



With built-in solenoid valve



### Overview

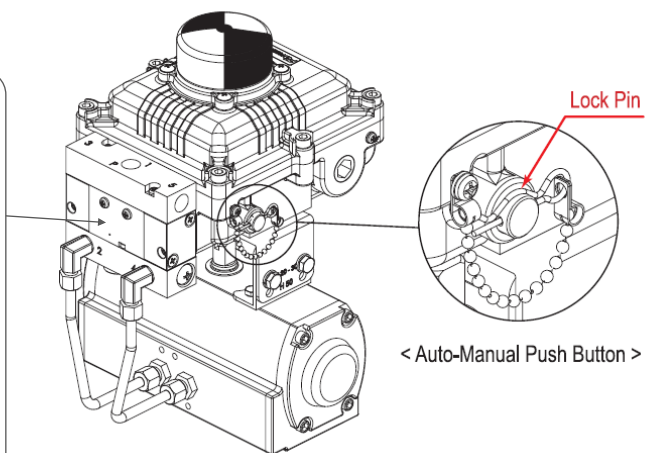
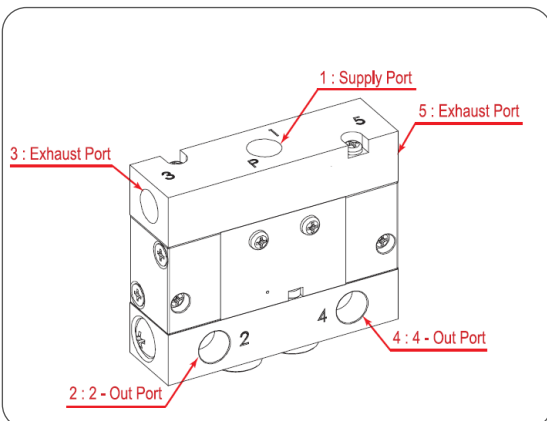
The LSB-7000 Series is an all-in-one valve position monitor suitable for use in Zone 1 hazardous areas and provides both position control with an integrated ATEX pilot solenoid and both local visual and remote end of travel confirmation via an ATEX switchbox. This combination of a switch box and integrated solenoid offers a more competitive solution than buying separate components when the time taken to install the separate components is considered.

### Features

- > Flameproof certified
- > Rugged die-cast aluminium or 316 stainless steel housing
- > Namur / VDI-VDE:3845 for quick and easy installation
- > Beacon visual indicator with options
- > Extensive range of switch & sensor options

### Options

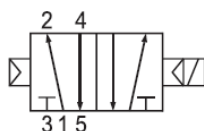
- > Aluminium switch box and solenoid
- > Aluminium switch box and stainless steel solenoid
- > Stainless steel switch box and solenoid
- > 4-20mA Feedback position transmitter
- > IP68 Housing
- > Bracket 80-30-20, 80-30-30, 130-30-30, 130-30-50



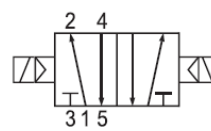
**Specifications**

VALVE POSITION MONITOR	LSB-7000	LSB-7100	LSB-7200
Explosion proof rating	ATEX Ex s IIB + H2		
Ingress protection	IP66/ IP67		
Operating air pressure range	1.5 to 10 bar		
Air supply pressure	Max 10 bar		
Switch and sensor options	See separate page		
ATEX Solenoid coil voltage options	24VDC / 48VDC / 110VAC / 220VAC		
ATEX Solenoid manual override	Push button		
ATEX Solenoid response time	25ms		
ATEX Solenoid insulation class	Class F		
Monitor operating temperature range	-30 to +75 Deg C		
ATEX Switch box air connections	1/4" BSP, 1/4" NPT	1/4" NPT	
ATEX Switch box cable entries	1/2" or 3/4" BSP, 1/2" or 3/4" NPT,	1/2" or 3/4" NPT	
ATEX Switch box housing material	Die-cast Aluminium		316 Stainless Steel
ATEX Solenoid housing material	Die-cast Aluminium	316 Stainless Steel	316 Stainless Steel
Weight	2.5kg	3.5kg	5.8kg

ATEX SOLENOID VALVE	
Supply air pressure single coil, 2 position	1.5 to 9.9 bar
Supply air pressure double coil, 2 position	1.0 to 9.9 bar
Effective cross sectional area at 5 bar	19.0 mm <sup>2</sup>
Manual override	Pushbutton
Response time	≤25ms
Maximum cycling frequency	5 cycles per second
Power consumption	DC: 2.8W AC: 4.5VA at 60Hz, 3.6VA at 50Hz
Allowable voltage tolerance	±10% of rated voltage
ATEX Solenoid insulation class	Class F
Air lubrication	Not required

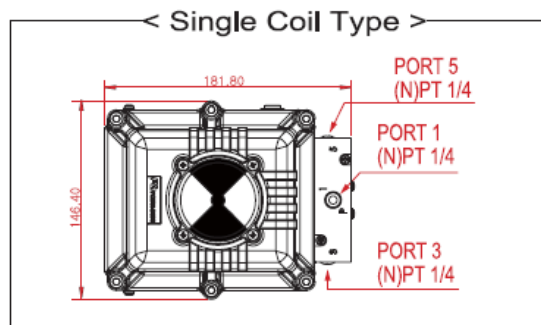
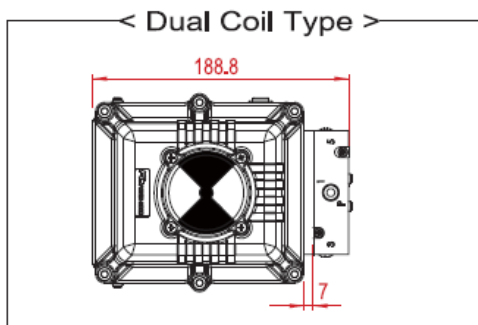
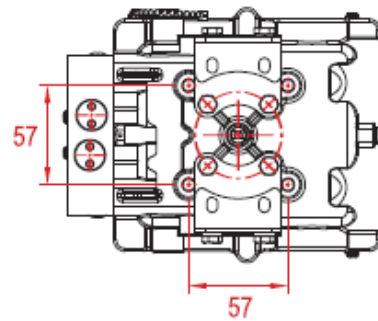
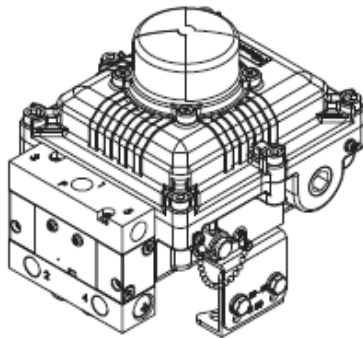
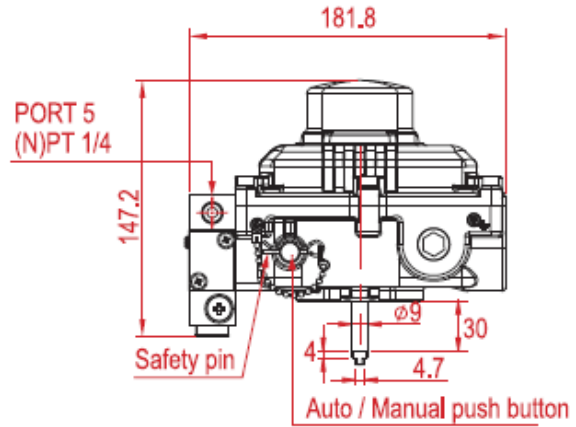
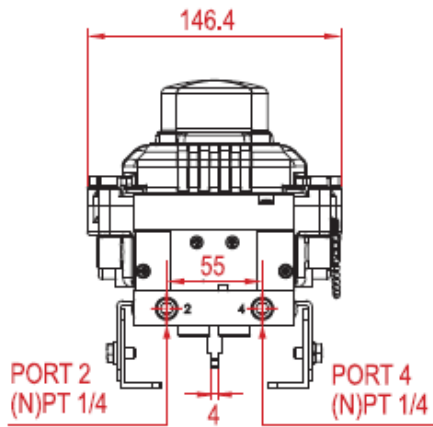
**Pneumatic diagrams**


2 Position with Single Coil



2 Position with Dual Coils

**Dimensions**



PNEUMATIC ACTUATOR ACCESSORIES

Switch Options

Mechanical



Manufacturer	PG Standard
Switch type	SPDT (Form C)
Contacts	Silver plated
Approvals	UL, CSA
Rating:	
250VAC	16A
30VDC	10A
8VDC	16A
Working temp	-30 to +130C



Manufacturer	Honeywell
Switch type	SPDT (Form C)
Contacts	Silver or gold plated
Approvals	UL, CSA
Rating:	
125/250VAC	16A Silver
125/250VAC	0.1A Gold
8VDC	16A
Working temp	-40 to +125C



Manufacturer	Licon
Switch type	DPDT (Form CC)
Contacts	Silver plated
Approvals	UL, CSA
Rating:	
125/250VAC	10A
28VDC	10A
Working temp	-30 to +80C

Proximity



Part No/ Manufacturer	NJ2-V3-N / P&F
Switching element function	Namur NC
Nominal ratings:	
Nominal voltage	8VDC
Switching frequency	0-1000Hz
Hysteresis	0.01 - 0.1mm
Consumption	
Measuring plate not detected	>3mA
Measuring plate detected	<1mA
Working temp	-25 to +100C



Part No/ Manufacturer	NJ2(4)-12GK-SN/ P&F
Switching element function	Namur NC
Nominal ratings:	
Nominal voltage	8VDC
Switching frequency	0-2000Hz
Hysteresis	3%
Consumption	
Measuring plate not detected	>3mA
Measuring plate detected	<1mA
Working temp	-40 (50) - +100C

Magnetic



Part No/ Manufacturer	MS Series/ Power Genex
Switch type	SPDT (Form C)
Contacts	Rhodium / Tungsten
Approvals	UL, CSA
Electrical Ratings	
MS20	120VAC: 180mA, 24VDC: 830mA
MS25	120VAC: 200mA, 24VDC: 1A
MS100	220VAC: 1.5A, 120VAC: 3A, 24VDC: 2A
Working temp	-40 to +130C



Part No/ Manufacturer	ESI-V3-CR/ Euroswitch
Switch type	SPDT (Form C)
Contacts	Rhodium
Approvals	ATEX, Ex ia IIC T6
Electrical Ratings	
120VAC / 24VDC	180mA / 830mA
Ex	Ui = 30V, Li = 250mA, Pi = 1.3W
Working temp	-20 to +800C

**PNEUMATIC ACTUATOR ACCESSORIES**

**Ordering**

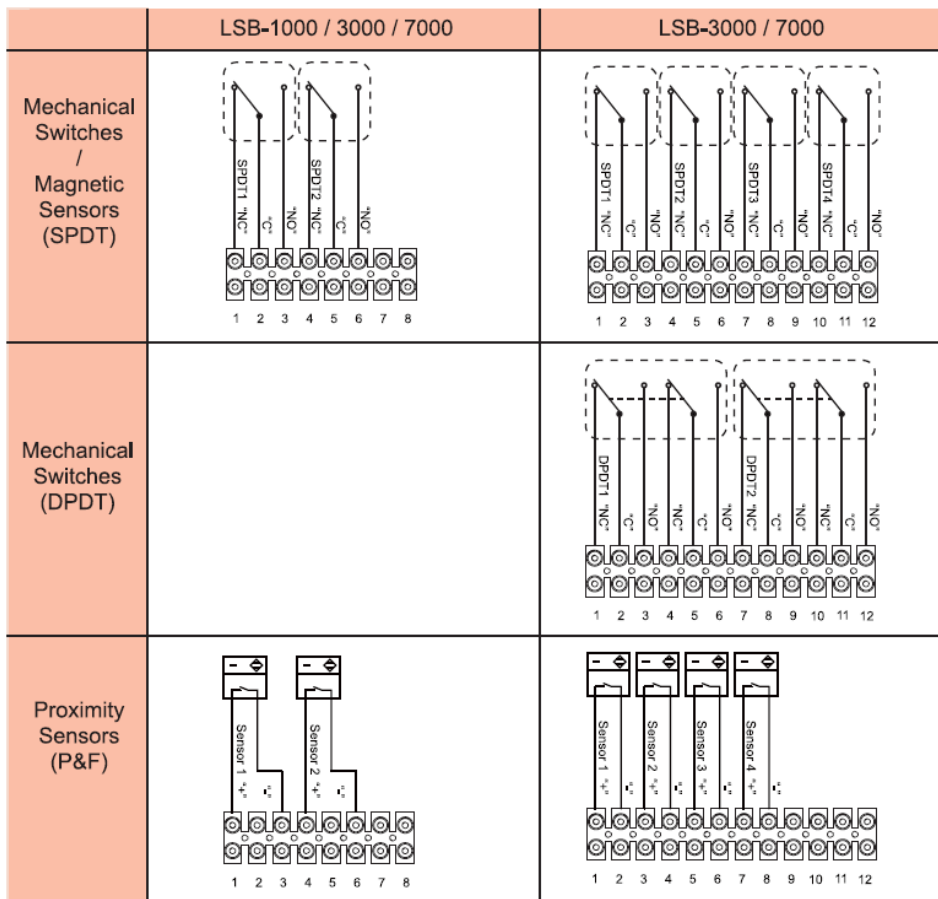
LSB Type	Housing	Switches	Feedback	Protection	Beacon	C	Entries	Drive Shaft	Mounting
LSB-7	0: Aluminum 1: Alu/316 SS 2: All 316 SS	See next page	O: None T: 4-20mA	A: ATEX Exd IP67	N: None A: Open/Close T: T port L: L port	A: 3/4" BSP B: 3/4" NPT C: 1/2" BSP D: 1/2" NPT E: M20 x 1.5 I: M25 x 1.5 F: 1" BSP G: 1" NPT	2: 2 3: 3 4: 4	N: Namur F: Fork lever Linear: B: Stroke 5-65mm C: Stroke 5-130mm D: Stroke 80-200mm	N: None M: Universal R: Bespoke

Plus coil >

Plus coil >

Coil Type	Supply voltage	Air Connections
N: None	N: None	N: None
S: Single	A: 220VAC	1: 1/4" BSP
D: Dual	B: 110VAC C: 24VDC D: 48VDVC	2: 1/4" NPT

**Wiring**



PNEUMATIC ACTUATOR ACCESSORIES

Switches & Sensors - Full List

SB Type	Housing	Switches	Feedback	Protection	Beacon	Connections	Entries	Drive Shaft	Mounting
LSB-7		0: 2 x SPDT Mechanical 2: 4 x SPDT Mechanical 3: 2 x DPDT Mechanical 4: 2 x NJ2-V3-N Proximity P&F 5: 4 x NJ2-V3-N Proximity P&F 6: 2 x NJ12/14-12GK-SN Proximity P&F 7: 2 x NBB3-V3-Z4 Proximity P&F 9: 2 x NBB2-V3-E2 Proximity P&F S: 2 x NJ2-12GM40-E2 Proximity P&F R: 2 x NCN4-V3-NO Proximity P&F T: 2 x SJ3 3.5-S1N Proximity P&F 8: 2 x PSN17-5D (PNP or NPN) Proximity Autonics N: 2 x D2vw-5L1-1M Proximity Hermetically sealed proximity sensors (A @24DC) A: 2 x MS-25 (1A) Power Genex B: 4 x MS-25 (1A) Power Genex C: 2 x MS-20 (0.8A) Power Genex D: 4 x MS-20 (0.8A) Power Genex E: 2 x MS100 (2A) Power Genex F: 4 x MS100 (2A) Power Genex G: 2 x ESI-V3-CR Euroswitch H: 4 x ESI-V3-CR Euroswitch I: 2 x MONAS I (2A) J: 2 x SPDT Silver Honeywell K: 2 x SPDT Silver Honeywell L: 2 s SPDT Gold Honeywell M: 4 x SPDT Gold Honeywell  Others by request							