

## ■ Connects to

- Active transmitters for rotational speed with AC voltage output:  
Type NM 510, data sheet 10/14-2.16  
Type NMk 611, data sheet 10/14-2.18
- Non-contact, inductive pick-up sensors for rotational speed:  
Type ENI 4/5, data sheet 10/14-2.12
- Passive rotational speed sensors, HF pick-up sensors to DIN 19234:  
Type ENI 11/12, data sheet 10/14-2.12
- Opto-electronic pick-up sensors with pulse output:  
Type ENI 21, 22, 23, data sheet 10/14-2.15
- Mechanical relay-actuated switches with NO contacts

## ■ Span

- 0.1 Hz...20 kHz, parameterizable

## ■ Output

- 0/4...20 mA or 10 V (optional), parameterizable

## ■ Electrical isolation

- Between input, output and power supply

## ■ Housing

- Surface-mounting case, degree of protection IP 20 for mounting on top hat rails acc. to EN 50022
- Environmentally ruggedized field housing, degree of protection IP 65, for mounting on site

## ■ 2 freely settable alarm values

- Change-over contacts with parameterizable response behavior (optional)

## ■ Extended temperature range (optional)



## Technical data

### Measuring method

Processor-controlled interpulse period measurement with automatically set meas. period. Minimum time selectable in steps of 5 ms...99 sec.

### Input

2 alternatively usable input paths provided by basic device, with common zero, electrically isolated from the output and from the power supply.

Response level for sensor with HF resonant circuit to DIN 19234, e.g. ENI 11, ENI 12 or optoelectric sensors e.g. ENI 21, ENI 22, ENI 23.

#### Trigger level

8 V / 6 V (on / off), 50 k $\Omega$  impedance

#### Supply voltage

8 V, Ri = 1 k $\Omega$  (ENI 11, ENI 12)

#### Supply voltage

18 V DC (max. 40 mA) ENI 21/22/23

#### Response level for sensors with AC voltage or pulse signal, e.g. ENI4, ENI 5, NM 510, NMk 611

in the range 50 mV...100 V

#### Trigger level

50 mV, 50 k $\Omega$  impedance

#### Frequency range

0.1 Hz...20 kHz (parameterizable)

#### Measuring sequence

in steps of 5 ms...100 sec.

### Output

#### 0/4... 20 mA, parameterizable

max. load: 500  $\Omega$ , I<sub>max</sub> 25 mA

#### 0...10 V

I<sub>max</sub> 3 mA (optional)

### Influences

#### Linearity error

< 0.1 %, resolution 12-bit

#### Load

< 0.1 %

### Pulse output

approx. +10 V, Ri = 1 k $\Omega$

#### Pulse sequence

1:1 with input signal

### Programming and display

#### Parameterization

Via 4 front panel keys, in group steps or individual steps, depending on the function

#### Parameter access protection

Through access code and in case of power failure

#### Display

In programming mode, the display shows the individual program steps and parameter settings. In operating mode, the measured value and the selected engineering unit are indicated.

#### Type of display

8-digit LCD

### Safety instructions and precautions to DIN EN 61010

#### Test voltage input versus output

500 V

#### Rated voltage versus ground

1 kV

#### Degree of pollution

2

#### Overvoltage category

1

#### Electromagnetic compatibility

to EN 50081 and EN 50082

### Limit values

#### 2 alarm signalling units

min./max. change-over contacts

#### Switching voltage

max. 250 V DC/AC

#### Switching current

max. 2 A AC, 1 A DC

#### Switching capacity

max. 100 W DC, 250 VA AC

#### Program selection

Switching point with engineering unit  
Switching hysteresis (acc. to width and position)  
Switching position with missing power supply  
Switching position during startup bridging

### Power supply

18...40 V AC/DC  
85...265 V AC/DC

Power consumption approx. 5 VA

### Housing

	Surface-mounting	Field housing
Material	Plastic, grey, RAL 7032	built-in surface-mounting housing, upper part made of transparent Macrolon
Protection	IP 40 (housing) IP 20 (terminals)	IP 65
El. connections	Screw terminals, max. 2.5 mm <sup>2</sup>	
Cable entry	–	3 x PG 9
Weight	0.5 kg	1.3 kg

### Environmental capabilities

#### Ambient temperature

0...+50 °C; optional: -25...+65 °C

#### Storage and transportation temperature

-40...+85 °C

#### Relative humidity

< 75 %, non-condensing

### Mechanical stress capabilities

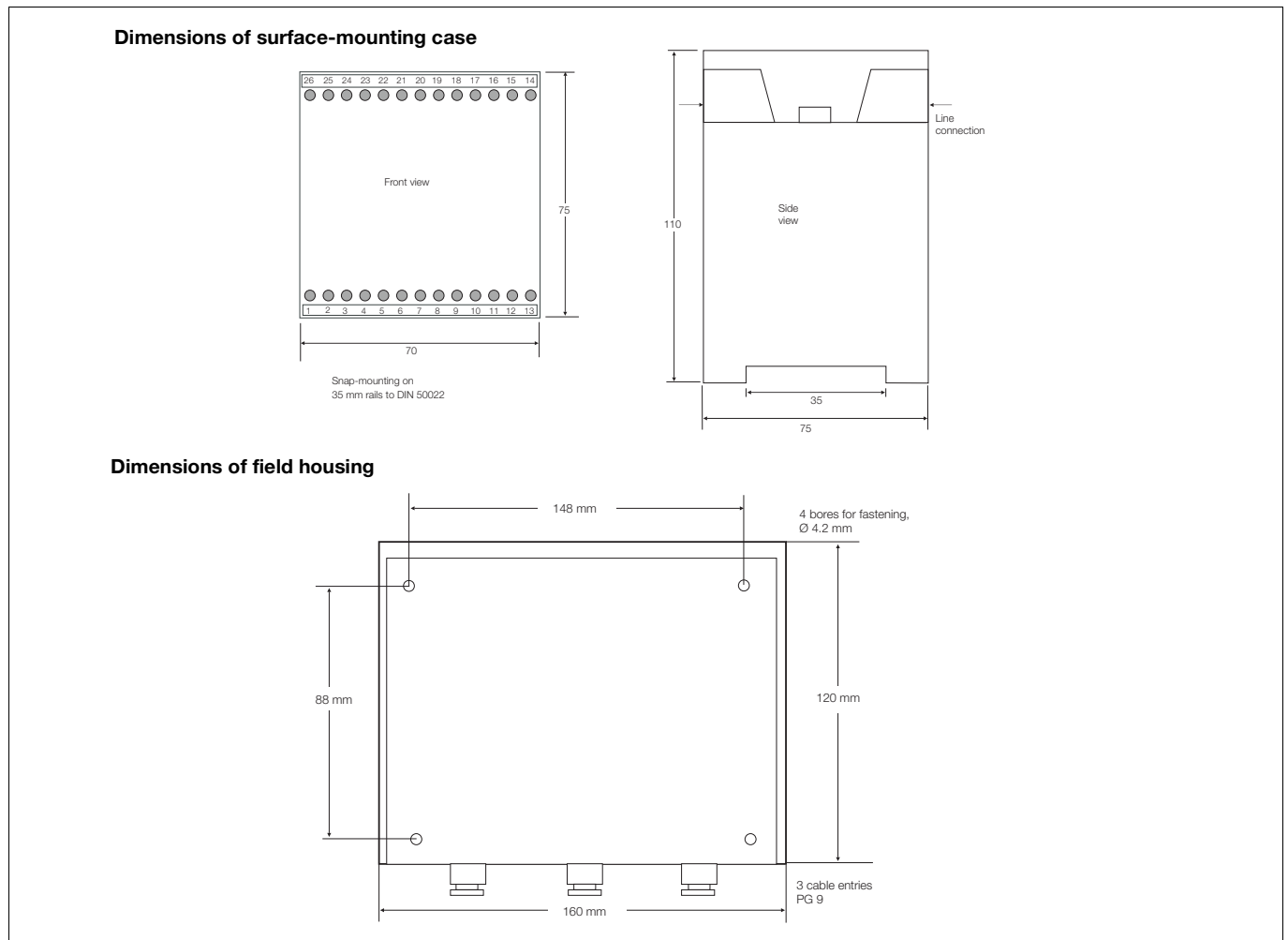
#### Vibration

9 g

#### Shock

20 m/s<sup>2</sup>

### Dimensional drawings



### Connection plans

#### Connecting various sensors to the input

				Functional connections			
ENI 4	ENI 5	15	High-sensitivity input	1	+ / L1	Power supply	
		18	Zero	2	- / N		
ENI 11	+	16	8 volts across 1 kΩ	4	Make contact for startup bridging		
		14	High-level input	5			
		ENI 12	-	18	Zero		
ENI 21	+	17	Sensor supply, 18 volts, max. 40 mA	8	Message SP 1	Contact in position of rest (device currentless)	
		ENI 22	14	High-level input			7
		ENI 23	-	18			Zero
ENI 4	~	15	High-sensitivity input	11	Message SP 2	Contact in position of rest (device currentless)	
		ENI 5	18	Zero			10
				9			
				20	Pulse output		
				18	Reference point as on input		
				12	+	Analog output	
				13	-		

## Ordering information

		Catalog No.						Code	
<b>Transmitter ENM 4</b>		V14713A-				0	0	0	
<b>Design type</b>									
Surface mounting case IP 20		1							
Field housing IP 65		2							
<b>Output parameterizable</b>									
0/4... 20 mA		1							
0...10 V		2							
<b>Power supply</b>									
85...265 V AC/DC		1							
18...40 V AC/DC		2							
<b>Alarm values</b>									
without		0							
with 2 limit values		1							
<b>Special features</b>									
Manufactory parameterization							691		
Increased temperature range							450		
<b>Operating manual</b> (state total quantity) <sup>1)</sup>									
German (no indication for 1 manual)							Z1D		
English (no indication for 1 manual)							Z1E		

<sup>1)</sup> 1 copy included free of charge

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