



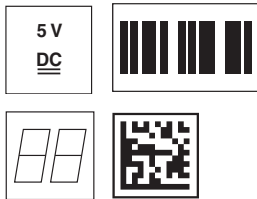
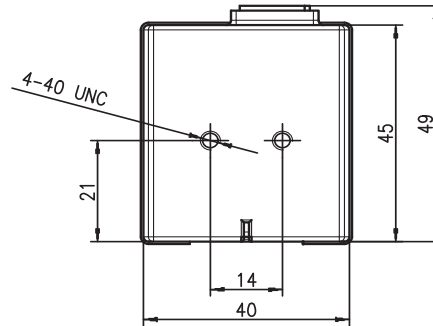
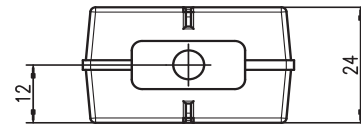
IT 4715

2D-code scanner

Part No. 501 06671



Dimensioned drawing



- Very small and compact scanner for 2D codes, bar codes and batch codes
- High resolution
- Trigger via serial command
- Built-in decoder
- Read-display
- RS 232 or USB interface
- Operating temperature from 0 through 50°C

Electrical connection

for TTL RS 232 cable / ext.

9-pin Sub-D	Signal	Connection for power supply unit	IT 4715 RJ41
SH	Shield	SH	2
2	TXD		6
3	RXD		5
5	GND	1	4
7	CTS		9
8	RTS		8
	5VDC	2	7

for TTL RS 232 cable / PIN 9

9-pin Sub-D	Signal	IT 4715 RJ41
SH	Shield	2
2	TXD	6
3	RXD	5
5	GND	4
7	CTS	9
8	RTS	8
9	5VDC	7

for USB cable

USB type A	Signal	IT 4715 RJ41
1	5VDC	7 + 3
2	Data -	10
3	Data +	2
4	GND	4



Accessories

- **Power supply unit for IT 4xxx**
Part No. 501 03403
- **TTL RS 232 cable/ext IT 4xxx**
Part No. 501 04442
- **TTL RS 232 cable/PIN 9 IT 4xxx**
Part No. 501 04586
- **USB cable for IT 4xxx**
Part No. 501 03404

We reserve the right to make changes *BP_IT4715_gb_fm



Specifications

Electrical data

Operating voltage U_B	5VDC $\pm 10\%$
Power consumption	250 mA

Interfaces

Interface type	USB, TTL level RS 232
Trigger	serial command or auto-trigger mode

Code types

2D codes	Data Matrix ECC 200, MaxiCode, PDF417, MicroPDF, QR Code, Aztec, Aztec Mesas, Code 49, EAN/UCC Composite
Bar codes	2/5 Interleaved, Code 39, Code 128, Code 93, Codabar, UPC/EAN, RSS, Codablock
OCR	OCR-A, OCR-B

Optical data

Optical system	high-resolution pixel array 752x480
Contrast	45% (black/white)
Light source	integrated diffuse LED 626nm
Read distance	53 ... 333mm
Read direction	omnidirectional, various tilt and rotational angles up to 45°

Mechanical data

Housing	UL94V0 grade
Weight	37 g
Dimensions	47.6x39.4x24.1 mm

Environmental data

Ambient temp. (operation)	0°C ... +50°C
Ambient temp. (storage)	-20°C ... +35°C
Relative air humidity	0 ... 95% (non-condensing)

Reading field

IT 4715 SR	Module or cell	from	to
Bar codes	8.3mil / 0.21 mm	89mm	191 mm
UPC bar code	13mil / 0.33mm	53mm	333mm
PDF 417 Code	6.6mil / 0.17mm	112mm	155mm
		10mil / 0.25mm	76mm
Data Matrix Code	15mil / 0.38mm	58mm	257mm
Maxi Code	35mil / 0.89mm	51 mm	328mm
IT 4715 SF	Module or cell	from	to
Bar codes			
UPC bar code	7.5mil / 0.19mm	64mm	163mm
PDF 417 Code	13mil / 0.33mm	51 mm	224mm
		6.6mil / 0.17mm	71 mm
Data Matrix Code	10mil / 0.25mm	50mm	191 mm
QR Code	15mil / 0.38mm	40mm	188mm

Order guide

2D-code scanner

		Part No.
IT 4715 SR-1-232	Standard Range, RS 232 interface	501 04049
IT 4715 SF-1-232	Special Focus, RS 232 interface	501 04050
IT 4715 SR-1-USB	Standard Range, USB interface	501 04051
IT 4715 SF-1-USB	Special Focus, USB interface	501 04052

Tables

Diagrams

Remarks

Very small and compact scanner for bar codes, with housing. Data transmission via configurable RS 232 interface or USB interface with keyboard emulation or COM port emulation.

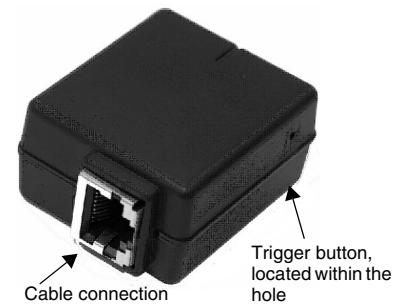
IT 4715

2D-code scanner

Connecting the IT 4715

Shown in the adjacent figure is the location of the cable connection and trigger button of the scanner. The individual steps for installing the cable on the scanner are described below.

1. To secure the interface cable to the scanner, proceed as follows:
Insert the RJ 41 connector into the socket on the bottom of the stationary scanner until the connector engages.
2. Connect the interface cable to the appropriate connection socket on the computer.
3. You may need a power supply unit for supplying voltage; alternatively, you can use a cable which supplies voltage from the computer system. Use the pin assignments (see "Electrical connection" on page 1) to select the appropriate cable for your application.
4. Connect the power supply unit to the power socket (not necessary if voltage is supplied from the computer).
5. Check the operational readiness of the scanner by pointing the scanning surface towards a flat surface and pulling the trigger. A green target line as well as the red illumination should now be visible. Now scan a sample label.
The scanner emits an audible signal to confirm that the label has been read; if necessary, the data are now passed on to the computer.



Configuration

The stationary scanner can always be configured using bar codes. To do this, the barcode must first be selected on the package insert and then the trigger actuated in order to read the code. The configuration is then immediately accepted and executed.

Several of the most important configurations are listed in the following.

A second option is to configure the stationary scanner with the USB and RS 232 interfaces with the aid of the **VisualMenu** PC program. You can download and install this program from our homepage at www.leuze.de. The program can be used to make settings and transfer them to the stationary scanner. The configuration can also be stored so that it can be reused at a later time.

Further information on this can be found in the User's Guide for the IT 4600/4800.

The standard applications are described and summarised below.

**Notice!**

Additional information on the device and short instructions can be found on the Internet at www.leuze.de.

Resetting the IT 4715 to factory settings

To reset all parameters to factory settings, scan the adjacent barcode.

**Attention!**

All settings are lost!!!



Trigger

To activate the read process, a trigger signal is to be sent via the serial RS 232 interface or USB interface (COM port emulation only). The command is to be sent at the set baud rate, parity, and data and stop bits.

The command for activation is: **SYN T CR** ASCII decimal values: 022; 084; 013

To cancel read readiness, send a deactivation.

The command for deactivation is: **SYN U CR** ASCII decimal values: 022; 085; 013

Following a successful read operation, the IT 4715 deactivates itself.

The second option is activation via the built-in trigger button. This button is built into the device and can only be accessed with the aid of a tool (pin or straightened paper clip...). Insert the pin into the hole on the side of the device and apply appropriate pressure to establish read readiness

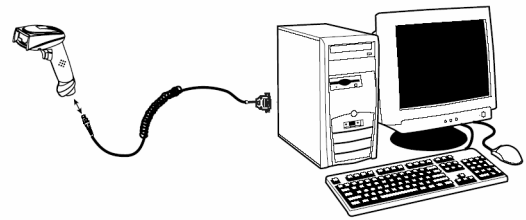


Connecting the IT 4715 to the serial PC interface

With voltage supply via PIN 9 with TTL-RS232-cable/PIN9 IT 4xxx Part No. 501 04586

required parts:

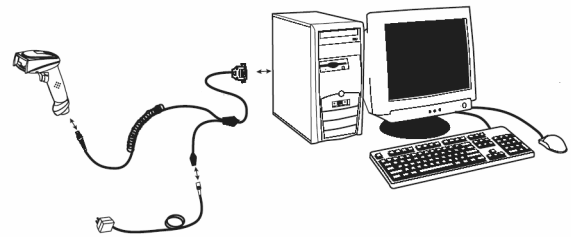
- 1x IT 4715 XX-1-232
- 1x 501 04 586 Cable TTL-RS232/PIN9



With voltage supply via power supply unit with cable RS232/ext IT 4xxx Part No. 501 04442

required parts:

- 1x IT 4715 XX-1-232
- 1x 501 04 422 Cable TTL-RS232/ext
- 1x 501 03 403 Power supply unit



Procedure:

1. Switch off the PC.
2. Connect the interface cable to a free COM port (RS 232) on the computer, to the IT 4715 as well as to the power supply unit (if present).
3. Switch the PC back on.
4. Scan the adjacent barcode.
The IT 4715 is set to the following transmission parameters:
RS 232 transmission with 115,200 baud, 8 data bits, 1 stop bit, no parity, terminators <CR><LF>.
5. If necessary, adjust the transmission parameters of the used COM port to those of the IT 4715.



Attention!

We recommend connecting the IT 4715 directly to a PC or to the MA 21 or MA 41... connector units. If connecting to other components, please note that a voltage level range of -14 ... +14V is maintained on the data lines!

Configuration for the Leuze standard protocol

Scan the adjacent 2D code.

The IT 4715 is set to the following transmission parameters:
RS 232 transmission with 9,600 baud, 8 data bits, 1 stop bit, no parity, prefix <STX>, terminators <CR><LF>.





IT 4715

2D-code scanner

Connecting the IT 4715 to the MA 41 DP-K or MA 41 ISrequired parts:

1x	IT 4715 XX-1-232	
1x	501 05 422	Cable TTL-RS232/ext
1x	501 03 403	Power supply unit
1x	500 35 421	KB 021 Z
1x	500 33 638	MA 41 DP-K for Profibus (for Interbus: 500 28 994 MA 41 IS or 500 30 085 MA 41 IS PDP)

Pin assignments KB 021 Z:

Core colour:	signal	terminal in the MA 41:
brown	(RXD)	2
white	(TXD)	1
blue	(GND)	4
red	(VCC)	⊗
black	(GND)	⊗
bare (shield)	(PE)	21

Procedure:

1. Connect cable KB 021 Z to the MA 41... acc. to the above pin assignments.
2. Connect the interface cable to cable KB 021 Z.
3. Scan the adjacent 2D code.
The IT 4715 is set to the following transmission parameters:
RS 232 transmission with 9600 baud, 8 data bits, 1 stop bit, no parity, terminators <CR><LF>.

**Connecting the IT 4715 to the MA 21**required parts:

1x	IT 4715 XX-1-232	
1x	501 05 422	Cable TTL-RS232/PIN9
1x	500 35 421	KB 021 Z
1x	500 30 481	MA 21 100

Pin assignments KB021 Z:

Core colour:	signal	terminal in the MA 21:
brown	(RXD)	26
white	(TXD)	27
blue	(GND)	28
red	(VCC)	30
black	(GND)	31
bare (shield)	(PE)	21

Procedure:

1. Connect cable KB 021 Z to the MA 21... acc. to the above pin assignments.
2. Connect the interface cable to cable KB 021 Z.
3. Scan the adjacent 2D code.
The IT 4715 is set to the following transmission parameters:
RS 232 transmission with 9600 baud, 7 data bits, 1 stop bit, even parity, terminators <CR><LF>.



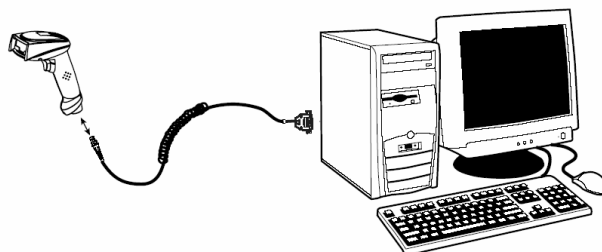


Connecting the IT 4715 to the USB interface (keyboard emulation)

The operation of the IT 4715 in keyboard-emulation mode on a USB port is described in this section. A PC keyboard is emulated in this operating mode. The data which are read in are written directly to the currently activated program. Thus, the data can be processed further in all standard programs.

required parts:

- 1x IT 4715 XX-1-USB
- 1x 501 05 426 USB cable



Procedure:

1. Plug the IT 4715 stationary scanner into a free USB port.
2. The scanner acknowledges this connection with a beep.
3. Scan the adjacent 2D code.

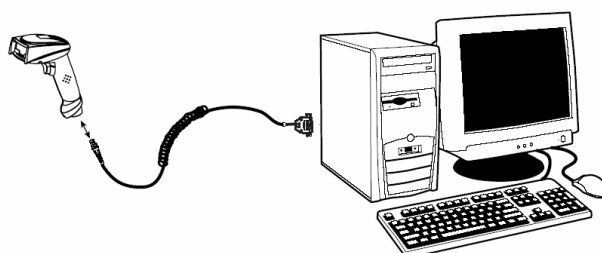


Connecting the IT 4715 to the USB interface (COM-port emulation)

The operation of the IT 4715 as a serial interface on a USB port is described in this chapter. A COM interface is emulated in this operating mode. The data which are read in are sent to a new COM interface. The driver with which you emulate this COM interface can be downloaded from our homepage at www.leuze.de. Thus, the data can be processed further in programs which expect data via COM interfaces.

required parts:

- 1x IT 4715 XX-1-USB
- 1x 501 05 426 USB cable



Procedure:

1. Plug the IT 4715 stationary scanner into a free USB port.
2. The scanner acknowledges this connection with a beep.
3. Scan the adjacent 2D code.
4. Install the USB serial driver when you are prompted to do so by Windows.
5. Open a terminal program or your program for the serial interface, select the new COM port, and make the following settings: baud rate 38,400, 8 data bits, 1 stop bit, no parity, terminator <CR>.

