

IQ SensorNet MIQ/IC2 Module

QUICK START GUIDE

Overview

The MIQ/IC2 current input module provides two 0/4 - 20 mA current inputs for IQ SensorNet and thus enables to connect external sensors via their current output. Measured values of the external sensors can be displayed, recorded and processed like the measured values from IQ SensorNet.

Examples:

- Connecting flow meters to IQ SensorNet
- Connecting level meters to IQ SensorNet
- Connecting analyzers to IQ SensorNet
- Connecting pressure sensors to IQ SensorNet

Scope of Delivery:

- MIQ/IC2 module
- 4 x cable glands (clamping range 4.5-10 mm) with seals and blind plugs
- 4 x ISO blind nuts M4 with suitable cheese-head screws and plain washers
- 2 x countersunk screws M3x6 to close the module lid (+ 2 replacement screws)
- 1 x contact base with fixing screws

Materials Required

To set up the MIQ/IC2 module you will need the following tools:

- Cable stripping knife
- Wire stripper
- Phillips screw driver
- Small screw driver
- Cable



Figure 1: MIQ IC2 Module

TABLE OF CONTENTS:

1. Setup
2. Wiring
3. Configuration



a xylem brand



Warning



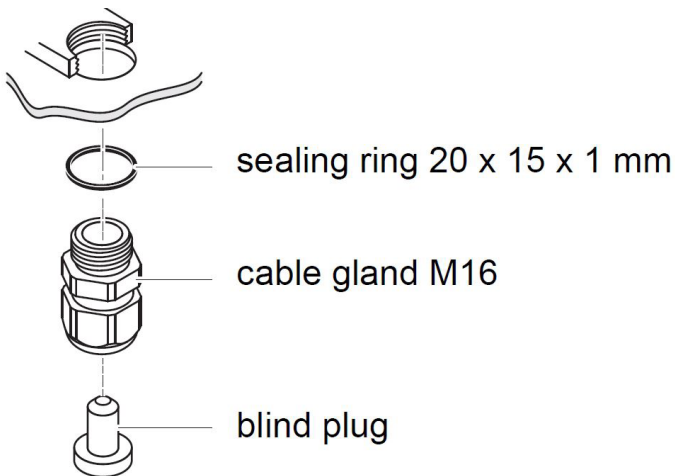
This document is not intended to replace the MIQ/IC2 module operation manual. Please use the operating manual as a reference during the following functions; installation, operation, cleaning, maintenance and troubleshooting.



Step By Step Instructions

1

Install all cable glands to the bottom of the MIQ/IC2 module as shown below



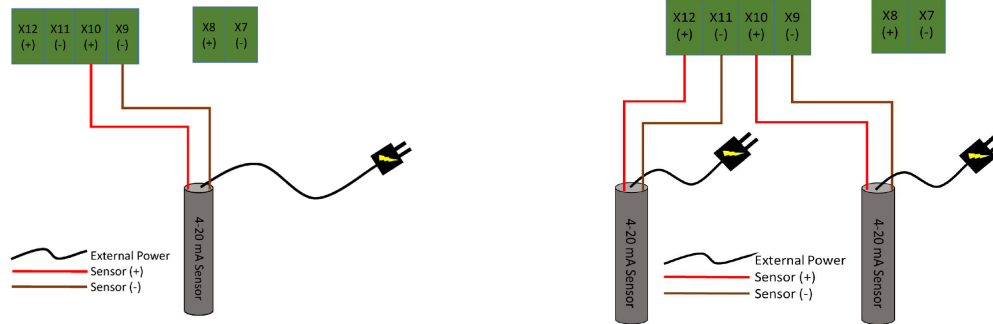
2

Connect the cable to the terminal strip

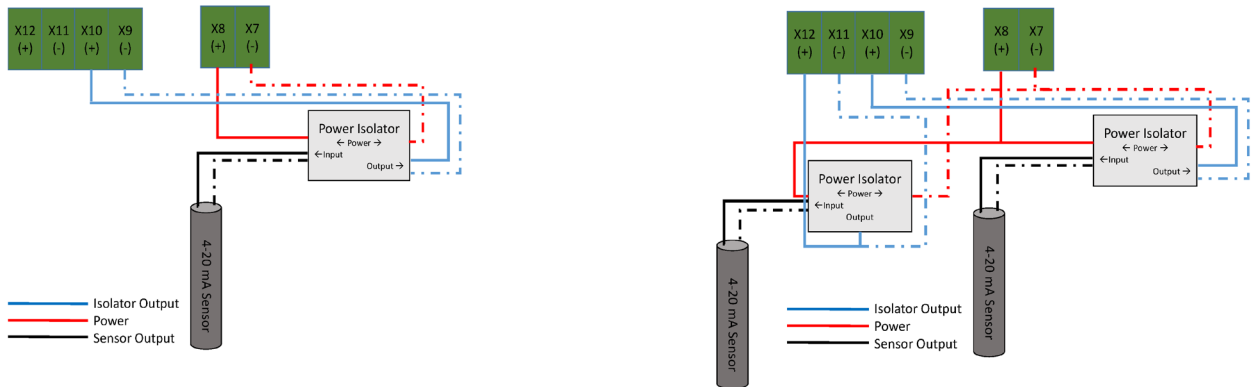
1. Open the MIQ/IC2 module.
2. Open the cable gland fitting under the required input. Keep the blind plug fitting for later. modifications, if necessary.
3. Loosen the coupling ring.
4. Feed the cable through the cable gland in the module housing.
5. Open the terminal strip with a small screw driver.
6. Connect the cable to the terminal strip with a small screw driver. Make sure to connect the first device to "REC 1".
7. Tighten the coupling ring to secure the cable in place.
8. Close the module.



Connect the cable to the device or an isolator.



Direct connection without powering the device: The current outputs of external measuring systems can be directly connected to the current inputs of the MIQ/IC2 module. If the connection data of the external meter is suitable.



Direct connection with powering the device: The - wire of the current outputs of external measuring systems need be directly connected to the current inputs (X10) of the MIQ/IC2 module. The + wire of the current outputs of external measuring systems need be directly connected to the + 24V power supply (X8) of the MIQ/IC2 module. A jumper cable needs to be ran from the - current inputs (X9) to the - 24V power supply (X7) of the MIQ/IC2 to complete the loop.

Apply power to device.

Keep in mind the following information when setting up the MIQ/IC2 Module and third party devices.

IQSN Power Consumption: The power consumption is 0.2 watts plus 2.2 watts per connected power supply/isolator.

Loop Powered Devices: The 24V power supply in the MIQ/IC2 is rated for 240mA. If powering two devices make sure the current draw of the entire 24V loop (the devices and isolators) doesn't exceed 240mA.



Figure 1: Press the "S" button on the IQ SensorNet controller

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Scroll down to the "Setting of sensors and diff. sensors" option and press "OK".

MIQ-MC2-16141260	04 Mar 2020	08:50			
Settings					
Language					
Data transfer to USB memory					
Access control					
Measured value logging					
Edit list of sensors					
Edit list of outputs					
Settings of sensors and diff. sensors					
Settings of outputs and links					
Settings bus interfaces					
Alarm settings					
System settings					
Service					
Select menu item , edit					

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Select the "Measuring range" column and press "OK".

MIQ-MC2-16141260	04 Mar 2020	08 51			
Settings of sensors and diff. sensors					
&	No.	Sensor name	Measuring range		
—	S03	13151098	0.00..20.00		
Select , edit sensor settings ^{OK}					

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Press "Continue"

MIQ-MC2-16141260	04 Mar 2020	08 52			
Settings of sensors and diff. sensors					
&	No.	Sensor name	Measuring range		
---	S03	13151098	0.00..20.00		
Attention! If the measuring mode or measuring range is changed, links of the sensor are erased.					
Continue					
Cancel					
Select , edit sensor settings					

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Customize the following settings to the appropriate values

MIQ-MC2-16141260	04 Mar 2020	09 04			
S03 MIQIC2 REC1 13151098					
Measuring mode			REC		
Measuring range			4..20 mA		
Decimal places			2 (.00)		
Disp. value (0/4 mA)			0.00		
Disp. value (20 mA)			5.00		
Disp. unit			mg/L		
Measured parameter			Cl2		
Error detection			>= Error threshold		
Error threshold			20.5 mA		
MIQ/IC2 REC2			inactive		
Save and quit					
Quit					
Select setting					



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Measuring range

MIQ-MC2-16141260	04 Mar 2020	08:54			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. val	Measuring range				
Disp. val	0.00				
Disp. val	0..20 mA				
Disp. val	20.00				
Disp. unit	4..20 mA				
Disp. unit	.....				
Measured parameter	.....				
Error detection	>= Error threshold				
Error threshold	20.5 mA				
MIQ/IC2 REC2	inactive				
Save and quit					
Quit					
Adjust setting , confirm					

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Decimal places

MIQ-MC2-16141260	04 Mar 2020	08:55			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. val	Decimal places	0.00			
Disp. val	none	20.00			
Disp. unit	1 (.0)	.....			
Measure	2 (.00)	.....			
Error detection	3 (.000)	>= Error threshold			
Error threshold	20.5 mA				
MIQ/IC2 REC2	inactive				
Save and quit					
Quit					
Adjust setting , confirm					

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Display value (0/4mA)

MIQ-MC2-16141260	04 Mar 2020	08:57			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4...20 mA				
Decimal places	2 (.00)				
Disp. val	Disp. value (0/4 mA)				0.00
Disp. val	0.00				20.00
Disp. unit	1234567890.-				.....
Measured parameter	.....				
Error detection	>= Error threshold				
Error threshold	20.5 mA				
MIQ/IC2 REC2	inactive				
Save and quit					
Quit					
Adjust setting , confirm					

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Display value (20 mA)

MIQ-MC2-16141260	04 Mar 2020	08 58			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. val	Disp. value (20 mA)				0.00
Disp. val	5.00 ⁰⁰				20.00
Disp. unit	1234567890.-				.....
Measured parameter	.....				
Error detection	>= Error threshold				
Error threshold	20.5 mA				
MIQ/IC2 REC2	inactive				
Save and quit					
Quit					
Adjust setting , confirm ⁰⁰					



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Display unit

MIQ-MC2-16141260	04 Mar 2020	08 59			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. val	Disp. unit	0.00			
Disp. val	mg/L	5.00			
Disp. unit	←	.....			
Measure	abcdefghijklmnopqrstuvwxyz	.....			
Error det	ABCDEFGHIJKLMNOPQRSTUVWXYZ	hreshold			
Error thr	0123456789 _äöüßÀÖÜ	20.5 mA			
MIQ/IC2	µ%&!\()+-=><.!°\$#	inactive			
Save and quit					
Quit					
Adjust setting , confirm					

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Measured parameter

MIQ-MC2-16141260	04 Mar 2020	09 01			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. val	Measured parameter				0.00
Disp. val	Cl2_				5.00
Disp. unit					mg/L
Measure	abcdefghijklmnopqrstuvwxyz				.....
Error det	ABCDEFGHIJKLMNOPQRSTUVWXYZ				hreshold
Error thr	0123456789 _äöüßÀÖÜ				20.5 mA
MIQ/IC2	µ%&!()+=><.!°\$#				inactive
Save and quit					
Quit					
Adjust setting , confirm					

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Error detection

MIQ-MC2-16141260	04 Mar 2020	09 02			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. val	Error detection				
Disp. val	>= Error threshold				
Disp. val	5.00				
Disp. unit	<= Error threshold				
Measured parameter	mg/L				
Measured parameter	Cl2				
Error detection	>= Error threshold				
Error threshold	20.5 mA				
MIQ/IC2 REC2	inactive				
Save and quit					
Quit					
Adjust setting , confirm					

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Error threshold

MIQ-MC2-16141260	04 Mar 2020	09:02			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. val	Error threshold	0.00			
Disp. val	20.5	5.00			
Disp. unit	← 1234567890.-	mg/L			
Measured parameter	Cl2				
Error detection	>= Error threshold				
Error threshold	20.5 mA				
MIQ/IC2 REC2 inactive					
Save and quit					
Quit					
Adjust setting , confirm					



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MIQ/IC2 REC 2

If only one device is connected to MIQ/IC2 module = Inactive
 If two devices are connected to MIQ/IC2 module = Active

MIQ-MC2-16141260	04 Mar 2020	09 03			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. val	MIQ/IC2 REC2				
Disp. val	inactive				
Disp. val	5.00				
Disp. unit	mg/L				
Measured parameter	Cl2				
Error detection	>= Error threshold				
Error threshold	20.5 mA				
MIQ/IC2 REC2	inactive				
Save and quit					
Quit					
Adjust setting , confirm					

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Press "Save and quit"

MIQ-MC2-16141260	04 Mar 2020	09 04			
S03 MIQIC2 REC1 13151098					
Measuring mode	REC				
Measuring range	4..20 mA				
Decimal places	2 (.00)				
Disp. value (0/4 mA)	0.00				
Disp. value (20 mA)	5.00				
Disp. unit	mg/L				
Measured parameter	Cl2				
Error detection	>= Error threshold				
Error threshold	20.5 mA				
MIQ/IC2 REC2	inactive				
Save and quit					
Quit					
Select setting					



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