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USER'S MANUAL

MINI T/C

(MINI TRANSCEIVER / CONVERTER)



THE INTERFACE FOR WYLER MEASURING INSTRUMENTS AND SENSORS



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Änderungen / Modifications:

Date	Modified by	Description of the Modification
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1. INTRODUCTION

1.1. Description of the Interface MINI T/C

The MINI T/C has been developed by WYLER SWITZERLAND as an alternative interface instead of the LEVELMETER 2000 for the electronic inclination measuring instruments with digital measuring unit. Besides the excellent measuring precision these measuring instruments feature the advantage that the measuring signals are captured in digital form and can thus be transmitted over long distances without any loss of accuracy.

The MINI T/C can be used in combination with all WYLER inclination measuring instruments with digital measuring unit. All relevant data like

- calibration data
- address of the instrument

are memorised in the respective measuring instruments. By the RS 232 interface the MINI T/C enables the transmission of the measuring values to a PC/Laptop and to the WYLER measuring software LEVELSOFT PRO and MT-SOFT as well as to any other measuring software, e.g. LabVIEW™

Advantages compared to the LEVELMETER 2000

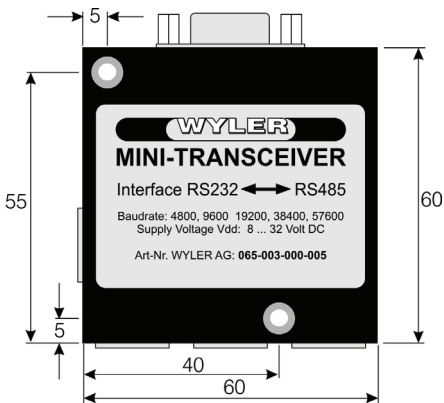
- simple configuration
- reduced costs

Disadvantages compared to the LEVELMETER 2000

- no display of the measuring values
- change of the address of a measuring instrument not possible
- a PC with measuring software LEVELSOFT PRO, MT-SOFT, LabVIEW™ is indispensable

1.2. General

The MINI Transceiver links WYLER measuring instrument with RS 485 signal output to a PC or Laptop and provides stabilised voltage supply at 5 Volt. The scope of delivery includes a standard connecting cable RS 232 to the PC, length 1,8 meters.

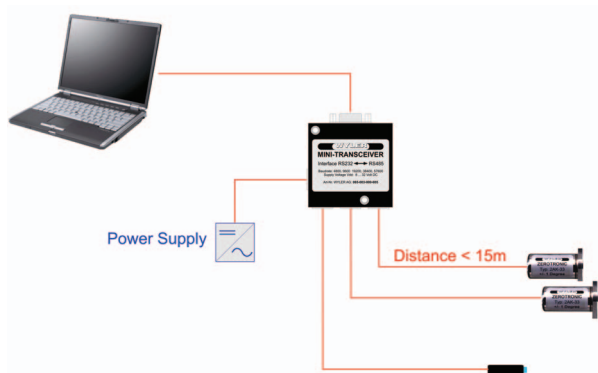


Automatic baud rate detection
4'800 / 9600 / 19200 / 38400 / 57600 baud
(first two "tildes" are deciding)

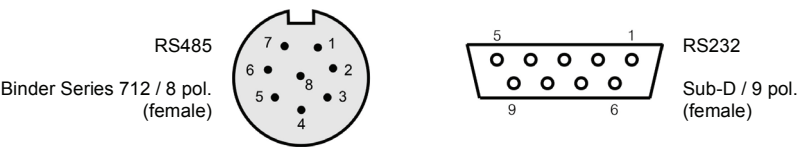
Remarks:

- An external power supply unit 12...24 Volt DC is necessary
- In connection with the WYLER software DYNAM a STANDARD T/C must be used

1.3 Possible Configurations (Example with ZEROTRONIC-Sensors)



1.4 PIN-Assignment



PIN-ASSIGNMENT ALL RS485-PORTS

Pin Number	Pin Name	Pin Type	Pin Function
1	VPP	Power in	Unregulated Power
2	VSS	GND	Ground
3	VDD	Power out	Power +5V
4	RTA	Input/Output	RS485-Line A
5	RTB	Input/Output	RS485-Line B
6	-	-	-
7	-	-	-
8	KEY*	Input	Trigger Key

* Measuring can be triggered via „Key-Cable“ / WY 065-025-KEY

PIN-ASSIGNMENT RS232-PORT

Pin Number	Pin Name	Pin Type	Pin Function
1	NC		
2	RD	Output serial	RS232-Line
3	TD	Input serial	RS232-Line
4	NC		
5	GND	GND	Ground
6	NC		
7	NC		
8	NC		
9	NC		

1.5 **Absolut maximum ratings †**

- Unregulated Supply Voltage VPP with respect to VSS (RESPECT POLARITY) **0V to + 32V**
- Supply Voltage VDD with respect to VSS **0V to + 6.5V**
- Input Voltage ENA,ENB and RTS with respect to VSS **- 0.5V to VDD + 0.5V**
- Input Voltage RTA and RTB with respect to VSS **- 14V to + 14V**
- Ambient temperature under bias **- 40°C to + 85°C**
- Storage temperature **- 40°C to + 85°C**

† Notice:
Stresses above those listed under „Maximum Ratings“ may cause permanent damage to the device!

1.6 **DC Characteristics**

Operation Conditions: 4.5V <= VDD <= 5.5V, -40°C <= TA <= 85°C

Characteristic	Symbol	Min	Type	Max	Unit	Conditions
Supply voltages and currents <ul style="list-style-type: none">Unregulated Supply VoltageRegulated Supply Voltage	VPP	10.0		32.0	V	IDD = 0 VPP = 0.0 V IPP = 0
	VDD	4.5		5.5	V	
• Supply Current	IPP		160.0 60.0		MA MA	VPP = 10.0V IDD = 0 VPP = 24.0V IDD = 0
	IDD		100.0		MA	VPP = 0.0 V IPP = 0
	KEY input					
• Input Low Voltage	VIL			0.8	V	VIN = 0.0 V
• Input High Voltage	VIH	2.4			V	
• Input Current	IIN			2.0	MA	
RS485 parameter RTA & RTB						
• Common Mode Input Voltage	VCM	- 7		12	V	
• Receiver Input Hysteresis	VTH		70		mV	VCM = 0V
• Receiver Input Resistance	RIN	12			kΩ	- 7V ≤ VCM ≤ + 12V
• Differential Driver Output Voltage	VOD	1.5		VDD	V	R = 27Ω
• Driver Output Current	IOD	55			mA	

1.7 **RS232 INTERFACE**

Parameter	Value
• Databit	7
• Stopbit	2
• Parity	None
• Baudrate	4800 to 57600 Baud (autom. detection)

2. MAINTENANCE

2.1. General

The MINI T/C does not require any special maintenance apart from normal cleaning.

3. REPAIR OF MEASURING INSTRUMENTS

Normally any instruments requiring repair can be sent to the local WYLER partner (local distributor) who will take the necessary steps and make the arrangements for repair on behalf of the customer.

Express Repair Service, ERS

A large number of customers can not miss the instruments for a longer period as these are in daily operation. For these cases WYLER SWITZERLAND has created a new service called "Express Repair Service, ERS". Employing this service the transport time from the user to WYLER SWITZERLAND and back and thus the complete repair time can be reduced considerably.

A simplified description of this service:

- The customer announces the repair request to the local WYLER partner in his country.
- The WYLER partner will inform the customer about the possibility of the ERS service outlining the advantages and consequences of this service, such as e.g.
 - reduced total repair time
 - required acceptance to repair without quote up to 65 % of the price for a new instrument
 - suitable packing for air transport
 - expenses of the ERS
- In case the customer decides to use the ERS, the customer informs the local WYLER partner or directly WYLER SWITZERLAND providing the necessary data.
- The customer will receive all information and instructions necessary for a smooth handling, the customer has just to pack the product suitably and to fill in a form for the **TNT courier service** as well as to announce the readiness to the local TNT office for pick-up. Everything else will run automatically.
- Products reaching WYLER SWITZERLAND under this service will be handled with **first priority**, and the instrument will be returned using the same carrier.
- The invoicing will be through the WYLER partner in your country.

Please do not hesitate to make use of this service in order to have your WYLER instrument back at your disposal as soon as possible. In case of any questions please contact WYLER SWITZERLAND or your local distribution partner; we will gladly help you to use the ERS successfully.

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