

**Model Number**

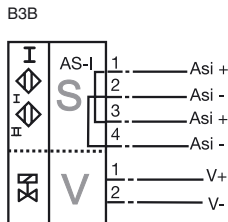
**PL1-F25-B3B-K**

Valve positioner and valve control module

**Features**

- For installation in housing
- Pluggable cage clamp terminals
- PL1... with valve connection
- 4-way LED indicator
- Satisfies machinery directive
- Lead breakage and short-circuit monitoring of the valve
- After an AS-interface communication error the valve voltage falls

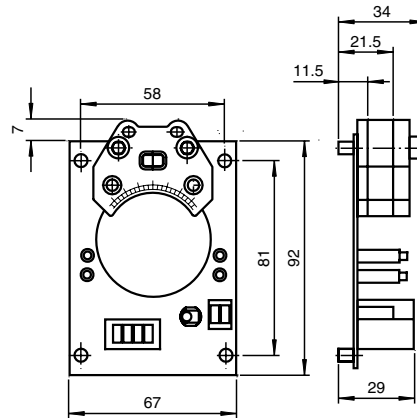
**Connection**



**Accessories**

- BT32**  
Activator for F25 series
- BT32XS**  
Activator for F25 series
- BT32XAS**  
Activator for F25 series
- BT33**  
Activator for F25 series
- BT34**  
Activator for F25 series

**Dimensions**



**Technical Data**

**General specifications**

Switching element function		programmable
Rated operating distance	$s_n$	3 mm
Installation		embeddable mountable
Output polarity		AS-Interface
Assured operating distance	$s_a$	0 ... 2.43 mm
Reduction factor $r_{AI}$		0.5
Reduction factor $r_{303}$		1
Reduction factor $r_{SI37}$		1.1
Slave type		A/B slave
AS-Interface specification		V3.0
Required master specification		$\geq$ V2.1

**Nominal ratings**

Operating voltage	$U_B$	26.5 ... 31.9 V via AS-i bus system
Switching frequency	$f$	0 ... 100 Hz
Reverse polarity protected		reverse polarity protected
Operating current	$I_L$	100 mA

**Indicators/operating means**

LED PWR	AS-Interface voltage; LED green
LED IN	switching state (input); LED yellow
LED OUT	binary LED yellow/red yellow: switching state red: lead breakage/short-circuit

**Electrical specifications**

Rated operational voltage	$U_e$	26.5 ... 31.6 V from AS-Interface
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**Ambient conditions**

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)

**Mechanical specifications**

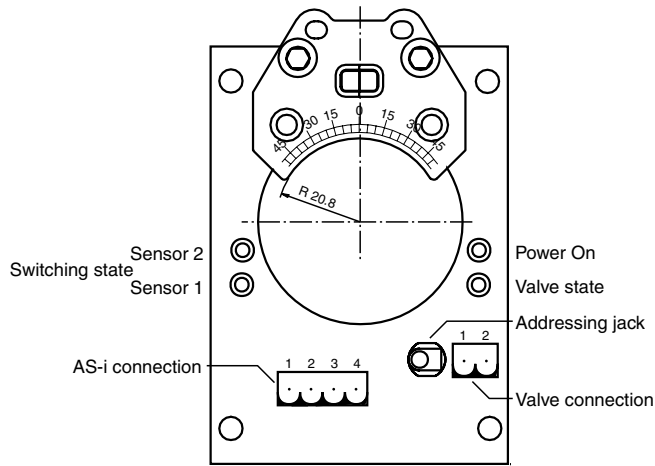
Connection (system side)	4-pin CombiCon connector
Connection (valve side)	2-pin CombiCon connector
Housing material	PBT
Sensing face	PBT
Protection degree	IP00
Material	
Housing	PBT
Note	The valve voltage is limited of max. 26.4 V; valve power max. 2.1 W

**Compliance with standards and directives**

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 50295:1999

Release date: 2011-07-28 17:14 Date of issue: 2011-07-28 19:0762\_eng.xml

Supplementary information



Programming instructions

Address 00 preset, alterable via Busmaster or programming units  
 IO-code D  
 ID-code A  
 ID1-code 7  
 ID2-code E

Data bit

Bit	Function
D0	valve status (0 = valve OFF; 1 = valve ON)
D1	valve fault <sup>1)</sup> (0 = lead breakage/short circuit; 1 = no fault)
D2	switch output sensor 1 (0 = damped; 1 = undamped)
D3	switch output sensor 2 (0 = damped; 1 = undamped)

Parameterbit

Bit	Function
P0	not used
P1	not used
P2	not used
P3	not used

<sup>1)</sup> Verification only with actuated valve  
(D0 = 1)

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Fixing devices are being used everywhere in great number for product flow monitoring. In the majority of applications, these fixing devices are controlled pneumatically through a shaft rotation of 90° whose end position is typically reported back to the control system.

Standard housings as described in VDI/VDE 3845 (connection points, actuator, drive mechanism-actuator accessories) containing feedback proximity switches are used in most cases. The drive mechanisms are usually controlled by a control valve.

This printed circuit board was developed for use in just such standard housings. It includes connection technology (2 x AS-i and control valve), the NCN3-F25 double sensor and AS-i switching technology.

Proximity switch states, the control command for the pilot valve and electrical power can be transferred over the AS-i lead (2 inputs, 1 output).

A socket is provided for address programming. This means it is not necessary to form a loop with the AS-i line. A break in the valve cable is detected when this valve is activated and is reported back to the control system via the AS-i.