



Model Number

NCN3-F31K-B3B-K-S

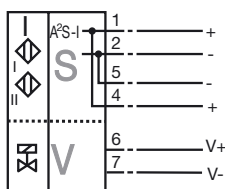
Valve positioner and valve control module

Features

- A/B slave with extended addressing possibility for up to 62 slaves
- Direct mounting on standard actuators
- Nominal sensing range 3 mm by V2A target
- Mode of operation, programmable
- Lead breakage and short-circuit monitoring of the valve
- Protection degree IP67
- Communication monitoring, turn-off

Connection

B3B-V1-K



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 ¹⁾ (0=lead breakage/short circuit; 1=no fault)
D2	switch output sensor 1 ²⁾ (0=damped; 1=undamped)
D3	switch output sensor 2 ²⁾ (0=damped; 1=undamped)

Parameter bit

Bit	Function
P0	Watchdog (0=inactive; 1=active) ³⁾
P1	switching element function sensor II ⁴⁾ (0=NO; 1= NC)
P2	switching element function sensor I ⁴⁾ (0=NO; 1= NC)
P3	not used

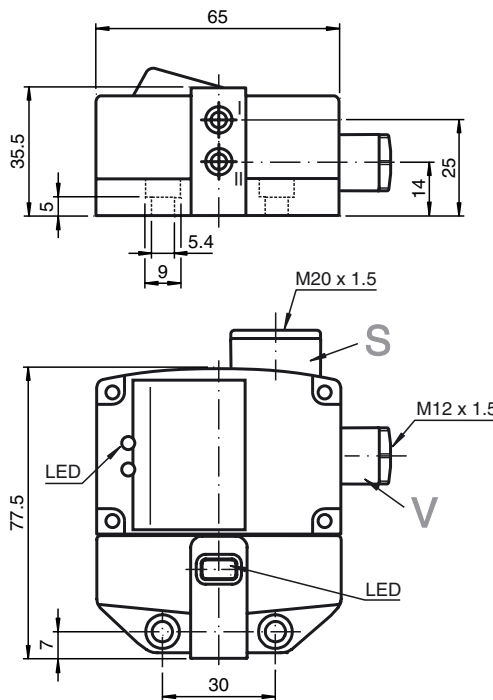
1) Verification only with actuated valve (D0=1)

2) Applies to NC function (P2/P3=1; preset), with NO function (P2/P3=0) reversed characteristics

3) Watchdog active: valve voltage drops with the occurrence of an AS-i communication fault

4) Default setting: NC

Dimensions



Technical Data

General specifications

Switching element function	programmable
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_{AI}	0.5
Reduction factor r_{Cu}	0.45
Reduction factor r_{V2A}	1
Reduction factor r_{SI37}	1.2

Nominal ratings

Switching frequency	f 0 ... 100 Hz
No-load supply current	I_0 ≤ 35 mA

Indicators/operating means

LED PWR	AS-i 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
Rated operational current	I_e 100 mA

Standard conformity

EMC in accordance with	IEC / EN 60947-5-2:2004 EN 50295
Standards	IEC / EN 60947-5-2:2004 EN 50295

Ambient conditions

Ambient temperature	-25 ... 70 °C (248 ... 343 K)
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Mechanical specifications

Connection (system side)	screw terminals
Core cross-section (system side)	1.5/2.5 mm ² flexible/rigid
Connection (valve side)	screw terminals
Core cross-section (valve side)	1.5/2.5 mm ² flexible/rigid
Housing material	PBT
Sensing face	PBT
Protection degree	IP67
Material	
Housing	PBT
Note	valve voltage limited to 26,4 V max.; valve power 2,5 W max.

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