

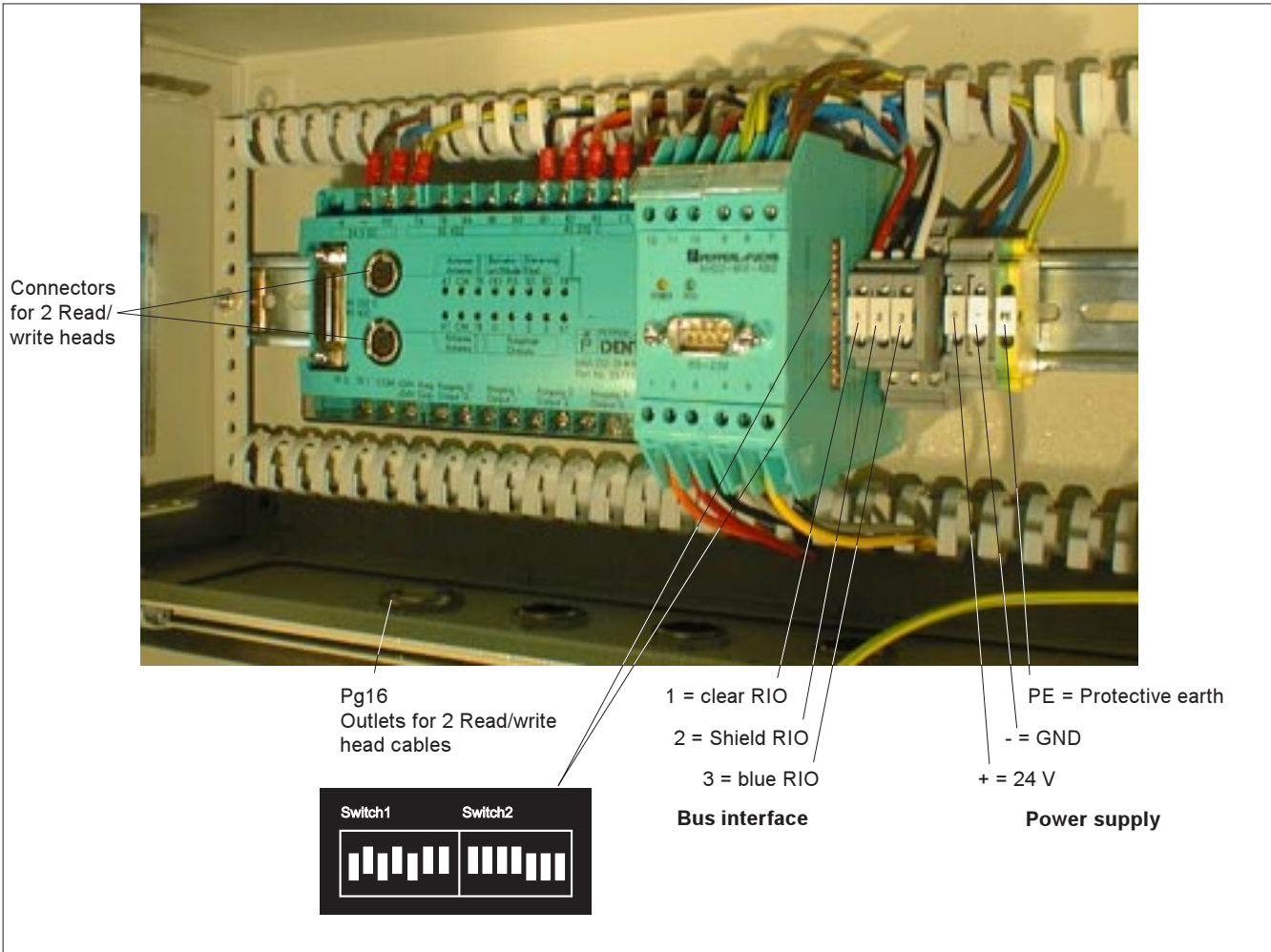
### Ident interface for Allen Bradley RIO

The Control Interface Unit with Allen Bradley RIO, connects directly to the Allen-Bradley Remote I/O Field Bus. The interface acts as a bus user, which behaves in the same way as an Allen Bradley remote-rack. This avoids the use of communication sub-assemblies in the control system and reduces the amount of cabling.

- 100 % compatible with Allen Bradley Remote I/O network
- 2 Read/write heads connectable
- 9 simple commands for easy operation from the PLC
- Configuration as ¼ rack
- Communication via block transfer
- Supports all status and error messages of Ident-M System V controller

<b>Ordering code</b>	<b>MVI-F57-2HAB2</b>
<b>Nominal ratings:</b> Suitable read/write heads	2 x MVH500-F15 or 2 x MVH2000-F15 or 2 x MVH5000-F50 or any combination
<b>Serial interface</b> Cable length RIO	3000 m for 57.6 kBaud 1000 m for 115.2 kBaud on request for 230.4 kBaud
Visual indicators	16 LEDs on MVI-D2-2HRX 2 LEDs on KHD2-MVI-AB2
4 free setable outputs	0 ... 3 output
Connections	2 round 10 pin sockets for read/write head connections
Supply voltage	24 VDC ± 10 %
Supply current	1 A
<b>Environmental conditions:</b> Operating temperature	273 Kelvin ... 333 Kelvin (0 °C ... +55 °C)
Storage temperature	248 Kelvin ... 358 Kelvin (-25 °C ... +85 °C)
Humidity	max. 90 % relative humidity
Protection class	IP55
<b>Mechanical:</b> Dimensions	400 mm (Width) x 200 mm (Height) x 123 mm (Depth)
Mounting	Direct wall mounting or wall mounting brackets
Housing material	Sheet steel, makrolon window
Weight	Approx. 4800 g

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<b>Switch 1 Settings</b>						
<b>Switch 1</b>						
	<b>S1</b>					
	off	must be off				
	on	not allowed				
<b>RIO data rate</b>	<b>S2</b>	<b>S3</b>				
57.6 kBaud	off	off				
115.2 kBaud	off	on				
230.4 kBaud	on	off				
<b>RIO rack size</b>	<b>S4</b>	<b>S5</b>				
¼ rack	off	off				
<b>RIO start quarter</b>	<b>S6</b>	<b>S7</b>				
1. quarter	off	off				
2. quarter	off	on				
3. quarter	on	off				
4. quarter	on	on				
<b>Switch 2 Settings</b>						
<b>Switch 2</b>						
<b>RIO last rack</b>						
no	<b>S1</b>					
yes	off					
	on					
<b>RIO rack address</b>	<b>S2</b>	<b>S3</b>	<b>S4</b>	<b>S5</b>	<b>S6</b>	<b>S7</b>
0	off	off	off	off	off	off
1	off	off	off	off	off	on
2	off	off	off	off	on	off
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
62	on	on	on	on	on	off
63	on	on	on	on	on	on

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## Commands

### BTW Control Word Format

0	1	1	1	0	0	H1	H0	C3	C2	C1	C0	0	0	0	M
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### Definitions

H1	Command is with respect to Antenna 1
H0	Command is with respect to Antenna 0
C0 C1 C2 C3	Command Code
M	On/Off bit defining the state of MVI-D2-2HRX outputs. Note that the M parameter is always "0" for all BTW except the ones that change the state of the MVI-D2-2HRX outputs.

Please note that the first byte can only be 70<sub>hex</sub>, 71<sub>hex</sub> or 72<sub>hex</sub>. Depending on the antenna that is being used for the following command. System relevant commands that do not involve an antenna use 70<sub>hex</sub>, commands that utilize antenna 0 start with 71<sub>hex</sub> and commands for antenna 1 start with 72<sub>hex</sub>.

Command	C3	C2	C1	C0	M	Control Word
Reset MVI-D2-2HRX	1	1	1	1	*	70F0
Read AB2 Software Version	1	1	1	0	*	70E0
Set Output 1 on/off	1	1	0	0	1	70C1 Turn on Output-1
	1	1	0	0	0	70C0 Turn off Output-1
Set Output 2 on/off	1	0	1	1	1	70B1 Turn on Output-2
	1	0	1	1	0	70B0 Turn off Output-2
Set Output 3 on/off	1	0	1	0	1	70A1 Turn on Output-3
	1	0	1	0	0	70A0 Turn off Output-3
Set Output 4 On/off	1	0	0	1	1	7091 Turn on Output-4
	1	0	0	1	0	7090 Turn off Output-4
Initialize Data Carrier	0	1	0	1	*	7150 Initialize Data Carrier in the zone of Antenna 0
	0	1	0	0	*	7250 Initialize Data Carrier in the zone of Antenna 1
Write Data Carrier	0	1	0	0	*	7140<start><length><data> -- Write the <data> string of <length> <b>words</b> to the Data Carrier in the zone of Antenna 0, starting at address <start>. <start> is the <b>byte address in hex</b> . <length> is the <b>word length in hex</b> and must be less than 3C <sub>hex</sub> (60 <sub>dec</sub> ).
	0	1	1	0	*	7240<start><length><data> Write the <data> string of <length> words to the Data Carrier in the zone of Antenna 1, starting at address <start>.

Example: Write Data Carrier using Antenna 0 starting at byte 15<sub>hex</sub> with a length of 10<sub>hex</sub> words.  
7150 0015 0010 (.....16 Words of Data.....)

Read Data Carrier	0	0	1	0	*	7120<start><length> Read a data string of <length> words from the Data Carrier in the zone of Antenna 0, starting at address <start>. <start> is the <b>byte address in hex</b> . <length> is the <b>word length in hex</b> and must be less than 3C <sub>hex</sub> (60 <sub>dec</sub> ). 7220<start><length> Read a data string of <length> bytes from the Data Carrier in the zone of Antenna 1, starting at address <start>.
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Example: Read Data Carrier using Antenna 0 starting at byte 100<sub>hex</sub> with a length of 0A<sub>hex</sub> words.  
7120 0100 000A