

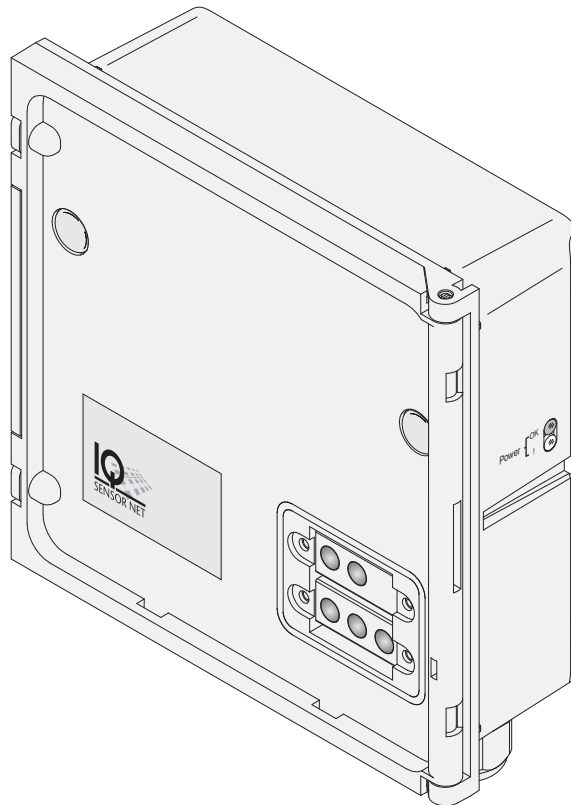


a xylem brand



Operating Manual

IQ SENSOR NET MIQ/IF232



**RS232 interface module
for the IQ SENSOR NET**



Note

For the most recent version of the manual, please visit www.ysi.com.

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1 Overview

1.1 How to use this component operating manual

Structure of the IQ SENSOR NET operating manual

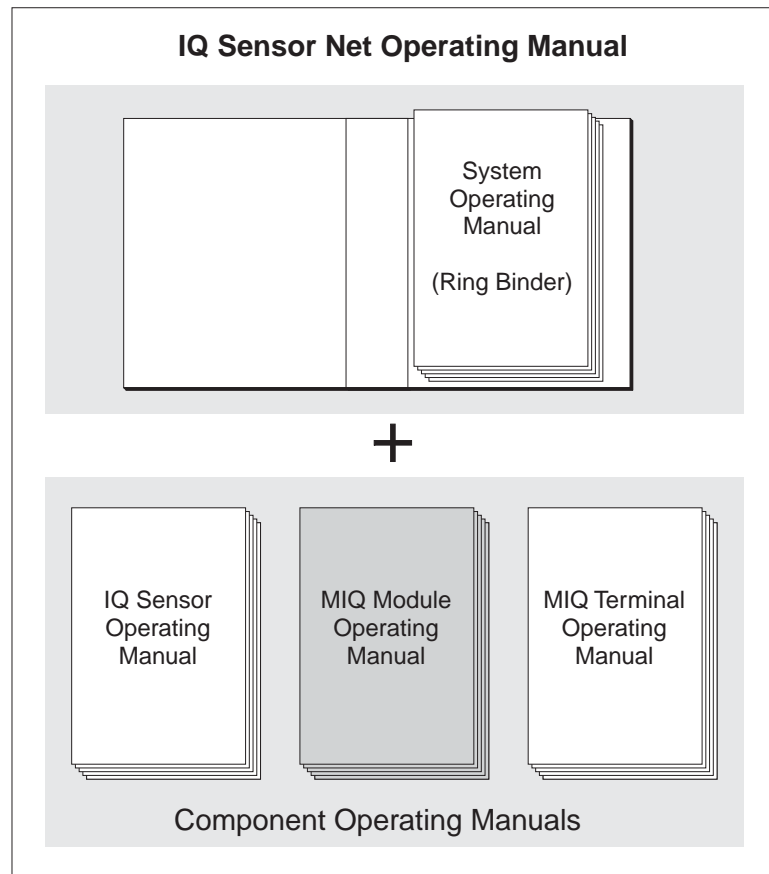


Fig. 1-1 Structure of the IQ SENSOR NET operating manual

The IQ SENSOR NET operating manual has a modular structure like the IQ SENSOR NET system itself. It consists of a system operating manual and the operating manuals of all the components used.

Please file this component operating manual into the ring binder of the system operating manual.

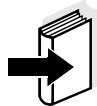
1.2 Features of the MIQ/IF232

General characteristics

The MIQ/IF232 expands the IQ SENSOR NET by an RS232 interface. This enables a connection between the IQ SENSOR NET and a PC.

With the aid of the IQ SENSOR NET software pack, the following functions, for example, can be carried out on a PC:

- (Remote) Operation and (remote) monitoring of the IQ SENSOR NET via the MIQ/T2020 PC software terminal.
The software terminal has the same operating concept as other terminal components (e.g. MIQ/T2020). This means that is hardly necessary to "get used" to it when changing between the different types of terminal.
- (Remote) Data transmission of current measured data
- (Remote) Data transmission of saved measured data
- Remote backing up/loading of the IQ SENSOR NET system configuration



Note

Details for the operation of the software are given in the operating manual of the IQ SENSOR NET software pack.

With the standard MIQ module housing, the MIQ/IF232 has the same characteristics as all MIQ modules regarding stability, leakproofness and weather resistance. It also provides the same wide variety of installation options (stacked mounting, canopy mounting, tophat rail mounting, etc.).

Terminal strip

The MIQ/IF232 has the following electrical connections on the terminal strip inside the housing:

- 1 x RS 232 connection, already wired up with cable and connector
- 3 x SENSORNET connection

2 Safety instructions

This component operating manual contains special instructions that must be followed during the installation of the interface module. Thus, it is essential to read this component operating manual before carrying out any work using this sensor. In addition to this manual, the SAFETY chapter of the IQ SENSOR NET system operating manual must be followed.

Always keep this component operating manual together with the system operating manual and all other component operating manuals in the vicinity of the IQ SENSOR NET system.

Directions

The following symbols indicate special features in the individual chapters of this operating manual:



Note

indicates notes that draw your attention to special features.



Note

indicates cross-references to other documents, e.g. operating manuals.

2.1 Authorized use

The authorized use of the MIQ/IF232 consists of its use as an RS232 interface converter between IQ SENSOR NET and a PC. The technical specifications given in chapter 5 TECHNICAL DATA must be observed. Only operation according to the instructions in this operating manual is authorized.

Any other use is considered to be **unauthorized**. Unauthorized use invalidates any claims with regard to the guarantee.

2.2 General safety instructions

The MIQ/IF232 is constructed and inspected in accordance with the relevant guidelines and norms for electronic instruments (see chapter 5 TECHNICAL DATA).

It left the factory in a safe and secure technical condition.

Function and operating safety

The failure-free function and operational safety of the MIQ/IF232 is only guaranteed if the generally applicable safety measures and the special safety instructions in this operating manual are followed during its use.

The failure-free function and operational safety of the MIQ/IF232 is only guaranteed under the environmental conditions that are specified in chapter 5 TECHNICAL DATA.

Safe operation

If safe operation is no longer possible, the MIQ/IF232 must be taken out of operation and secured against inadvertent operation.

Safe operation is no longer possible if the MIQ/IF232:

- has been damaged in transport
- has been stored under adverse conditions for a lengthy period of time
- is visibly damaged
- no longer operates as described in this manual.

If you are in any doubt, contact the supplier of your MIQ/IF232.

3 Installation

3.1 Scope of delivery

The following parts are contained in the scope of delivery of the MIQ/IF232:

- MIQ/IF232 module with permanently mounted interface cable and connector. All openings and open electrical contacts are closed with suitable covers or blank covers.
- 4 x cable glands with seal
- 2 x ISO blind nuts M4
- 2 x cheese-head screws M4x16 with plastic washer
- 1 x contact base
- 2 x plastic tapping screws for fixing the contact base
- IQ SENSOR NET software pack
- Operating manual.

3.2 Installation in the IQ SENSOR NET

The IQ SENSOR NET provides a number of options for integrating the MIQ/IF232 mechanically and electrically in the system (stacked mounting, distributed mounting, etc.). The various types of installation are described in detail in the INSTALLATION chapter of the system operating manual.

Terminal strip

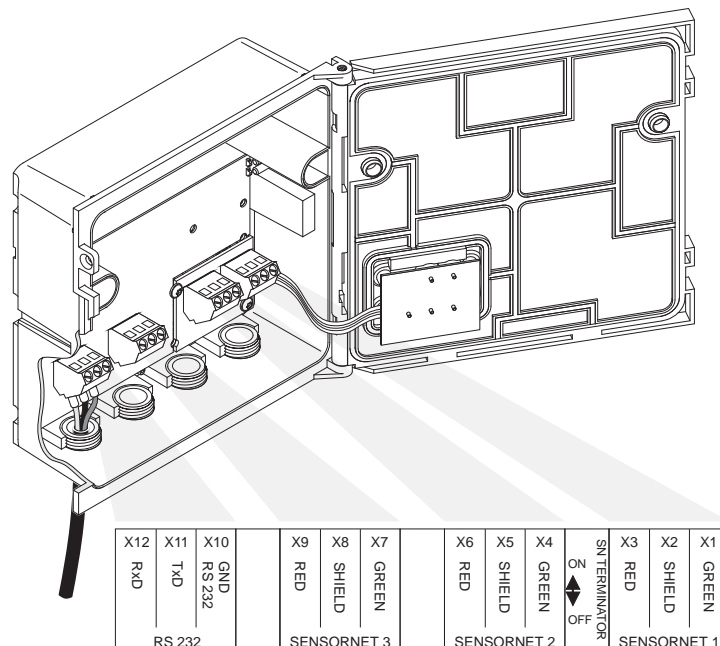


Fig. 3-1 Terminal strip of the MIQ/IF232

RS 232 The RS 232 interface cable is already connected to the terminal strip in the factory.

Wire	Terminal
Green (shield)	GND RS 232
Brown	RxD
White	TxD

SENSORNET All SENSORNET connections are identical and can be used as required for extending/branching the cable section or for the connection of sensors.

3.3 Connecting the MIQ/IF232 with the PC

Connect the interface cable of the MIQ/IF232 with the 9-pole connector to any free RS 232/COM connection on the computer.



Note

The connecting cable between MIQ/IF232 and PC can be extended by a 1:1 extension cable. However, a short cable is better for good EMC characteristics. If the distances to the IQ SENSOR NET system are long, install the MIQ/IF232 in the vicinity of the PC so that no extension is required. Bridge the distance to the IQ SENSOR NET system with the IQ SENSOR NET SNCIQ or SNCIQ/UG (distributed mounting) cable.



Note

Details for the installation of the software are given in the operating manual on the IQ SENSOR NET software pack.

4 Maintenance and cleaning

4.1 Maintenance

The MIQ/IF232 requires no special maintenance. The general maintenance of IQ SENSOR NET components is described in the IQ SENSOR NET system operating manual.

4.2 Cleaning

The cleaning of IQ SENSOR NET components is described in the IQ SENSOR NET system operating manual.

5 Technical data



Note

General technical data on MIQ modules are given in the TECHNICAL DATA chapter of the IQ SENSOR NET system operating manual.

Electrical data

Nominal voltage	Max. 24 VDC via the IQ SENSOR NET (for more details, see chapter TECHNICAL DATA of the IQ SENSOR NET system operating manual).
Power consumption	Approx. 0.2 W
Protective class	III

Instrument safety

Applicable norms	<ul style="list-style-type: none"> – EN 61010-1 – UL 3111-1 – CAN/CSA C22.2 No. 1010.1
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Number of MIQ/IF232 in the IQ SENSOR NET

The MIQ/IF232 counts as a terminal component. A total of up to three terminal components can be used in the IQ SENSOR NET.

Terminal connections

IQ SENSOR NET connections	3 Additional connectable SENSORNET terminator (terminating resistor)
RS 232	GND RS 232, TxD, RxD
Terminal type	Screw-type terminal strip, accessible by opening the lid
Terminal ranges	Solid wires: 0.2 ... 4.0 mm ² AWG 24 ... 12 Flexible wires: 0.2 ... 2.5 mm ²
Cable feeds	4 cable glands M16 x 1.5 on the underside of the module

RS 232 cable

Length	3 m Connected with the MIQ/IF232 in the factory
Plug connection to the PC	D-sub, 9-pole

6 Contact Information

6.1 Ordering & Technical Support

Telephone: (800) 897-4151
(937) 767-7241
Monday through Friday, 8:00 AM to 5:00 PM ET

Fax: (937) 767-1058

Email: environmental@ysi.com

Mail: YSI Incorporated
1725 Brannum Lane
Yellow Springs, OH 45387
USA

Internet: www.ysi.com

When placing an order please have the following information available:

YSI account number (if available)	Name and Phone Number
Model number or brief description	Billing and shipping address
Quantity	Purchase Order or Credit Card

6.2 Service Information

YSI has authorized service centers throughout the United States and Internationally. For the nearest service center information, please visit www.ysi.com and click 'Support' or contact YSI Technical Support directly at 800-897-4151.

When returning a product for service, include the Product Return form with cleaning certification. The form must be completely filled out for an YSI Service Center to accept the instrument for service. The Product Return form may be downloaded at www.ysi.com and clicking on the 'Support' tab.



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