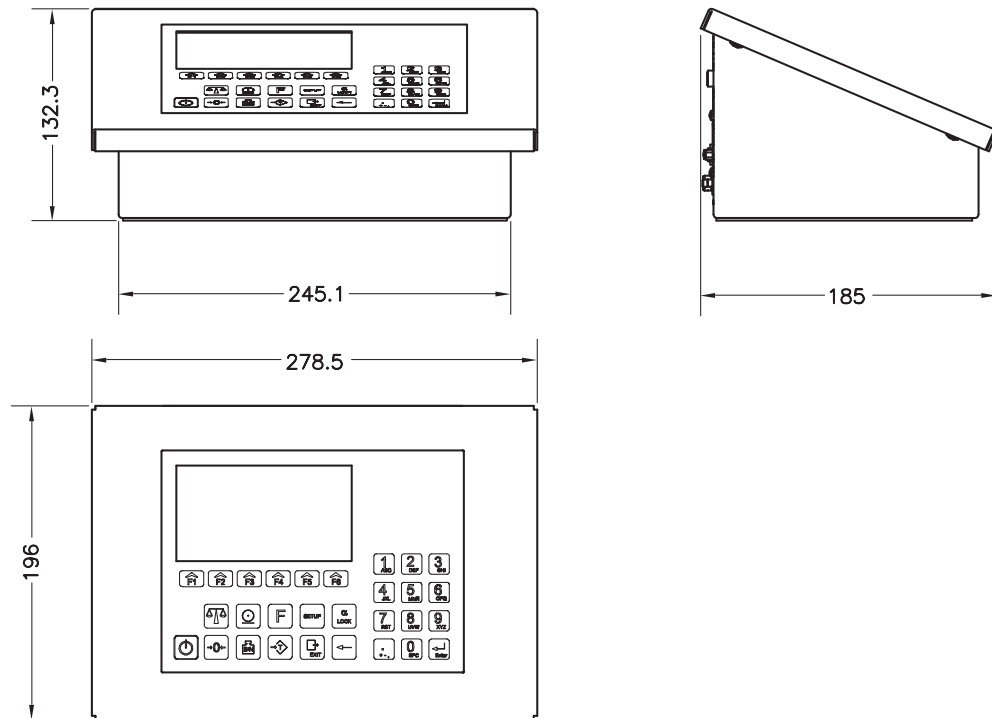


## ALPHANUMERIC WEIGHING INDICATOR WITH GRAPHIC DISPLAY



- Alphanumeric Weighing Indicator with graphic monochrome display 240x128 pixels.
- **OIML R76 & EN 45501 Approved**, monorange or Multi-range.
- **Calibration and configuration by keyboard and/or remote** by communication port.
- **Single Scale Connection** for analog load cells (Ref.89400) or digital load cells (Ref.89400D) enlarged to **Double Scale Connection** by additional interface boards.
- **Time & Date.**
- **Several connectivity possibilities:**
  - **Two RS-232 ports:** Bidirectional for PC communications, printer or remote display.
  - **One RS-485 port:** Network communications up to 1200m. Additionally, it's possible to be connected with external dispositives of digital I/O, analog outputs, relay boards, etc.
  - **One additional free port:** to extend the indicator to several fieldbuses.
- Integrated front panel **alphanumeric keyboard** and connector for an external standard PC keyboard (PS/2).
- **Universal power supply** 90-260 V AC 50/60 Hz and 9.5-28 V DC
- **Stainless Steel enclosure.** Desktop or Panel mounting. Optional: Wall mounting kit.
- **Multi-range:** Allows two working ranges for two division sizes.
- **Configurable Ticket.**
- **Linearity correction.**
- **Metrological sealing for easy maintenance:** Software sealing by internal calibration counter, or mechanical sealing for blocking calibration switch.
- **Microprocessor** of 32 bits, with Flash memory that allows the software update through a serial port for loading new applications.
- **Selectable applications:** Weighbridge, industrial, dosing.

# MATRIX II



Dimensions in mm.

Transport weight: 3.2 kg

## ADDITIONAL CHARACTERISTICS:

### 89400 MATRIX II Indicator for analog load cells:

- A/D 24 bits, 16 millions internal div.; 100.000 external divisions; 50 reading/sec.  
Power up to 8 load cells (350  $\Omega$ ) or up to 16 load cells (700  $\Omega$ ), at 6 V DC excitation.  
6000 div. at 0,6  $\mu$ V/d approval.
- Milivolt pre-calibration: Allows start-up without mass calibration by entering the load cell nominal capacity and nominal sensitivity in mV/V.

### 89400D MATRIX II DIGITAL Indicator for digital load cells:

- Power up to 16 digital load cells. Distance between the Indicator and the scale up to 1200m.
- Digital pre-calibration: Allows start-up without mass calibration thanks to the pre-calibration of digital load cells. Automatic or manual corner adjustment. Individual load cell diagnostic.

## SELECTABLE APPLICATIONS:

**Weighbridge:** Software for management of vehicle entrance and exit in plants, with first and second weighing control and a database that manages and stores all the information (registration numbers, products, customers/suppliers, entrances/exits, truck pre-fixed tare values, etc.), as well as the printing of its corresponding tickets and listings. Data stored in a permanent internal battery powered RAM memory. Multilingual: English, French, German, Spanish, Portuguese and Czech.

### Industrial:

- Weight-Tare.
- Piece counting.
- Weight accumulation.
- Programmable pre-fixed tares.

### Dosing

## OPTIONAL ACCESSORIES:

**89312** PC KEYBOARD

**89313** MATRIX-PRINTER CABLE (3 Meters)

**89314** MATRIX-PC CABLE (3 Meters)

**89401** AMPLIATION 2nd SCALE FOR ANALOGUE LOAD CELLS

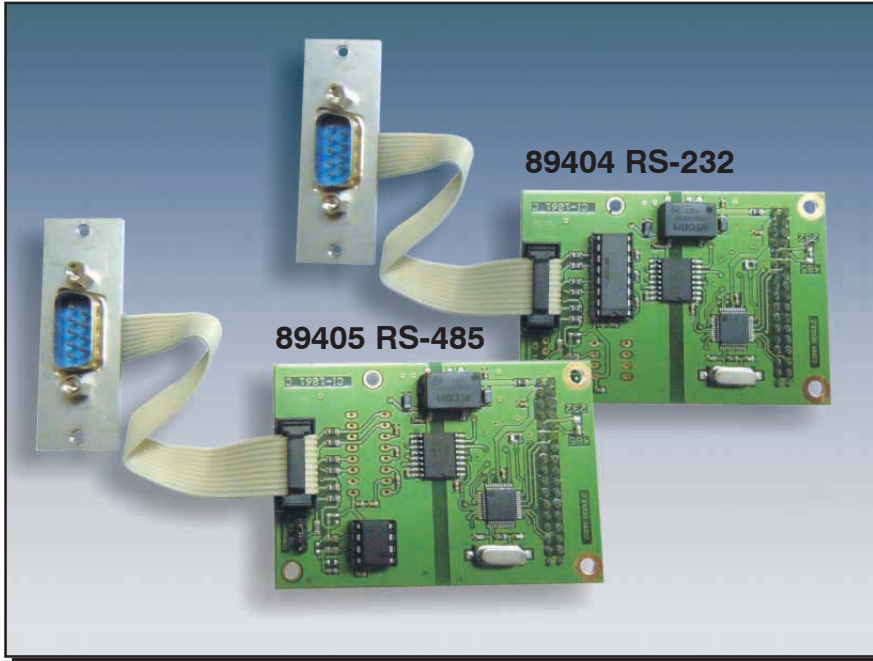
**89402** AMPLIATION 2nd SCALE FOR DIGITAL LOAD CELLS

**89404** RS232 OPTO-ISOLATED EXPANSION PORT

**89405** RS485 OPTO-ISOLATED EXPANSION PORT

**89406** DIGITAL INPUTS/OUTPUTS MODULE

**89407** ANALOG OUTPUT MODULE:  
0-5V, 0-10V, 0-20mA and 4-20mA

**ACC. RS-232/RS-485 OPTO-ISOLATED EXPANSION PORT MATRIX II**


- 1 additional serial port RS-232 (Acc. **89404**) or RS-485 half-duplex (Acc. **89405**).
- Automatic detection as MATRIX II COM4.
- Galvanic isolation between MATRIX II and peripheral.
- Configurable communication parameters (up to 115200 bps).
- Communication with printer, remote display, computer or other equipments.
- Mounted inside of the MATRIX II without welding.
- Transport weight: 0.06 kg.

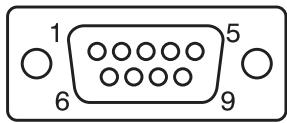
**Additional specifications for RS-485**

- Specially suitable for installations with long distances between indicator and peripheral or computer.
- Can be used to control external modules.

- 1 zusätzlicher serieller Kommunikationskanal RS-232 (Acc. **89404**) oder RS-485 halbduplex (Acc. **89405**).
- Automatische Detektion als COM4 des Wägeterminals MATRIX II.
- Optische Isolation zwischen MATRIX II und Peripheriegerät.
- Einstellbare Kommunikationsparameter (bis zu 115200 bps).
- Verbindung zu Drucker, Fernanzeige, PC oder anderen Geräten.
- Einfache Montage in Wägeterminal MATRIX II ohne Löten.
- Transportgewicht: 0.06kg.

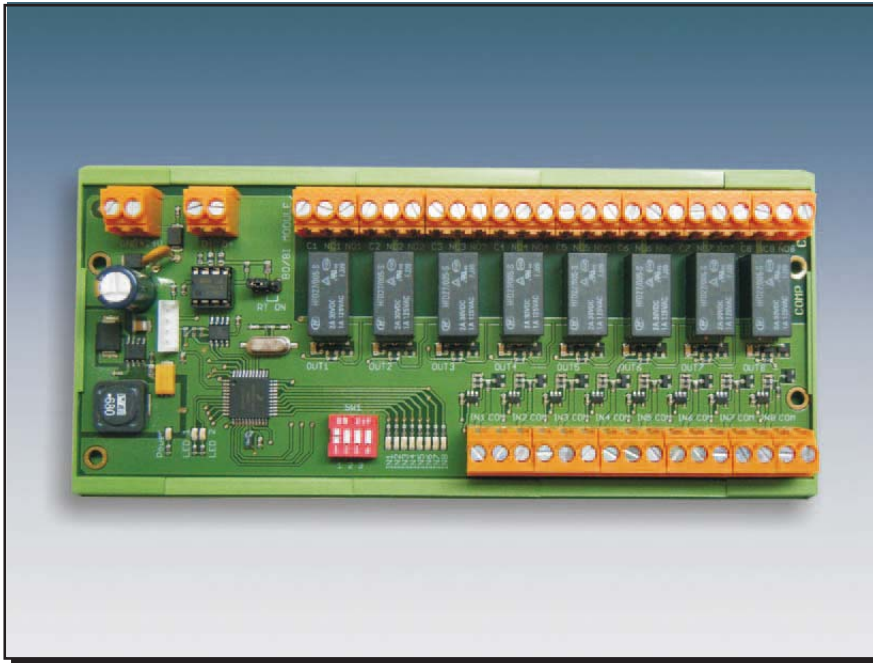
**Zusätzliche Daten für RS-485**

- Speziell geeignet für Installationen mit grossen Entfernungen zwischen Wägeterminal und PC oder Peripheriegeräten.
- Geeignet für Kontrolle der externen Module.

Acc. <b>89404</b> (RS-232)			Acc. <b>89405</b> (RS-485)	
PIN	SIGNAL		PIN	SIGNAL
2	RxD	1	A (DATA+)	
3	TxD	5	GND	
5	GND	6	B (DATA-)	

## ACC. DIGITAL INPUTS/OUTPUTS MODULE MATRIX II ACC. MODUL DIGITALE EIN-/AUSGÄNGE MATRIX II

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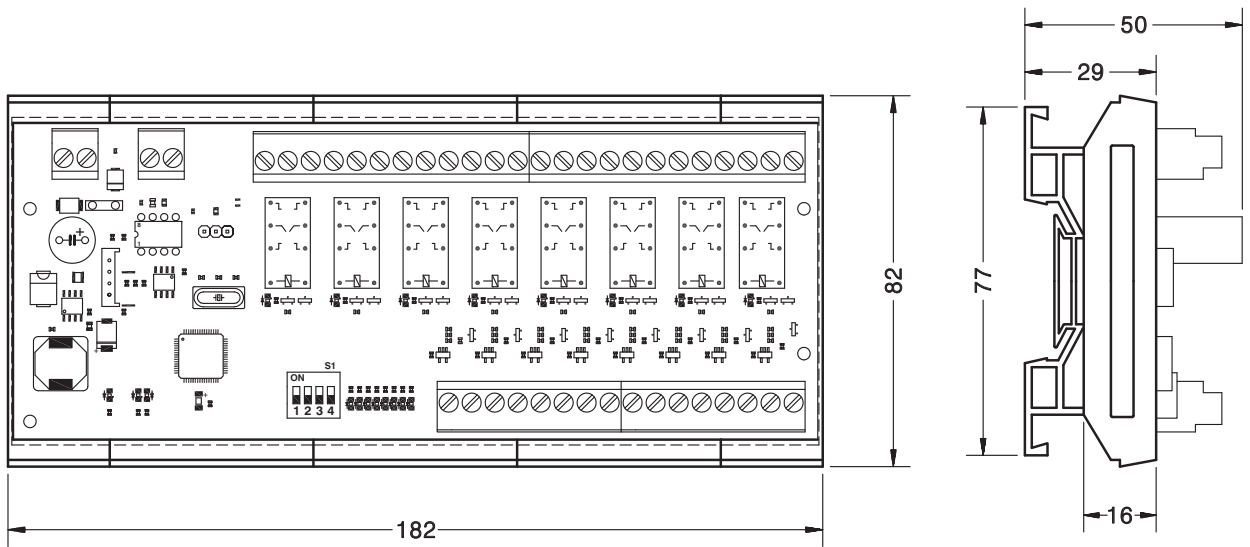
This module is an external board assembled on a DIN rail with:

- 8 digital contact relay outputs, with several functions like: level indication or alarms (setpoints), barriers and traffic lights control at weighbridge, valve control for dosing, etc.
- 8 digital inputs: for connection to external panels of push buttons or to plc, to activate functions such as zero, tare, printing, and the external signals needed for a dosing control.
- 8 relays 125 V AC/1 A or 30 V DC/1 A, with LEDs to indicate the state.
- 8 inputs (max. 24 V DC) with LEDs to indicate the state.
- Power supply: 12 - 28 V DC / 2.5 W.
- Connection to Matrix II (COM3 or COM4) by a high speed RS-485 bus (115200 bps) with communication status LEDs.
- MATRIX II indicator admits up to 15 modules in the same RS-485 bus.
- Assembly on standard 35 mm DIN rail.

Externes Modul zur Montage auf DIN Hutschiene:

- 8 digitale Relaiskontakte mit verschiedenen Funktionen: Füllstandshöhe oder Alarme (Schaltpunkte), Schrankenkontrolle und Lichtzeichen bei Fahrzeugwaagen, Füllstandskontrolle bei Dosierungen, etc.
- 8 digitale Eingänge für externe Schalter oder programmierbare Steuerungen zur Aktivierung von Funktionen wie Nullpunkt, Tara, Drucken und der externen Signale zur Steuerung der Dosierungen.
- 8 Relais 125 V AC/1 A oder 30 V DC/1 A, mit LED zur Zustandsanzeige.
- 8 Eingänge (max. 24 V DC) mit LED zur Zustandsanzeige.
- Spannungsversorgung 12 - 28 V DC / 2.5 W.
- Schnelle RS-485 Schnittstelle für Matrix II COM3 oder COM4 (115200 Bit/Sek) mit LED zur Zustandsanzeige.
- Bis zu 15 Module können über die RS-485 am MATRIX II angeschlossen werden.
- Auf 35 mm DIN Hutschiene aufsteckbar.

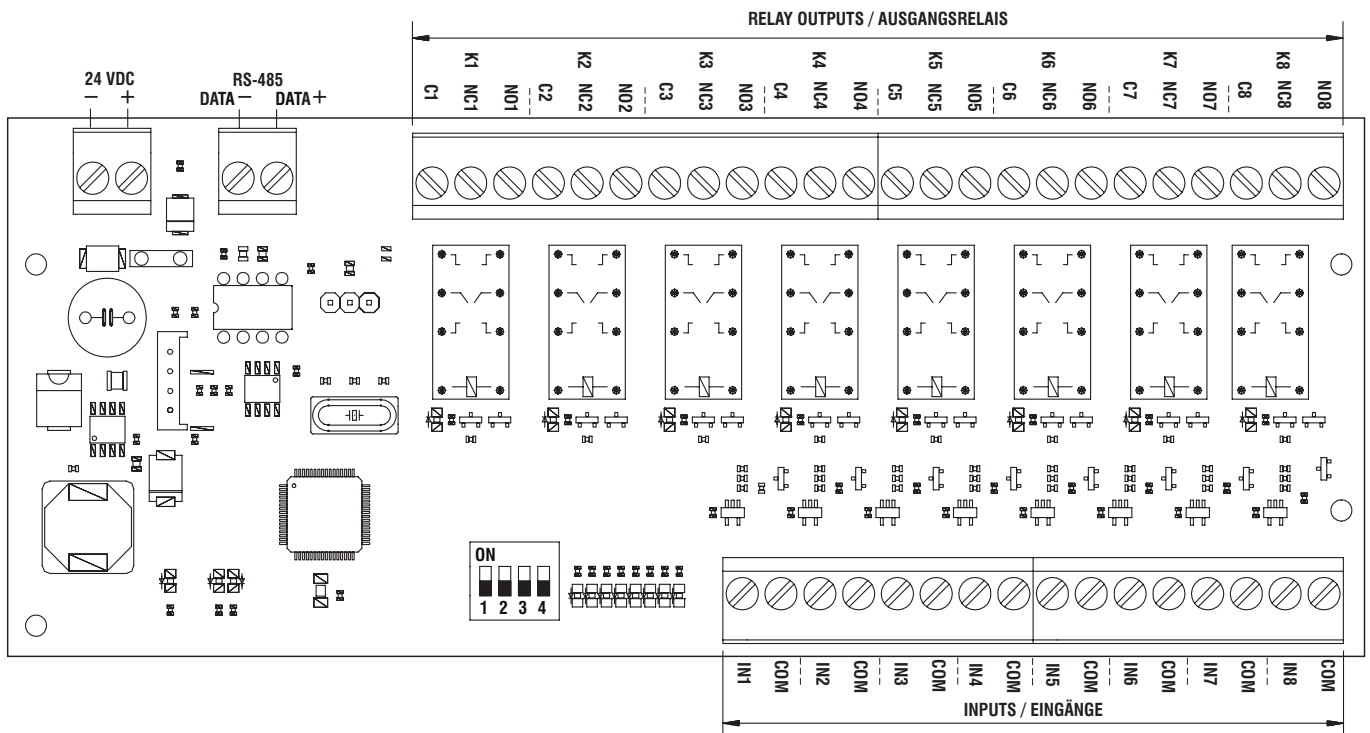
# ACC. 89406



Dimensions in mm. Abmessungen in mm.

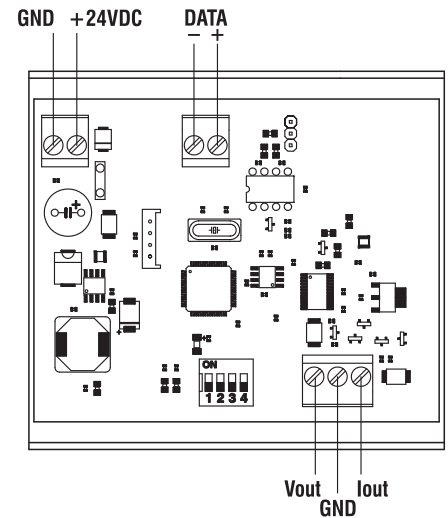
Transport weight - Transportgewicht: 0.36 kg

## INSTALLATION / ANSCHLUSSPLAN:



# ACC. ANALOG OUTPUT MODULE MATRIX II

## ACC. MODUL ANALOGAUSGANG MATRIX II



This module is an external board assembled on a DIN rail with:

- Analog output:  
0-5V, 0-10V, 0-20mA or 4-20mA
- Power supply: 12 - 28 V DC / 2.5 W.
- Connection to Matrix II (COM3 or COM4) by a high speed RS-485 bus (115200 bps) with communication status LEDs.
- MATRIX II indicator admits up to 2 modules in the same RS-485 bus (one per installed scale).
- Assembly on standard 35 mm DIN rail.

Externes Modul zur Montage auf DIN Hutschiene:

- Analogausgang:  
0-5V, 0-10V, 0-20mA oder 4-20mA
- Stromversorgung: 12 - 28 V DC / 2.5 W.
- Schnelle RS-485 Schnittstelle für Matrix II COM3 oder COM4 (115200 Bit/Sek) mit LED zur Zustandsanzeige.
- Das Wägeterminal MATRIX II unterstützt bis zu 2 Module im RS-458-Bus (eins pro Waage).
- Auf 35 mm DIN Hutschiene aufsteckbar.

