QUICKSTART GUIDE

Weidmüller

QS61001003 • 12/2005

PMX400/HZX

Operation

Warning: Check the power supply against the model number before applying power to the instrument.

Input type selection

To set up the unit for a particuar voltage pulse set the input trigger/ reset levels from the table shown. Use contact closure type for volt-free contacts as this includes debouncing. All other input types shown use the high level dc setting. If you need more help with this selection, please ring technical support.

Reviewing the setup

For review mode, disconnect security link and press **PGM**.

A 10s timeout applies for review mode.

Changing the setup

For set-up mode, connect security link and press **PGM**. The software version will be displayed. If you wish to continue, press **PGM** again within 10s.

Clearing tripped alarms

You can acknowledge a tripped alarm by simply pressing the key for that channel.

Siren and Group alarms

Channel four has two additional alarm types:

- Siren alarm, which you clear by acknowledging all tripped alarms
- Group alarm, which will only clear when you have acknowledged all tripped alarms *and* all the trip conditions have cleared (and are outside the deadband)

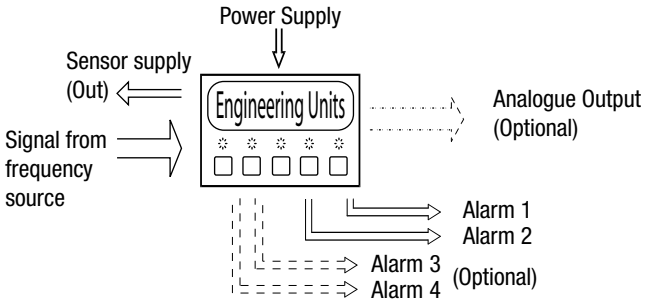
Displaying the alarm setpoints

To check a setpoint, simply press the key for that alarm.

If the display shows A4-Sr or A4-gr when you press the alarm channel four button, you know it is set up as a siren or group alarm.

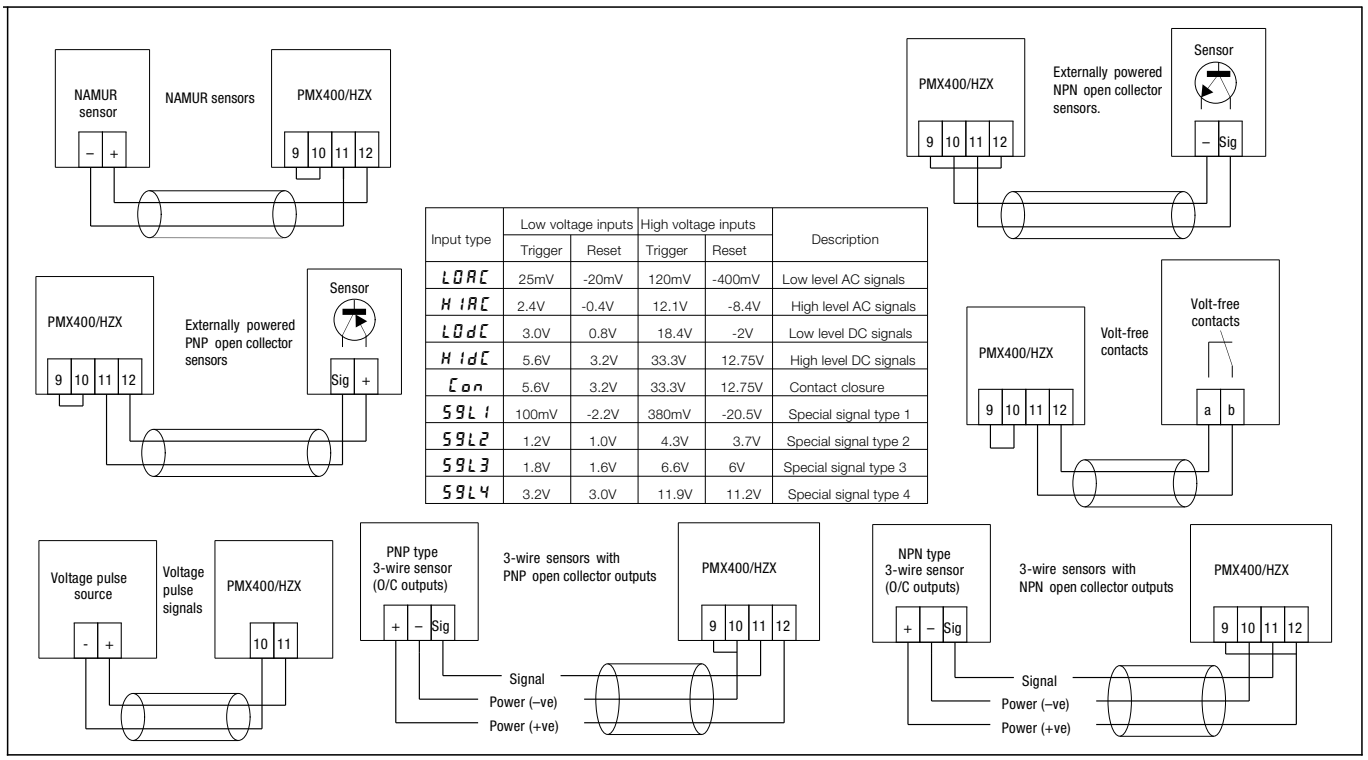
Adjusting the alarm setpoints

To change a setpoint, press the **PGM** key while the value is still on display. You will then be able to change the value using the arrows and save the change using the **ENT** key. Note that setpoint security must disabled for this to work.



Connections

Terminal	Signal	
1	Neutral / – ve	Power supply
2	Live / + ve	
3	Output + ve	Analogue output (/AO option only)
4	Output – ve	
5	Common (0V)	Alarm channels one and two are Solid state switches (max 'off-state' voltage = 50Vdc/max 'on-state' current = 200mA)
6	Channel one output	
7	Channel two output	
8	Link to 12 to allow access to set-up mode (normally left unconnected)	
9	Pull (Link to 12 for pull-up/Link to 10 for pull-down)	Inputs
10	Signal –ve	
11	Signal +ve	
12	Regulated 12Vdc out (0v is connected to pin 10 internally)	
13	Normally Closed	Alarm channel three (optional)
14	Common	
15	Normally Open	
16	Normally Closed	Alarm channel four (optional)
17	Common	
18	Normally Open	



Input type	Low voltage inputs		High voltage inputs		Description
	Trigger	Reset	Trigger	Reset	
LOAC	25mV	-20mV	120mV	-400mV	Low level AC signals
HIAC	2.4V	-0.4V	12.1V	-8.4V	High level AC signals
LOdC	3.0V	0.8V	18.4V	-2V	Low level DC signals
HIdC	5.6V	3.2V	33.3V	12.75V	High level DC signals
Con	5.6V	3.2V	33.3V	12.75V	Contact closure
SPL1	100mV	-2.2V	380mV	-20.5V	Special signal type 1
SPL2	1.2V	1.0V	4.3V	3.7V	Special signal type 2
SPL3	1.8V	1.6V	6.6V	6V	Special signal type 3
SPL4	3.2V	3.0V	11.9V	11.2V	Special signal type 4

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Setup Sequence

Setting	Display	Description	▼	▲	ENT
S/W Version	u 1.0 1	S/W Version 1.01 (Note: this information only applies to versions 1.00 to 1.09)			Next
Instrument Type	FrE9	PMX400/HZX			Next
Display and Inputs					
Display Intensity	Hibr Lobr	High brightness Low Brightness	Toggle		Accept
Input type	InP= LoAC HiAC LodC HidC Con S9L1 S9L2 S9L3 S9L4	Introduces input type Low level AC signal High level AC signal Low level DC signal High level DC signal Contact Closure Special signal - type 1 Special signal - type 2 Special signal - type 3 Special signal - type 4	Next	Prev	Accept
Input frequency range	FdP= .	Decimal point position	Shift		Next Accept
	FLO= 300	Input frequency range lower limit e.g., 300Hz	- Dec	- Inc	Next Accept
	FHi= 1000	Input frequency range upper limit e.g., 1kHz	- Dec	- Inc	Next Accept
Damping factor	dF= 2	Introduces the damping factor Value, e.g., 2	- Dec	- Inc	Next Accept
Display range	dP= .	Decimal point position	Shift		Next Accept
	dLO= 0.0	Display range lower limit e.g., 0.0	- Dec	- Inc	Next Accept
	dHi= 100.0	Display range Upper limit e.g., 100.0	- Dec	- Inc	Next Accept
Analogue outputs*					
Analogue output select	AOPY AOPn	Enabled Disabled (Select this option for PMX420)	Toggle		Accept
Output action	OP=d OP=r	Direct Reversed	Toggle		Accept
Analogue output range	OPL= 4.00	Output low value e.g., 4.00	- Dec	- Inc	Next Accept
	OPH= 20.00	Output high value e.g., 20.00	- Dec	- Inc	Next Accept
Note: to change the output high or low value you must calibrate the outputs.					
General Alarm settings*					
Alarms 1 & 2 Select	A12Y A12n	Enable Disable	Toggle		Accept
Alarms 3 & 4 Select	A34Y A34n	Enable Disable	Toggle		Accept
Setpoint security	SECY SECn	Setpoints fixed at setup Can change setpoints	Toggle		Accept
Alarm reset sequence	nOr rES	Automatic reset Manual reset	Toggle		Accept
Note: alarm settings are only shown if the relevant alarm channel is enabled.					
Alarm channel one settings*					
Coil energisation	AlnE Alnd	Normally energised Normally de-energised	Toggle		Accept
Alarm type	A1=L A1=H	Low type (active below setpoint) High type (active above setpoint)	Toggle		Accept
Setpoint value	SP1= 50.00	Setpoint value e.g., 50.00%	- Dec	- Inc	Next Accept
Deadband value	db1= 0.01	Deadband value e.g., 0.01%	- Dec	- Inc	Next Accept
Timer delay	dL1= 20	Timer delay (set to 0s to disable) e.g., 20s	- Dec	- Inc	Next Accept
Alarm channel two settings*					
As alarm channel one, except uses A2nE, A2nd, A2=L,A2=H, SP2=, db2= and dL2=.					
Alarm channel three settings*					
As alarm channel one, except uses A3nE, A3nd, A3=L,A3=H, SP3=, db3= and dL3=.					
Alarm channel four settings*					
Coil energisation	A4nE A4nd	Normally energised Normally de-energised	Toggle		Accept
Alarm type	A4=L A4=H A4=9 A4=S	Low type (active below setpoint) High type (active above setpoint) Group alarm Siren alarm (manual reset mode only)	Toggle		Accept
Note: for group or siren alarms, the setpoint, deadband and timer settings are skipped					
Setpoint value	SP1= 50.00	Setpoint value e.g., 50.00%	- Dec	- Inc	Next Accept
Deadband value	db1= 10.00	Deadband value e.g., 10%	- Dec	- Inc	Next Accept
Timer delay	dL1= 0	Timer delay (set to 0s to disable) e.g., no delay	- Dec	- Inc	Next Accept
Calibration options					
Calibrate Output?	COPY COPn	Skip output calibration Calibrate outputs	Toggle		Accept
Save values	SAvE	Instrument is saving the changes to the setup and returning to normal operation			

Output calibration

General

The PMX400HZX analogue outputs are calibrated for a specific output range and type. If you have changed the output range or type you must follow the procedure given below.

Equipment requirements

- An accurate digital multimeter (accurate to 0.05mV and ±0.1µA)

Terminal Connections for output calibration

Calibration Stage	Signal type	Terminal
Analogue Current Output	mA output +ve	3
	mA output –ve	4
Analogue Voltage Output	V output +ve	3
	V output –ve	4

Procedure

Note: The procedure below shows calibration for the commonly used 4-20mA format. If you have set the outputs to any other format, the unit will prompt you with the output high and low values you have chosen. If you are calibrating the unit for a voltage output you must measure the output voltage.

When the display shows	Action/Description
Put the instrument in setup mode and scroll through the main menu	
COPn	Press ▲ or ▼
COPY	Press **ENT** to select output calibration
OPL=	Connect the multimeter to measure the output signal, then press **ENT**
4.00	Adjust the output (using the ▲ or ▼ keys) until the output is at the value shown When you are happy that the output is correct, press **ENT**
OPH=	Press **ENT**
20.00	Adjust the output (using the ▲ or ▼ keys) until the output is at the value shown When you are happy that the output is correct, press **ENT**
SAvE	Continue with the setup sequence.
Note: Do not remove the power while the save message is on display.	

Output type selection

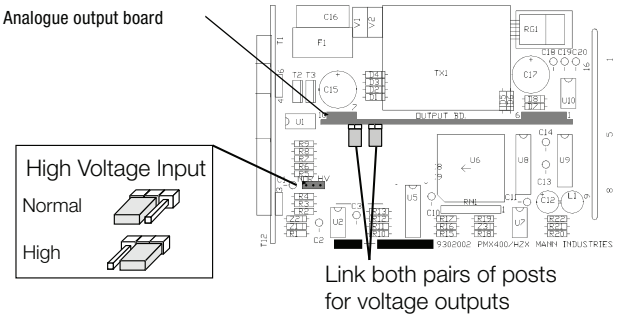
If the output type needs to be changed, remove the back plate by gently prising apart the four clips that hold it in place, place the link (on the analogue output board) as apropriate and reassemble.

Then change the output type in the software:

1. Start the set-up sequence and, while the software version number is flashing, remove the security link and press **ENT**.
2. The display will show OP=C (for current inputs) or OP=u (for voltage inputs). Select the correct value, replace the security link and press **ENT**.
3. The instrument is now in set-up mode. Scroll through and complete the output calibration procedure as described above.

High voltage input selection

To select high voltage inputs, remove the back plate by gently prising apart the four clips that hold it in place, place the link (on the main board) as appropriate and reassemble.



1. Gently move lug out a fraction with a screwdriver to release the backplate.
2. Pull the backplate back slightly to keep lug from clicking back into place.
3. Repeat with each lug until backplate comes loose.

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