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# 2200 Exd IIB Aluminium Accutrak Valve Position Monitor — Marketing Release January 2009





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## Purpose of Document

From Monday 12th January 2009 all 2200 Series Aluminium Valve Position Monitors that are for Explosionproof applications (Exd IIB + H<sub>2</sub> ATEX and IEC) will be supplied with Internal assembly improvements and part number changes in line with previous Product releases.

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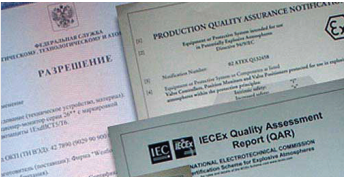


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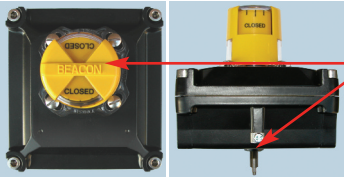
## Overview of Changes

- **Certification**



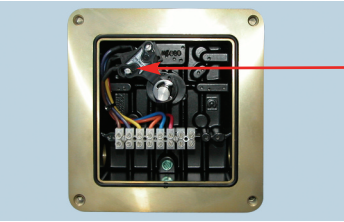
The 2200 Series ATEX approval has been updated to Exd IIB + H2 in line with Standards EN60079-0:2006, EN60079-1:2007, EN61241-0:2006 and EN61241-1:2004. The 2200 Series has also been listed as IEC Certified.

- **Shaft Rationalisation:**



Along with a global shaft rationalisation strategy the 2200 Series shafts have been updated to include double O-Ring positions as standard. In line with customer requests the Namur 'Tang' has also been rotated 90° so the Beacon can be fitted in a standard orientation for most conventional applications.

- **Centralisation Plate:**



Standard supply of a centralisation plate for two switch products offers a product improvement with regards to the Linearity of the Shaft/Cam arrangement in line with the Switch/Sensor triggering position. This will allow more accurate setting of switches by fixing the shaft position while setting occurs and cover bearing is removed.

- **Inductive Proximity Cam Assembly:**



With the above centralisation plate, tolerances allow an improvement to the Cam arrangement for the Inductive Proximity Sensor option within the 2200 series. This has incorporated a metallic 'slug' with an increased diameter and density that is located within the Cam to allow for improved accuracy when setting the sensors.



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## Technical Information

### Accutrak 2200 Series – Aluminium Exd IIB Explosionproof

The AccuTrak 2200 Series Monitor is designed to enable the process engineer to add as much feedback from a control valve as the situation requires. The Exd IIB rated aluminium enclosure is equipped as standard with two switches/sensors (can fit upto 6 switches/sensors where application requires) and a Beacon High Visibility Indicator for instant recognition of valve position up to distances of 50m. A unique self-locking, spring loaded TouchSet cam mechanism allows for instantaneous hand setting of limit switches within seconds. A pre-wired numbered and colour coded terminal block provides ease and convenience of wiring. Optional analogue transmitters provide full range monitoring of valve position throughout a 0-100% range.

#### Certified Options Available

- Beacon , Flat or High Covers
- Standard Height - Black / Yellow, Red / White, Blue / White, Green / White, 3 Way Flow Path Beacon Indicators, Various Languages
- M20, M25, 3/4" NPT Conduit Entry Options
- 2 or 4 Position Conduit Entries
- 1, 2, 3, 4, 5 or 6 x V3 Mechanical Switches SPDT Contacts
- 1, 2, 3 or 4 x DPDT Mechanical Switches
- 1, 2, 3, 4, 5 or 6 x V3 Inductive Proximity Sensors
- 1, 2, 3, 4, 5 or 6 x Magnum XT90 Hermetically Sealed Proximity SPDT Contacts
- Various other types of Switches and Sensors dependent on size – Please check with Office
- Namur or Westlock Standard Shaft
- Terminal Strips – Weco, Klippon , Kulka or Bosha
- 4-20Ma Transmitter for Position Feedback (CS)
- 10K Ohm Potentiometer for Resistive Signal (RS)

#### Technical Specifications

##### ● ENCLOSURE

Material Specification	A360 (0.2% Copper Max) LM9
Finish	Irridited with Two Pack Polyurethane Enamel – Type F63 B13
Enclosure Temperature (Operating)	-40°C to +82°C
Certification Ambient	-20°C to +40°C

##### ● BEACON INDICATOR

Material Specification	Ektar Copolyester
Temperature Limits	-40°C to +82°C

##### ● SHAFT

Material Specification	303 Stainless Steel or optional 316 Stainless Steel
------------------------	--

##### ● SENSORS/SWITCHES

– V3 Mechanical Switches SPDT

##### Electrical Rating (SPDT):

15amps / 125/250VAC

.5amps / 125VDC

6amps / 24VDC

.25amps / 250VDC

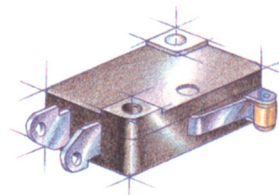
5amps / 125VAC

##### Operating Temperature:

-25°C to +148°C

##### Hysteresis:

3%



– DPDT Mechanical Switch

##### Electrical Rating (DPDT):

10amps / 125VAC

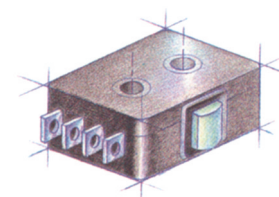
10amps / 250VAC

##### Operating Temperature:

-25°C to +148°C

##### Hysteresis:

5%



– Pepperl & Fuchs (NJ2-V3-N)

##### Input Voltage Range:

5 – 25VDC



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## Technical Information Continued

### Accutrak 2200 Series – Aluminium Exd IIB Explosionproof

#### Output / Current Consumption:

≥1Ma - ≤3ma

#### Nominal Voltage:

8VDC

#### Switching Frequency:

1 KHz

#### Operating Temperature:

-25°C to +100°C

#### Hysteresis:

1%

#### Electrical Rating:

3amps / 120VAC

1.5amps / 240VAC

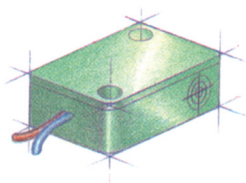
2amps / 24VDC

#### Operating Temperature:

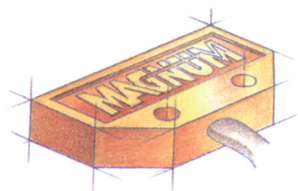
-29°C to +93°C

#### Hysteresis:

6%



– Magnum XT90 Hermetically Sealed



#### ● TERMINAL STRIP

– Type WECO Series 300 type 302

– Material Specification Polymide

– Nominal Cross Section 1.5mm<sup>2</sup>

– Wire Tripping Length 5mm

#### ● O-RINGS/GASKETS

– Material Specification Buna N

#### ● CIRCLIPS & FASTENERS

– Material Specification Stainless Steel

#### ● CERTIFICATION APPLICABLE



Certificate Number: EPSILON 08 ATEX 2370X

Approval Detail: Ex II 2 G D Exd IIB +H: T\* Tamb -\*°C to \*°C (See schedule)

Ex tD A21 IP6X T\*°C

Ambient Temperature

Series Code	Cover Type	T Class	Ambient Range
224*	Beacon	T6 (80°C)	-30°C to +60°C
224*	Beacon	T5 (95°C)	-30°C to +75°C
224*	Beacon	T4 (130°C)	-30°C to +85°C
226*	Flat	T6 (80°C)	-20°C to +60°C
226*	Flat	T5 (95°C)	-20°C to +75°C
226*	Flat	T4 (130°C)	-20°C to +85°C

#### ● NORTH AMERICAN EQUIVALENT UNITS

Model Numbers 2007X, 9479

#### ● CERTIFICATION APPLICABLE



IECEX

Certificate Number: IEC EX ITS 09.0002X

Approval Detail: Exd IIB +H: T\* Tamb -\*°C to \*°C (See schedule)

Ex tD A21 IP6X T\*°C

Ambient Temperature

Series Code	Cover Type	T Class	Ambient Range
224*	Beacon	T6 (80°C)	-30°C to +60°C
224*	Beacon	T5 (95°C)	-30°C to +75°C
224*	Beacon	T4 (130°C)	-30°C to +85°C
226*	Flat	T6 (80°C)	-20°C to +60°C
226*	Flat	T5 (95°C)	-20°C to +75°C
226*	Flat	T4 (130°C)	-20°C to +85°C



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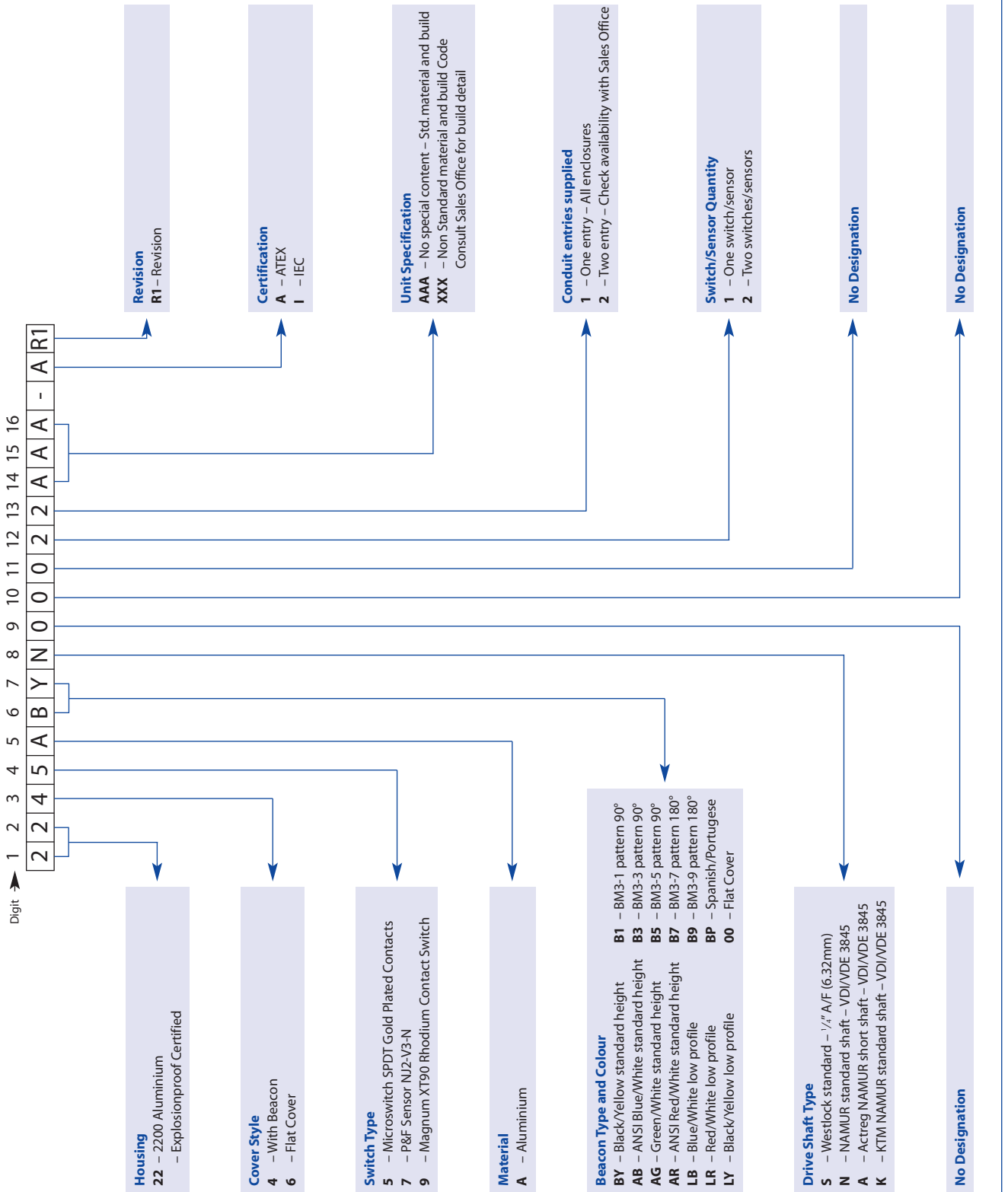
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## 2200 Series Accutrak Coding





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## Part Number Examples

### 2200 Series Aluminium Exd IIB + H2 Aluminium Enclosure

**Description:** Westlock Aluminium 2200 Series, Black/Yellow Beacon Indicator, Namur Shaft, 2 x M20 Conduit Entries, 2 x Magnum XT90 Hermetically Sealed Proximity Switches, with Tungsten SPDT Contacts pre-wired to 8 Point Terminal Strip. Unit ATEX Certified Ex II 2 G Exd IIB + H2.

*Part Number: 2249A-BY-N-000-22AAA-AR1.*

**Description:** Westlock Aluminium 2200 Series, Black/Yellow Beacon Indicator, Namur Shaft, 2 x M20 Conduit Entries, 2 x Pepperl & Fuchs NJ2-V3-N Inductive Proximity Sensors pre-wired to 8 Point Terminal Strip. Unit ATEX Certified Ex II 2 G Exd IIB + H2.

*Part Number: 2247A-BY-N-000-22AAA-AR1.*

**Description:** Westlock Aluminium 2200 Series, Black/Yellow Beacon Indicator, Namur Shaft, 2 x M20 Conduit Entries, 2 x V3 Mechanical SPDT Switches Prewired to 8 Point Terminal Strip. Unit Certified IEC Exd IIB + H2.

*Part Number: 2245A-BY-N-000-22AAA-IR1.*