

# Weyn-Lauwers N.V.

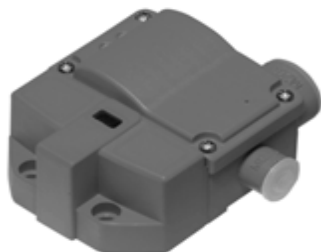
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## inductieve eindschakelaars P&F NCN3-F31K-N4-K

Inductive sensor

NCN3-F31K-N4-K



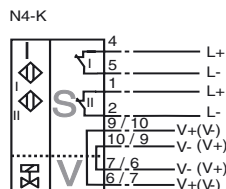
### Model Number

NCN3-F31K-N4-K

### Features

- Direct mounting on standard actuators
- Compact and stable housing with terminal compartment connection
- Fixed setting
- Satisfies machinery directive
- EC-Type Examination Certificate TÜV99 ATEX 1479X

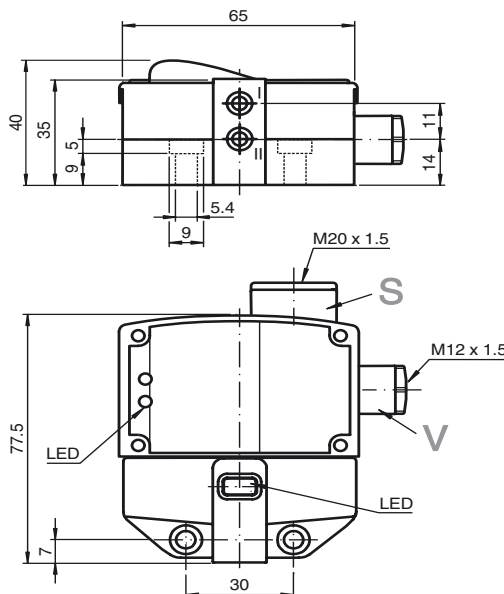
### Connection



### Accessories

- BT65A**  
Activator for F31 series
- BT65X**  
Activator for F31 series
- BT115A**  
Activator for F31 series
- BT115X**  
Activator for F31 series
- BT65B**  
Activator for F31 series
- BT115B**  
Activator for F31 series

### Dimensions



### Technical Data

#### General specifications

Switching element function	DC	Dual NC
Rated operating distance	$s_n$	3 mm
Installation		flush mountable
Output polarity		NAMUR
Assured operating distance	$s_a$	0 ... 2.3 mm
Reduction factor $r_{Al}$		0.5
Reduction factor $r_{Cu}$		0.45
Reduction factor $r_{304}$		1
Reduction factor $r_{316}$		1.2
Reduction factor $r_{Brass}$		0.63

#### Nominal ratings

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	f	0 ... 100 Hz
Hysteresis	H	typ. 5 %

Reverse polarity protected reverse polarity protected

Short-circuit protection yes

Suitable for 2:1 technology yes, Reverse polarity protection diode not required

#### Current consumption

Measuring plate not detected	$\geq 3$ mA
Measuring plate detected	$\leq 1$ mA

Indication of the switching state LED, yellow

Valve status indication LED, yellow

#### Functional safety related parameters

MTTF <sub>d</sub>	1980 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

#### Ambient conditions

Ambient temperature -25 ... 100 °C (-13 ... 212 °F)

#### Mechanical specifications

Connection (system side)	Cage tension spring terminals
Core cross-section (system side)	Flexible: 0.2 ... 1.5 mm <sup>2</sup> rigid: 0.2 ... 2.5 mm <sup>2</sup>
Connection (valve side)	Cage tension spring terminals
Core cross-section (valve side)	Flexible: 0.2 ... 1.5 mm <sup>2</sup> rigid: 0.2 ... 2.5 mm <sup>2</sup>
Housing material	PBT
Sensing face	PBT
Protection degree	IP67
Tightening torque, housing screws	1 Nm
Tightening torque, cable gland	M20 x 1.5 ; $\leq 7$ Nm M12 x 1.5 ; $\leq 3$ Nm
Note	LED switch-off

#### General information

Use in the hazardous area see instruction manuals

Category 1G; 2G; 3G

#### Compliance with standards and directives

Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility	NE 21:2007
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

#### Approvals and certificates