

Shaft-Vibration Monitor

Emerson's Dual-Channel Shaft-Vibration Monitor is designed for small and low channel applications such as small steam, gas, and hydro turbines, and such as compressors, pumps, and fans to measure relative shaft vibration signals. Measurement settings, alarms, and provided outputs are field configurable via software.



Shown here is one product option. Other options have slightly different sockets and wiring.



Measurement Performance

Sensor Input Type	Eddy- Current Sensors	
Measurement Range:	Sensor PR6422	0 to 250 μm
	Sensor PR6423	0 to 500 μm
	Sensor PR6424	0 to 1000 μm
	Sensor PR6425	0 to 1000 μm
Frequency Range:	High-Pass Filter	1 / 5 / 10 Hz
	Low-Pass Filter	50 to 1500 Hz
Connection Type:	Internal Converter	"LEMO" socket
	External Converter	"Harting" socket

Environmental

Shock Limit	20 g pk
Temperature Range	-20 to 65°C (-4 to 149°F)
Sealing	IP65
Agency Ratings	CE

Mechanical

Case Material / Weight	Aluminum, stainless / ~1300 g (45.8 oz.)
Mounting	Wall mount

Electrical

Supply Voltage	Nominal +24 VDC	
	Permissible Voltage Range	+18 to +31.2 VDC
Power Consumption	max. 6 W	
Buffered Out: (2x)	Connection	BNC and/or Pins (Cage Terminal)
	Voltage Range	2.0 to 10.0 VDC
	Accuracy	$\pm 2.5\%$

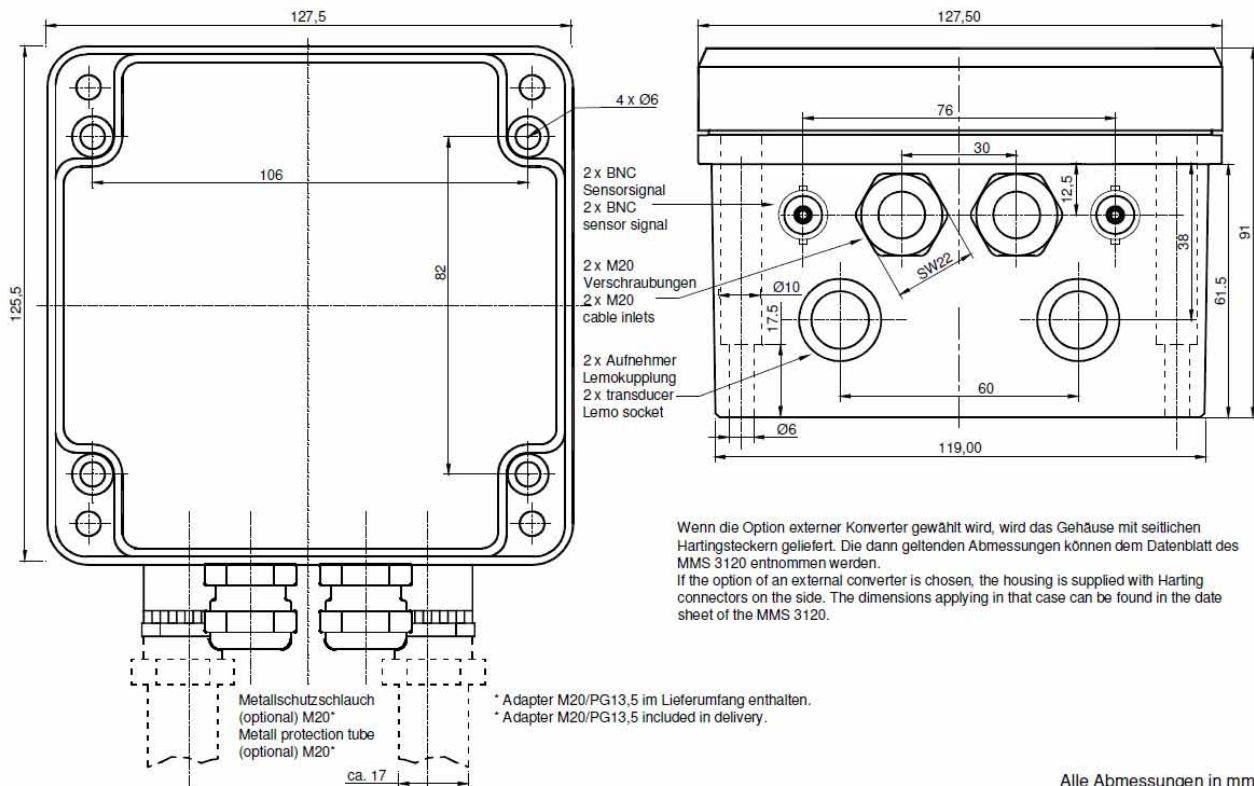
Current Out: (2x)	Current Range	0/4 to 20 mA (20 to 4/0 mA)
		Galvanically separated
		Open circuit and short-circuit proof
	Maximum Burden	500 Ohm
Relay Out: (5x make contact)	Voltage	U_{MAX} : 48 VDC
	Current	I_{MAX} : 1 A
	Contact Rating	P_{MAX} : 50 W

Ordering Information

Part Number	Description
A3110/022-000	CSI 3110 Shaft-Vibration Monitor Eddy-Current Converters: INTERNAL
A3110/022-020	CSI 3110 Shaft-Vibration Monitor Eddy-Current Converters: EXTERNAL (to be ordered separately)

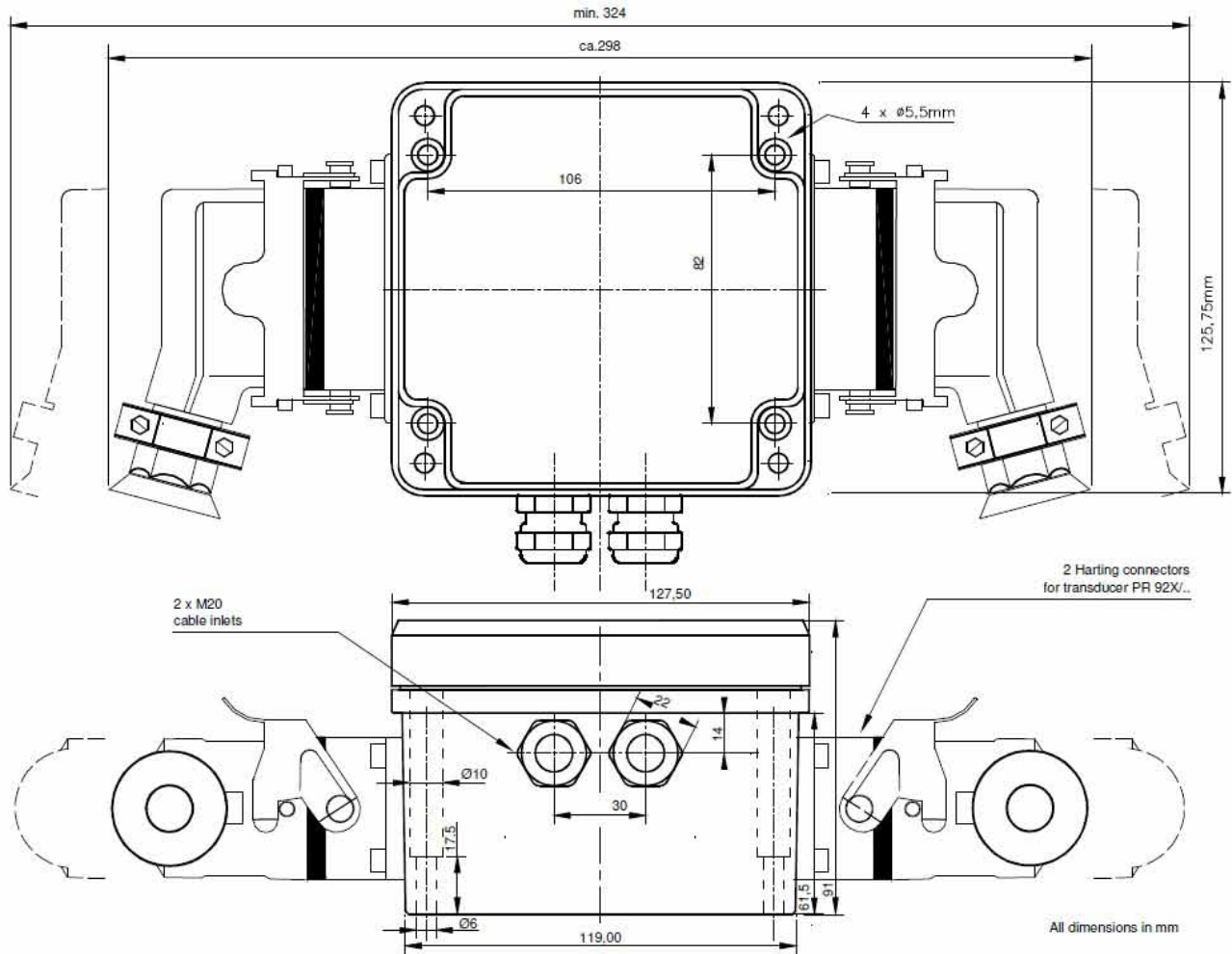
Dimensions

A 3110/022-000



Alle Abmessungen in mm
All dimensions in mm

A3110 /022-020



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**Emerson Process Management
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Bearing-Vibration Monitor

Emerson's Dual-Channel Bearing-Vibration Monitor is designed for small and low channel applications such as small steam, gas, and hydro turbines, and such as compressors, pumps, and fans to measure absolute bearing vibration signals. Measurement settings, alarms, and provided outputs are field configurable via software.



Shown here is one product option. Other options have slightly different sockets and wiring.



Measurement Performance

Sensor Input Type	Seismic Sensors of Type PR9268	
Measurement Range	Freely selectable by means of configuration software according to the measuring range of the applied sensors	
Frequency Range:	High-Pass Filter	5 / 10 / 15 Hz
	Low-Pass Filter	50 to 1500 Hz
Connection Type	"Harting" socket	

Environmental

Shock Limit	20 g pk	
Temperature Range	-20 to 65°C (-4 to 149°F)	
Sealing	IP65	
Agency Ratings	CE	

Mechanical

Case Material / Weight	Aluminum, stainless / ~1300 g (45.8 oz.)	
Mounting	Wall mount	

Electrical

Supply Voltage	Nominal +24 VDC	
	Permissible Voltage Range	+18 to +31.2 VDC
Power Consumption	max. 6 W	
Buffered Out: (2x)	Connection	Available at Pins (Cage Terminal)
	Voltage Range	±5.0 VDC
	Accuracy	± 2.5%
Current Out: (2x)	Current Range	0/4 to 20 mA (20 to 4/0 mA)
		Galvanically separated
		Open circuit and short-circuit proof
	Maximum Burden	500 Ohm

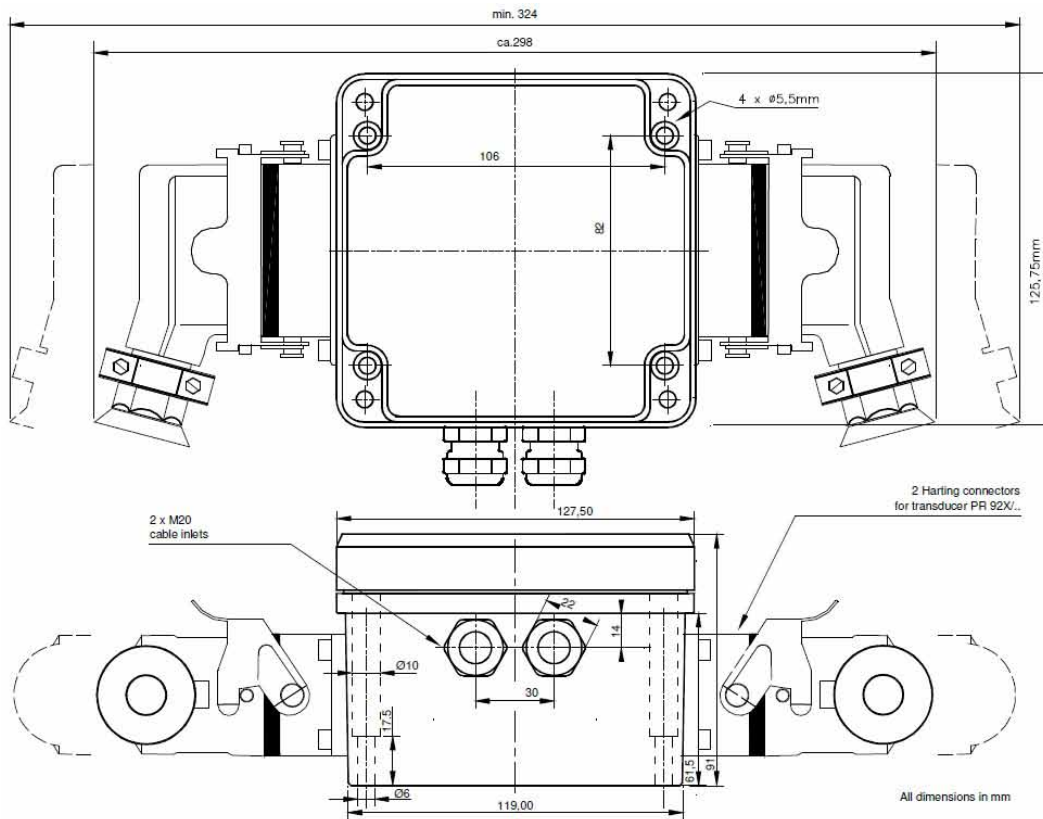
Relay Out:	Voltage	U_{MAX} : 48 VDC
(5x make contact)	Current	I_{MAX} : 1 A
	Contact Rating	P_{MAX} : 50 W

Ordering Information

Part Number	Description
A3120/022-000	CSI 3120 Bearing-Vibration Monitor

Dimensions

A 3120/022-000



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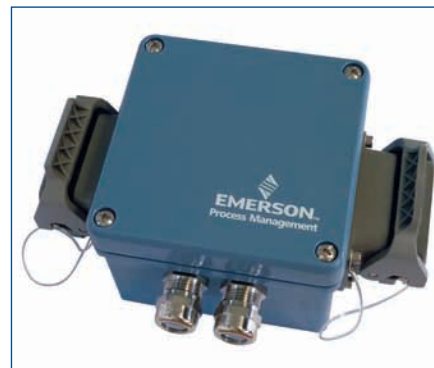
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Bearing-Vibration Monitor

Emerson's Dual-Channel Bearing-Vibration Monitor is designed for small and low channel applications such as small steam, gas, and hydro turbines, and such as compressors, pumps, and fans to measure absolute bearing vibration signals. Measurement settings, alarms, and provided outputs are field configurable via software.



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Measurement Performance

Sensor Input Type	ICP Piezo-Electric Sensors	
Measurement Range	Freely selectable by means of configuration software according to the measuring range of the applied sensors	
Linearity Error	0.2% at 25°C	
Linearity Error, Calculated with Sensor	<2.2% at 25°C	
Output Stability as Function of Temperature	<0.08% / 10K	
Long-Term Drift	max. 1% of measuring range	
Frequency Range:	High-Pass Filter	5 to 5000 Hz
	Low-Pass Filter	50 to 5000 Hz
Connection Type:	"Harting" socket	

Environmental

Shock Limit	20 g pk	
Temperature Range	-20 to 65°C (-4 to 149°F)	
Sealing	IP65	
Agency Ratings	CE	

Mechanical

Case Material / Weight	Aluminum, stainless / ~1300 g (45.8 oz.)	
Mounting	Wall mount	

Electrical

Supply Voltage	Nominal +24 VDC	
Permissible Voltage Range	+18 to +31.2 VDC	
Power Consumption	max. 6 W	
Buffered Out: (2x)	Connection	Available at Pins (Cage Terminal)
	Voltage Range	±4.0 VDC
	Accuracy	± 2.5%

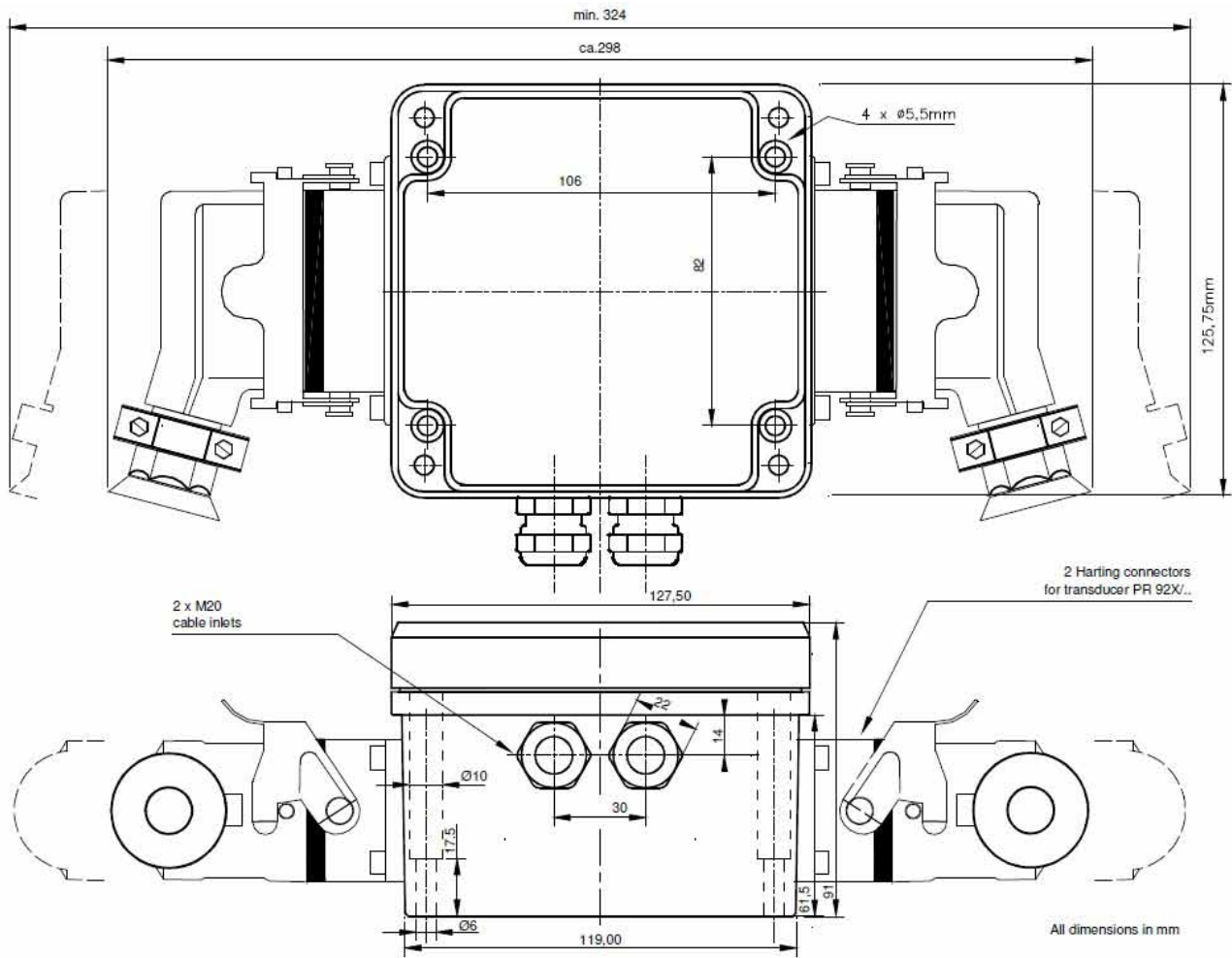
Current Out: (2x)	Current Range	0/4 to 20 mA (20 to 4/0 mA)
		Galvanically separated
		Open circuit and short-circuit proof
	Maximum Burden	500 Ohm
Relay Out: (5x make contact)	Voltage	U_{MAX} : 48 VDC
	Current	I_{MAX} : 1 A
	Contact Rating	P_{MAX} : 50 W

Ordering Information

Part Number	Description
A3125/022-010	CSI 3125 Bearing-Vibration Monitor Vibration Acceleration (100mV / g 40g)
A3125/022-020	CSI 3125 Bearing-Vibration Monitor Vibration Velocity (100mV / in / s)

Dimensions

A 3125/022-0x0



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Shaft-Position Monitor

Emerson's Dual-Channel Shaft-Position Monitor is designed for small and low channel applications such as small steam, gas, and hydro turbines, and such as compressors, pumps, and fans to measure relative shaft displacement signals. Measurement settings, alarms, and provided outputs are field configurable via software.



Shown here is one product option. Other options have slightly different sockets and wiring.



Measurement Performance		
Sensor Input Type	Eddy- Current Sensors	
Measurement Range	Freely selectable by means of configuration software according to the measuring range of the applied sensors	
Frequency Range:	Low-Pass Filter	10 Hz
Connection Type:	Internal Converter	"LEMO" socket
Environmental		
Shock Limit	20 g pk	
Temperature Range	-20 to 65°C (-4 to 149°F)	
Sealing	IP65	
Agency Ratings	CE	
Mechanical		
Case Material / Weight	Aluminum, stainless / ~1300 g (45.8 oz.)	
Mounting	Wall mount	
Electrical		
Supply Voltage	Nominal +24 VDC	
	Permissible Voltage Range	+18 to +31.2 VDC
Power Consumption	max. 6 W	
Buffered Out:	Connection	Available at Pins (Cage Terminal)
(2x)	Voltage Range	2.0 to 10.0 VDC
	Accuracy	± 2.5%
Current Out:	Current Range	0/4 to 20 mA (20 to 4/0 mA)
(2x)		Galvanically separated
		Open circuit and short-circuit proof
	Maximum Burden	500 Ohm

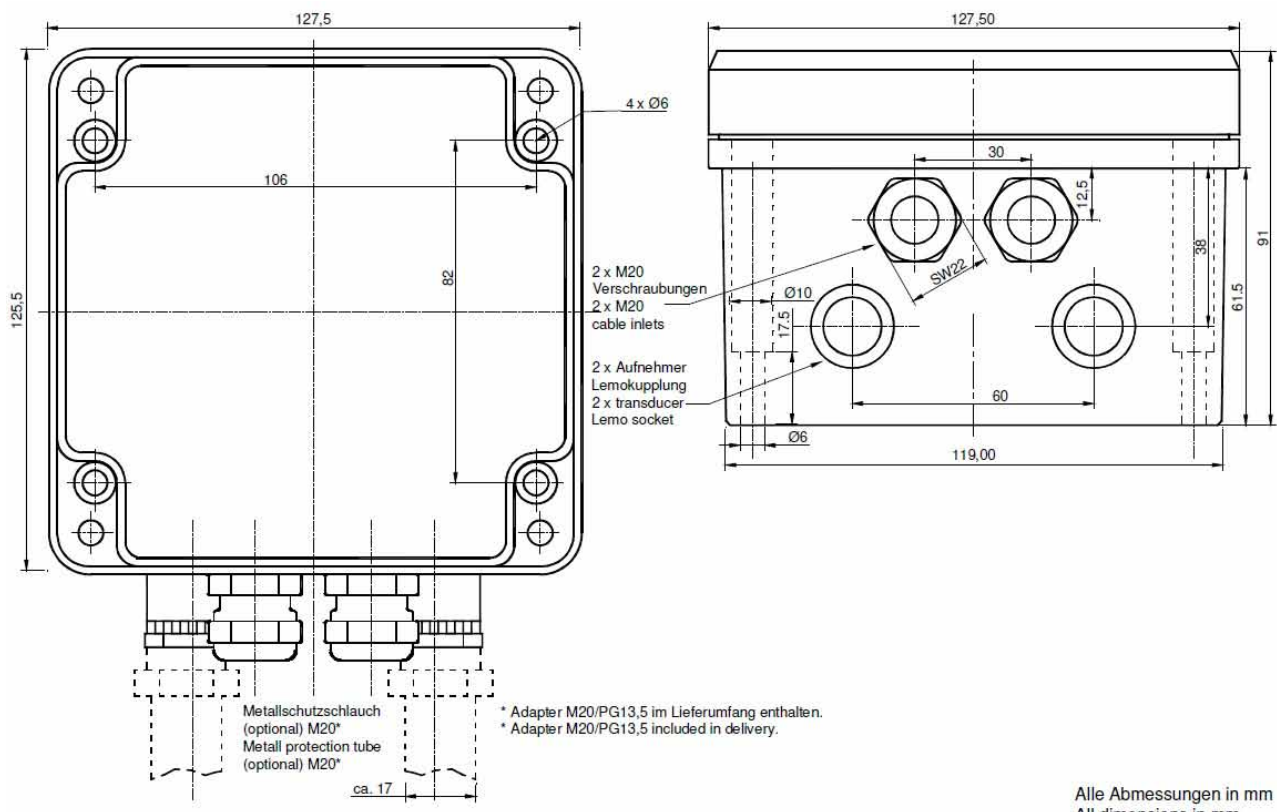
Relay Out: (5x make contact)	Voltage	U_{MAX} : 48 VDC
	Current	I_{MAX} : 1 A
	Contact Rating	P_{MAX} : 50 W

Ordering Information

Part Number	Description
A3210/022-000	CSI 3210 Shaft-Position Monitor Eddy-Current Converters: INTERNAL

Dimensions

A 3210/022-000



Alle Abmessungen in mm
All dimensions in mm

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Speed and Key Monitor

Emerson's Speed and Key Monitor is designed for small and low channel applications such as small steam, gas, and hydro turbines, and such as compressors, pumps, and fans to measure speed and generate key signals. Measurement settings, alarms, and provided outputs are field configurable via software.



Shown here is one product option. Other options have slightly different sockets and wiring.



Measurement Performance	
Sensor Input Type	Eddy- Current Sensors
Measurement Range	Freely selectable by means of configuration software, max. 65535 rpm limited by input frequency
Linearity Error	0.25% at 25°C
Linearity Error, Calculated with Sensor	Depending on sensor, max. -6% at 25°C
Output Stability as Function of Temperature	<0.08% / 10K
Long-Term Drift	max. 1% of measuring range
Frequency Range	0 to 20 kHz Automatic setting of trigger level
Connection Type:	Internal Converter "LEMO" socket
Environmental	
Shock Limit	20 g pk
Temperature Range	-20 to 65°C (-4 to 149°F)
Sealing	IP65
Agency Ratings	CE
Mechanical	
Case Material / Weight	Aluminum, stainless / ~1300 g (45.8 oz.)
Mounting	Wall mount
Electrical	
Supply Voltage	Nominal +24 VDC
Permissible Voltage Range	+18 to +31.2 VDC
Power Consumption	max. 6 W
Buffered Out:	Connection Available at Pins (Cage Terminal)
(2x)	Voltage Range 2.0 to 10.0 VDC
	Accuracy ± 2.5%

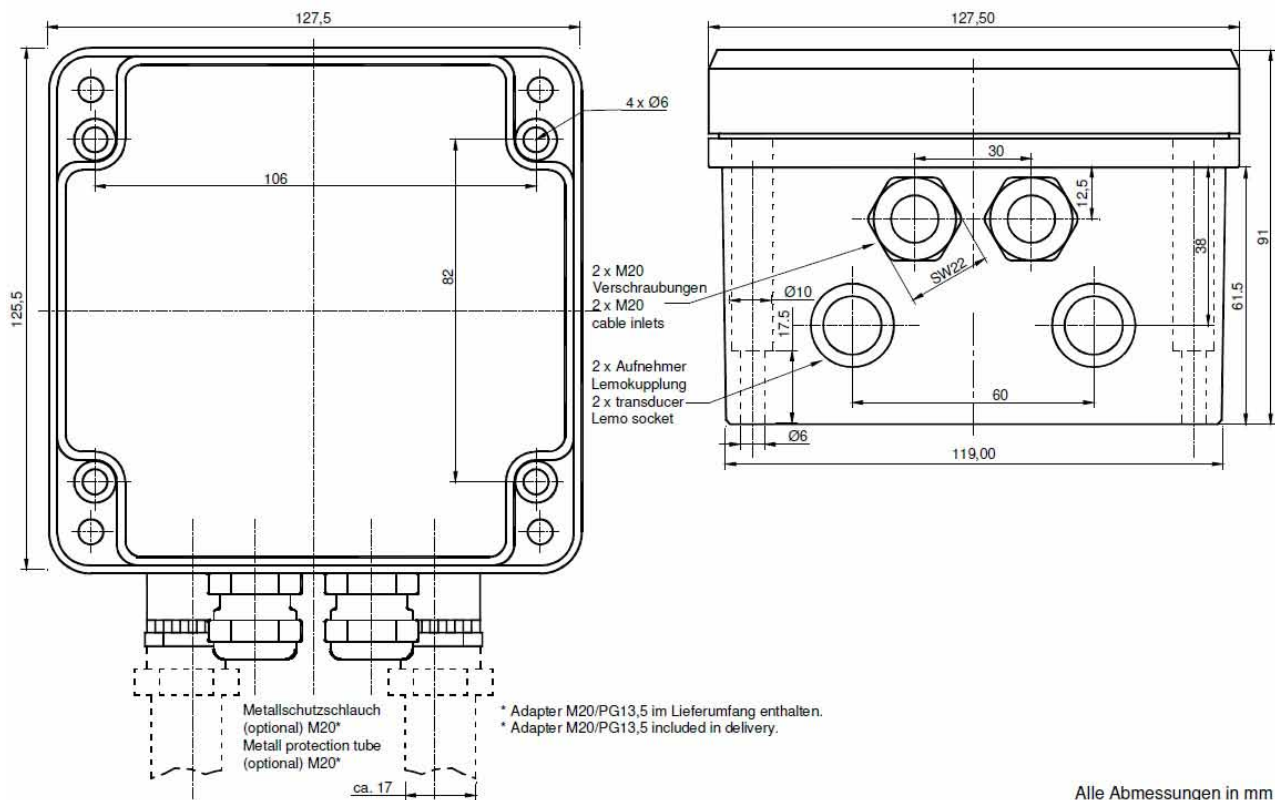
Current Out: (2x)	Current Range	0/4 to 20 mA (20 to 4/0 mA)
		Galvanically separated
		Open circuit and short-circuit proof
	Maximum Burden	500 Ohm
Relay Out: (5x make contact)	Voltage	U_{MAX} : 48 VDC
	Current	I_{MAX} : 1 A
	Contact Rating	P_{MAX} : 50 W

Ordering Information

Part Number	Description
A3311/022-000	CSI 3110 Speed & Key Monitor Eddy-Current Converters: INTERNAL

Dimensions

A 3311/022-000



Alle Abmessungen in mm
All dimensions in mm

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