

# General Specifications

## PC Viewers Model PC202 and PC402

*As in everyday life, good communication is vital in the instrument world. The Yokogawa PC viewer from has been developed for communication between EXA 202 and 402 series of analyzers and a personal computer. With the PC viewer the user can read process specific parameters, process temperature, compensation factors, calibration and diagnostic information at a glance.*

On the computer screen it is easy to check the configurations and to change them if necessary. Setpoints may be changed, at will, as may the control parameters for the PI control outputs. If needed, the more fundamental settings can also be changed. Current output ranges, temperature compensation coefficient and the like can easily be set up. Password protection is available to ensure that access is only available to authorised persons.

PC Viewer makes it is easy for an engineer to connect to the unit and monitor the status from the comfort of his own office. He may also diagnose problems that may occur with the measuring loop. Sensor impedances and calibration data are combined with error messages, "Fail" and "Call for Maintenance" flags to give an excellent early warning system for impending problems.

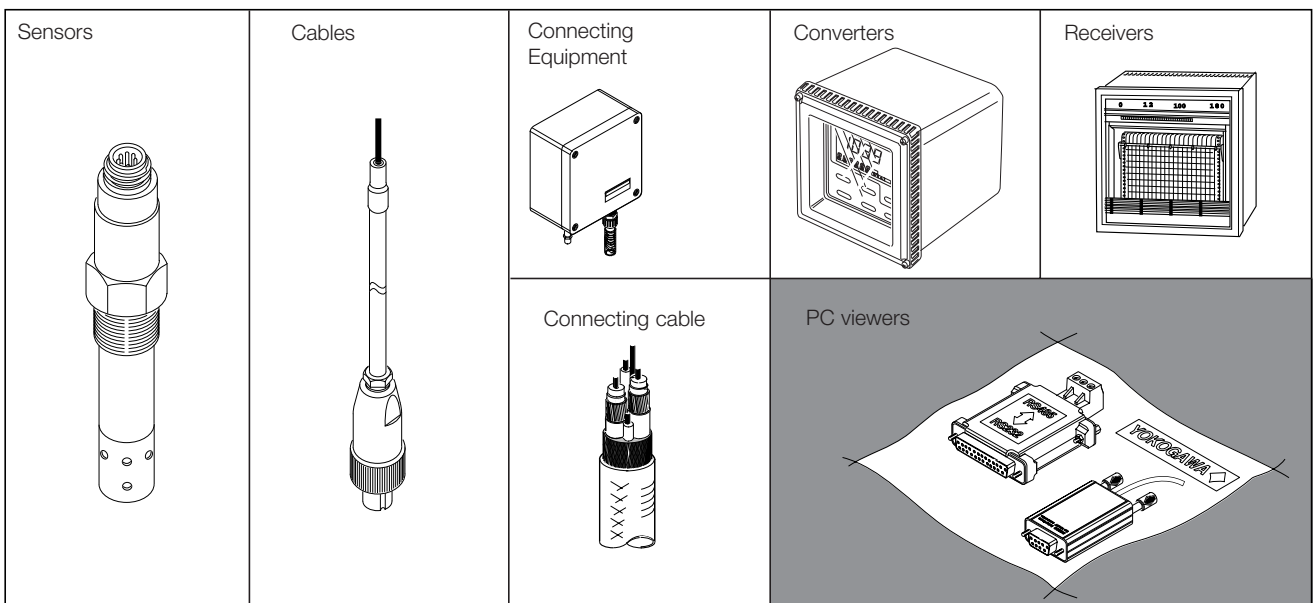
The PC viewer can be used to read the logbook information stored in the EXA analysers. This historical log of calibration data alarm and error messages provides an invaluable tool for diagnosing system and process conditions



### FEATURES

- PC402 includes RS485 modem
- PC202 includes HART® modem
- Plug directly into PC serial port
- No separate power supply required
- Very low power CMOS
- Communicate with max. 16 Yokogawa transmitters
- Display actual transmitters status
- Modify all relevant transmitter parameters
- Passcode protected
- Full configuration upload and download support
- Can be used with PC notebooks or desktop computers
- Compatible with windows 3.1 and windows '95

### SYSTEM CONFIGURATION



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#### Software requirements

- Operating system : PC486 or higher  
Windows 3.11 or Windows 95  
8 MB RAM (16 MB recommended)  
One free COM port.

#### Electrical specifications

- Power supply : No external supply required.  
System powered via RS232 inputs.
- Pin connections : See figure 3
- HART : Polarity insensitive termination fully HART compliant
- Computer : RS232 DB-9 connector.  
2 pin terminal connector
- Output level : 0.5 +/- 0.1 Vpp trapezoidal wave  
@1200/2200 Hz.
- Connector : Male 9-pin DB-9 connector on at least one serial port, or 25-pin DB-25 connector with DB-25 to DB-9 converter cable.

#### Interface

- Connector cable : 6' twisted pair wire 2-pin terminal block to dual Minigrabber test clips.  
Polarity insensitive termination

#### Isolation

: 1500 Vdc.

#### Ambient temperature

- Temperature operating : 0 °C to 50 °C (32 °F to 122 °F)
- Operating : -40 °C to 85 °C (-40 °F to 185 °F)
- Storage : 0% to 95% relative humidity
- Humidity : (non-condensing)

#### Shipping details

- Package : wxhxd = 220x60x160 mm
- Weight : 250 gram

RS232 Pin Connections			VoltageLevels*	
Inputs:	Pin#	Impedance/Ohms	Mark/true	Space/false
Transmit data (TXD)	3	100K + n% pwr supply current	2 to 12 V	-12 to 0 V
Data terminal -ready (DTR)	4	n% pwr supply current + DSR load current + RXD if true load current + CD if true load current	2 to 12 V	-12 to 0 V
Ready to send (RTS)	7	100K + n% pwr supply current + CTS load current	2 to 12 V	-12 to 0 V
Ground	5	Ref	0V	0V
Outputs:				
Carrier detect (CD)	1	DTR thru 1K if CD true 11K to -Vin if CD false	Output level as received from DTR	
Receive data	2	DTR thru 1K if RXD true 11K to -Vin if RXD false	Output level as received from DTR	
Data set ready (DSR)	6	DTR thru 1K	Output level as received from DTR	
Clear to sent (CTS)	8	RTS thru	Output level as received from RTS	
Receiver	9	Not used	Not used	

\* At least one input must exceed +/- 4V to power the unit. Inputs must not exceed +/- 12V, and must be current limited to +/- 10mA  
n% pwr supply current is shared equally by the 3 input pins if the absolute value of their voltage are equal, or by one pin if the absolute value of it's volatage exceeds the others.  
Vin is a negative internally generated voltage.

## Dimensions

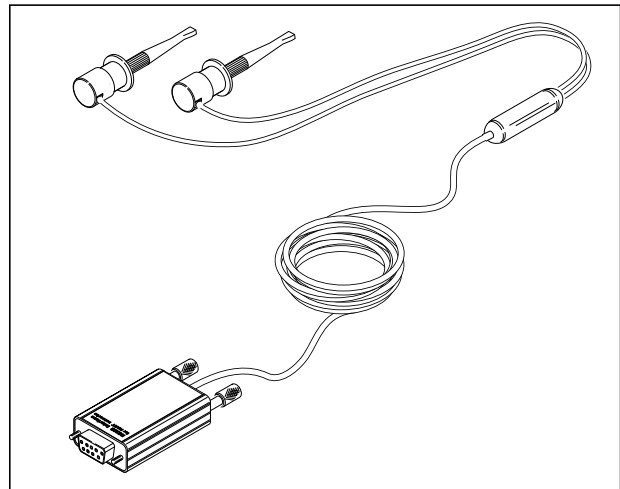


Figure 1. PC202 interface with cable.

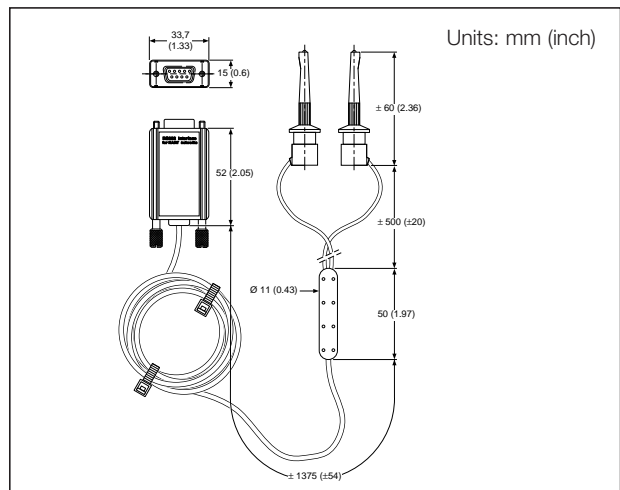


Figure 2. Dimensions of the interface.

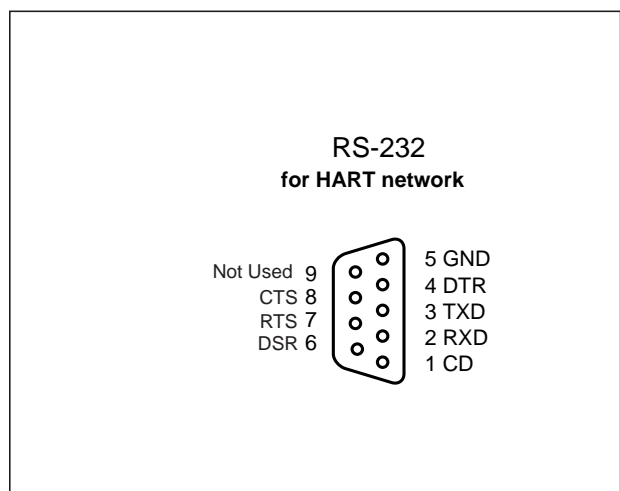


Figure 3. Male 9-pin DB-9 connector

## General Specifications

### General specifications Model PC402

#### Software requirements

- Operating system : PC 486 or higher  
Windows 3.11 or Windows 95
- 8 MB RAM (16 MB recommended)
- One free COM port

#### Electrical specifications

- Power supply : No external supply required.  
System powered via RS232 inputs.  
Compatible with RS232 levels from
- Pin connections : See figure 6
- Computer : RS232 DB-25 connector.  
2 pin terminal connector
- Output level : In conformity with RS485 0-5V.
- Connector : Male 25-pin DB-9 connector on at least  
one serial port, or 25-pin DB-25  
connector with DB-25 to DB-25  
converter cable.

**Isolation** : 2kVac

#### Termination

Short cables (e.g. below 200m) do not generally require termination. For longer lengths, connect a resistor (whose value is approximately equal to the cable characteristic impedance) with a series capacitor (e.g. 1000pF) across each end of the cable. Two terminators are therefore required. However, the controlled slew rate of the special low EMC driver (transition time approx 1µS) used in the Kxx-ISOL products (manufactured 12/94 and later) eliminates the need for terminators in most applications. If the power derived from RTS or DTR is insufficient, an external 9V DC power supply can be connected to pin 9 (relative to RS232 GND) of the RS232 interface as shown in figure 6.

#### Shipping details

- Package : wxhxd = 220x60x160 mm
- Weight : 300 gram

Baud Rate (baud)	Max total cable capacitance (pF)
1200	250000
2400	120000
4800	60000
9600	30000
19200	15000
38400	7500

Table for Baud rate capacity

## Dimensions

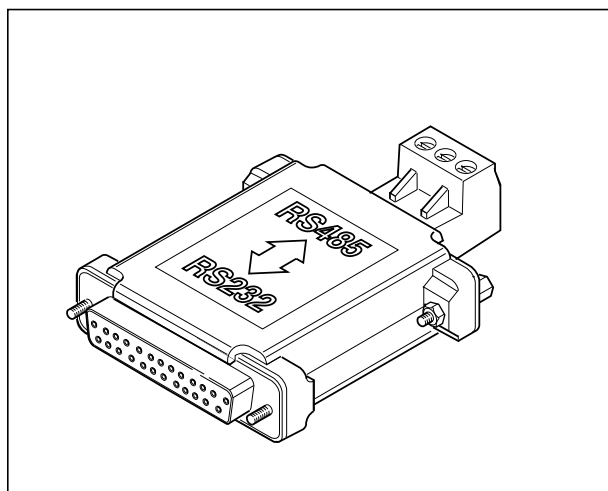


Figure 4. PC402 interface

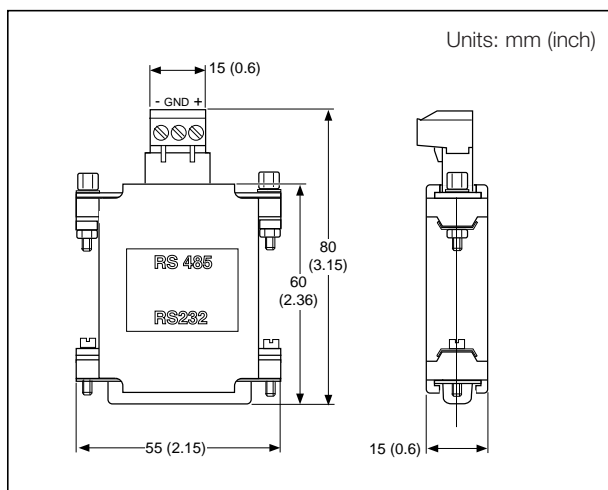


Figure 5. Dimensions of the interface

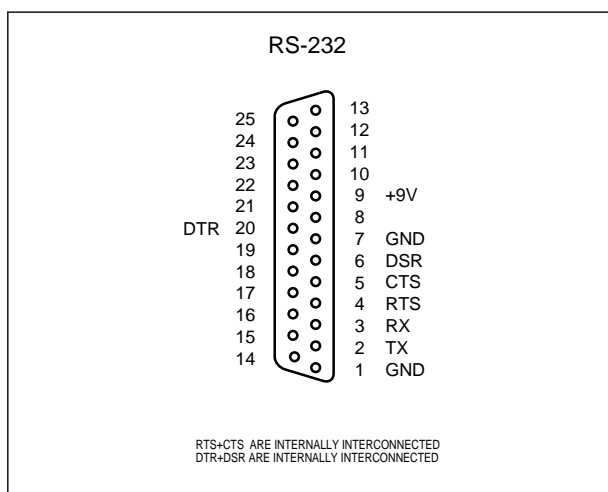


Figure 6. Male 25-pin DB-25 connector

## Model and Suffix Codes



Model Code	Suffix code	Option	Description
PC202 ..	.....	.....	PC viewer
	-E .....	.....	English software
Instruction Manual language*		-E .....	English language

Model Code	Suffix code	Option	Description
PC402 ..	.....	.....	PC viewer
	-E .....	.....	English software
Instruction Manual language*		-E .....	English language

\* Check with your local sales office for availability in other languages

## Compatibility PC viewer with EXA Analyzer

Software		Revision level	
<b>PC202</b>	1.16	PH202	1.2 and higher
<b>PC402</b>	1.16	PH402	1.7 and higher
	1.16	ISC402	1.4 and higher
	1.16	IC402	1.2 and higher
	1.16	DO402	1.2 and higher
	1.16	SC402	1.2 and higher

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