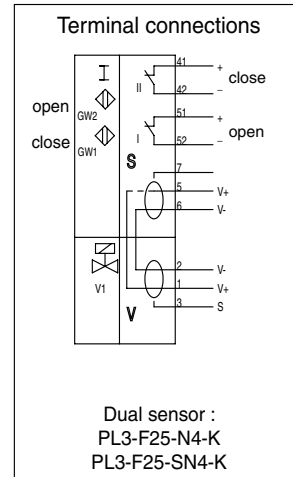
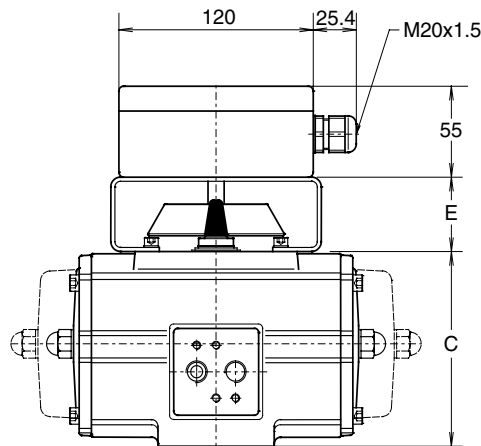
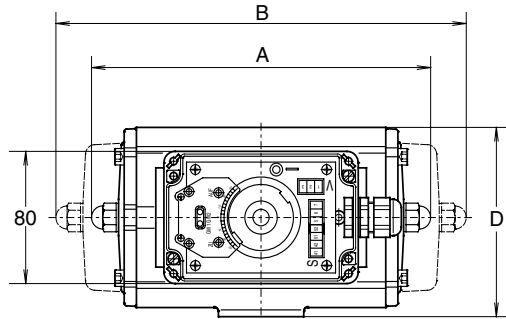


# Data sheet

Sheet No.: 3.214.06 Rev. A  
Date: November 2009

## EL-O-MATIC ACTUATOR WITH SWITCHBOX INTRINSICALLY SAFE / LIMITED ENERGY

**LDNA-IS9**  
**LDNA-IS12**



Dual sensor :  
PL3-F25-N4-K  
PL3-F25-SN4-K  
**(One Cable entry,  
Solenoid Valve  
connection not used)**

### Description:

This low duty aluminium intrinsically safe switch box encloses a dual sensor, mounted on a printed circuit board, for indicating the fully open and fully closed actuator positions.

All mechanical parts are contained within the enclosure. The dual sensor is operated by a cam on an extension of the actuator drive shaft. The operating cam has fixed switch points for quick commissioning. The standard switch operation is "unswitched", optional the operation can be supplied as "switched".

The dual sensor is prewired on a printed circuit board and is easily accessible when the top cover is removed. The cover screws are captive.

The aluminum switch box is intrinsically safe certified for use in zones 1, 2, 21 and 22 with all gas and dust groups. The switch box additionally complies to EN50021: 2000 (Limited Energy) for use in zones 2 or 22 only, with all gas and dust groups. The enclosure is ingress proof to IP65 and as such completely dust and water tight.

The switch box is mounted on top of the actuator with an accessory bracket according VDI/VDE 3845 (NAMUR), which incorporates a visual position indicator.

### Specification

#### Switches

- Make : Pepperl & Fuchs
- Type : PL3-F25-N4-K  
or PL3-F25-SN4-K
- Voltage : 8 VDC (Ri = 1kOhm)
- Amps (output) : Switched, < 1 mA,  
unswitched, >3mA
- Standards : DIN EN 60947-5-6 (NAMUR)
- Switch operation : Standard = unswitched,  
optional = switched

#### Housing

- Material : Aluminium alloy
- Electrical entry : 1x M20x1.5 (option 2x  
M20x1.5)  
: Option: Blue gland  
(Ex e / IP65) for IS connections  
Black gland  
(Ex e / IP65) for nL connections
- Enclosure : IP65
- Mounting : Acc. NAMUR VDI/VDE3845,  
The E12 has its own bracket
- Temperature : -25° to +80°C  
Actual upper temperature may be limited by the application.  
See ATEX certificate for more detailed info.

#### Identification LDNA box (Vestamid®)

- LDNA-IS9 : PL3-F25-N4-K
- LDNA-IS12 : PL3-F25-SN4-K

Dim. in mm.	Actuator type											
	E12	E25	E40	E65	E100	E200	E 350	E600	E950	E1600	P2500	P4000
<b>A PD/ED</b>	103	159	180	199	221	283	305	387	424	516	378	502
<b>B PE/ES</b>	118	172	204	249	267	360	387	477	517	637	570	834
<b>C</b>	80	100	113	125	138	163	201	250	289	327	386	410
<b>D</b>	60	83	96	107	117	137	182	217	242	275	358	390
<b>E</b>	45	45	45	45	45	45	45	55	55	55	55	55



#### ATEX Zone 1, 2, 21 and 22

- Methode : Intrinsically safe
- Marking : II 2 GD EEx ia IIC T6...T4  
T44 °C... T80°C
- Certificate : KEMA 04ATEX 1005 X

#### ATEX Zone 2 and 22

- Methode : Limited Energy
- Marking : II 3 GD EEx nL IIC T6...T4  
T80°C



#### NEPSI Zone 1 and 2

- Methode : Intrinsically safe
- Marking : Ex ia IIC T4...T6  
: DIP A21 Ta 44°C...80°C
- Certificate : NEPSI: GYJ071073X

#### NEPSI Zone 2

- Methode : Limited Energy
- Marking : Ex nL IIC T4...T6  
: DIP A21 Ta 44°C...80°C
- Certificate : NEPSI: GYJ071073X



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