



4B Elevator Components Limited. Bearing Temperature Sensor WDB6 series.

The WDB6 series is a range of bearing sensors manufactured to screw directly into a bearing housing. Each sensor is fitted with a grease nipple to allow lubrication of the bearing without the need for removal of the sensor. The sensor is fitted with a M12 connector for use with a separately supplied three-metre cable and socket assembly which can be attached ready for connection either directly to a monitoring device or to a junction box. The cable has four cores and the table below shows the connections. The connections are not polarity sensitive therefore special connection requirements are eliminated. It is advisable however to connect all sensors in an identical manner, this will reduce the risk of shorting. Please refer to the relevant device manual for detailed connection information.

Part No.	Type	Temperature	Cable Cores	M12 pins
WDB60AI	NTC	90°C/194°F	Brown - Blue	1 - 3
WDB61AI	PTC	50°C/122°F	Brown - Blue	1 - 3
WDB62AI	PTC	60°C/140°F	Brown - Blue	1 - 3
WDB63AI	PTC	70°C/158°F	Brown - Blue	1 - 3
WDB64AI	PTC	80°C/176°F	Brown - Blue	1 - 3
WDB65AI	PTC	90°C/194°F	Brown - Blue	1 - 3
WDB61TAI	CONTACT	50°C/122°F	Brown - Blue	1 - 3
WDB62TAI	CONTACT	60°C/140°F	Brown - Blue	1 - 3
WDB63TAI	CONTACT	70°C/158°F	Brown - Blue	1 - 3
WDB64TAI	CONTACT	80°C/176°F	Brown - Blue	1 - 3
WDB65TAI	CONTACT	90°C/194°F	Brown - Blue	1 - 3
WDB6PAI	Pt100	90°C/194°F	Brown+White Blue+Black	1 + 2 3 + 4

When connected to an ATEX approved monitoring device such as Watchdog Elite, T400 Elite or TN4 node type device then the power dissipation of the sensor is limited and controlled by the monitoring system. If you wish to use the temperature sensor connected to independent equipment such as PLC or remote temperature monitor other than those listed, then special conditions apply.

Special Conditions for Safe Use:

The user must ensure that the maximum rated voltage and current are not exceeded. All connections to other apparatus or associated apparatus shall have control over this voltage and current equivalent to a category 'ib' intrinsically safe circuit according to EN 50020. Contact sensors must be protected by an external fuse rated at 1.5 amps or less and located in the safe area

NTC sensors

Each sensor typically has the following electrical specification (using the WDB60AI version).

Resistance at 25°C	-	10,000 Ohms
Resistance at 60°C	-	2,487 Ohms
Resistance at 90°C	-	916 Ohms
Sensing Voltage	-	5v DC Typical. (See Special Conditions of Safe Use)
Maximum Current.	-	1ma (See Special Conditions of Safe Use)

PTC sensors

Each sensor typically has the following electrical specification (using the WDB64AI version).

Resistance at 60°C	-	250 Ohms Max.
Resistance at trip (80°C)	-	2000 Ohms Max.
Sensing Voltage	-	5v DC Typical. (See Special Conditions of Safe Use)
Maximum Current.	-	20ma (See Special Conditions of Safe Use)

CONTACT sensors

Each sensor typically has the following electrical specification (using the WDB64TAI version).

Resistance at 60°C	-	2 Ohms Max.
Resistance at trip (80°C)	-	Open.
Sensing Voltage	-	24v DC Typical. (See Special Conditions of Safe Use)
Maximum Current.	-	1.5 amps (See Special Conditions of Safe Use)

Pt100 sensors

Each sensor typically has the following electrical specification (using the WDB6PAI version).

Resistance at 0°C	-	100 Ohms
Resistance at trip (80°C)	-	131 Ohms
Sensing Voltage	-	5v DC Typical. (See Special Conditions of Safe Use)
Maximum Current.	-	1ma (See Special Conditions of Safe Use)

ALL WDB6 sensors

- Fixing Thread. - 1/4" BSPT.
- Cable - As detailed in the following table

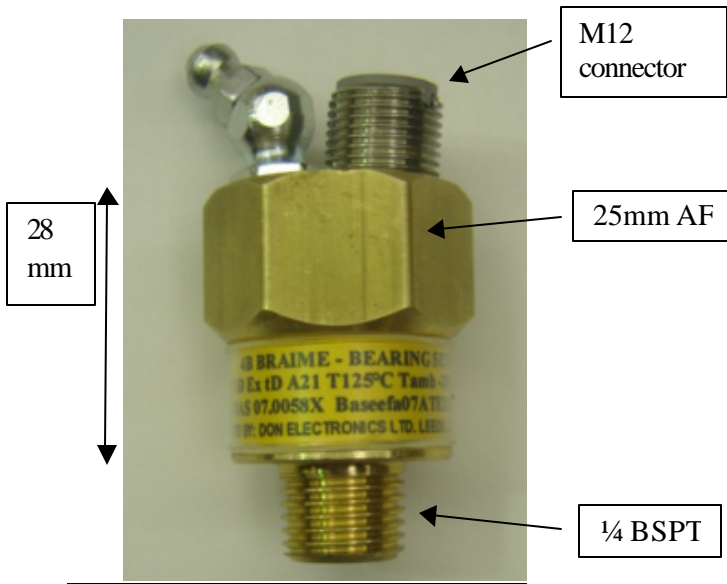
Part Number	Description
CA4SW03AI	4 CORE CABLE M12 SOCKET ONE END BARE WIRES OTHER END 3 MTR LONG ATEX / IECEX
CA4SW05AI	4 CORE CABLE M12 SOCKET ONE END BARE WIRES OTHER END 5 MTR LONG ATEX / IECEX
CA4SW10AI	4 CORE CABLE M12 SOCKET ONE END BARE WIRES OTHER END 10 MTR LONG ATEX / IECEX
CA4SW30AI	4 CORE CABLE M12 SOCKET ONE END BARE WIRES OTHER END 30 MTR LONG ATEX / IECEX
CA4SP03AI	4 CORE CABLE M12 SOCKET ONE END M12 PLUG OTHER END 3 MTR LONG ATEX / IECEX
CA4SP05AI	4 CORE CABLE M12 SOCKET ONE END M12 PLUG OTHER END 5 MTR LONG ATEX / IECEX
CA4SP10AI	4 CORE CABLE M12 SOCKET ONE END M12 PLUG OTHER END 10 MTR LONG ATEX / IECEX
CA4SP30AI	4 CORE CABLE M12 SOCKET ONE END M12 PLUG OTHER END 30 MTR LONG ATEX / IECEX

Maximum Temperature Conditions.

Designed to work in ignitable dust temperature class T 125°C (sensor body)
Free air ambient temperature of -20°C to +50°C
Maximum continuous cable temperature is 80°C

Protection.

Ex II 1 D Ex tD A21 T125°C



For further information

www.go4b.com



Manufactured by DON ELECTRONICS LIMITED.
UNIT 3B WOODSIDE ESTATE, LOW LANE, HORSFORTH, LEEDS
<http://www.donelectronics.co.uk> Email: mail@donelectronics.co.uk
+44 (0)845 130 4798 – Fax: +44 (0)845 130 4799