ppm / °C	-200°...250°C
	Connection*	2 or 3 wire	
Cu	Type	Cu 50 / Cu 100 s 4 280 ppm / °C	-200°...200°C
	Connection*	2 or 3 wire	

* In case of measurements with 2- or 3-wire connection it is necessary to connect the unused inputs (2d • E+ / S+, E- / S-, 3d • E- / S-).

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,2 % of range (valid for 10 measur./s)
Rate	5...320 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Compen. of conduct	max. 40 Ω / 100 Ω
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

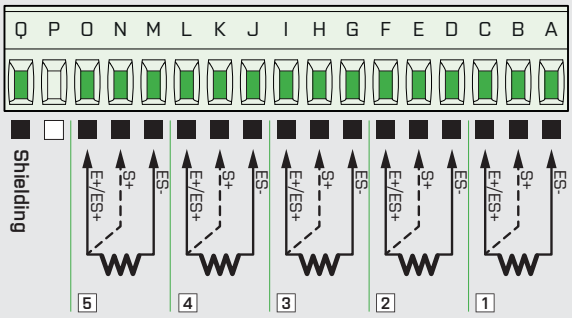
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.05
CONNECTION

IN.05



OHM: 0...0,1/0,3/1/3/10/30 kΩ
RTD: Pt 50/100/500/1 000
Cu: Cu 50/100
Ni: Ni 1 000/10 000

IN.05
ORDER CODE

IN.05		**-☐**
Specifications	Used only for customised versions	**00**

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IN.06
12x DC INPUTS - CURRENT

CURRENT INPUT

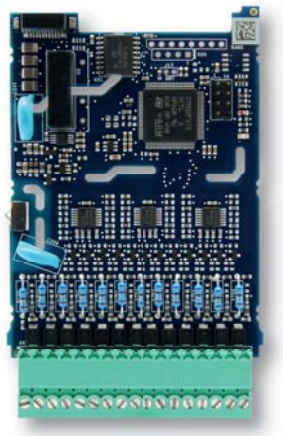
0...5 mA / 0...20 mA / 4...20 mA / ±5 mA / ±20 mA

Rate

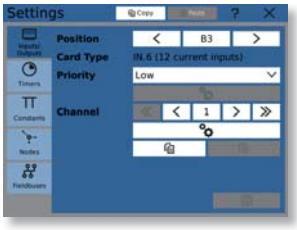
< 1 000 measurements / s

Accuracy

0,2 % of range



CARD SETTINGS



The following parameters are edited in the setting

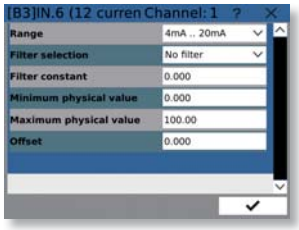
Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set.

Range	PM 0...5 mA ▸ 0...20 mA ▸ 4...20 mA ±5 mA ▸ ±20 mA
Filter selection	Floating floating arithmetic average of the number of measured values Exponential integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Min. physic. values	value that corresponds to the minimum selected range of the input values
Max. physic. values	value that corresponds to the maximum selected range of input values
Tare	to reset the values by non-zero input signals



Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.06
TECHNICAL DATA

INPUTS

Number		12	
PM	Range	0...5 mA / 0...20 mA / 4...20 mA ±5 mA / ±20 mA	68 R 68 R

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,2 % of range (valid for 10 measur./s)
Rate	< 1 000 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	3,3 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

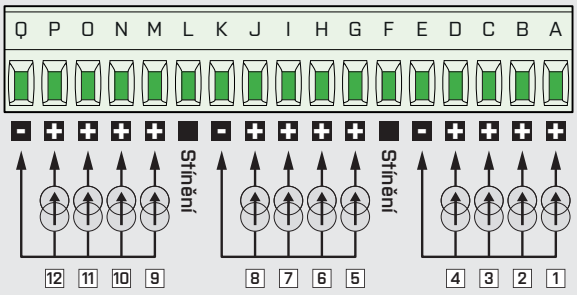
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, par.6

* PI - Primary insulation, DI - Double insulation

IN.06
CONNECTION

IN.06



DC - I: 0...5 mA/0...20 mA/4...20 mA/±5/±20 mA/

IN.06
ORDER CODE

IN.06		**- ☐**
Specifications	Used only for customised versions	**00**

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IN.07
12X VOLTAGE INPUT

VOLTAGE INPUT

0...2 V / 0...5 V / 0...10 V / 0...40 V
±2 V / ±5 V / ±10 V / ±40 V

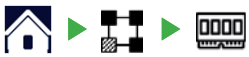
Rate

< 1 000 measurements / s

Accuracy

0,2 % of range

CARD SETTINGS



The following parameters are edited in the setting

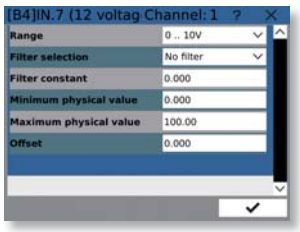
Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Range	PM 0...2 V ▸ 0...5 V ▸ 0...10 V ▸ 0...40 V ▸ ±2 V ▸ ±5 V ▸ ±10 V ▸ ±40 V
Filter selection	**Floating** floating arithmetic average of the number of measured values **Exponential** integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Min. physic. values	value that corresponds to the minimum selected range of the input values
Max. physic. values	value that corresponds to the maximum selected range of input values
Tare	to reset the values by non-zero input signals



Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.07
TECHNICAL DATA

INPUTS

Number		12	
PM	Range	0...2 V / 0...5 V / 0...10 V / 0...40 V ±2 V / ±5 V / ±10 V / ±40 V	> 200 kΩ > 200 kΩ

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,2 % of range (valid for 10 measur./s)
Rate	< 1 000 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	3,3 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

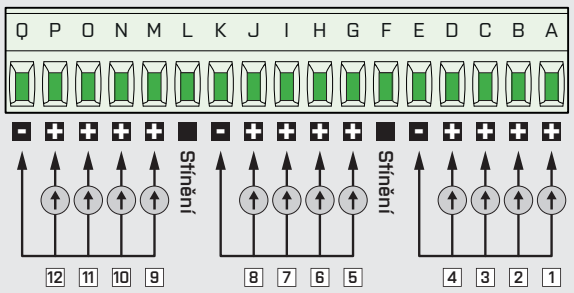
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary, DI - Double insulation

IN.07
CONNECTION

IN.07



DC - U: 0...2 V/0...5 V/0...10 V/0...40 V/±2/±5/±10/40 V

IN.07
ORDER CODE

IN.07		- ☐
Specifications	Used only for customised versions	00

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IN.08
2x INPUT FOR STRAIN GAUGES, ISOLATED

INPUT FOR STRAIN GAUGES

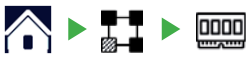
LC 0,5...2 / 1...4 / 2...8 / 4...16 mV / V

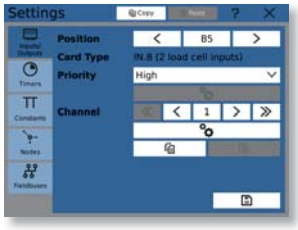
Rate
< 1 000 measurements / s

Accuracy
0,05 % of range

Load cell bridge excitation
5 VDC, load ≥ 40 Ω
10 VDC, load ≥ 80 Ω

CARD SETTINGS





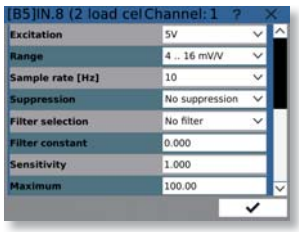
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Range	LC 0,5...2 ▸ 1...4 ▸ 2...8 ▸ 4...16 mV / V
Filter selection	**Floating** floating arithmetic average of the number of measured values **Exponential** integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Rate	5...1 000 measurements / s
Max. physic. values	value that corresponds to the maximum selected range of input values
Excitation	5 VDC or 10 VDC
Interference suppress.	20 Hz / off
Segment size	0,001...1 000
Functions	Weighing capacity Fixed tare Preset value Zero tracking Automatic reset

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.08
TECHNICAL DATA

INPUTS

Number		2, isolated
LC	Range	1...4 mV / V 2...8 mV / V 4...16 mV / V
	Connection	6 wire
	Power supply	5 VDC or 10 VDC, load ≥ 80 Ω

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,05 % of range (valid for 10 measur./s)
Rate	5...1 000 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

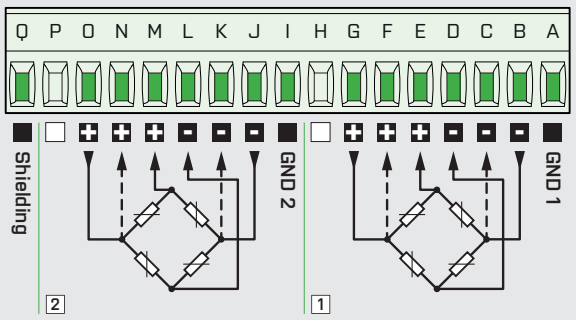
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm^2
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) Input / Input - 150 V (PI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.08
CONNECTION

IN.08



DMS: 1...16 mV/V

IN.08
ORDER CODE

IN.08		**-** ☐
Specifications	Used only for customised versions	**00**

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IN.09
3x PRECISE CURRENT / VOLTAGE INPUT, ISOLATED

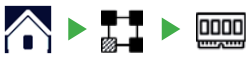
CURRENT / VOLTAGE INPUT

PM 0...20 mA / 4...20 mA / ±20 mA
0...2 V / 0...40 V / ±2 V / ±40 V

Rate
< 1 000 measurements / s

Accuracy
0,02 % of range

CARD SETTINGS



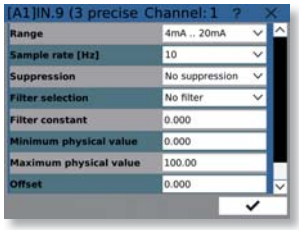
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Range	PM 0...20 mA ▸ 4...20 mA ▸ ±20 mA 0...2 V ▸ 0...40 V ▸ ±2 V ▸ ±40 V
Filter selection	Floating floating arithmetic average of the number of measured values Exponential integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Rate	5...1 000 measurements / s
Min. physic. values	value that corresponds to the minimum selected range of the input values
Max. physic. values	value that corresponds to the maximum selected range of input values
Interference suppress.	20 Hz / off
Offset	offset of the beginning of the measuring range

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.09
TECHNICAL DATA

INPUTS

Number		3, isolated		
PM	Range	0...20 mA / 4...20 mA	15 Ω	1
		±20 mA /	15 Ω	1
		0...2 V / 0...40 V	> 1 MΩ	2
		±2 V / ±40 V	> 1 MΩ	2

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,02 % of range (valid for 10 measur./s)
Rate	5...1 000 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

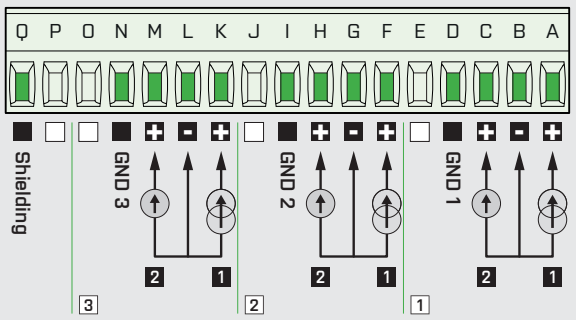
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm^2
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) Input / Input - 150 V (PI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.09
CONNECTION

IN.09



1 **DC - I:** 0...20 mA/4...20 mA/±20 mA

2 **DC - U:** 0...2 V/0...40 V/±2 V/±40 V

IN.09
ORDER CODE

IN.09		-☐
Specifications	Used only for customised versions	00

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IN.10
2x AC CURRENT / VOLTAGE INPUT, ISOLATED

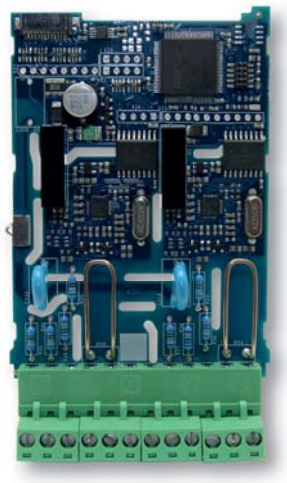
AC CURRENT /VOLTAGE INPUT

AC 0...10 V / 0...120 V / 0...250 V / 0...450 V
0...60 mV / 0...150 mV / 0...300 mV / 0...1 A / 0...2,5 A / 0...5 A

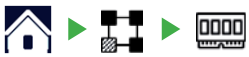
Measured quantities
Voltage, Current, Active power, Reactive power, Apparent power, Frequency, Power factor, Phase shift

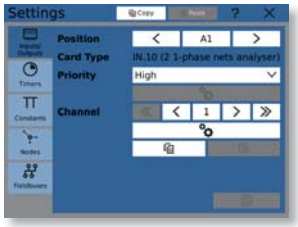
Rate
1/10 periods

Accuracy
0,3 % of range



CARD SETTINGS





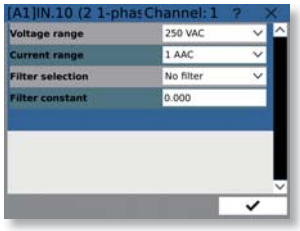
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Voltage range	AC 0...120 V ▸ 0...250 V ▸ 0...450 V
Current range	AC 0...1 A ▸ 0...5 A
Filter selection	Floating floating arithmetic average of the number of measured values Exponential integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.10
TECHNICAL DATA

INPUTS

Number		2, isolated		
AC	Range	0 ...1 A	< 150 mV	1
		0...5 A	< 150 mV	1
		0...120 V	> 2 MΩ	2
		0...250 V	> 2 MΩ	2
		0...450 V	> 2 MΩ	3
	Input frequency	0...400 Hz for amplitude from 50 V		
	Measured quantities	Voltage (V_{RMS}) Current (A_{RMS}) Active power (P) Frequency (Hz) Reactive power (Q) Apparent power Phase shift Power factor		

TECHNICAL SPECIFICATION

TC	50 ppm / °C	
Accuracy	±0,3 % of range (valid for 10 measur./s)	
Rate	<1 period 10 period	Voltage, Current, Frequency, Power factor Active/Reactive/Apparent power
Overload capacity	10x (t < 100 ms) not for 5 A and 250 V, 2x (long term)	
Digital filters	Floating average, Exponential average	
Watch-dog	reset after 500 ms	
Calibration	at 25°C and 40 % r.h.	

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 2,5 W

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

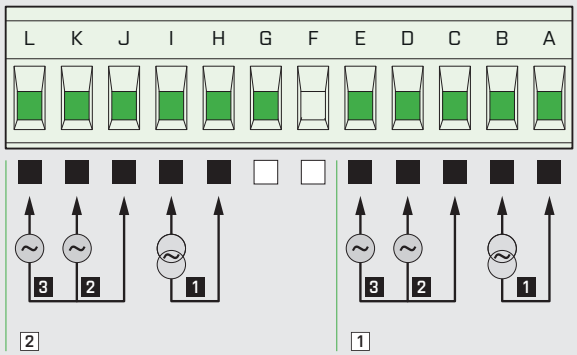
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) Input / Input - 150 V (PI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.10
CONNECTION

IN.10



1 **AC - I:** 0...1/5 A

2 **AC - U1:** 0...120/250 V

3 **AC - U2:** 0...450 V

IN.10
ORDER CODE

IN.10		-☐
Specifications	Used only for customised versions	00

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MINI-TECHDOK - OMR 700 - IN.10 - 2019.2 - en

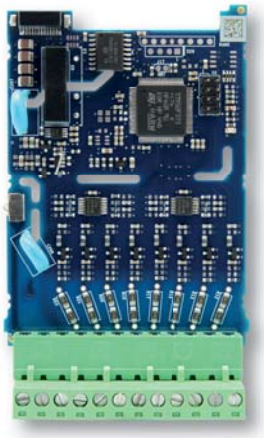
IN.11
8x ANALOGUE / DIGITAL INPUT

ANALOGUE / DIGITAL INPUT

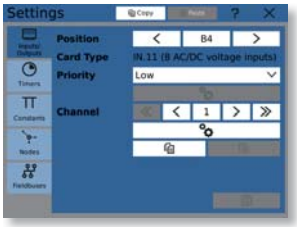
DC 0...30 V / 0...120 V / 0...250 V / ±30 V / ±120 V / ±250V
AC 0...30 V / 0...120 V / 0...250 V

Rate
< 1 ms

Accuracy
< 1 / 5 % of range



CARD SETTINGS



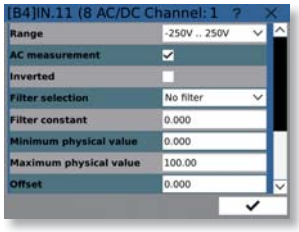
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Range	DC 0...30 V ▸ 0...120 V ▸ 0...250 V ±30 V ▸ ±120 V ▸ ±250 V ▸ AC 30 V ▸ 120 V ▸ 250 V
Alternating voltage	☑ input measures and compares AC voltage ☐ input measures and compares DC voltage
Inverted	☑ input inversion ☐ without change
Filter selection	Floating floating arithmetic average of the number of measured values Exponential integration filter of the first order with a time constant measurement
Filtr constant	Indicates the size of the filter
Min. physic. values	value that corresponds to the minimum selected range of the input values
Max. physic. values	value that corresponds to the maximum selected range of input values
Offset	offset of the beginning of the measuring range
Functions	Comparator value Hysteresis Time filter

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.11
TECHNICAL DATA

INPUTS

Number		8	
DC	Range	0...30 V / 0...120 V / 0...250 V ±30 V / ±120 V / ±250 V> 1 MΩ	> 1 MΩ
AC		0...30 V / 0...120 V / 0...250 V	> 1 MΩ

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	1 % of range (DC) (valid for 10 measur./s) 5 % of range (AC)
Rate	< 1 000 measurements / s (DC) < 5 Sa/s (AC)
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	3,3 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

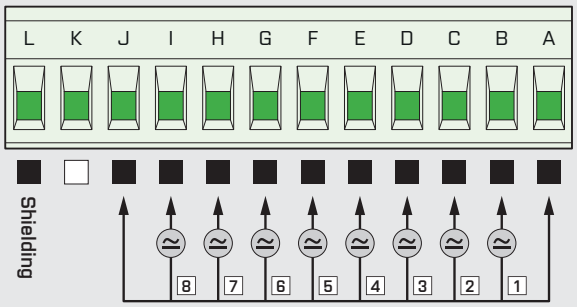
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 2,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.11
CONNECTION

IN.11



AC/DC: 12...250 V AC/DC

IN.11
ORDER CODE

IN.11		- ☐
Specifications	Used only for customised versions	00

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IN.12
12x INPUT FOR COUNTER / FREQUENCY

INPUT FOR COUNTER / FREQUENCY

UC Contact, PNP, NPN
< 10 kHz

CARD SETTINGS

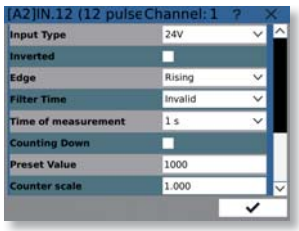
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer ***priority*** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Input type	UC Contact ▸ 5 V ▸ 10 V ▸ 12 V ▸ 24 V ▸ 30 V
Inverted	☑ input inversion ☐ without change
Edge	rising ▸ falling ▸ both edge selection (for counter reaction)
Filter time	100 µs ▸ 200 µs ▸ 500 µs ▸ 1 ms ▸ 2 ms ▸ 5 ms ▸ 10 ms ▸ 20 ms ▸ 50 ms ▸ 100 ms 200 ms ▸ 500 ms ▸ 1 s ▸ 2 s ▸ 5 s ▸ 10 s 20 s ▸ 50 s ▸ 1 min ▸ 2 min ▸ 5 min ▸ 10 min Setting determines how long the input pulse must be to prevent its filtration.
Measur. time	frequency measurement counts number of pulses within this time
Count down	☑ counter counts downwards ☐ counter counts upwards
Preset	signal Preset sets contents of the counter to this value
Counter scale	constant, which re-multiplies the value of the counter (for conversion to a physical value)
Frequency scale	constant, which re-multiplies the value of the frequency (for conversion to a physical value)
Ofset frequency	offset of the beginning of the measuring range

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.12
TECHNICAL DATA

INPUTS

Number		12
UC	Input	on contact, PNP, NPN 5 V, 10 V, 12 V, 24 V, 30 V
	Input frequency	0,1 Hz...10 kHz

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,05 % of range (Frequency)
Overload capacity	10x (t < 100 ms), 2x
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	3,3 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

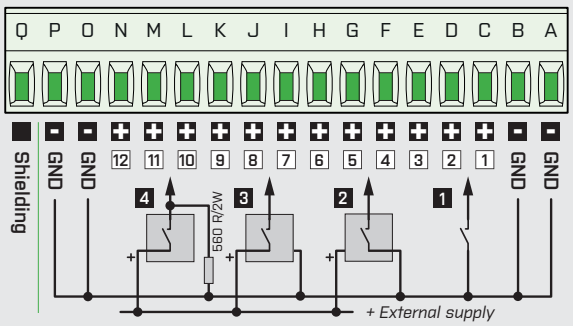
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.12
CONNECTION

IN.12



1 contact
2 2-wire sensors, **NPN** NO
3 3-wire sensors, **PNP** NO
4 3-wire sensors, **PNP** NO

IN.12
ORDER CODE

IN.12		**-** ☐
Specifications	Used only for customised versions	**00**

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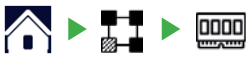
IN.13
2x INPUT FOR IRC, UP / DW

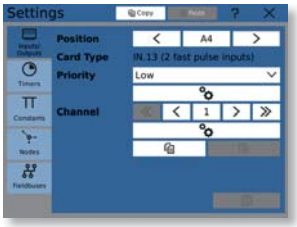
INPUT COUNTER / FREQUENCY - IRC, UP / DW

UQC Contact, PNP, NPN
< 1 MHz

Sensor excitation
5 / 10 / 12 / 24 VDC, < 200 mA

CARD SETTINGS





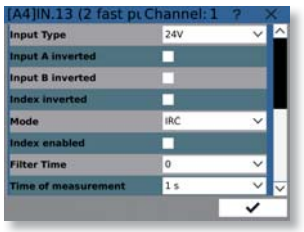
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Input type	UQC Contact ▸ 5 V ▸ 10 V ▸ 12 V ▸ 24 V ▸ 30 V
Inverted	☑ input inversion ☐ without change
Edge	rising ▸ falling ▸ both edge selection (for counter reaction)
Filter time	100 µs ▸ 200 µs ▸ 500 µs ▸ 1 ms ▸ 2 ms ▸ 5 ms ▸ 10 ms ▸ 20 ms ▸ 50 ms ▸ 100 ms 200 ms ▸ 500 ms ▸ 1 s ▸ 2 s ▸ 5 s ▸ 10 s 20 s ▸ 50 s ▸ 1 min ▸ 2 min ▸ 5 min ▸ 10 min Setting determines how long the input pulse must be to prevent its filtration.
Measur. time	frequency measurement counts number of pulses within this time
Count down	☑ counter counts downwards ☐ counter counts upwards
Preset	signal Preset sets contents of the counter to this value
Counter scale	constant, which re-multiplies the value of the counter (for conversion to a physical value)
Frequency scale	constant, which re-multiplies the value of the frequency (for conversion to a physical value)
Ofset frequency	offset of the beginning of the measuring range

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.13
TECHNICAL DATA

INPUTS

Number		2
UQC	Input	on contact, PNP, NPN 5 V, 10 V, 12 V, 24 V, 30 V
	Input frequency	0,1 Hz...1 MHz

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,05 % of range (Frequency)
Overload capacity	10x (t < 100 ms), 2x
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	3,3 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

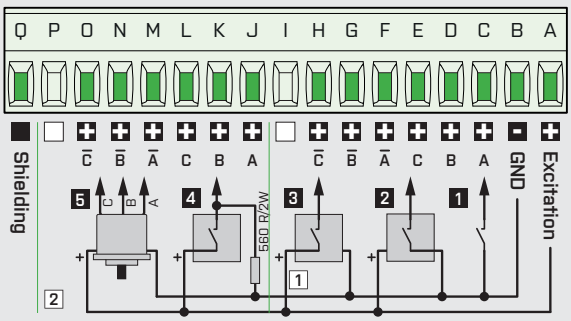
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.13
CONNECTION

IN.13



1 contact
2 2-wire sensors, **NPN** NO
3 3-wire sensors, **PNP** NO
4 3-wire sensors, **PNP** NO
5 IRC sensors, line/NPN/PNP

IN.13
ORDER CODE

IN.13		**-** ☐
Specifications	Used only for customised versions	**00**

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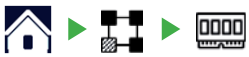
IN.14
2x INPUT FOR LVDT SENSORS

INPUT FOR LVDT SENSORS

LVDT 1 / 3 / 5 VAC with frequency 2,5 / 5 / 10 kHz

CARD SETTINGS



The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer p**riority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.14
TECHNICAL DATA

INPUTS

Number		2, isolated
LVDT	Range	1 / 3 / 5 VAC with frequency 2,5 / 5 / 10 kHz
	Connection	2-, 5- or 6-wire

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Accuracy	±0,2 % of range (valid for 10 measur./s)
Rate	< 1 000 measurements / s
Overload capacity	10x (t < 100 ms), 2x
Digital filters	Floating average, Exponential average
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	3,3 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

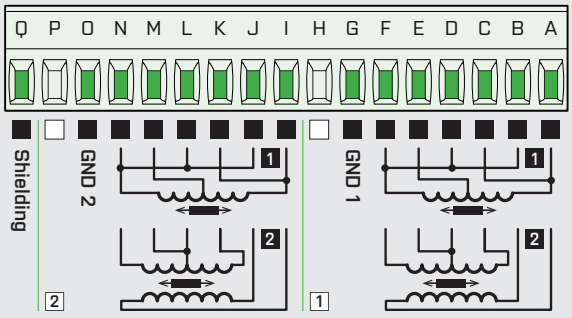
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm^2
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) Input / Input - 150 V (PI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

IN.14
CONNECTION

IN.14



1 3-wire LVDT sensors
2 5-wire LVDT sensors

IN.14
ORDER CODE

IN.14		- ☐
Specifications	Used only for customised versions	00

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IN.15
3-PHASE WATTMETER

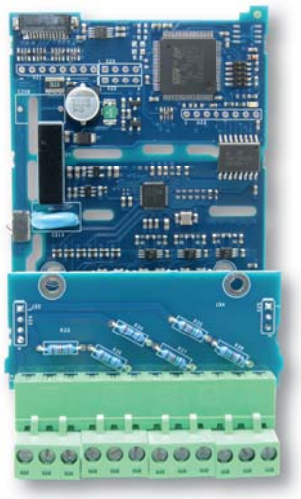
3-PHASE WATTMETER

AC 0...250 V
0...1 A / 0...5 A
50/60 Hz

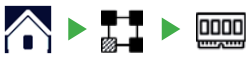
Measured quantities
Voltage, Current, Active power, Reactive power, Apparent power, Frequency, Harmonic distortion, Phase shift, Power factor

Rate
1/10 periods

Accuracy
0,3 % of range



CARD SETTINGS



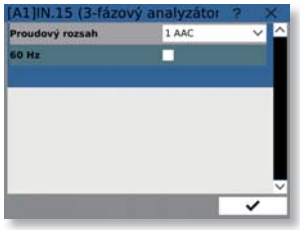
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Voltage range	AC	0...250 V
Current range	AC	0...1 A ▸ 0...5 A
Frequency	☑	50 Hz
	☐	60 Hz

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

IN.15
TECHNICAL DATA

INPUTS

Number		2, isolated		
		3		
AC	Range	0 ...1 A 0...5 A	< 150 mV < 150 mV	1 2
		0...250 V	> 1 MΩ	
	Input frequency	50/60 Hz for amplitude from 50 V		
	Measured quantities	Voltage (V_{RMS}) Current (A_{RMS}) Active power (P) Frequency (Hz) Reactive power (Q) Apparent power Harmonické zkreslení Phase shift Power factor		

TECHNICAL SPECIFICATION

TC	50 ppm/°C
Accuracy	±0,3 % of range (valid for 5 measur./s)
Rate	10 periods
Overload capacity	10x (t < 100 ms) not for 5 A and 250 V, 2x (long term)
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

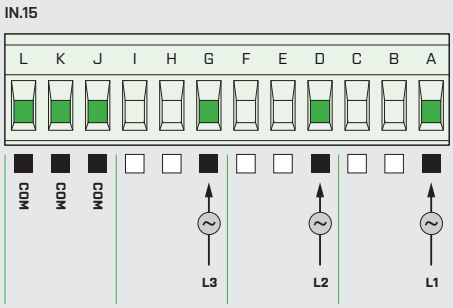
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 2,5 mm^2
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min betweens bus and inputs 1 kVAC over 1 min between inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input/Bus - 300 V (PI), 150 (DI) Input/Input - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, par.6

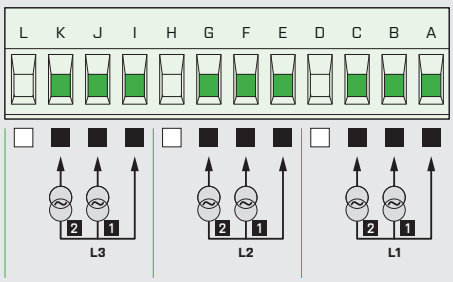
* PI - Primary insulation, DI - Double insulation

IN.15
CONNECTION

IN.15



Voltage input



Current input 1 AC - I: 0...1 A 2 AC - I: 0...5 A

IN.15
ORDER CODE

IN.15		-☐
Specifications	Used only for customised versions	00

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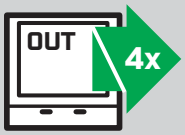
OUT.01
4X RELAYS WITH SWITCH-OVER CONTACT



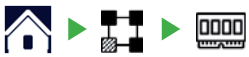
DIGITAL OUTPUTS

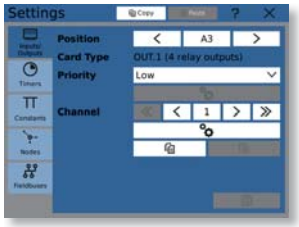
4x Relays with switch-over contact

Rate

< 10 ms

CARD SETTINGS





The following parameters are edited in the setting

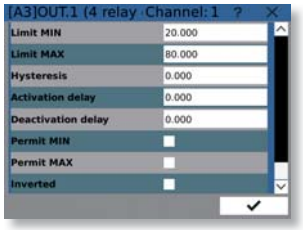
Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Limit MIN	setting the lower limit for switching
Limit MAX	setting the upper limit for switching
Hysteresis	shows the hysteresis range around the limit (on both sides, Limit. ±1 / 2 Hysteresis)
Activation delay	0,0...99,9 s setting the activation output delay
Deactivation delay	0,0...99,9 s setting the deactivation output delay
Permit MIN	☑ output is evaluated by the setting Limit MIN and MAX
Permit MAX	☐ output is set in binary form directly from the node
Inverted	☑ relay is in the active state OFF ☐ relay is in the active state ON



Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

OUT.01
TECHNICAL DATA

OUTPUTS

Number	4, isolated
Type	Relays with switch-over contact (Form C) ON / OFF
Maximum switching U and I	250 VAC / 30 VDC / 3 A
Maximum switching power	2 500 VA / 240 W
Relays	1 / 8 HP 277 VAC, 1 / 10 HP 125 V, Pilot Duty D300
Rate	< 10 ms

TECHNICAL SPECIFICATION

Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

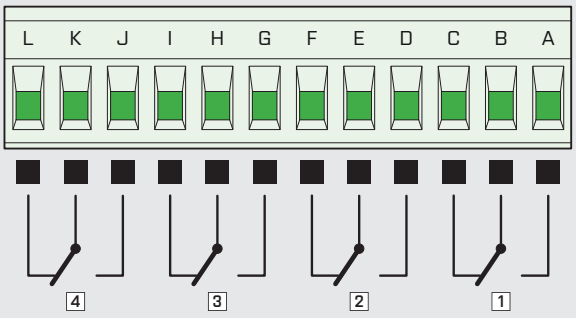
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 2,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 2,5 kVAC over 1 min between outputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, par.6

* PI - Primary insulation, DI - Double insulation

OUT.01
CONNECTION

OUT.1



OUT.01
ORDER CODE

OUT.01		-☐
Specifications	Used only for customised versions	00

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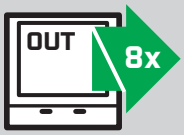
OUT.02
8x RELAYS WITH SWITCH-ON CONTACT



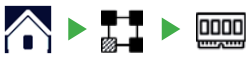
DIGITAL OUTPUTS

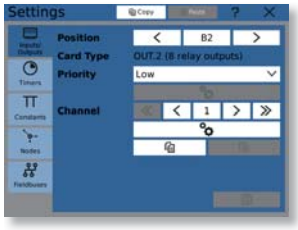
8x Relays with switch-on contact

Rate

< 10 ms

CARD SETTINGS





The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Limit MIN	setting the lower limit for switching
Limit MAX	setting the upper limit for switching
Hysteresis	shows the hysteresis range around the limit (on both sides, Limit. ±1 / 2 Hysteresis)
Activation delay	0,0...99,9 s setting the activation output delay
Deactivation delay	0,0...99,9 s setting the deactivation output delay
Permit MIN	☑ output is evaluated by the setting Limit MIN and MAX
Permit MAX	☐ output is set in binary form directly from the node
Inverted	☑ relay is in the active state OFF ☐ relay is in the active state ON

Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

OUT.02
TECHNICAL DATA

OUTPUTS

Number	8, isolated
Type	Relays with switch-on contact (Form A) ON / OFF
Maximum switching U and I	250 VAC / 30 VDC / 3 A
Maximum switching power	2 500 VA / 240 W
Relays	1 / 8 HP 277 VAC, 1 / 10 HP 125 V, Pilot Duty D300
Rate	< 10 ms

TECHNICAL SPECIFICATION

Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

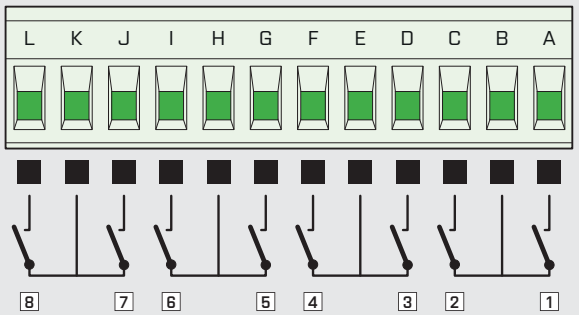
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 2,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 2,5 kVAC over 1 min between outputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, par.6

* PI - Primary insulation, DI - Double insulation

OUT.02
CONNECTION

OUT.2



OUT.02
ORDER CODE

OUT.02		- ☐
Specifications	Used only for customised versions	00

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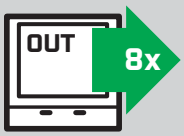
OUT.03
8x OPEN COLLECTOR, NPN



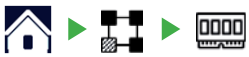
DIGITAL OUTPUT

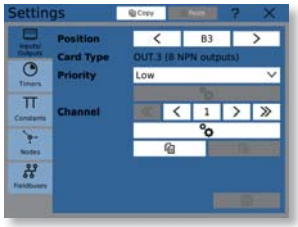
8x open collector, NPN

Rate

< 5 ms

CARD SETTINGS





The following parameters are edited in the setting

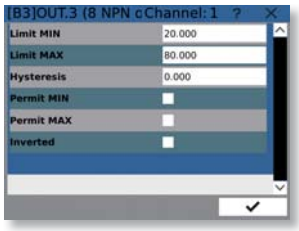
Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Limit MIN	setting the lower limit for switching
Limit MAX	setting the upper limit for switching
Hysteresis	shows the hysteresis range around the limit (on both sides, Limit. ±1 / 2 Hysteresis)
Activation delay	0,0...99,9 s setting the activation output delay
Deactivation delay	0,0...99,9 s setting the deactivation output delay
Permit MIN	☑ output is evaluated by the setting Limit MIN and MAX
Permit MAX	☐ output is set in binary form directly from the node
Inverted	☑ relay is in the active state OFF ☐ relay is in the active state ON



Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

OUT.03
TECHNICAL DATA

OUTPUTS

Number	8
Type	Open collectors, NPN ON / OFF, PWM
Maximum switching U and I	30 VDC / 300 mA
Maximum switching power	9 W
Rate	< 5 ms

TECHNICAL SPECIFICATION

Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

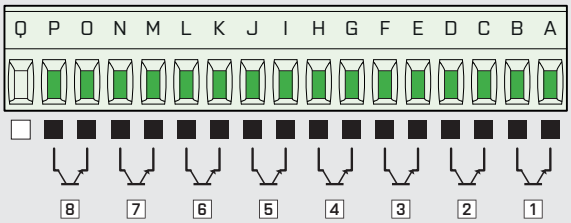
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. 300 V (ZI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

OUT.03
CONNECTION

OUT.3



OUT.03
ORDER CODE

OUT.03		-☐
Specifications	Used only for customised versions	00

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OUT.04
16x OPEN COLLECTOR, NPN

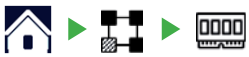
DIGITAL OUTPUT

16x open collector, NPN

Rate

< 5 ms

CARD SETTINGS



The following parameters are edited in the setting

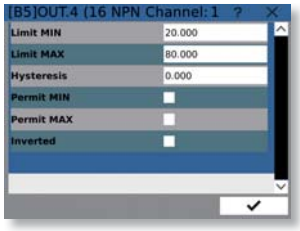
Select the **Position of the card** to be set. Use buttons ◀ ▶ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◀ ◀◀ ▶▶ ▶ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Limit MIN	setting the lower limit for switching
Limit MAX	setting the upper limit for switching
Hysteresis	shows the hysteresis range around the limit (on both sides, Limit. ±1 / 2 Hysteresis)
Activation delay	0,0...99,9 s setting the activation output delay
Deactivation delay	0,0...99,9 s setting the deactivation output delay
Permit MIN	☑ output is evaluated by the setting Limit MIN and MAX
Permit MAX	☐ output is set in binary form directly from the node
Inverted	☑ relay is in the active state OFF ☐ relay is in the active state ON



Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

OUT.04
TECHNICAL DATA

OUTPUTS

Number	16
Type	Open collectors, NPN ON / OFF, PWM
Maximum switching U and I	30 VDC / 300 mA
Maximum switching power	9 W
Rate	< 5 ms

TECHNICAL SPECIFICATION

Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

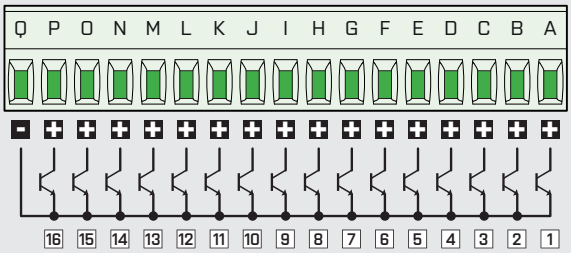
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. 300 V (ZI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

OUT.04
CONNECTION

OUT.4



OUT.04
ORDER CODE

OUT.04		- ☐
Specifications	Used only for customised versions	00

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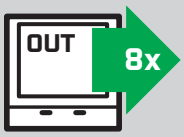
OUT.05
8x OPEN COLLECTOR, PNP



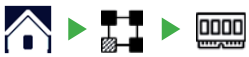
DIGITAL OUTPUT

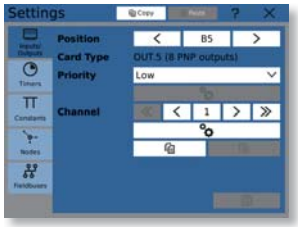
8x open collector, PNP

Rate

< 5 ms

CARD SETTINGS





The following parameters are edited in the setting

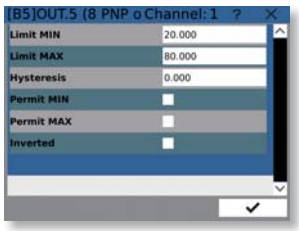
Select the **Position of the card** to be set. Use buttons ◀ ▶ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◀ ◀◀ ▶▶ ▶ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Limit MIN	setting the lower limit for switching
Limit MAX	setting the upper limit for switching
Hysteresis	shows the hysteresis range around the limit (on both sides, Limit. ±1 / 2 Hysteresis)
Activation delay	0,0...99,9 s setting the activation output delay
Deactivation delay	0,0...99,9 s setting the deactivation output delay
Permit MIN	☑ output is evaluated by the setting Limit MIN and MAX
Permit MAX	☐ output is set in binary form directly from the node
Inverted	☑ relay is in the active state OFF ☐ relay is in the active state ON



Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

OUT.05
TECHNICAL DATA

OUTPUTS

Number	8
Type	Open collectors, PNP ON / OFF, PWM with protection against short circuit and overload
Maximum switching U and I	12...30 VDC / 700 mA
Maximum switching power	21 W
Rate	< 5 ms

TECHNICAL SPECIFICATION

Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

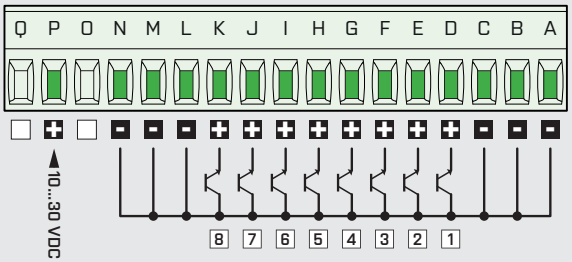
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. 300 V (ZI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

OUT.05
CONNECTION

OUT.5



OUT.05
ORDER CODE

OUT.05		- ☐
Specifications	Used only for customised versions	00

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OUT.06
6x SSR OUTPUT

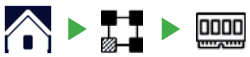
DIGITAL OUTPUT

6x SSR

Rate

< 5 ms

CARD SETTINGS



The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Button ⚙ is used to navigate to the settings of the selected channel.

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

OUT.06
TECHNICAL DATA

OUTPUTS

Number	6
Type	SSR
Maximum switching U and I	250 VAC / 1 A
Maximum switching power	250 VA
Rate	< 5 ms

TECHNICAL SPECIFICATION

Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

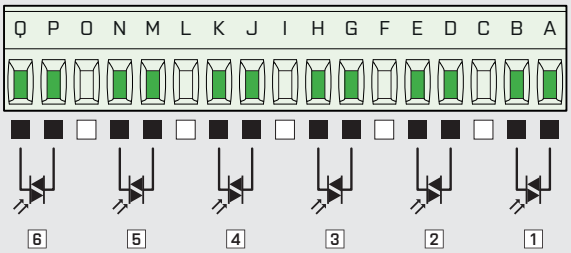
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. 300 V (ZI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

OUT.06
CONNECTION

OUT.6



OUT.06
ORDER CODE

OUT.06		-☐
Specifications	Used only for customised versions	00

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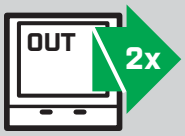
AO.01
2x ANALOGUE OUTPUT, ISOLATED



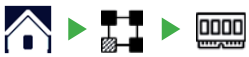
ANALOGUE OUTPUT

2x 0...5 / 10 V / ±5 / ±10 V
0...5 / 0...20 mA / 4...20 mA

Rate
< 5 ms

Accuracy
0,1 % of range

CARD SETTINGS



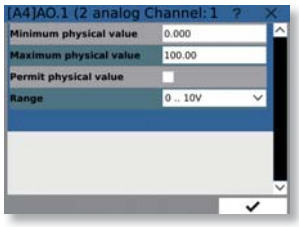
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Min. physic. value	value that corresponds to the minimum selected range of the input values
Max. physic. value	value that corresponds to the maximum selected range of input values
Permit physical value	☑ output is evaluated according to the setting Min. and Max. value ☐ output is set on electrical value directly from the node
Range	0...5 mA ▸ 0...20 mA ▸ 4...20 mA ▸ 0...5 V ▸ 0...10 V ▸ ±5 V ▸ ±10 V

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

AO.01
TECHNICAL DATA

OUTPUTS

Number	2, isolated
Type	analogue - universal
Range	0...5 / 10 V, ±5 / ±10 V [1] 0...5 / 0...20 mA, 4...20 mA [2]
TC	50 ppm / °C
Accuracy	0,1 % of range
Response rate	< 5 ms
Resolution	16 bitů
Leads resistance compensation	> 500 Ω

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

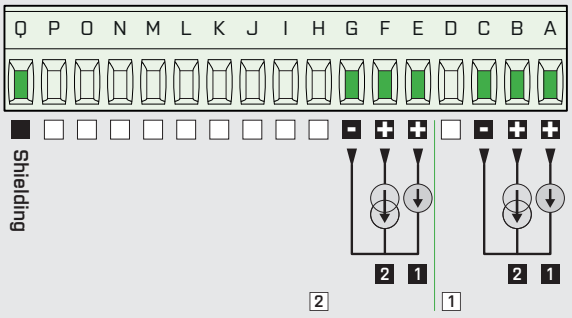
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between outputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) output /output - 150 V (ZI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

AO.01
CONNECTION

AO.01



[1] Analog output - voltage
[2] Analog output - current

AO.01
ORDER CODE

AO.01		-☐
Specifications	Used only for customised versions	00

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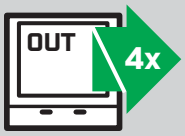
AO.02
4x ANALOGUE OUTPUT, ISOLATED



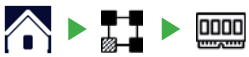
ANALOGUE OUTPUT

4x 0...5 / 10 V / ±5 / ±10 V
0...5 / 0...20 mA / 4...20 mA

Rate
< 5 ms

Accuracy
0,1 % of range

CARD SETTINGS



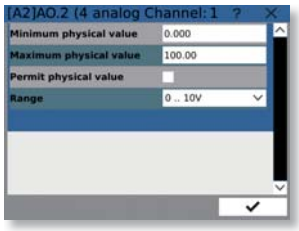
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Min. physic. value	value that corresponds to the minimum selected range of the input values
Max. physic. value	value that corresponds to the maximum selected range of input values
Permit physical value	☑ output is evaluated according to the setting Min. and Max. value ☐ output is set on electrical value directly from the node
Range	0...5 mA ▸ 0...20 mA ▸ 4...20 mA ▸ 0...5 V ▸ 0...10 V ▸ ±5 V ▸ ±10 V

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the recorder's back cover and break off the plugs covering the position where you intend to insert the new card. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

AO.02
TECHNICAL DATA

OUTPUTS

Number	4, isolated
Type	analogue - universal
Range	0...5 / 10 V, ±5 / ±10 V [1] 0...5 / 0...20 mA, 4...20 mA [2]
TC	50 ppm / °C
Accuracy	0,1 % of range
Response rate	< 5 ms
Resolution	16 bitů
Leads resistance compensation	> 500 Ω

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

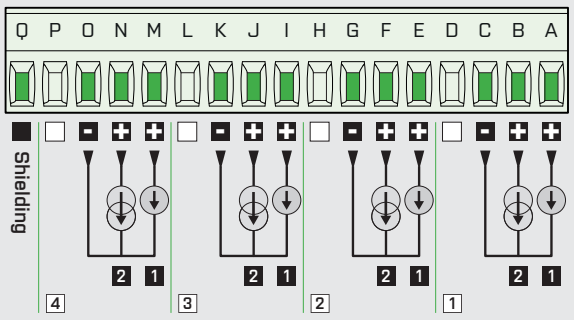
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between outputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) output /output - 150 V (ZI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

AO.02
CONNECTION

AO.02



[1] Analog output - voltage
[2] Analog output - current

AO.02
ORDER CODE

AO.02		- ☐
Specifications	Used only for customised versions	00

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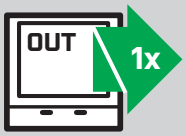
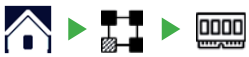
DO.01
1x PROFIBUS DP



DATA OUTPUT
PROFIBUS DP
Rate
< 12 MBit / s

CARD SETTINGS



The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer p**riority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the back cover and break off the plugs at position **B5**.
   (DO.01 card can only be placed in position B5)
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

DO.01
TECHNICAL DATA

OUTPUT

Number	1, isolated
Type	digital
Protocol	PROFIBUS DP
Rate	9.6 kBit / s...12 000 kBit / s
Connection	9-pin SUB-D (Canon) or terminal board

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC, 24 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

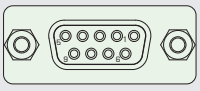
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm², Cannon 9
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

DO.01
CONNECTION

DO.1



Pin asignment

3 **B:** RxD/TxD-P data reception/transmission, positive
4 **CNTR:** signal for repeater control
5 **DGND:** reference potential for data and +5 V
6 **VP:** +5 V
8 **A:** RxD/TxD-N data reception/transmission, negative

DO.01
ORDER CODE

DO.01		**-** ☐
Specifications	Used only for customised versions	**00**

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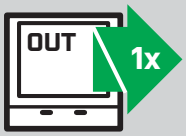
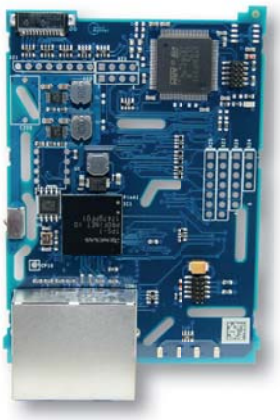
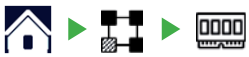
DO.02
1x PROFINET



DATA OUTPUT
PROFINET
Rate
< 12 MBit / s



CARD SETTINGS



The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the back cover and break off the plugs at position **B5**.
   (DO.01 card can only be placed in position B5)
2. Remove the card from its shipping container and from the ESD packaging and slide it carefully into the selected slot until you feel a gentle click
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

DO.02
TECHNICAL DATA

OUTPUT

Number	1, isolated
Type	digital
Protocol	PROFINET
Rate	9.6 kBit / s...12 000 kBit / s
Connection	2x RJ 45

TECHNICAL SPECIFICATION

TC	50 ppm / °C
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

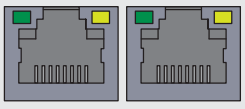
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min between bus and inputs 1 kVAC over 1 min between outputs
Insulation resistance*	for pollution degree II, measuring cat. III. Input / Bus - 300 V (PI), 150 (DI) output / output - 150 V (ZI), 100 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, čl.6

* PI - Primary insulation, DI - Double insulation

DO.02
CONNECTION

DO.2



Port 1 Port 2

DO.02
ORDER CODE

DO.02		-☐
Specifications	Used only for customised versions	00

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EXC.01
4x EXCITATION

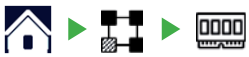
MULTIFUNCTION INPUT

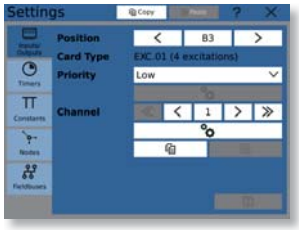
4x 5/10/12/24 V
Overcurrent and thermal protection

Accuracy
±2% + ±0,2 V

Galvanic separation
2,5 kVAC

CARD SETTINGS





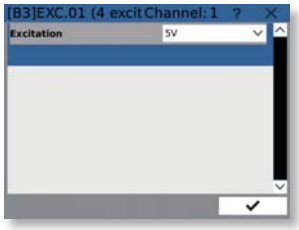
The following parameters are edited in the setting

Select the **Position of the card** to be set. Use buttons ◂ ▸ to scroll among the fitted cards.

Type of the card fitted in the specified position.

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames/s, in slots B 550 frames / s.

Channel to be set. Use buttons ◂ ◂◂ ▸▸ ▸ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set



Button ⚙ is used to navigate to the settings of the selected channel.

Type	isolated
Range	4x 5...24 VDC/ 3W

INSTALLATION OF A NEW CARD

When installing a new card, always make sure the recorder is disconnected from the power supply!

1. Remove the back cover and break off the blinder of a vacant card position. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).
2. Remove the card from the shipping container and from the ESD packaging and insert it carefully into the selected slot until you feel a gentle snap
3. Replace the back cover and turn the device on
4. Setting of the card is described in the preceding paragraph

EXC.01
TECHNICAL DATA

OUTPUT

Number	4
Range	5 VDC/1,5 W, 10/12/24 VDC/3 W
Tolerance	±2% + ±0,2 V
Regulation	±0,1 V
Ripple	< 50 mVpp
Outage span	< 200 ms
Efficiency	< 82 %
Functions	active current restriction,

TECHNICAL SPECIFICATION

Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Power supply	5 VDC
Consumption	max. 150 mA

MECHANIC PROPERTIES

Dimensions	65 x 98 mm
Installation	to OMR 700

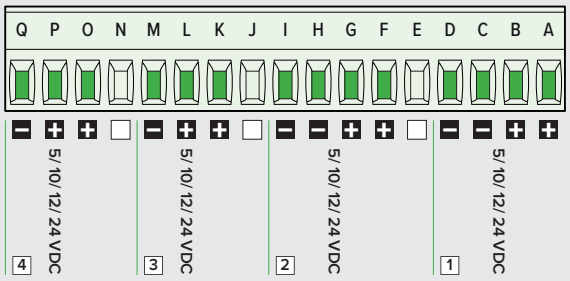
OPERATING CONDITIONS

Connection	connector terminal board, cross section < 1,5 mm²
Working temperature	-20°...60°C
Storage temperature	-20°...85°C
IP rating	IP00
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2,5 kVAC over 1 min betweens output
Insulation resistance*	for pollution degree II, measuring cat. III. 300 V (PI), 150 (DI)
EMC	EN 61326-1 (Industrial use)
Seismic resistance	IEC 980: 1993, par.6

* PI - Primary insulation, DI - Double insulation

EXC.01
CONNECTION

EXC.1



EXC.01
ORDER CODE

EXC.01		- ☐
Specifications	Used only for customised versions	00

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orbit@merret.eu
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GENERAL BUSINESS TERMS

1. Use of Terms and Conditions

1.1 These General Terms and Conditions (hereinafter referred to as the "GBT") further define and specify mutual rights and obligations between ORBIT MERRET, Inc., VAT No. CZ 00551309, with its registered office at Klánova 81/141, 142 00 Prague 4 as the seller or service provider (hereinafter referred to as "OM") and its business partners (hereinafter referred to as "Partner") in the sale and purchase of goods, service of goods and provision of services (hereinafter referred to as "goods").

1.2 The GBT are an integral part of the order on the basis of which the Partner ordered the goods from OM. The Partner acknowledges and agrees that the contractual relationship with OM will be governed by these Terms and Conditions.

2. Method of Contract Conclusion

2.1 The goods will be delivered on the basis of a Partner´s written order sent by e-mail, post or fax, in exceptional cases also by a verbal or telephone order.

The partner is obliged to state in his order at least the following:

- identification data incl. VAT paying information
- person authorized to act on behalf of the Partner
- detailed description of the goods, determined by quantity, type and quality
- requested lead time and place of delivery
- proposal for conclusion of a detailed written contract if the subject of the order is a requirement that is not specified on OM website or if it requires any other specific options. As well as unambiguous determination of the subject of performance according to OM technical documentation or other specific requirements for the subject of performance (incl. service).

2.2 OM notifies the Partner within 3 working days after receipt of the order, usually via e-mail communication, of acceptance of the contract and quantifies the price of the ordered goods. Within two working days from the date of receipt of the acceptance with the price of the goods, the partner has the possibility to inform OM in the same way that it withdraws from the contract due to the price disagreement. In this case the contract expires.

Amendments and changes in the order are valid only by agreement of both parties. If OM does not confirm the order within the above-mentioned period of 3 working days, the contract has not been concluded and OM has no obligations to the Partner.

3. Contract Conclusion

Contract is considered concluded:

3.1 By sending the Order Confirmation.

3.2 By conclusion of a written contract if it is suggested by either party or if the subject of the order is goods not listed on OM website.

3.2 By paying a deposit if the subject of performance exceeds the price of CZK 30,000 or if the Partner requests a non-standard performance and OM in its Order Confirmation sets a deposit and stipulates its payment as a condition for contract conclusion. The deadline for performance starts on the day the deposit is credited to OM account.

4. Delivery of goods

4.1 OM undertakes to deliver the goods in quality, design and within the agreed time specified in the order, usually within 2-21 days. In case of special goods and larger deliveries within 3-8 weeks.

4.2 The place of delivery shall be either registered office of OM, check-out place of OM or handover of the goods to the first public carrier. This should be agreed in the contract. The costs associated with transportation are paid by the Partner. By accepting the goods, the Partner acquires the ownership right to the goods and at the same time the risk of their damage passes on him.

4.3 If the subject of delivery is SW or HW, the Partner is obliged to inspect the goods received with professional care no later than 7 days from the moment of handover, and to inform OM of detected defects. After receipt of a written notification from the Partner, OM is obliged to rectify the defects of the goods without undue delay.

The Partner is not obliged to take over the goods with defects or in other than ordered quantity. In case of delay in delivery of goods on the part of OM, the Partner is not obliged to take over the goods either. However, this shall not apply if such a condition has been stated in the order or if the parties have agreed otherwise. The Partner shall confirm the take-over of the goods in writing.

4.4 OM assumes a standard use of the subject of performance. Any specific requirements for the subject of performance must be explicitly stated in the order.

4.5 Fulfilment of all Partner´s obligations is a condition for compliance with the OM lead time.

4.6 The expected date of performance is stated in the order confirmation. In exceptional cases, OM may change (shorten or extend) the period of performance, but must immediately notify the Partner of this change.

4.7 Delays in the lead time of subcontractors, strike, export or import bans, war as well as other cases of force majeure release OM of the obligation to meet the lead time and thus to pay for any damage or sanctions for failure to comply with in time.

4.8 If the goods are agreed to be taken over at the registered office of OM, the moment, when the Partner, being informed by OM about the readiness of the goods for dispatch, had the opportunity to take over the goods is considered as fulfilment of the contract.

4.9 The costs associated with delivery to a place of performance other than the OM registered office, shall be borne by the Partner.

4.10 If the Partner fails to take over the goods for reasons on his part, he shall bear the costs associated with repeated delivery or return of the goods back to OM.

4.11 If the Partner discovers any non-compliance with the delivery note, difference in quantity and type of performance, apparent damage to packaging or goods, he is obliged to inform OM or the carrier immediately and make a note of it in writing on the OM delivery note or on the carrier´s delivery note, but not later than within 2 working days of receipt of the goods.

Later complaints need not be taken into account by OM.

5. Licence

5.1 If SW is a subject of delivery, OM by delivering the goods grants a non-exclusive license to the goods according to the Copyright Act for all uses and without any time limit, i.e. for the duration of the copyright property rights without territorial or quantity limitation unless the order determines otherwise. If by mutual agreement of the parties the contractual relationship is not governed by the OM licence terms and conditions, this Article shall be deemed to apply.

5.2 In the case of software, OM is entitled to back up data in accordance with standard IT procedures and to make backup copies for this purpose.

5.3 The Partner is obliged to inform OM in advance and in writing of any facts that may affect the use of the goods.

5.4 OM warrants that the Partner´s use of the goods will not violate any rights of third parties.

6. Price and payment terms

6.1 Purchase price of the goods is determined by the current OM price list. However, the final price is set in the Order Confirmation.

6.2 Purchase price on any confirmed order of OM is final, unchangeable and includes all

expenses, costs and OM guarantees related to the delivery of goods, including shipping costs. Change of the purchase price is possible only by a written agreement.

6.3 The Partner is entitled to request in advance a binding price offer (hereinafter referred to as the "offer"), which is valid for 21 calendar days from the date of issue, unless stated otherwise.

6.4 The prices of the subject of performance stated in the offer do not include any related services unless expressly agreed otherwise. Any request for provision of related services must be stated by the Partner in the order.

6.5 OM will issue a tax invoice for the delivered goods with a maturity of 14 days from its delivery or handover.

6.6 If the Partner is in default in payment of the price according to the tax invoice, OM has the right to charge the Partner interest on late payment of 0.05% of the outstanding amount for each day of the delay. During the period of delay in payment, OM is not obliged to fulfil any other obligation to the Partner, even if such obligation arose under the contract.

6.7 OM is entitled to transfer its claim on Partner´s money to a third party.

7. Duty of quality control and defect reporting

7.1 OM warrants that the goods will have the required characteristics and that they don´t infringe the rights of any third party. If the goods prove to be defective, OM will meet its obligation arising from liability for defects by providing new impeccable goods, by eliminating the defect or by providing a reasonable discount on the purchase price. The Partner shall notify OM, without undue delay, of the option he has chosen from the defective performance of OM. In case of legal defects, OM will meet its obligations arising from liability for legal defects by granting a non-contradictory license (right of use) to the delivered goods, or at its own discretion by providing an equivalent replacement of the goods or modified goods.

7.2 If the defects of the goods repeatedly prevent their use, the Partner has the right to withdraw from the contract.

7.3 If a third party declares that the exercise of the rights under the license to the delivered goods violates its rights, the party, who received this declaration, is obliged to inform the other party of the contract in writing and without delay, otherwise it is liable for any damage resulting therefrom.

8. Warranty

8.1 OM is obliged to deliver goods in the quality and design agreed with the Partner. OM provides a warranty of 60 months for the delivered goods, unless another term is agreed. The warranty period starts on the day of handover/takeover of the goods.

8.2 If a defect occurs during the warranty period, the Partner is entitled to request its repair for free. The Partner shall notify OM of the warranty defect by e-mail, registered letter or by fax. OM is obliged to settle the claim within 30 days from the date of its notification. The warranty period is extended by the period, during which the Partner could not use the goods. If the goods are replaced, a new warranty period will be provided.

8.3 The Partner acknowledges that if he or she attempts to repair the defect of the goods by himself or through a third unauthorized or unqualified party, the right to claim the warranty defect expires at the moment of such intervention.

8.4 OM is not liable for any damage caused by improper storage, incorrect external wiring, for damage caused by external influences, especially effects of electrical quantities of unacceptable range, improper installation, incorrect adjustment or incorrect operation.

8.5 OM is only liable for actual damages caused to the Partner, not for the loss of profit, indirect damages or damages to third parties. The Parties agree to limit the amount of damage reparation in such manner that the total amount of reparation incurred pursuant to or in connection with this Agreement shall in no case exceed 50% of the total price for performance (goods) under this Agreement. The Partner declares that this amount corresponds to the maximum amount of damage that is foreseen as a possible consequence of a breach of OM's obligation.

9. Termination of the Contract

9.1 The contract terminates by fulfilment of mutual obligations. OM and the Partner are free to terminate their contractual relationship any time earlier by a written agreement of both parties. The agreement should include mutual settlement.

9.2 Consequences of an early termination of the contract:
- in the event of termination for reasons on the part of the Partner after the order has been confirmed or a written contract has been concluded, OM is entitled to demand from the Partner an amount corresponding to 20% of the agreed price.
- if the Partner unlawfully returns properly delivered goods, OM has the right to a penalty of 50% of the total price of the delivery.

Sanctions are payable within 10 days of the date on which they were billed by OM.

10. Final Provisions

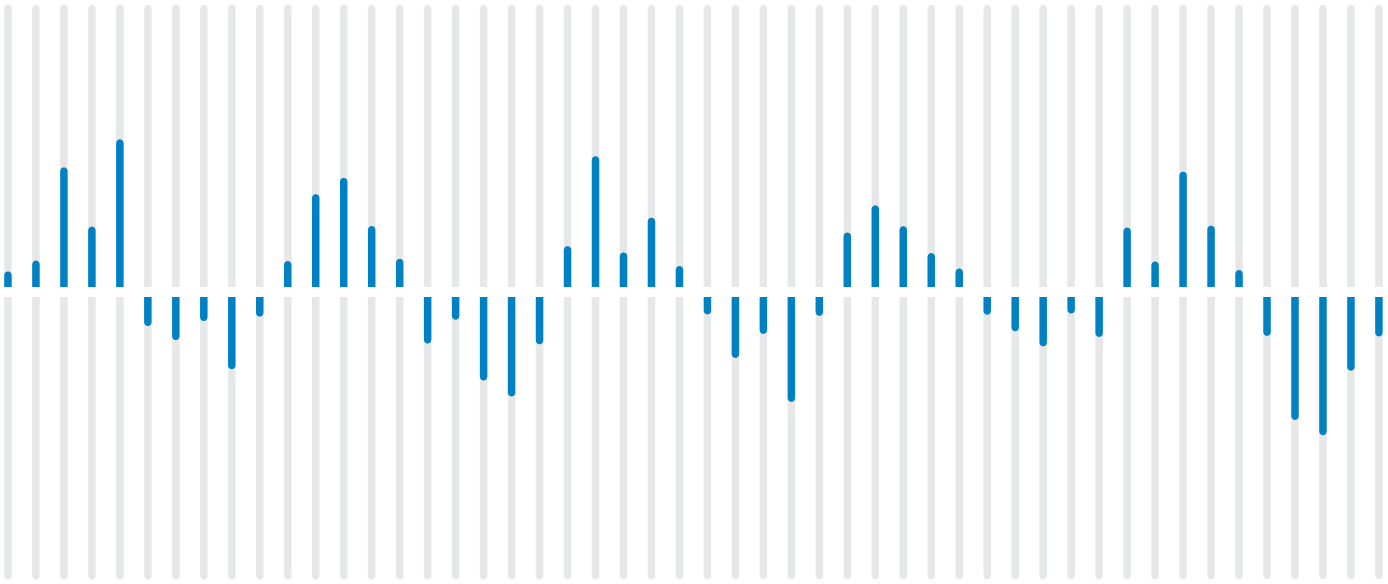
10.1 The rights and obligations arising from the contract between OM and the Partner are governed by the Czech legal order.

In case of a conflict between the concluded contract and these GBT, the contract shall prevail, unless the parties agree differently.

All disputes arising from and in connection with the concluded contract shall be resolved by the locally competent court of OM. If any of the provisions of these GBT proves to be invalid or ineffective, this shall not affect the validity or effectiveness of the other provisions.

10.2 Each of the parties to the contract, concluded in accordance with these GTB, undertakes to maintain confidentiality, to keep secret all confidential information and business secrets of the other party obtained in connection with mutual contractual relations, and to use such information only for the fulfilment of its obligations under the contract. Regardless of the form of their existence, information relating to the contract between OM and the Partner (in particular information on the rights and obligations of the parties as well as information about prices) or one of the parties (in particular trade secrets, information on their activities, structure, financial results, clients, know-how), information for which a special confidentiality regime is required by law, or information that one party has designated as confidential and has made the other party aware of it.

10.3 OM is entitled to unilaterally amend these GTB, provided that their new version will be promptly sent to all regular partners and at the same time published on OM web pages. The Partner is obliged to become acquainted with the new GTB. These GTB are valid and effective from 1 June 2016.



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ORBIT MERRET, spol. s r. o.,
represent in the Czech Republic and Slovakia the following companies

novotechnik Siedle Group

celesco

TECFLOW INTERNATIONAL

Outstanding Measurement Value