SIGMATEK

TAE 1931

Touch Display Unit

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TOUCH DISPLAY UNIT TAE 1931

The TAE 1931 touch display unit is used to visualize automated processes. The operation and monitoring of automated procedures are simplified using this display unit.

A touch screen serves as the input medium for process data and parameters. The output is shown on a 19" SXGA TFT color display with LED backlighting.

The transfer of the display signals is realized with a display port interface. The realize the USB connection a A to B USB cable is needed.

Contents

1 Technical Data

1.1 Performance Data

Interfaces	1x display port IN (maximum cable length: 20 m) 1x USB 2.0 Type B IN (maximum cable length: 5 m) 2x USB2.0 Type A Only until HW 1.1: 1x chip card reader (optional)
Internal interface connections and devices	1x TFT color display 1x touch
Control panel	Touch-Screen (resistive)
Display	19" TFT color display SXGA, 1280 x 1024 Pixel LED backlight
LEDs	Status display

1.2 Electrical Requirements

Supply voltage	minimum +18 V DC	maximum +30 V DC
Current consumption Supply voltage	1.3 A to 24 V	
Inrush current	maximum 28 A for <1 ms	

1.3 Terminal

Dimensions	462 x 360 x 57 mm (H x W x D)
Weight incl. mounting bracket	typically 7 kg

1.4 Environmental Conditions

Storage temperature	-20 ... +60 °C	
Operating temperature	0 … +50 °C	
Humidity	10-90 %, non-condensing	
EMC tolerance	EN 61000-6-2 (industrial area): EMV resistance EN 61000-6-4: noise emission	
Vibration resistance	EN 60068-2-6	2-9 Hz: amplitude 3.5 mm 9-200 Hz: 1 g (10 m/s²)
Shock resistance	EN 60068-2-27	15 g (150 m/s²), duration 11 ms, 18 Shocks
Protection Type	EN 60529: protected through the housing	front: IP54 cover: IP20

1.5 Display

Type	19" TFT color display
Resolution	SXGA, 1280 x 1024 pixels
Backlighting	LED backlight
Life span	after 50,000 hours at an ambient temperature of 25 °C, the brightness reduces to 50% of the original power.

1.6 Control Unit

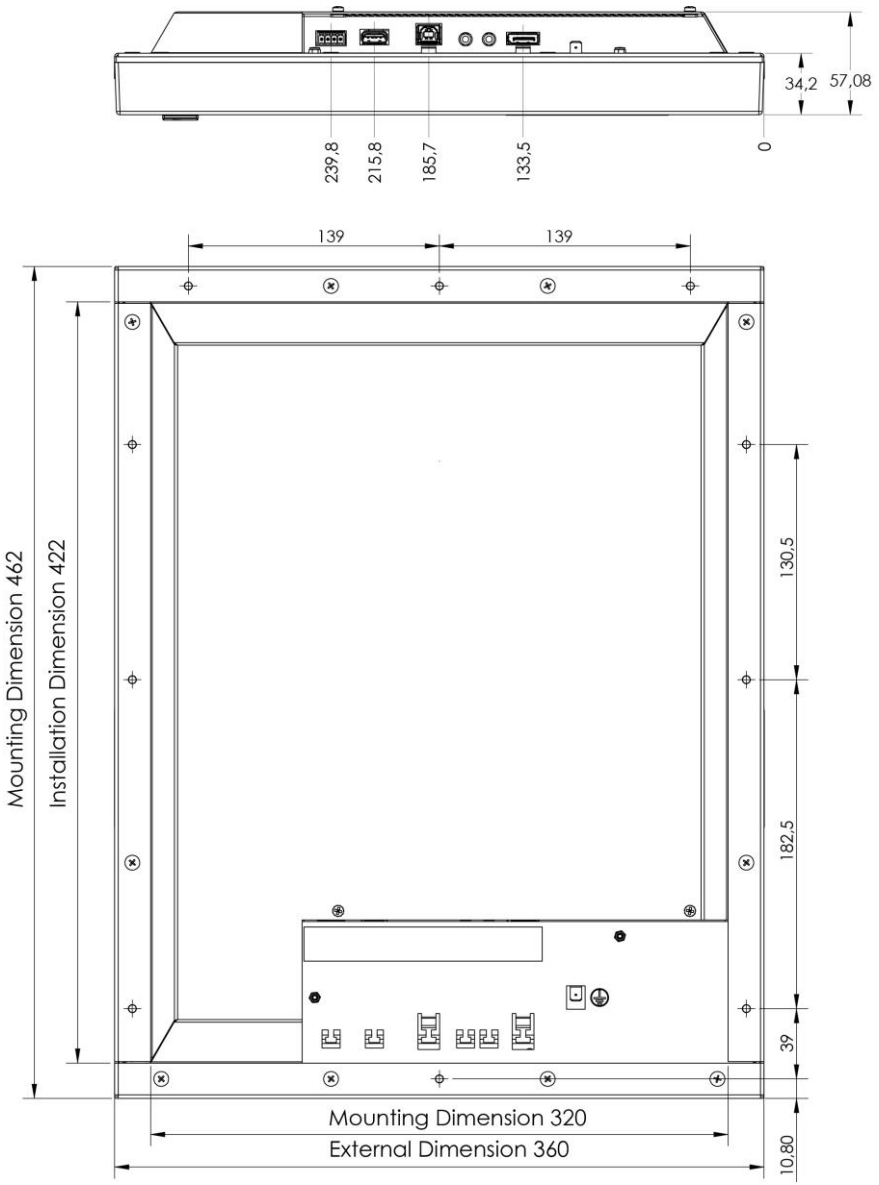
Touch panel	analog resistive glass touch panel
Active surface	376.3 x 301.1 mm

1.7 Miscellaneous

Article number	12-200-1931
Hardware version	1.x / 2.x

2 Mechanical Dimensions

In mm



3 Chemical Resistance

3.1 Touch Interface

Solution	Visual Effect
Coal tar oil / toluene	None
Trichloroethylene	None
Acetone	None
Alcohol	None
Benzine	None
Machine oil	None
Ammonia	None
Glass cleaner	None
Mayonnaise	None
Ketchup	None
Wine	None
Salad oil	None
Vinegar	None

3.2 Touch Protective Foil

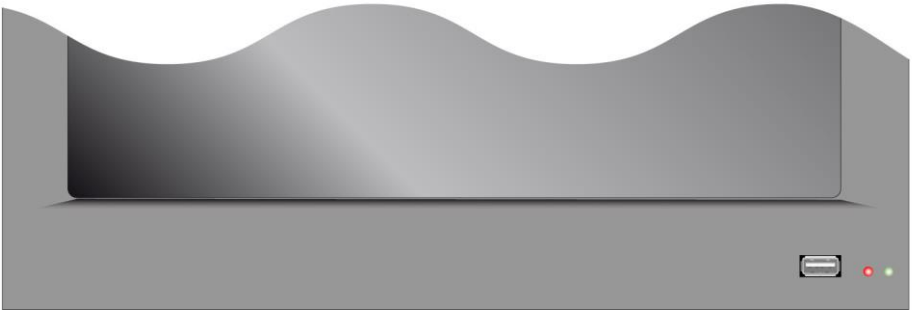
To extend the lifespan of the touch screen as must as possible, a protective foil is places of the touch field.

The foil adds the following properties.

- High chemical stability
- Hard surface
- Splitter protection
- Easy to clean
- Matt anti-reflective surface

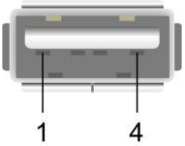
4 Connector Layout

4.1 Front



X7

X7: USB 2.0 (Type A)



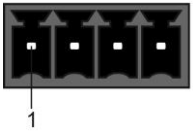
Pin	Function
1	+5 V
2	D0-
3	D0+
4	GND

Status Displays

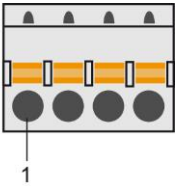
LED Status	Definition
Green LED blinks	Connection established during power up
LED lights green	Connection established

4.2 Back

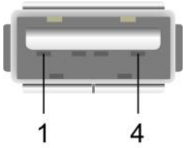
X1: Power Supply



Pin	Function
1	+24 V supply
2	+24 V supply
3	GND
4	GND

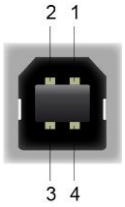


X2: USB 2.0 (Type A)



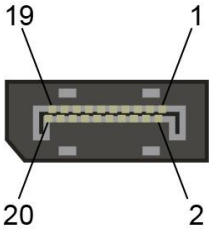
Pin	Function
1	+5 V
2	D0-
3	D0+
4	GND

X3: USB 2.0 (Type B)



Pin	Function
1	DA+
2	DA-
3	DB+
4	DC+
5	DC-
6	DB–
7	DD+
8	DD-

X6: Display port IN



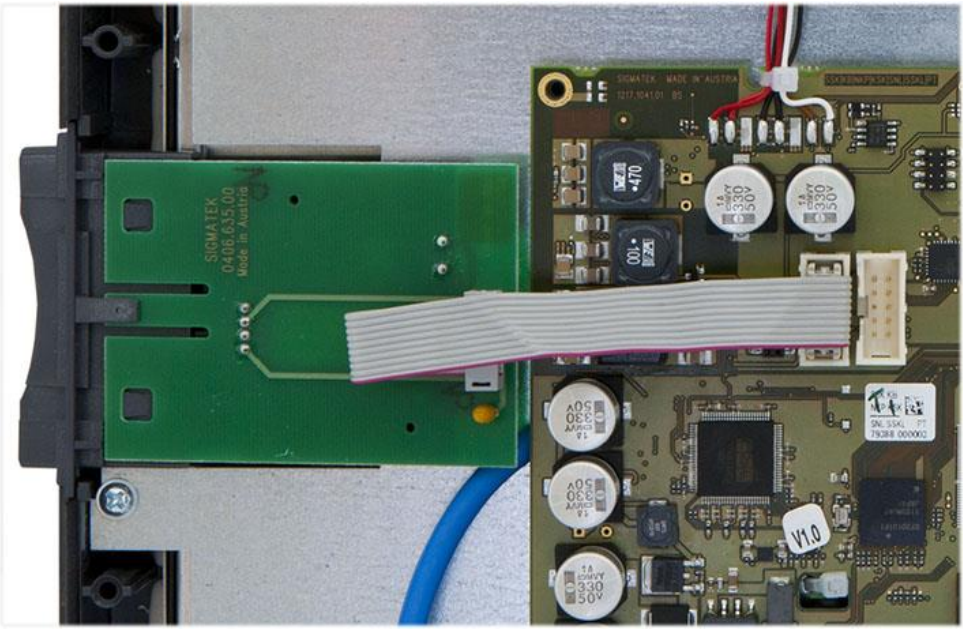
Pin	Function
1	Lane 3 (n)
2	GND
3	Lane 3 (p)
4	Lane 2 (n)
5	GND
6	Lane 2 (p)
7	Lane 1 (n)
8	GND
9	Lane 1 (p)
10	Lane 0 (n)
11	GND
12	Lane 0 (p)
13	Config1
14	Config2
15	AUX CH (p)
16	GND
17	AUX CH (n)
18	Hot Plug
19	Return
20	n.c.

n.c. = do not use

The complete C-DIAS CKL 072 connector set with spring terminals is available from SIGMATEK under the article number 12-600-072.

5 Chip Card Reader (only until HW 1.1)

A chip card reader can be added as shown below. The order number of the chip card reader is: 12-235-011.



Caution:
The chip card reader can only be mounted as shown in the photo above!

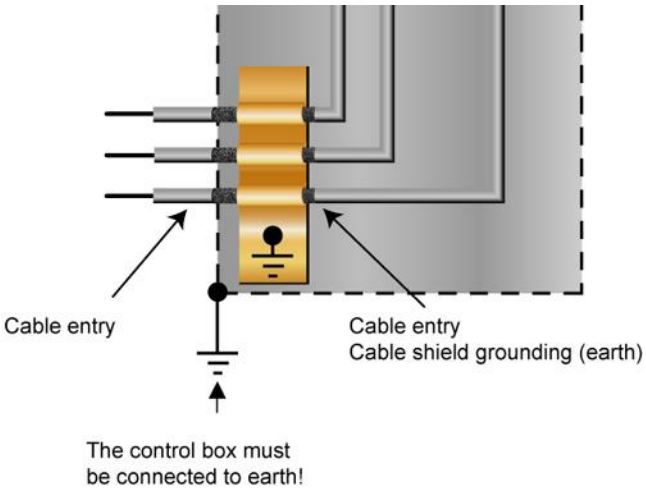
Attention:
Le lecteur de carte à puce peut être monté uniquement comme le montre la photo ci-dessus!

6 Wiring Guidelines

6.1 Ground

The terminal must be connected to ground through the assembly on the control cabinet or over the connection provided. It is important to create a low-ohm ground connection, only then can error-free operation be guaranteed. The ground connection should have a maximum cross section and the largest (electrical) surface possible.

Any noise signals that reach the terminal over external cables must be filtered through the ground connection. High frequency noise can also be dissipated with a large electrical surface (skin effect).



6.2 ESD Protection

Typically, USB devices (keyboard, mouse) are not equipped with shielded cables. These devices are disrupted by ESD and in some instances, no longer function.

Before any device is connected to, or disconnected from the terminal, the potential should be equalized (by touching the control cabinet or ground terminal). Electrostatic loads (through clothing and shoes) can thereby be dissipated.

7 Cleaning the Touch Screen

CAUTION!
Before cleaning the touch screen, the terminal must first be turned off to avoid unintentionally triggering functions or commands!

ATTENTION!
Avant de nettoyer l'écran tactile, le terminal doit d'abord être éteint afin d'éviter un déclanchement involontaire des commandes!

The terminal's touch screen can only be cleaned with a soft, damp cloth. A screen cleaning solution such as an anti-static foam, water with a mild detergent or alcohol should be used to dampen the cloth. The cleaning solution should be sprayed onto the cloth and not directly onto the terminal. The cleaning solution should not be allowed to reach the terminal electronics, for example, through the ventilation slots.

No erosive cleaning solutions, chemicals, abrasive cleansers or hard objects that can scratch or damage the touch screen may be used.

If the terminal comes into contact with toxic or erosive chemicals, carefully clean the terminal immediately to prevent corrosion!

To ensure the optimal function of the terminal, the touch screen should be cleaned at regular intervals!

To extend the lifespan of the touch screen as much as possible, using the fingers to operate the terminal is recommended.

Pour garantir le fonctionnement optimal du terminal, le terminal doit être nettoyé régulièrement!

Pour prolonger la durée de vie de l'écran tactile on recommande d'utiliser les doigts pour l'opérer.

Documentation Changes

Change date	Affected page(s)	Chapter	Note
25.11.2013	3	1.1	maximum cable length added
21.11.2014	9		connector set text added (grayed)
23.04.2015			Touch pen
23.03.2017	6	3.2 Touch Protective Foil	Added chapter
05.07.2019		Document	Chip card reader only until HW 1.1