

The specially designed wireless valve position monitoring system from Westlock provides real-time information about a valve's status directly into the control system, reducing failure and risk while increasing safety and yield.



Features and benefits

- Reduced costs (wires, conduits, cable trays, cabinets, I/Os)
- Easier engineering and installation
- Faster commissioning and startup
- Solution for space constraints, smaller footprint
- Monitoring for manual, automated, rotary or linear valves
- Reduced unwarranted field trips and labor costs
- Improved operation efficiency and safety
- Multiple enclosure options (resin, aluminum, stainless steel)
- High visibility beacon and wireless valve monitoring (0 to 100%)
- 10 year battery life (using nominal configuration)*
- Intrinsically safe and explosion proof options
- Diagnostics and valve signature
- Direct mount to valves and actuators
- Easy integration with control systems

Technical Data	
Limits	
Wireless Devices (WD) per Wireless Management System (WMS)	10,000 using WMS Server 120 using WMS Stand Alone
Wireless Devices (WD) per Wireless Gateway (WG):	100 using Wireless Routers (WR) 32 without Wireless Routers (WR)
Battery Life	
Wireless Devices	nominal configuration: 10 years*
Typical Distances	
Wireless Device (WD) to Router (WR)	25 m in obstructed environment (70 m in open space)
Router (WR) to Router (WR)/Gateway (WG)	100 m in obstructed environment (200 m in open space)
Handheld (WH) range	10 cm to 1 m
Typical Latencies:	
Hop to hop	10 ms
Wireless Device (WD) to WMS	1 second

Note: * Nominal configuration is up to 8 events per hour.

Product Overview

The Westlock wireless valve monitoring system was specifically designed to work with both manual and automated on/off valves and to integrate directly with a wider plant control system. All field devices use the proven standard ZigBee Pro, with built-in AES 128 bit encryption security.

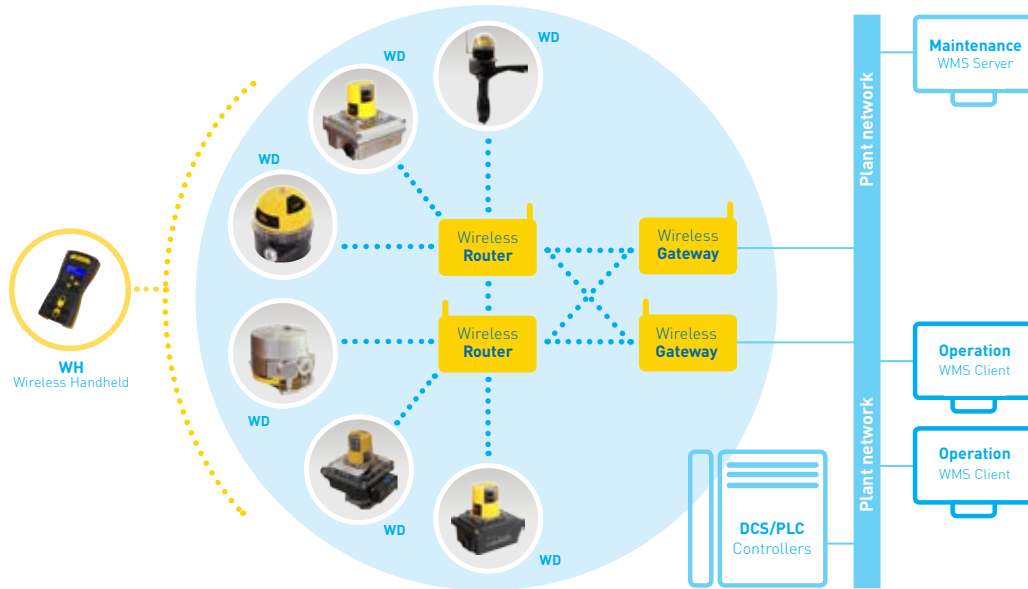


Wireless Valve Monitoring System

System architecture

A wireless position monitor to put you in control throughout the plant.

The Westlock wireless valve monitoring system was specifically designed to work with both manual and automated on/off valves and to integrate directly with a wider plant control system. Based around the very flexible valve monitoring wireless device (WD) the system also includes the wireless router (WR), gateway (WG), handheld (WH) and the Wireless Management System (WMS) software.



WMS Client

The Wireless Management System Client provides the GUI interface to the plant control system and implements connectivity through standard communication protocols like Modbus RTU, Modbus TCP, and OPC DA. The WMS Client also manages a floating license from the Server.

WMS Server

The Wireless Management System Server is the gateway to the main plant control system and can manage data from up to 100 Wireless gateways. The system runs as an application or as a service, manages the license and generates a log of all activity. The main function of the WMS server is to collect data, monitor the network and deliver information to upper tier management systems.

Wireless Device (WD)

The valve monitoring wireless device is suitable for both rotary and linear monitoring and has the option of internal or external antenna. Available to a number of specifications the device can be supplied intrinsically safe and suitable for FM/IEC/ATEX /INMETRO Zone 1.

Wireless Handheld (WH)

The wireless handheld allows local communication with the key components of the system – wireless device, router and gateway. Wireless transmission is using the ZigBee protocol, the unit also has a USB interface. Intended for use at close range the wireless handheld is used to calibrate and set up each wireless device, configure operator ID and passwords, turn units on/off and to prompt transmission confirming the valve's status.

Wireless Router (WR)

The router is used to buffer the data from a group of up to 32 wireless devices typically within a 25 m radius (up to 70 m in open spaces) and allows local monitoring from a single point. The routers transfer information using a self-healing mesh topology providing alternate information relays in the event of a failure; the router also uses the ZigBee wireless protocol to transfer all data.

Wireless Gateway (WG)

Each gateway can manage the data from up to 32 routers at a distance of 100 m (200 m in an unobstructed environment). The gateway collects the router data using the ZigBee protocol and then transfers this to a WMS connectivity server via Ethernet TCP/IP. The gateway also operates as part of the self-healing mesh topology ensuring full redundancy and avoiding a single point of failure.

Wireless Valve Monitoring System

Putting you in control



The wireless module fits in multiple Westlock switch boxes

Valve Monitoring Wireless Device (WD)

The valve monitoring wireless device is a battery powered wireless position transmitter (0 to 100 %) with integrated limit switches and auxiliary inputs. The ultra compact design can be integrated with any valve, manual or actuated using a mechanical attachment to the valve or actuator axle. The unit is suitable for mounting directly to valves using ISO/DIS 5211.2 F03 to F12 flanges and to actuators using the NAMUR interface; on other valves or actuators a mechanical bracket is used. It can be easily installed either in its own rugged enclosure incorporating a beacon indicator or within several standard Westlock switch boxes.

The device is suitable for both rotary and linear monitoring and has the option of internal or external antenna. Available to a number of specifications the device can be supplied intrinsically safe and suitable for FM/IEC/ATEX/INMETRO Zone 1. The device has a 10 year battery life and can be installed on existing equipment with minimum disruption or specified on new valve/actuator packages. The units are easily commissioned and calibrated using the wireless handheld.

The wireless device reports the valve position every 15 minutes (configurable) or after every valve movement of at least 1.5°, this enable valve signatures to be created for all automated valves. It also monitors temperature, battery status and alarms; all messages are transmitted with a real time stamp.

Wireless Valve Monitoring System

Technical specification

Wireless communication (RF)	
Mode	Two way radio – IEEE 802.15.4 – 2006 at 2.4 GHz.
Communication protocol	ZigBee Pro version (Wireless HART and ISA-100 under development).
WD max transmitted power	+3 dBm (+external antenna gain).
Receiver sensitivity	-95 dBm typical.
WD antenna	Internal +2 dBi peak. Optional external antenna F-SMA connector
WD to WR/WG range	Open space about 70 m; Indoors partially obstructed about 25 m.
WR/WG to WR/WG range	Open space about 200 m; Indoors partially obstructed about 100 m
Latency	Less than 0.1 sec in average (assuming one hop).

Approach	
Measurement	Angle of valve's stem position.
Update rate	WD sleeps all the time and only wakes up to transmit its status when a valve is moved more than 1.5° or a limit switch or auxiliary input change state. In the absence of these events it transmits its status every 15 minutes (configurable).
Sense movement duration	Between 30 msec to 10 minutes (discrete steps).
Range	Quarter turn: -10° to +100°
Limit switches	Two switches with self-locking, TouchSet cam mechanism to allow hand setting of limit switches.
Micro switch reporting	State, event time stamp and timing sequence between uSW events in ms.switches with tungsten contacts
Auxiliary inputs	Two digital dry inputs.
Shaft	316 Stainless Steel.
Resolution	0.1°
Accuracy	±1°
Calibration and setup on valve	Using the WH with short range low frequency wireless communication between WH and WD.
Message timing	Each message is sent by the WD with a real time stamp.

WH	
Characteristics	125 kHz (3 channels) – Short range receiver continuously open, also when WD is turned OFF - WD on/off, calibration, identification, commissioning, test, etc.
Sensitivity	~2 mV each channel
Data rate	1,000 bps
Modulation	OOK Manchester
LF range (with WH)	From 10 cm to 1 m

Wireless Valve Monitoring System

Technical specification

General	
Additional WD data	WD internal temperature, battery voltage and unit's house-keeping parameters.
Battery	Battery pack with 4 ½ AA. Field replaceable.
Battery life	10 years (using nominal configuration)*
Valve transition measurement (optional)	After 1.5° move of valve, WD collects up to 64 readings of valve position every 5 ms up to 9.6 sec (user selectable in discrete steps) and transmits them as a packet.
WD software upgrade	Field upgradeable over the air
Case material	Polycarbonate, UV stable
Operating temperature	-40°C to 80°C
Sealing	Dependent on enclosure

General	
Network architecture	WRs and WGs provide a full self-recovery mesh architecture.
WR/WG max transmitted power	+16 dBm (+ additional antenna gain)
Receiver sensitivity	-97 dBm typical.
Antenna	External, 20 cm, +5 dBi with M-SMA.
WDs per WR	32
WRs per network	Up to 5000
WG	From ZigBee domain to Ethernet TCP/IP and back.
WR	From ZigBee to ZigBee domains. WD range extender.
WGs per network	Not limited
WG connection	4 pin DC connector USB connector 8 pin for Ethernet connector
WR connection	4 pin DC connector
Indications	15 colored internal LEDs seen through transparent front lid.
Mounting	4 external or internal holes.

Communications	
Communication range WR/WG to WR/WG	Open space about 200 m; Indoors partially obstructed about 100 m

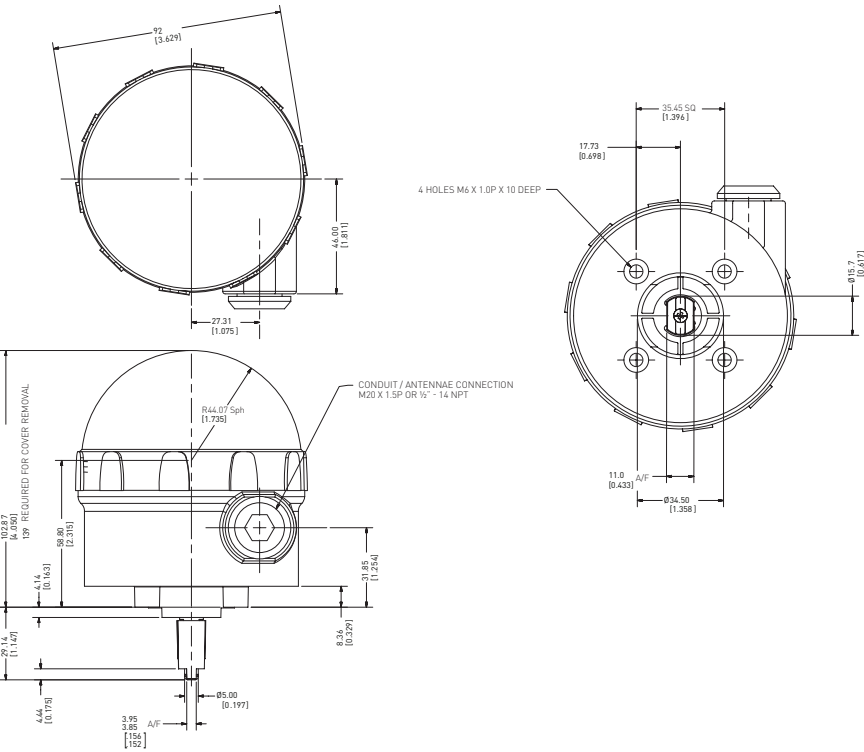
Power	
Backup supply	Rechargeable battery, standby minimum: WR: 12 hours WG: 8 hours Battery charged when unit is powered (also in OFF).
DC supply	WR/WG 7-36 VDC / 10 W max

Note: * Nominal configuration means up to 8 events per hour.

Wireless Valve Position Monitor

AccuTrak™ 1100 Engineered resin enclosure, intrinsically safe, weatherproof

Model 1100 dimensions



Dimensions in mm, where available imperial dimension (inches) in parentheses

Technical specifications

Materials of construction	
Enclosure	ABS resin
Shaft and hardware	ABS resin
Beacon indication	ABS resin
Temperature rating	-20°C to 80°C
Drive shaft	
Standard	Double-D with ¼" A/F
Option	NAMUR standard VDI/VDE 3845

Product Overview

AccuTrak™ wireless position monitor for space constrained applications.

1100 - Engineered resin enclosure
 II 1 GD Exia IIC T4 -40 to +80°C
 Ex tb IIIC T* Db Tamb -* °C to +* °C IP6X, weatherproof

General Description

The AccuTrak™ 1100 WD is a compact wireless position monitor with Beacon visual indicator, which is installed on the top of a valve or actuator and coupled directly to the valve or actuator axle. The AccuTrak™ 1100 provides cost effective monitoring.

Features

- Dome shaped visual indication provides visual feedback of valve open or closed position in line with standard Westlock™ visual indication design.
- IP66 engineered resin enclosure ensures both strength and corrosion resistance.
- Standard supply of IP rated plugs to avoid ingress during site storage and transportation prior to installation.
- Namur VDI/VDE standard mounting arrangement with centralization ring for ease of mounting via a bracket (optional supply) onto Namur actuators.
- Compact and lightweight design, perfect size for manual valve monitoring.
- Internal antenna option.



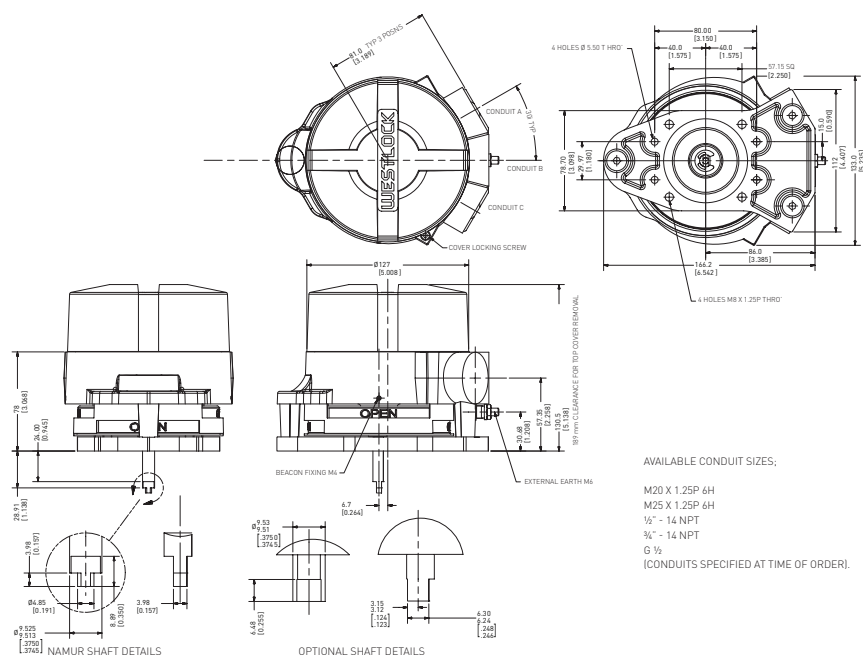
Base model													
11	1100 Engineered resin enclosure												
Cover style													
4	With beacon												
Wireless protocol													
W	Wireless transmitter module												
Enclosure material													
R	Engineered resin												
Beacon type													
BY	Black/Yellow standard height BM2-Y (std)												
Drive shaft output													
S	Standard Westlock shaft (double-D with 6.32 mm/¼" flats)												
N	NAMUR std spec shaft VDI/VDE 3845												
Rotation options													
0	Standard action												
R	Reverse action (clockwise rotation)												
Ancillary options													
ZE	Wireless ZigBee with external antenna												
ZI	Wireless ZigBee with internal antenna (std with resin enclosures)												
HE	Wireless HART with external antenna (consult factory)												
ZE	Wireless HART with internal antenna (std with resin enclosures) - (consult factory)												
ZE	Wireless SP100 with external antenna (consult factory)												
SI	Wireless SP100 with internal antenna (std with resin enclosures) - (consult factory)												
Switch/Sensor quantity													
A	Wireless + 2 internal switches (standard)												
Conduit													
1	One conduit entry												
Unit specification													
AAA	M20 conduits - std. materials and build												
FAN	½" NPT conduit - std. material and build												
XXX	Non standard build code (contact sales office)												
Certification													
A	ATEX												
I	IECex												
0	Non hazardous												
Revision													
R*	Internal build revision number												
11	4	W	R	BY	N	R	ZE	A	1	AAA	0	R1	= Model 114WRBYNRZEA1AAA-0R1

AccuTrak™ 2600 Metallic enclosure, explosion proof

Product Overview

2600 - Aluminum/Stainless Steel enclosure
II 2 GD Ex d IIC T* Ex tb IIC T* Db Tamb - *°C
to + *°C IP6X

This position monitor design meets explosion proof area classification and satisfies a wide range of requirements including; robust mechanical protection, Beacon visual indication, and additional entries for auxiliary inputs.



Technical specifications

Materials of construction

Materials of construction

Enclosure	Aluminium with powder coat finish
	Stainless steel with electropolished finish
Temp. range	-60°C to +110°C
Shaft and hardware	Stainless steel with electropolished finish
Bushing	Oil impregnated bronze (aluminium enclosure) PTFE (stainless steel enclosure)
Beacon visual indicator	Co-polyester
Drive shaft	
Standard	Double-D with 1/4" A/F
Option	NAMUR standard VDI/VDE 3845

Please consult your sales office for any other requirements

Features

- Aluminum and stainless steel options.
- Robust design for superior mechanical protection.
- Standard bolt pattern for mounting to NAMUR actuators with common bracket kits.
- Global certifications available.



Wireless Valve Position Monitor

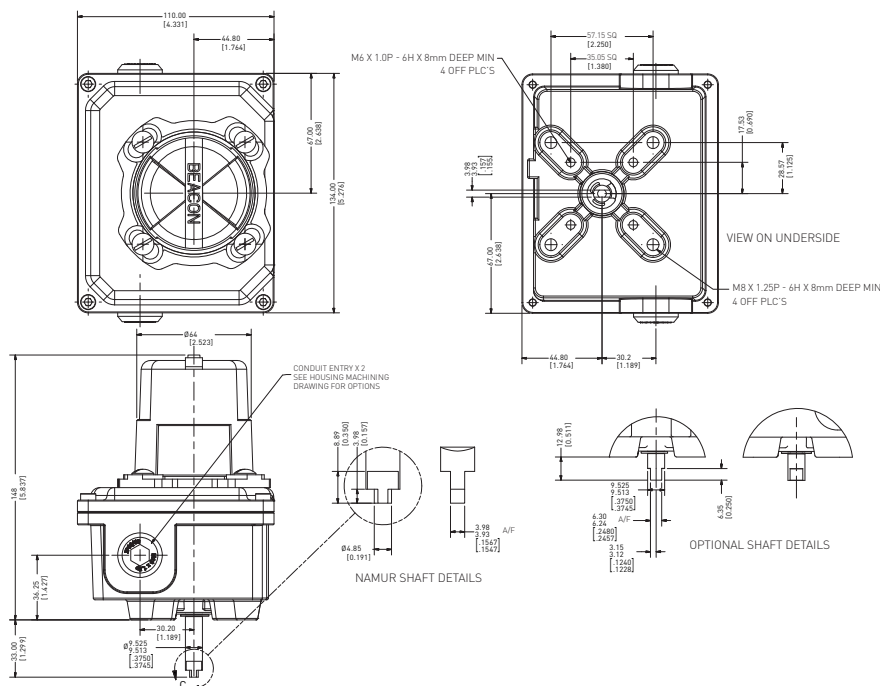
AccuTrak™ 2600 Selection guide

Base model												
26	2600 flameproof screw top enclosure											
Cover style												
4	With beacon											
6	Without beacon											
Wireless protocol												
W	Wireless transmitter module											
Enclosure material												
A	Aluminum											
S	Stainless Steel											
Beacon type												
BY	Black/Yellow (Std)											
GR	Red/Green											
B1	90° Flow path BM3-1											
B3	90° Flow path BM3-3											
B5	90° Flow path BM3-5											
B7	180° Flow path BM3-7											
B9	180° Flow path BM3-9											
00	No beacon											
Drive shaft output												
S	Standard Westlock shaft (double-D with 6.32mm/¼" flats)											
N	NAMUR std spec shaft VDI/VDE 3845											
K	KTM NAMUR shaft VDI/VDE 3845											
Ancillary options												
OZE	Wireless ZigBee with external exd antenna											
OHE	Wireless HART with external exd antenna (consult factory)											
OSE	Wireless SP100 with external exd antenna (consult factory)											
Switch/Sensor quantity												
A	Wireless + 2 internal switches (standard)											
B	Wireless + 2 internal switches & 2 external switch connections											
Conduit												
2	Two conduit entries (2 x M20 std)											
3	Three conduit entries - optional adder											
Unit specification												
AAA	No special content - standard material and build											
XXX	Non standard build code (contact sales office)											
Certification												
A	ATEX											
I	IECex											
Revision												
R*	Internal build revision number											
R1	= Model 264WABYN0ZEA2AAA-AR1											
26	4	W	A	BY	N	OZE	A	2	AAA	A	R1	

Wireless Valve Position Monitor

AccuTrak™ 3000, Non hazardous and intrinsically safe, weatherproof

Model 3000 dimensions



Notes: Dimensions in mm, where available imperial dimension (inches) in parentheses.
Drawing shows metallic enclosures.

Technical specifications

Materials of construction

Enclosure	Aluminium with powder coat finish Stainless steel with electropolished finish Engineered resin
Shaft and hardware	Stainless steel
Bushing	Oil impregnated bronze (aluminium enclosure) PTFE (stainless steel enclosure) Nylon (engineered resin enclosure)
Beacon visual indicator	Co-polyester

Drive shaft

Standard	Double-D with 1/4" A/F
Option	NAMUR standard VDI/VDE 3845

Please consult your sales office for any other requirements

Product Overview

AccuTrak™ wireless position monitors certified intrinsically safe and for non-hazardous applications.

3000 - Aluminum/Stainless Steel/Engineered Resin enclosures, certified intrinsically safe II 2 GD T*°C Ex ia IIC T* Ex iaD 21 T*°C IP6X

General Description

These position monitors provide a compact weathertight solution for non-hazardous or intrinsically safe applications where wash downs are a daily occurrence. The high performance resin enclosures offer extreme chemical resistance and superior quality.

Features

- The Westlock™ Beacon is manufactured from a high impact strength and corrosion resistant co-polyester that offers 360° instant visual recognition of valve position.
- All AccuTrak™ products utilize a standardized mounting pattern for easy adaptation to common bracketry.
- NAMUR shaft output compliant to VDI/VDE 3845 available.
- Compact design suitable for smaller actuators or manual valve mounting.



Wireless Valve Position Monitor

AccuTrak™ 3000 Selection guide

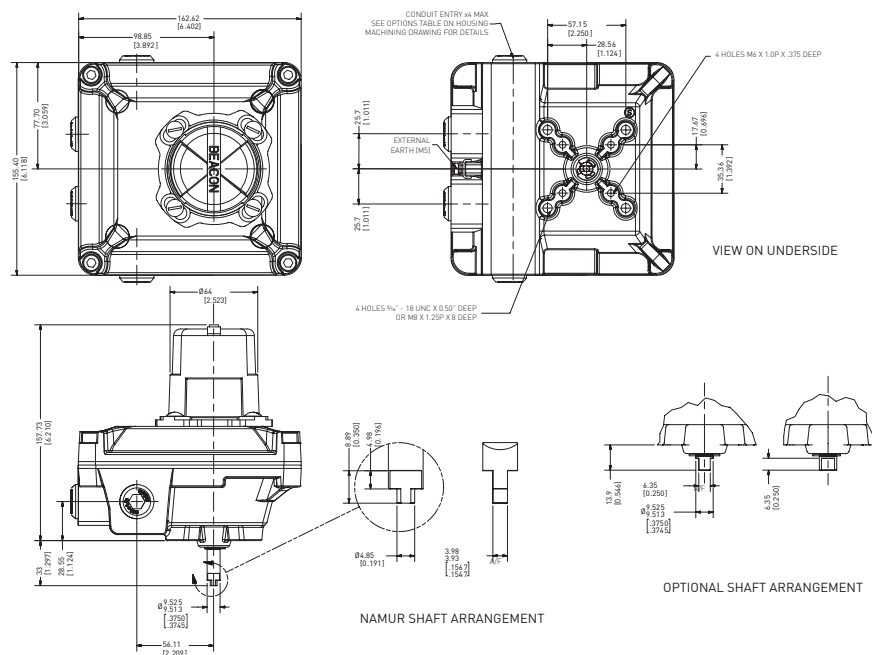
Base model												
30	3000 intrinsically safe certified											
Cover style												
4	With beacon											
6	Flat cover											
Wireless protocol												
W	Wireless transmitter module											
Enclosure material												
A	Aluminum											
R	Engineered resin											
S	Stainless Steel											
Beacon type												
BY	Black/Yellow standard height BM2-Y (std)											
AB	ANSI Blue/ White standard height BM2-B											
AR	ANSI Red/White standard height BM2-R											
GR	Red/Green standard height BM2-RG											
B1	90° Flow path BM3-1											
B3	90° Flow path BM3-3											
B5	90° Flow path BM3-5											
B7	180° Flow path BM3-7											
B9	180° Flow path BM3-9											
00	Flat cover (no beacon)											
Drive shaft output												
S	Standard Westlock shaft (double-D with 6.32mm/¼" flats)											
N	NAMUR std spec shaft VDI/VDE 3845											
K	KTM NAMUR shaft VDI/VDE 3845											
Ancillary options												
OZE	Wireless ZigBee with external antenna (std with AL & SST enclosures)											
OZI	Wireless ZigBee with internal antenna (std with resin enclosures)											
OHE	Wireless HART with external antenna (std with AL & SST enclosures) - (consult factory)											
OHI	Wireless HART with internal antenna (std with resin enclosures) - (consult factory)											
OSE	Wireless SP100 with external antenna (std with AL & SST enclosures) - (consult factory)											
OHI	Wireless SP100 with internal antenna (std with resin enclosures) - (consult factory)											
Switch/Sensor quantity												
A	Wireless + 2 internal switches (standard)											
B	Wireless + 2 internal switches & 2 external switch connections											
Conduit												
2	Two conduit entries (all enclosure)											
Unit specification												
AAA	M20 conduits - std. materials and build											
XXX	Non standard build code (contact sales office)											
Certification												
A	ATEX											
I	IECex											
Revision												
R*	Internal build revision number											
30	4	W	A	BY	N	OZE	A	2	AAA	I	R1	= Model 304WABYN0ZEA2AAA-IR1

= Model 304WABYN0ZEA2AAA-IR1

Wireless Valve Position Monitor

AccuTrak™ 2200, Metallic enclosure, explosion proof

Models 2200 dimensions



Dimensions in inches, where available metric dimension (mm) in parentheses.

Technical specifications

Materials of construction

Enclosure	Aluminium with powder coat finish Stainless steel with electropolished finish
Temp. range	-30°C to +85°C (Flat cover -20°C to +85°C)
Shaft and hardware	Stainless steel
Bushing	Oil impregnated bronze (aluminium enclosure) PTFE (stainless steel enclosure)
Beacon visual indicator	Co-polyester

Drive shaft

Standard	Double-D with 1/4" A/F
Option	NAMUR standard VDI/VDE 3845

Please consult your sales office for any other requirements

Product Overview

AccuTrak™ wireless position monitors certified explosion proof

2200 - Aluminum/Stainless Steel enclosures
II 2 GD Ex d IIB+H2 T* Ex tb IIIC T* Db Tamb -
°C to +°C IP6X

General Description

The AccuTrak™ 2007 range of position monitors provide flexibility allowing the wireless module to be fitted in a compact integrated unit ready to be mounted directly to a valve or actuator housing. The housing cover has captive screws to prevent loss during installation and maintenance.

Features

- The Westlock™ Beacon is manufactured from a high impact strength and corrosion resistant co-polyester that offers 360° instant visual recognition of valve position.
- All AccuTrak™ products utilize a standardized mounting pattern for easy adaptation to common bracketry.
- Aluminum and stainless steel options.
- Terminal strips are pre-wired and numbered with generous working space for ease of use.
- All units are standard with an additional conduit for easy field wiring and mounting accessories.



Wireless Valve Position Monitor

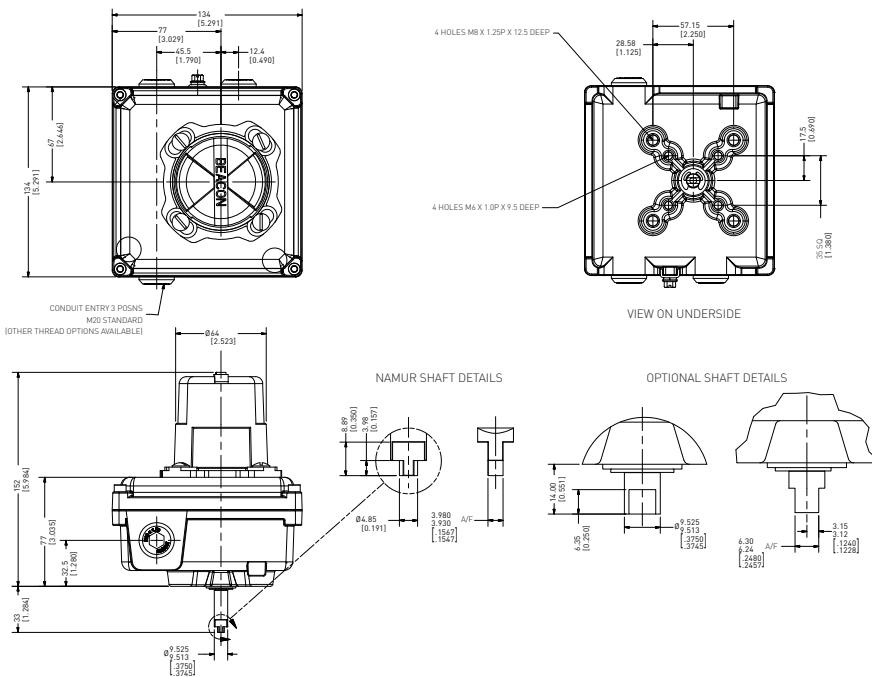
AccuTrak™ 2200 Selection guide

Base model												
22	2200 flameproof enclosure											
	Cover style											
	4	With beacon										
	6	Flat cover										
		Wireless protocol										
		W	Wireless transmitter module									
			Enclosure material									
			A	Aluminum								
			S	Stainless Steel								
				Beacon type								
				BY	Black/Yellow standard height BM2-Y (std)							
				AB	ANSI Blue/ White standard height BM2-B							
				AR	ANSI Red/White standard height BM2-R							
				GR	Red/Green standard height BM2-RG							
				B1	90° Flow path BM3-1							
				B3	90° Flow path BM3-3							
				B5	90° Flow path BM3-5							
				B7	180° Flow path BM3-7							
				B9	180° Flow path BM3-9							
				00	Flat cover (no beacon)							
					Drive shaft output							
					S	Standard Westlock shaft (double-D with 6.32mm/¼" flats)						
					N	NAMUR std spec shaft VDI/VDE 3845						
					K	KTM NAMUR shaft VDI/VDE 3845						
						Ancillary options						
						OZE	Wireless ZigBee with external Exd antenna					
						OHE	Wireless HART with external Exd antenna (consult factory)					
						OSE	Wireless SP100 with external Exd antenna (consult factory)					
							Switch/Sensor quantity					
							A	Wireless + 2 internal switches (standard)				
							B	Wireless + 2 internal switches & 2 external switch connections				
								Conduit				
								2	Two conduit entries (2 x M20 std)			
								3	Three conduit entries - optional adder			
								4	Four conduit entries - optional adder			
									Unit specification			
									AAA	No special content - standard material and build		
									XXX	Non standard build code (contact sales office)		
										Certification		
										A	ATEX	
										I	IECex	
											Revision	
											R*	Internal build revision number
22	4	W	A	BY	N	OZE	A	2	AAA	A	R1	= Model 224WABYN0ZEAA2AAA-AR1

Wireless Valve Position Monitor

AccuTrak™ 3300, 3500 intrinsically safe, weatherproof

Model 3300 dimensions



Notes: Dimensions in mm, where available imperial dimension (inches) in parentheses.
Drawings show metallic enclosures.

Technical specifications

Materials of construction

Enclosure	Aluminium with powder coat finish Stainless steel with electropolished finish Engineered resin
Shaft and hardware	Stainless steel
Bushing	Oil impregnated bronze (aluminium enclosure) PTFE (stainless steel enclosure) Nylon (engineered resin enclosure)
Beacon visual indicator	Co-polyester
Drive shaft	
Standard	Double-D with 1/4" A/F
Option	NAMUR standard VDI/VDE 3845

Please consult your sales office for any other requirements

Product Overview

AccuTrak™ wireless position monitors certified non-incendive, intrinsically safe and for non-hazardous applications. Internal antenna can be used with all engineered resin enclosures.

3300 - Aluminum/Stainless Steel/Engineered Resin enclosures, certified intrinsically safe II * GD T*°C Ex ia II* T* Ex t IIIC T135 °C Da IP6X

3500 - Aluminum/Stainless Steel/Engineered Resin enclosures Non-hazardous, weatherproof

General Description

These mid-size housings can be supplied with a clear cover and allow the wireless module to be fitted with the option of 3 position conduit entries. The covers have captive screws to prevent lost screws during installation and maintenance.

Features

- The Westlock™ Beacon is manufactured from a high impact strength and corrosion resistant co-polyester that offers 360° instant visual recognition of valve position.
- Robust stainless steel conduit entry inserts provide protection from excessive torque and reliable grounding.
- NAMUR shaft option compliant to VDI/VDE 3845 available.



Wireless Valve Position Monitor

AccuTrak™ 3300, 3500 Selection guide

Base model												
33	3300 intrinsically safe certified											
35	3500 non-hazardous applications											
Cover style												
4	With beacon											
6	Flat cover											
Wireless protocol												
W	Wireless transmitter module											
Enclosure material												
A	Aluminum											
R	Engineered resin											
S	Stainless Steel											
Beacon type												
BY	Black/Yellow standard height BM2-Y (std)											
AB	ANSI Blue/ White standard height BM2-B											
AR	ANSI Red/White standard height BM2-R											
GR	Red/Green standard height BM2-RG											
B1	90° Flow path BM3-1											
B3	90° Flow path BM3-3											
B5	90° Flow path BM3-5											
B7	180° Flow path BM3-7											
B9	180° Flow path BM3-9											
00	Flat cover (no beacon)											
Drive shaft output												
S	Standard Westlock shaft (double-D with 6.32mm/¼" flats)											
N	NAMUR std spec shaft VDI/VDE 3845											
K	KTM NAMUR shaft VDI/VDE 3845											
Ancillary options												
OZE	Wireless ZigBee with external antenna (std with AL & SST enclosures)											
OZI	Wireless ZigBee with internal antenna (std with resin enclosures)											
OHE	Wireless HART with external antenna (std with AL & SST enclosures) - (consult factory)											
OHI	Wireless HART with internal antenna (std with resin enclosures) - (consult factory)											
OSE	Wireless SP100 with external antenna (std with AL & SST enclosures) - (consult factory)											
OSI	Wireless SP100 with internal antenna (std with resin enclosures) - (consult factory)											
Switch/Sensor quantity												
A	Wireless + 2 internal switches (standard)											
B	Wireless + 2 internal switches & 2 external switch connections											
Conduit												
2	Two conduit entries (2 x M20 std)											
3	Three conduit entries - optional adder											
Unit specification												
AAA	M20 conduits - std. materials and build											
XXX	Non standard build code (contact sales office)											
Certification												
A	ATEX											
I	IECex											
0	General purpose/non hazardous											
Revision												
R*	Internal build revision number											
33	4	W	S	BY	N	OZE	A	2	AAA	A	R1	= Model 334WSBYN0ZEAA2AAA-AR1

Wireless Valve Position Monitor

System components

Ordering Guide	
Westlock P/N	Description
Handheld	
WHZ00011	Handheld (WH) with ZigBee, Non Ex
Routers and Gateways	
WRG00024	Wireless Router (WR), in plastic box, IP66, 7-36 V, backup rechargeable battery, with 5 dbi antenna, 2 gland connections, Ex Zone 2, LF control
WRG00025	Wireless Gateway (WG) with Ethernet and USB, in plastic box, IP66, 7-36 V, backup rechargeable battery, with 5 dbi antenna, 2 gland connections, Ex Zone 2, LF control
WRG00031	Connectivity Server with 1 Ethernet Gateway (WG) net port and 3 Serial (RS232/RS485) Modbus RTU port, Industrial box
WRG00032	Connectivity Server with 1 Ethernet Gateway (WG) net port and 1 Ethernet Modbus TCP port, Industrial box
WRG800005	Lambda DSP100-24 V DC 100 W 90-264 V 47/63 Hz DIN Rail power supply
Software Management Systems	
WMS18011	Wireless Management System (WMS), lite, latest version, up to 30 VD (valve devices)
WMS18012	Wireless Management System (WMS), lite, latest version, up to 60 VD
WMS18013	Wireless Management System (WMS),lite, latest version, up to 120 VD
WMS18014	Wireless Management System (WMS), lite, latest version, additional 60 VD
OSP18011	Progate OPC server, basic (100 tags)
WMS13001	Additional WMS user guide
WMS19001	Westlock Gateway based on rigid industrial PC, Intel dual Core 2.2 GHz, 2 GB memory, 2.5", 80 G SATA HDD, fanless, XP embedded, 24 V DC, fully installed and tested with WMS (license not included) ready to operate.
WMS21011	Wireless Management System (WMS) SERVER, one client, latest version, up to 30 VD
WMS21012	Wireless Management System (WMS) SERVER, one client, latest version, up to 60 VD
WMS21013	Wireless Management System (WMS) SERVER, one client, latest version, up to 120 VD
WMS21014	Wireless Management System (WMS) SERVER, one client, latest version, additional 60 VD
WMS11001	Wireless Management System (WMS) additional client, latest version
WMS11012	Wireless Management System (WMS) Modbus RTU connectivity, latest version
WMS11013	Wireless Management System (WMS) Modbus TCP connectivity, per master (PLC), latest version
WMS11014	Wireless Management System (WMS) OPC interface connectivity, latest version
WMS11015	Wireless Management System (WMS) HART interface connectivity, latest version
WMS18015	Wireless Management System (WMS), lite, latest version, up to 5 VD, Demo purposes, included in Starter Kit
Accessories	
WAC00014	Ethernet Switch MOXA EDS305T 5 ports Switch 24 V DC
WAC00015	AnyBus AB7000 Modbus RTU to Profibus DP convertor 24 V DC + GSD file
WAC00016	Stainless Steel Box with front door, wall mounted, 60x40x20 cm, fan/thermostat, DIN RAIL terminal blocks and 8 glands (4.5-6 mm or 6-8 mm cable diameter), EX certified, IP66, including mounting of system peripherals as required (fully tested)
WAC00017	Stainless Steel Box with front door, wall mounted, 80x60x25 cm, fan/thermostat, DIN RAIL terminal blocks, and 12 glands (4.5-6 mm or 6-8 mm cable diameter), EX certified, IP66, including mounting of system peripherals as required (fully tested)
WAC00018	Lightning Arrestor HD2159
WAC00019	Accessories for Stainless Steel Box (EAC00016 and EAC00017) - 24 V fan and filter, thermostat, switch with key, LED indicator, terminal block, DIN rails, plastic conduits, cables, etc.
WAC00020	Stainless Steel Box with front door, wall mounted, 40x30x15 cm, DIN RAIL terminal blocks, 4 glands, IP66, the box can include Ethernet Switch and Power supply.

Note: Contact Westlock for a complete list of options.

