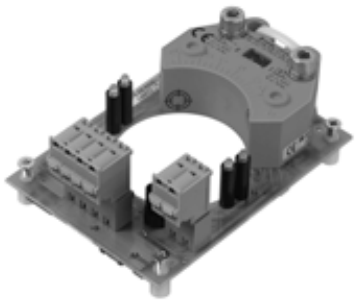


Model Number

PL1-F25-B3-S

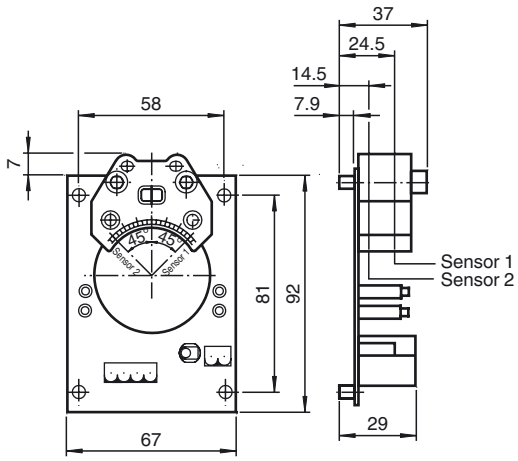
Features

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

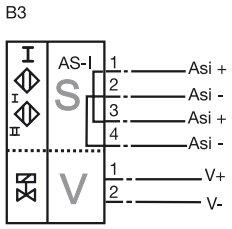
Technical Data

General specifications		
Switching element function		AS-Interface
Rated operating distance	s_n	3 mm
Installation		flush mountable
Output polarity		AS-Interface
Assured operating distance	s_a	0 ... 2.43 mm
Reduction factor r_{Al}		0.5
Reduction factor r_{304}		1
Reduction factor r_{St37}		1.2
Slave type		Standard slave
AS-Interface specification		V2.1
Required master specification		≥ 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 protection		reverse polarity protected
Operating current	I_L	100 mA
Indicators/operating means		
LED POWER		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 operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Mechanical specifications		
Connection (system side)		screw terminals
Core cross-section (system side)		up to 2.5 mm²
Connection (valve side)		screw terminals
Core cross-section (valve side)		up to 2.5 mm²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP00
Material		
Housing		PBT
Note		The valve voltage is limitedof 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

Dimensions



Electrical Connection



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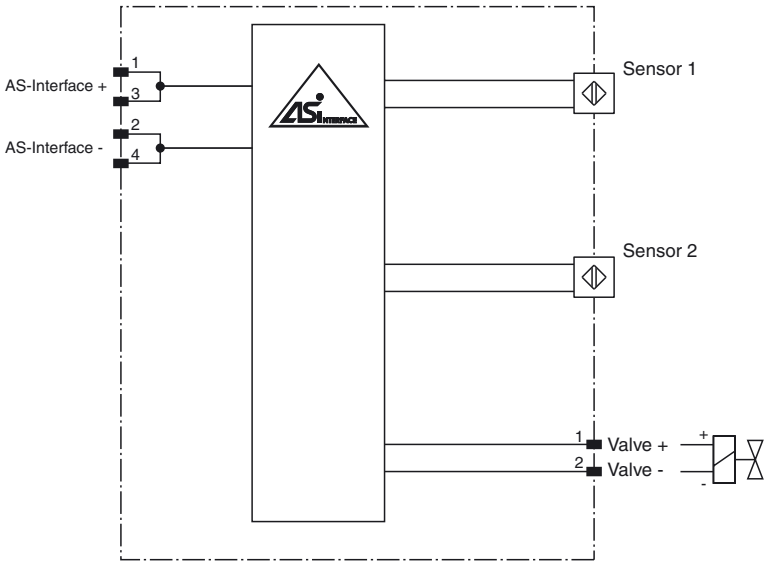
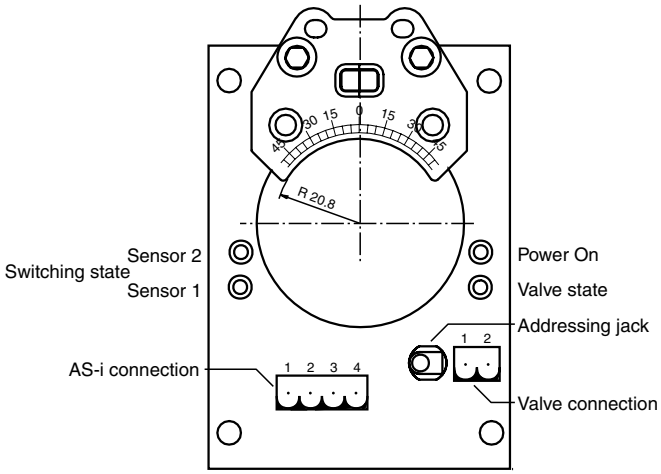


Additional Information



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Programming instructions

Adress	00 preset, alterable via Busmaster or
IO-code	D
ID-code	F
ID1-code	F
ID2-code	F

Data bit

Bit	Function
D0	valve status (0 = valve OFF; 1 = valve ON)
D1	valve fault [1] (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

[1] Verification only with actuated valve (D0 = 1)

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.

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