

- ✂ IEC61508 Certified by TÜV
- ✂ Four indicator outputs
- ✂ Current monitoring for fault detection
- ✂ Six logic resolvers
- ✂ Externally powered
- ✂ Configurable output levels

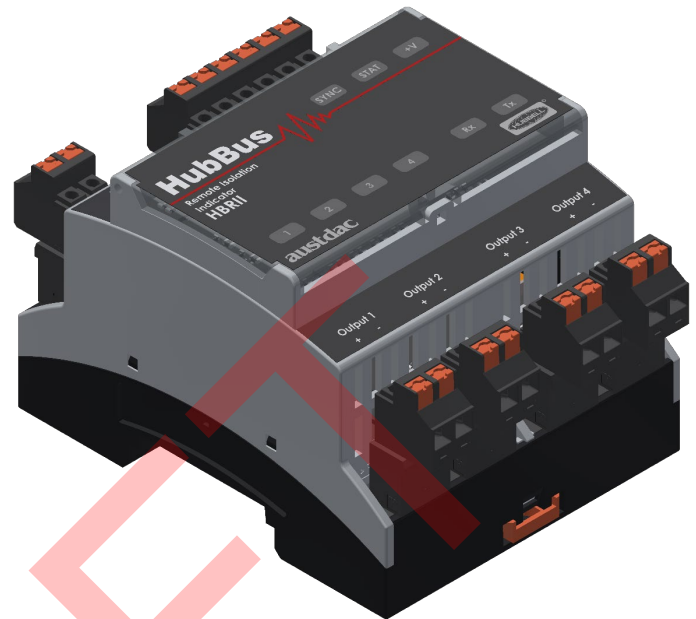
## DESCRIPTION

The HubBus Remote Isolation Indicator Type HBR11 is part of the HubBus field bus range of products. The DIN rail mounted HBR11 provides four LED indicator outputs that can be controlled from the HubBus field bus network.

The HBR11 can receive from just 1 through to all 2048 valid HubBus channels to control the four indicator outputs directly or via complex multi-term logic functions. The remote isolation indicator has four indicator outputs controlled by up to six logic resolvers capable of implementing OR, AND, NOR and NAND logic functions on all valid HubBus digital channel states including ON, OFF and FAULT. Each resolver has an independently configurable output ON and OFF delay filter to allow implementation of simple timer functions. The state of each logic function can also drive a user configured HubBus channel.

The four indicator outputs are galvanically isolated from the HubBus network port. It has been designed to be used with the Multicolour Sunlight Readable Indicator Type IND1 but may be used with other appropriately designed indicators. Outputs levels may be independently controlled from 0 to 40mA.

Each of the four indicator outputs have current individually monitored by a microcontroller to detect indicator faults such as failed indicators or shorts between indicators. Status may be reported back to the system monitor to quickly identify failures.



Maintenance and repair are made easier along with the reduced possibility of wiring faults with the use of pluggable connectors which are available with screw or spring cage terminals and horizontal or vertical wire entry. Maintenance is also improved with easy to read status LEDs with a common layout across the whole module product range.

The status LEDs show communication, power, line status and indicator status at a quick glance, in addition there is a quick open flip top lid to access the programming port.

Any of the HBR11 parameters can be conveniently configured using the battery powered HubBus Handheld Universal Programmer and Tester, Type HHP1-H.

## CERTIFICATION

- UL61010-1 (Safety) [E471953]
- CAN/CSA-C22.2 No. 61010-1 (Safety) [70189567]
- IEC61000-6-4 (Emissions)
- IEC61000-6-2 (Immunity-Industrial Environments)
- IEC61000-6-7 (Immunity-Functional Safety)
- IEC60068-2-1 & IEC60068-2-2 (Environmental)
- IEC60068-2-6 (Vibration)
- IEC61508 (Funct. Safety) [TÜV 968/FSP 2175.00/20]



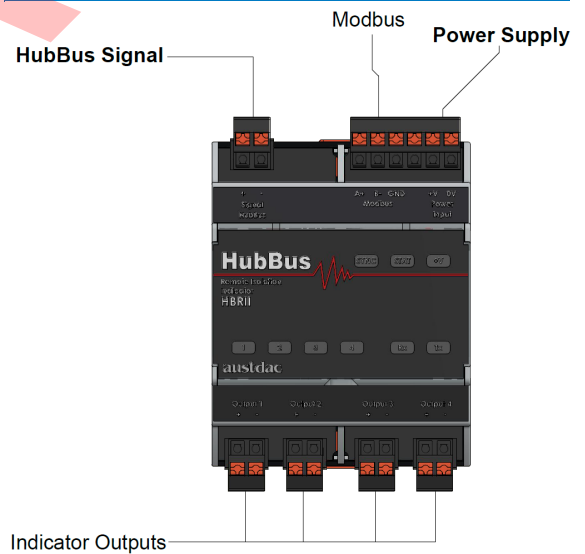
## SPECIFICATIONS

<b>General</b>	
Name	HubBus Remote Isolation Indicator
Type	HBR11
<b>Interface</b>	
Bus channels	Adaptive (up to 2048)
RS485	Modbus 2 wire (isolated port) (Disabled for safety function)
Configuration	TTL
<b>Physical</b>	
Dimensions	72mm (W) x 63mm (D) x 90mm (H) 2.83 (W) x 2.48 (D) x 3.54 (H) inches
Mass	150g / 5.29 oz
Mounting	DIN EN 60715 / TS35
Ingress protection	IP20
<b>Environment</b>	
Operating Temperature	-20°C to 50°C / -4°F to 122°F
Operating relative humidity	10% to 90% Non-condensing
<b>Electrical</b>	
Power supply voltage	15 - 48VDC
Power load (max.)	100mA
<b>Status Indicators</b>	
Modbus Activity	2 front panel LED
Controller, Power, Bus Health	1 front panel LED each
Indicator Output Status	4 front panel LED
<b>Logic Resolver</b>	
Number	4 with Relay and HubBus output 2 with HubBus output
Logic Functions	AND, OR, NAND and NOR
Channel Terms	N/A, ON, OFF or FAULT
<b>Indicator Output</b>	
Current Output	Adjustable: 0 to 40mA
Fault Detection	Open circuit, under and over current short across output drivers

## Terminals

HBR11					
13	+	Output 1	HubBus	Signal+	1
14	-			Signal-	2
16	+	Output 2			
17	-				
19	+	Output 3	RS485 Modbus	A+	7
20	-			B-	8
				COM	9
22	+	Output 4	N/A		
23	-				
		Power Input		+V	11
				0V	12

## CONNECTION DIAGRAM



## SAFETY DATA

See HubBus Safety Manual 125-267-12 for details.

HBR11	
SIL	2
HFT	0
SFF	98.50%
PFD <sub>avg</sub>	7.26 x 10 <sup>-5</sup>
PFH (1/h)	1.66 x 10 <sup>-8</sup>
Proof test interval	12 months



## ORDERING DETAILS

DESCRIPTION	ORDER CODE
HubBus Remote Isolation Indicator	HBR11



### AUSTDAC PTY LTD

HEAD OFFICE: CASTLE HILL AUSTRALIA +61 (0) 2 8851 5000  
 MACKAY QLD AUSTRALIA BRANCH +61 (0) 7 4862 4900  
 NORTH AMERICA BRANCH +1 888 254 9155 (Toll Free in US and Canada)  
 STAFFORDSHIRE UK BRANCH +44 (0) 1283 500 500