

# MTA - MULTICOLOUR TEXT DISPLAY WITH SERIAL INTERFACE

## Features

- Maintenance free LED -display ready to connect
- Available in two pixel sizes
- 5 serial interfaces
- 4 font sizes (at the same time)
- 5 fonts (at the same time)
- 6 presentation types
- Character set according to ISO/IEC-norms
- Up to 8 free definable fields
- Integrated clock and date function
- Integrated text storage
- Display of time controlled texts
- Integrated power supply
- Industrial case design
- Case protection class IP 54
- WIBOND standard polishing



## Advantages

- Good readability, also at greater distances, through light-intensive display modules
- Long-life display modules
- Multicolor representation
- Optimal display for environmental conditions (e.g. brightness, font size)
- Wide reading angle
- Information displayed in clear text
- Low power input
- All connections accessible from the outside
- Adjustable data transfer rate
- Fast update time
- Enlarged international character set
- Representation of descenders
- Bus-able up to 32 devices
- Power supply with wide range input
- Industrial construction

## Options

- More sides
- More lines
- Custom case design
- Adjustable mounting angle
- Case finish in any RAL-colour
- Case design (aluminium, stainless steel or other materials)
- Case protection class IP 65
- Case design for Ex-area
- Individual mounting possibilities
- Ultra Bright LED's for areas with high ambient light
- Audible output
- Text call-up via parallel interface
- Bus-able up to 255 devices
- Wide temperature range
- Power supply 24VDC  $\pm$  20%

## Application examples

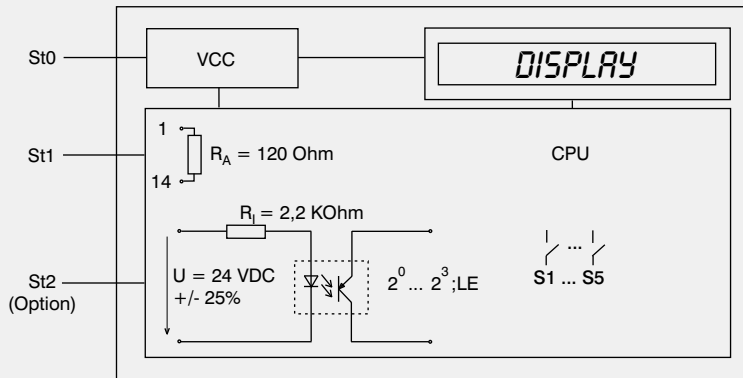
- Production data (motivation of employees e.g. plan-, actual-, trend-representation)
- Controlling and recognition of defects or incidents (e.g. fault message displays, diagnostic system)
- Logistical information (e.g. article numbers, description of goods)
- Traffic information (e.g. car park control system)
- Danger warnings (e.g. fire alarms)
- General information to employees (e.g. place and time of a meeting)
- Visitor information (e.g. welcome messages)
- Call-up systems (e.g. with audible call for next customer)

## Technical Data

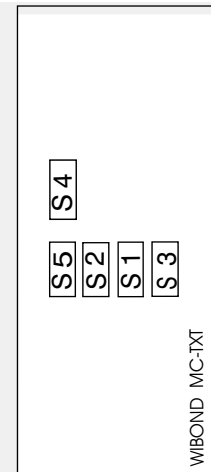
	Standard Resolution	High Resolution
Digit height (font height)	50, 60, 90, 120 mm	30, 35, 55, 70 mm
Reading distance	approx. 20 m with 50 mm digit height	approx. 10 m with 30 mm digit height
	approx. 25 m with 60 mm digit height	approx. 15 m with 35 mm digit height
	approx. 35 m with 90 mm digit height	approx. 22 m with 55 mm digit height
	approx. 50 m with 120 mm digit height	approx. 30 m with 70 mm digit height
Number of digits at fix character width	max. 42 digits with 50 mm digit height	max. 42 digits with 30 mm digit height
	max. 42 digits with 60 mm digit height	max. 42 digits with 35 mm digit height
	max. 28 digits with 90 mm digit height	max. 28 digits with 55 mm digit height
	max. 21 digits with 120 mm digit height	max. 21 digits with 70 mm digit height
Display area	max. 120 x 1950 mm	max. 70 x 1220 mm
Pixel diameter	5 mm	3 mm
Pixel pitch	7,62 mm	4,76 mm
Resolution	max. 16 x 256 pixels	
Reading angle	$\pm 75^\circ$	
Colours	16	
Character set	ISO/IEC 8859 with extension ISO/IEC 8859-1	
Operating voltage	100...240VAC / 50...60Hz	
Data input	RS232, RS422, RS423, RS485, TTY (20mA current loop)	
Data transfer rate	1200 ... 38400 Baud	
Text storage	64 kByte (10 years data protection)	
Integrated clock	quartz controlled (1 week power reserve)	
Case design	one- or two sided	
Case material	sheet steel	
Case mounting	wall mounting or suspended	
Case colour	RAL 7015 (slate-gray)	
Case protection class IP 54	DIN EN 60529	
Electrical safety	DIN EN 60950	
Radiated interference	DIN EN 50081	
Interference immunity	DIN EN 50082	
Plexiglas	anti-reflection coated	
Temperature area	0 ... +50 °C	
Relative humidity	0 ... 90 % not condensed	

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## Block diagram



## Position of switches



## Adjustment

### Interface S1

1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
RS232:*	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RS422:	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
RS485:	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
RS423:	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
TTY 20mA (Display active):	ON	OFF	ON	OFF	ON	OFF	ON	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
TTY 20mA (Display passive):	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF

### Answer/echo operation S5

5	6		
OFF	ON	answer operation *	(display sends an answer telegram after each command telegram)
ON	OFF	echo operation	(display sends back the received command telegram immediately)
7			
ON			RS422 / RS485
OFF			all others

### Device address S3

1	2	3	4	5	6	address
(2 <sup>0</sup> )	(2 <sup>1</sup> )	(2 <sup>2</sup> )	(2 <sup>3</sup> )	(2 <sup>4</sup> )	(2 <sup>5</sup> )	
OFF	OFF	OFF	OFF	OFF	OFF	"0" (30h)*
ON	OFF	OFF	OFF	OFF	OFF	"1" (31h)
OFF	ON	OFF	OFF	OFF	OFF	"2" (32h)
ON	ON	OFF	OFF	OFF	OFF	"3" (33h)
.	.	.	.	.	.	
ON	ON	ON	ON	ON	ON	"o" (6Fh)

### Interface parameter S4

4	5	6	7	Data bit	parity	stop bits
ON	ON	ON	ON	7	odd	2
OFF	OFF	OFF	OFF	8*	none*	1*

### Baud rate S4

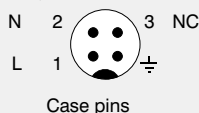
1	2	3	Baud
OFF	OFF	OFF	1200
ON	OFF	OFF	2400
OFF	ON	OFF	4800
ON	ON	OFF	9600*
OFF	OFF	ON	19200
			(not possible with TTY)
ON	OFF	ON	38400
			(not possible with TTY)

## Pin assignments

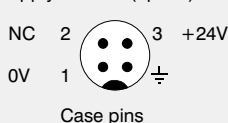
### Power supply St0

Type of cable:  
at 230VAC: Connecting cable (e.g LAPP-cable Ölflex CLASSIC 100 3x1,5mm<sup>2</sup>)  
at 24VDC: Connecting cable (e.g LAPP-cable Ölflex CLASSIC 100 3x1,5mm<sup>2</sup>)

Power supply: 230VAC



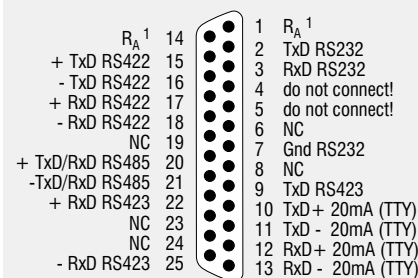
Power supply: 24VDC (option)



Attention: Disconnect plug before opening!  
Display may only be opened and connected by trained service personnel!

### Serial interface St1

Type of cable:  
Data cable with Cu-screening braid (e.g. LAPP-cable UNITRONIC 100YC from 0,14mm<sup>2</sup>)  
Shield has to be connected to the plug housing!!

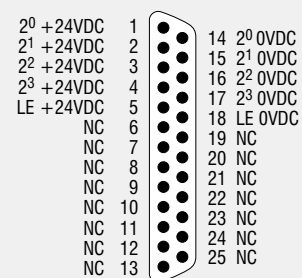


Case pins

<sup>1</sup> use for bus termination

### Parallel interface St2 (option)

Type of cable:  
Data cable with Cu-screening braid (e.g. LAPP-cable UNITRONIC 100YC from 0,14mm<sup>2</sup>)  
Shield has to be connected to the plug housing!!



Case bushing

\* Factory settings (if there is no agreement between customer and WIBOND!)