

We CAN do it !



Measuring instruments

The CAN technology is fully implemented in the instruments of the product families MultiSystem 5060 and 8050.

The digital signals can be read with the CAN interface, the comfortable software is used for presentation, evaluation and data export. Freely combinable with the signals of the analog and digital measuring inputs.

You can even use the MultiSystem 5060 to supply the CAN with the required operation power.

Adaptor boxes

The Hydrotechnik CAN adaptor boxes bridge the gap between normal analog and frequency sensors and the digital technology.

Connect up to four sensors to a box, the measured values will be digitized automatically and transmitted to the measuring instrument using the CANopen protocol.

A special version is available for the rotational speed sensor RS 100 (frequency output). This transmits the measured values immediately without waiting for a start command.

MultiSystem 5060



MultiSystem 5060	3160-00-70.00
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MultiSystem 8050



MultiSystem 8050	3160-00-65.00
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MultiControl 8050	3160-00-66.00
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CAN adaptor box (CANopen)



For analog sensors ...

... 4 x 0-20 mA	3160-00-00.72A0B
... 4 x 4-20 mA	3160-00-00.72A4B

For thermocouples ...

... 4 x type „J“	3160-00-00.73J
... 4 x type „J“ mini*	3160-00-00.73JB
... 4 x type „K“	3160-00-00.73K
... 4 x type „K“ mini*	3160-00-00.73KB
... 4 x PT 100	3160-00-00.73PT

For the connection of max. four analog signals or thermocouples with any range or measurement.

*: with four „mini“ jacks built-in

CAN adaptor box (self-starting)



... for RS 100	3160-00-00.51
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For the connection of the rotational speed sensor RS 100 with output signal „frequency“; with jack to connect a standard mains power adaptor.

Wires and accessories

Wires

Hydrotechnik offers all wires in different length that are required for the construction of a CAN line.

The standard wires shown here can be used for CAN lines with a total length of up to 40 m. For longer lines, larger lead diameters are required. Please contact your local Hydrotechnik partner for such wires.

Used to ...	Front end	TKZ ¹	Rear end
... connect a MultiSystem 5060 to a CAN adaptor box or sensor	 8-pol. round plug	8824-M5-01.00	 M12 jack CAN
... connect a MultiSystem 5060 to an existing CAN environment ²	 8-pol. round plug	8824-N0-01.00	 Sub-D plug
... connect a MultiSystem 8050 to a CAN adaptor box or sensor	 Sub-D plug	8824-N1-01.00	 M12 jack CAN
... connect a MultiSystem 5060 to an existing CAN environment	 8-pol. round plug	8824-N2-01.00	 Sub-D Buchse
... construct a CAN line	 M12 plug CAN	8824-N3-01.00	 M12 jack CAN
... connect a MultiSystem 8050 to a CAN adaptor box for RS 100	 Sub-D plug	8824-F8-03.00	 Sub-D plug

¹: the 01.00 indicates the length of the wire; e.g. „01.00“ means that the wire has a length of 1 m; standard wire lengths are 1.0 and 5.0 m; other lengths on request

²: you can use this wire to connect the MultiSystem 5060 to a CAN adaptor box for the sensor RS 100

Accessories

All components required for the construction of a CAN bus are available from Hydrotechnik directly.

Y splitter

For the splitting of the CAN line; with two M12 plugs and one M12 jack.



Y splitter

8808-50-01.01

Terminal resistor 120 Ohm

For the termination of the CAN line to avoid malfunctions due to reflections.



Terminal resistor

8872-02-01.01

Mains power adaptor



Image similar

For the CAN bus power supply.

Mains power adaptor

8812-00-00.34

Power pack adaptor



For the connection of a standard power pack to supply the CAN bus.

Power pack adaptor

8812-11-01.00

Technical data of the CAN adaptor boxes


Scan rate	10 ms
Transfer rate	10 ms
CAN adaptor boxes for analog sensors	
Resolution	1 μ A
Accuracy	\pm 5 μ A
CAN adaptor boxes for thermocouples	
Resolution	0,1 K
Accuracy related to MV (at 23 °C)	0,5 K (thermocouples)
	0,1 K (Pt 100)
Measuring range	-200 bis +1.200 °C (thermocouples)
	-100 bis +850 °C (Pt 100)

CAN sensors and configuration examples

CAN sensors

Hydrotechnik offers several precise sensors with CAN interface. Product details are contained in the sensor data sheets or on our internet site.

Pressure sensors PR 126




0 to 100 bar	3403-16-D2.60
0 to 400 bar	3403-15-D2.60
0 to 600 bar	3403-18-D2.60

Volume flow rate sensors QT 106



1 to 10 l/min	31C7-01-35.030
2 to 75 l/min	31C7-70-35.030
9 to 300 l/min	31C7-71-35.030
16 to 600 l/min	31C7-72-35.030

Inductive sensor



... for QT 106 + QT 206	3107-00-42.00
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Volume flow rate sensors QT 206



1 to 10 l/min	33C7-01-35.001
2 to 75 l/min	33C7-70-35.001G
9 to 300 l/min	33C7-71-35.001G
16 to 600 l/min	33C7-72-35.001G

Configuration examples with MultiSystem 5060

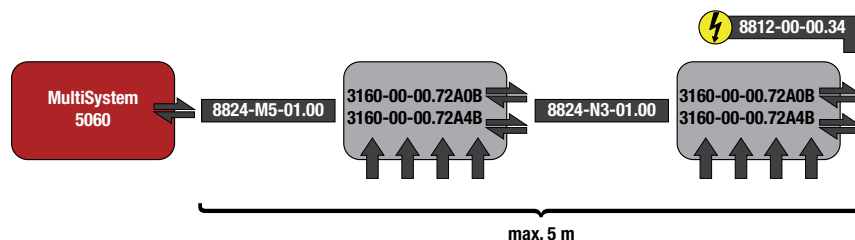
Example 1: more input channels

connection of one adaptor box, power supply by measuring instrument possible (reduced battery operation time, we recommend to use the mains power adaptor), termination in the adaptor box should be activated, wire should not be longer than 5 m



Example 2: short CAN line

connection of two adaptor boxes, power supply by measuring instrument not possible, external mains power adaptor must be used, termination of both adaptor boxes must be activated, overall wire length should not exceed 5 m



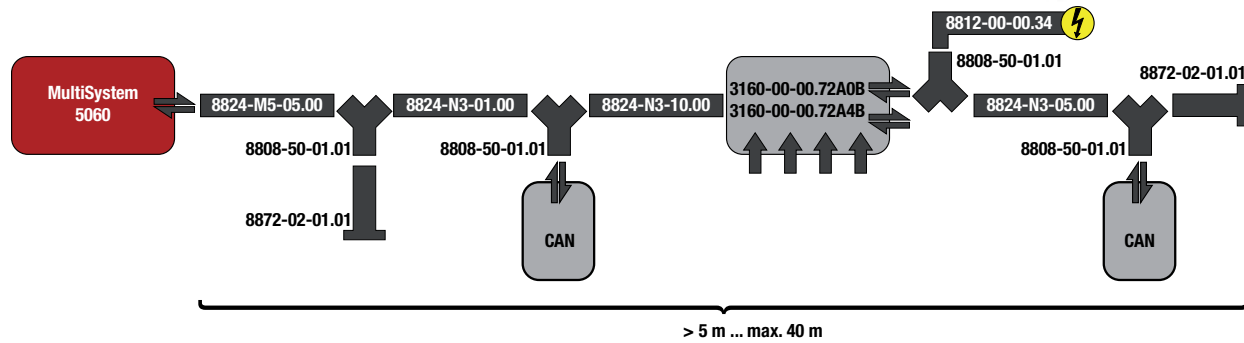
Hint

The configurations shown here are examples. Of course other assemblies are possible. For these and bigger wire lengths you should contact your local Hydrotechnik partner.

Configuration examples with MultiSystem 5060

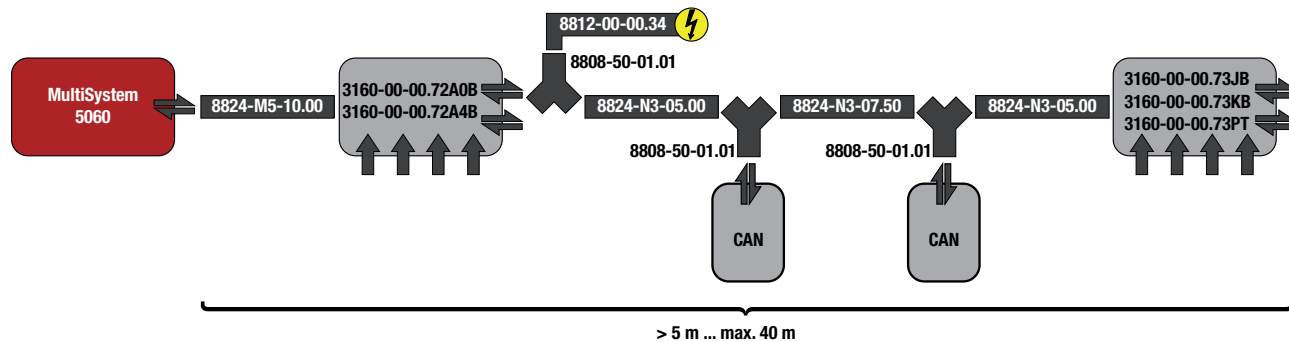
Example 3: CAN line with CAN sensors at the ends

connection of one adaptor box and two sensors, power supply by external mains power adaptor, termination in the adaptor box may not be activated, termination at both ends of the line required, over-all wire length should not exceed 40 m



Example 4: CAN line with adaptor boxes at the ends

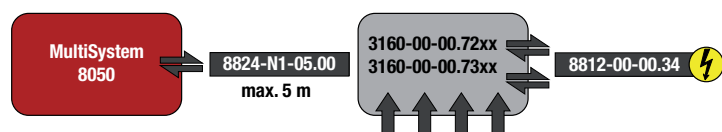
connection of two adaptor boxes and two sensors, power supply by external mains power adaptor, termination in both adaptor boxes must be activated, over-all wire length should not exceed 40 m



Configuration examples with MultiSystem 8050

Example 1: more input channels

connection of one adaptor box, power supply by measuring instrument not possible, external mains power adaptor must be used, termination in adaptor box should be activated, wire length should not exceed 5 m



The other configuration examples shown for the MultiSystem 5060 are valid for the MultiSystem 8050, too. But you have to use different connection wires between the measuring instrument and the first CAN element.