

# Sensors for Valve Position Detection - F25 Series



Standard Technical Data	
Special features	Double sensor
Type of installation	Flush mountable
Voltage type	DC
Operating voltage (max)	30 V
Housing width W	52 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

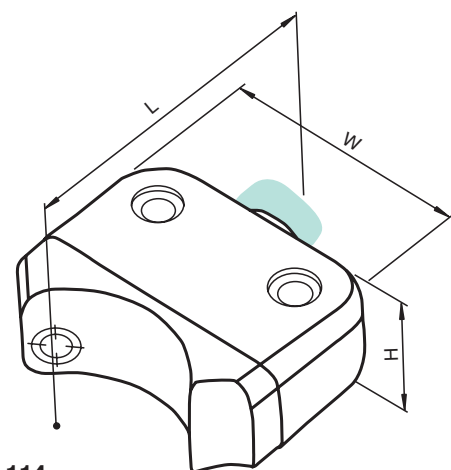
Model number	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	Connection type	Length L	Height H	CSA	UL
NBN3-F25-E8-5M	3	3-wire	PNP	Normally-open (NO)	500	10	Fixed cable	52	20	■	■
NBN3-F25-E9-V1	3	3-wire	PNP	Normally-closed (NC)	500	10	M12 connector plug	52	20	■	■
NBN3-F25F-E8-V1	3	3-wire	PNP	Normally-open (NO)	500	10	M12 connector plug	45	20	■	■
NBN3-F25L-E2-V1	3	3-wire	PNP	Normally-open (NO)	500	10	M12 connector plug	52	20	■	■
NBN3-F25R-E3-V1	3	3-wire	PNP	Normally-closed (NC)	500	10	M12 connector plug	52	20	■	■
NBN4-F25-2Z4L	4	2-wire	2-wire	Normally-open (NO)	500	5	Fixed cable	52	20		■
NBN4-F25-2Z4L-0,14M	4	2-wire	2-wire	Normally-open (NO)	500	5	Fixed cable	52	20		■
NBN4-F25-2Z4L-5M	4	2-wire	2-wire	Normally-open (NO)	500	5	Fixed cable	52	20		■
NBN4-F25-2Z4L-V1	4	2-wire	2-wire	Normally-open (NO)	500	5	M12 connector plug	52	20		■
NBN4-F25-E8	4	3-wire	PNP	Normally-open (NO)	1000	10	Fixed cable	52	20		■
NBN4-F25-E8-0,14M	4	3-wire	PNP	Normally-open (NO)	1000	10	Fixed cable	52	20		■
NBN4-F25-E8-V1	4	3-wire	PNP	Normally-open (NO)	1000	10	M12 connector plug	52	20		■
NBN4-F25K-2E2	4	3-wire	PNP	Normally-open (NO)	1000	10	Terminal compartment	69	20		■
NBN4-F25K-2Z4L	4	2-wire	2-wire	Normally-open (NO)	500	5	Terminal compartment	69	37.5		■
NBN4-F25K-E8	4	3-wire	PNP	Normally-open (NO)	1000	10	Terminal compartment	69	37.5		■

## Highlights

- Direct assembly on standard drives

## Brief Description

The F25/F25K series is available as a cable, plug, or terminal compartment version and combines the two sensor elements in the smallest possible space. This makes them perfect for small basic applications, such as manual valves in indoor areas.



Accessories	
BT32XAS	Activator for F25 series
BT33	Activator for F25 series
BT34	Activator for F25 series
BT43-RG-01	Activator for F25 series including protective cover and mounting base
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable

# Sensors for Valve Position Detection - F31/F31K Series



### Standard Technical Data

Type of installation	Flush mountable
Detection range	3 mm
Housing width W	65 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Output type	Output type	Switching function	Voltage type	Switching frequency [Hz]	UB (min)	UB (max)	SIL	Connection type	Length L	Height H	CCC	ATEX	CSA	EAC	UL
NBN3-F31-E8-K	3-wire	PNP	Normally-open (NO)	DC	500	10	30		Fixed cable	36	33.5					
NBN3-F31-E8-K-K	3-wire	PNP	Normally-open (NO)	DC	500	10	30		Fixed cable	36	33.5					
NBN3-F31-E8-V1	3-wire	PNP	Normally-open (NO)	DC	500	10	30		M12 connector plug	36	33.5					
NBN3-F31-E8-V16-V15	3-wire	PNP	Normally-open (NO)	DC	500	10	30			36	33.5					
NBN3-F31-E8-V18	3-wire	PNP	Normally-open (NO)	DC	500	10	30		M18 connector plug	36	33.5					
NBN3-F31-U8-K	4-wire		Normally-open (NO)	AC/DC	25	20	253		Fixed cable	36	33.5					
NBN3-F31-U8-V18	4-wire		Normally-open (NO)	AC/DC	25	20	253		M18 connector plug	36	33.5					
NBN3-F31-Z8-K	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Fixed cable	36	33.5					
NBN3-F31-Z8-K-K	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Fixed cable	36	33.5					
NBN3-F31-Z8-V1	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		M12 connector plug	36	33.5					
NBN3-F31-Z8-V18	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		M18 connector plug	36	33.5					
NBN3-F31K-E8	4-wire	PNP	Normally-open (NO)	DC	500	10	30		Terminal compartment	77.5	35.5					
NBN3-F31K-E8-K	4-wire	PNP	Normally-open (NO)	DC	500	10	30		Terminal compartment	77.5	35.5					
NBN3-F31K-E8-V1-V1	4-wire	PNP	Normally-open (NO)	DC	500	10	30		Terminal compartment	77.5	35.5					
NBN3-F31K-Z8	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Terminal compartment	77.5	35					
NBN3-F31K-Z8-K	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Terminal compartment	77.5	35					
NBN3-F31K-Z8-V1-V1	4-wire	2-wire	Normally-open (NO)	DC	500	6	60		Terminal compartment	77.5	35					
NCN3-F31-B3-V1-K		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		M12 connector plug	36	33.5					
NCN3-F31-B3B-V1		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		M12 connector plug	36	33.5					
NCN3-F31-B3B-V1-K		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		M12 connector plug	36	33.5					
NCN3-F31-B3B-V1-V1		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		M12 connector plug	36	33.5					
NCN3-F31K-B3B-B31		AS-Interface	Normally open/close selectable	DC	100	26.5	31.9		Terminal compartment	77.5	35.5					
NCN3-F31K-N4	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-B13-S	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-K	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-K-S	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-S	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N4-V1-V1	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2	2	Terminal compartment	77.5	35.5					
NCN3-F31K-N5-K	2-wire	NAMUR	Normally-closed (NC)	DC	3000	8.2	8.2		Terminal compartment	77.5	35.5					

### Highlights

- Direct assembly on standard drives
- Valve connection
- Versions up to SIL 2 available

### Brief Description

The F31/F31K series are used in applications on standard valve actuators in indoor and outdoor areas. They are very easy to assemble and are also available as a variant for hazardous areas.

# Sensors for Valve Position Detection - F31K2 Series



### Standard Technical Data

<b>Voltage type</b>	DC
<b>Connection type</b>	Terminal compartment
<b>Housing length L</b>	106 mm
<b>Housing width W</b>	100 mm
<b>Housing height H</b>	53 mm

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Model number	Type of installation	Detection range [mm]	Output type	Output type	Switching function	Switching frequency [Hz]	UB (min)	UB (max)	SIL	ATEX	EAC	UL
NBN3-F31K2-E8-B13-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30				■
NBN3-F31K2-E8-B33-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2-E8-B43-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2-Z8L-B13-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2-Z8L-B33-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-E8-B13-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2M-E8-B13-S-3G-3D	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30	■			
NBN3-F31K2M-E8-B23-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2M-E8-B33-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2M-E8-B43-S	Cannot be flush mounted	2.5	4-wire	PNP	Normally-open (NO)	100	10	30			■	■
NBN3-F31K2M-Z8L-B13-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-Z8L-B13-S-3G-3D	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-Z8L-B23-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-Z8L-B33-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NBN3-F31K2M-Z8L-B43-S	Cannot be flush mounted	2.5	2-wire	2-wire	Normally-open (NO)	100	6	30			■	■
NCN3-F31K2-N4-B13-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■
NCN3-F31K2-N4-B33-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		
NCN3-F31K2-N5-B13-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■
NCN3-F31K2-N5-B33-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■
NCN3-F31K2M-N4-B13-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■
NCN3-F31K2M-N4-B23-S	Flush mountable	3	2-wire	NAMUR	Normally-closed (NC)	3000	8.2	8.2	2	■		■

### Highlights

- Easy to mount on standard valve actuators without the need for additional mounting aids
- Open solution with the highly visible integrated valve position indicator and translucent housing
- Flexible, modular housing design
- Tightly sealed thanks to inductive, noncontact detection of the valve position
- Optimized for outdoor use thanks to high resistance to UV, temperature, and salt water
- Versions up to SIL 2 available

### Brief Description

The F31K2 series, on the other hand, is specifically designed for uncompromising use outdoors. It combines flexibility with robustness and excellent performance, even under extreme conditions.

### Accessories

<b>BT115A</b>	Activator for F31 series
<b>BT115X</b>	Activator for F31 series
<b>BT65-F31K2-RG-EN</b>	Activator for F31K2 series
<b>BT65A</b>	Activator for F31 series
<b>BT65X</b>	Activator for F31 series
<b>SH-BT65-F31K2-01</b>	Protective cover for BT65-F31K2-RG-EN-01 activators
<b>SH-F31K2-B13</b>	Protective cover for mechanically protected assembly
<b>VMA-2+P/Z2-0,3M-PVC-V1-WY</b>	Valve connector, Form A to M12, 2+PE, LED, Z-diode, PVC cable