



# ProLink Condition Monitoring System

## Agenda

- 1** **Technical details**
- 2** Accessories & Order numbers
- 3** Trainings

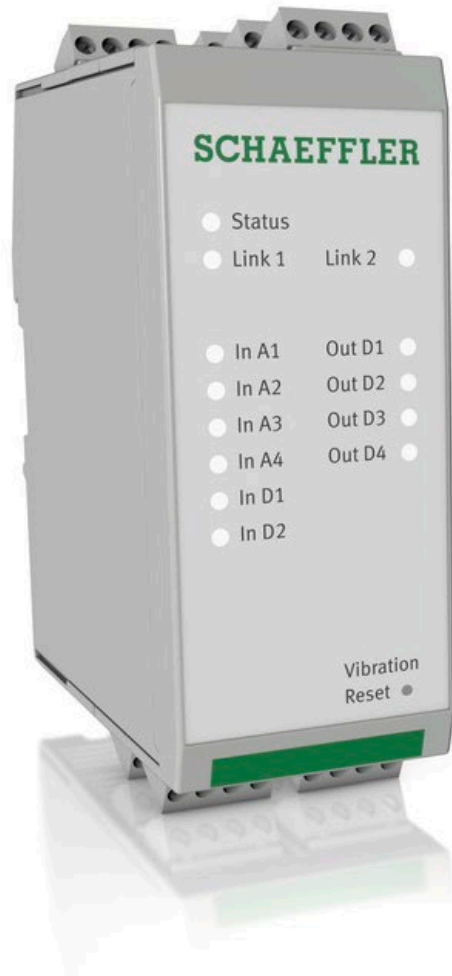
**Main processing module**



**Technical data**

<b>Power supply</b>	18-30 VDC (Typical: 24 VDC)
<b>Power consumption</b>	800 mA
<b>Connections</b>	<ul style="list-style-type: none"> <li><span style="background-color: #90EE90; border-radius: 50%; padding: 2px 5px;">1</span> 1 USB B (Basic configuration, data download)</li> <li><span style="background-color: #90EE90; border-radius: 50%; padding: 2px 5px;">2</span> 1 USB A (Mass storage devices)</li> <li><span style="background-color: #90EE90; border-radius: 50%; padding: 2px 5px;">3</span> 1 PC/Ethernet 1000 Mb/s</li> <li><span style="background-color: #90EE90; border-radius: 50%; padding: 2px 5px;">4</span> 1 interface for fieldbus communication</li> </ul>
<b>Fieldbus interface (optional)</b>	<ul style="list-style-type: none"> <li>• Profinet</li> <li>• more to come</li> </ul>
<b>Display elements</b>	Booting, Ready for operation, Failure
<b>Mounting</b>	35-mm standard mounting rail
<b>Protection type</b>	IP 20
<b>Ambient temperature</b>	Operation: -30°C to +60°C Storage: -30°C to +55°C
<b>Certifications</b>	CE, UKCA, EAC; UL/CSA (by using Power supply NEC Class-2)
<b>Communication protocols</b>	<ul style="list-style-type: none"> <li>• WebServices</li> <li><span style="background-color: #90EE90; border-radius: 50%; padding: 2px 5px;">3</span> • SLMP Client</li> <li>• OPC/UA Server</li> <li>• MQTT</li> </ul>

## Vibration module



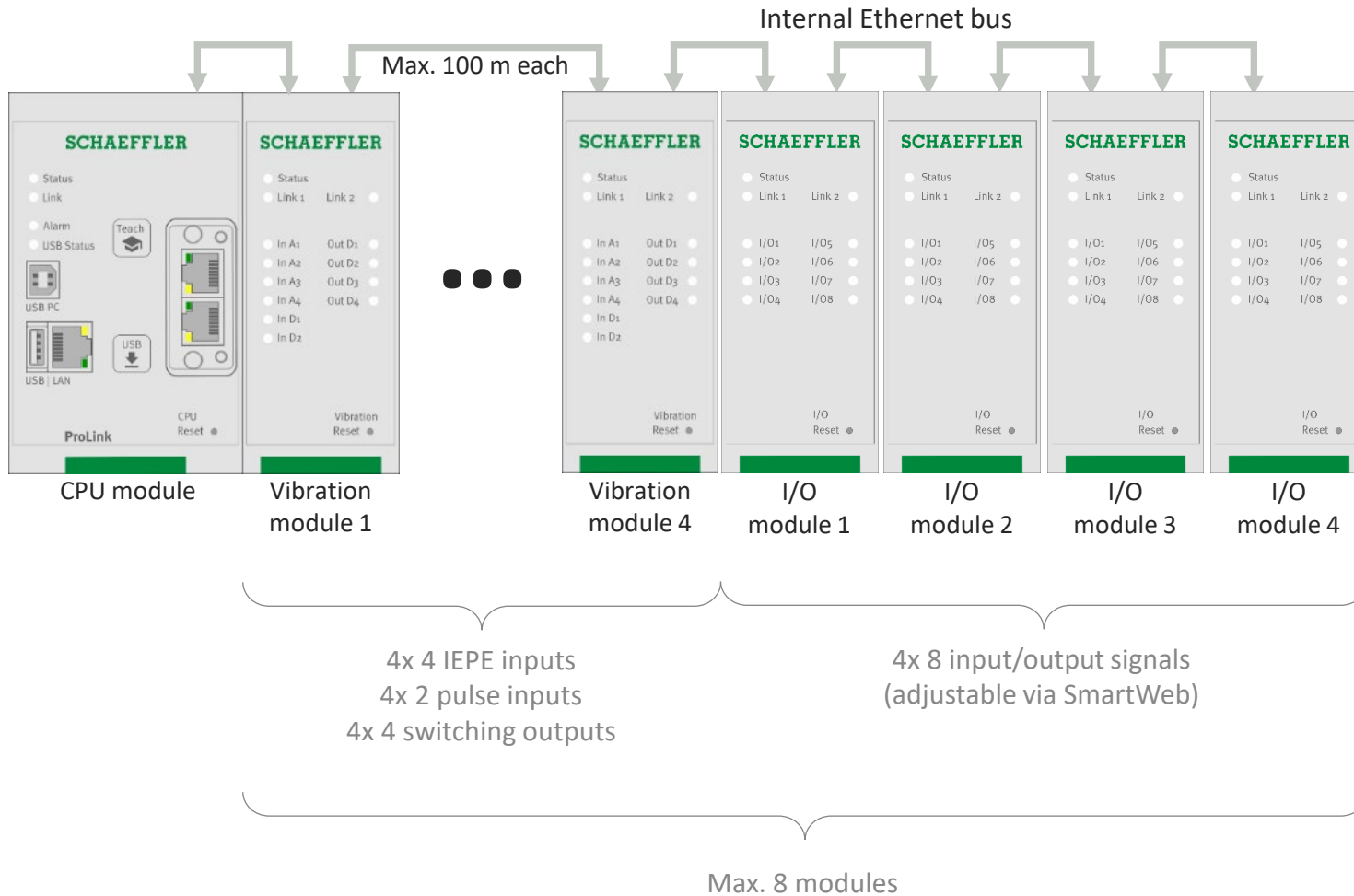
<b>Technical data</b>	Max. 4 vibration modules
<b>Power supply</b>	18-30 VDC (Typical: 24 VDC)
<b>Power consumption</b>	400 mA
<b>Input:</b>	
<b>Type:</b>	4 voltage DC, AC, IEPE (time synchronous)
• <b>Range</b>	• +/-10 V
• <b>Resolution</b>	• 24 Bit
• <b>Sample rate</b>	• 51,2 kHz
• <b>Bandwidth:</b>	
• <b>DC</b>	• 0 Hz – 20 kHz
• <b>AC</b>	• 0,1 Hz – 20 kHz
• <b>IEPE</b>	• 0,1 Hz – 20 kHz
<b>Type:</b>	2 pulse inputs
• <b>Range</b>	• 0-24 VDC
• <b>Bandwidth</b>	• 0,1 Hz to 50 kHz
	• A/B coded (Speed and direction)
<b>Output:</b>	
<b>Type:</b>	4 switching outputs (Open collector)
• <b>Switching current</b>	• Max. each 500 mA
• <b>Reaction time</b>	• 1 ms
<b>Display elements</b>	Booting, Ready for operation, Sensor failure, Switching output active, Pulse input active
<b>Mounting</b>	35-mm standard mounting rail
<b>Protection type</b>	IP 20
<b>Ambient temperature</b>	Operating: -30°C to +60°C Storage: -30°C to +55°C
<b>Certifications</b>	CE, UKCA, EAC UL/CSA (by using Power supply NEC Class-2)

## Input/Output module



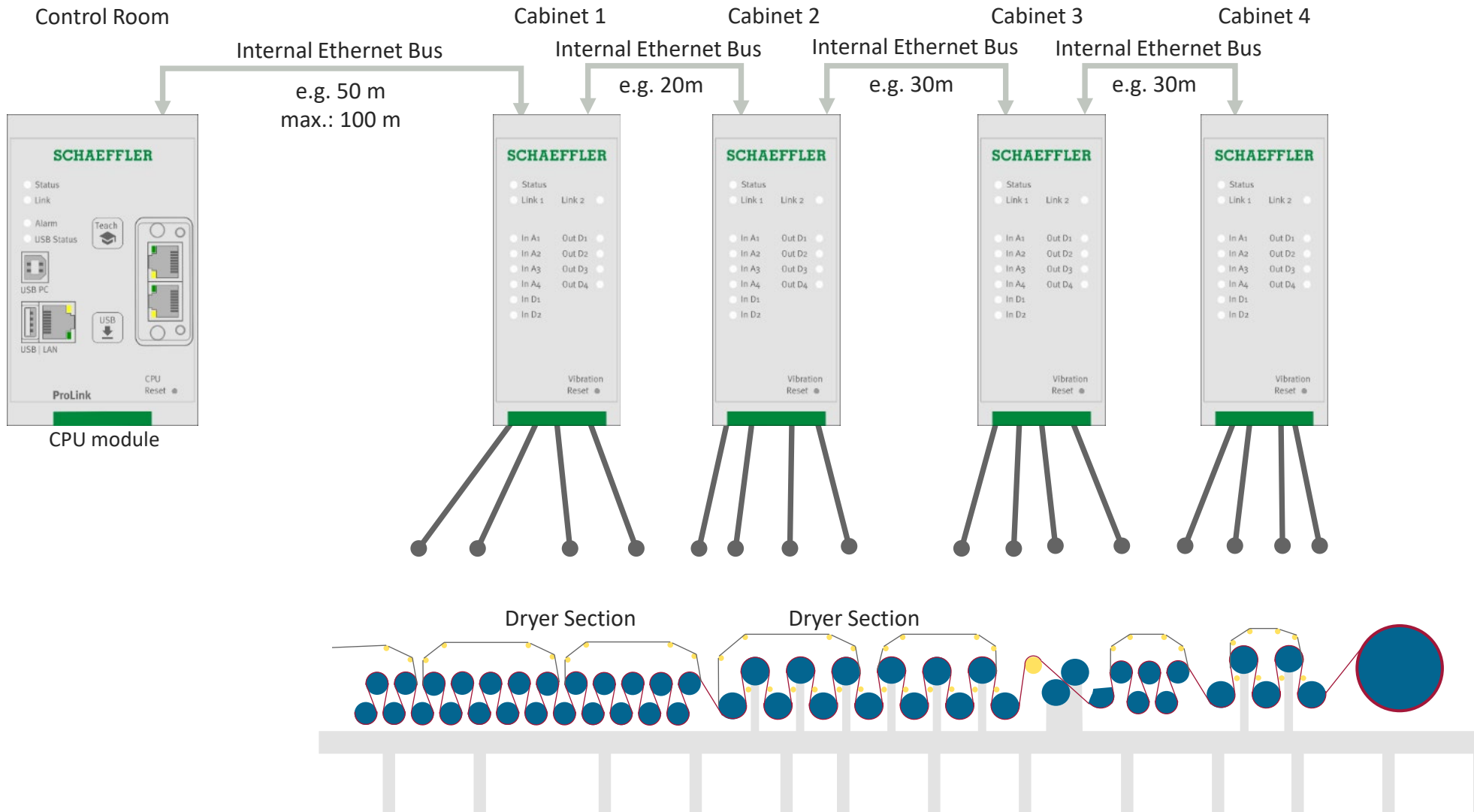
<b>Technical data</b>	Max. 4 I/O modules (input/output modules)	
<b>Power supply</b>	18-30 VDC (Typical: 24 VDC)	
<b>Power consumption</b>	500 mA	
	Max. 8 input/outputs in total (adjustable via SmartWeb software)	
	<b>Input</b>	<b>Output</b>
<b>Type:</b>	Analog	Analog
• <b>Range</b>	• 0-10 V, 0-20 mA, 4-20 mA, PT100, PT1000	• 0-10 V, 0-20 mA, 4-20 mA
• <b>Resolution</b>	• 16 Bit	• 16 Bit
• <b>Sample rate</b>	• 1000 Hz	
• <b>Bandwidth</b>	• 500 Hz	
• <b>Output rate</b>		• 1 Hz
<b>Type:</b>	Digital	Digital
• <b>Range</b>	• 0/24 VDC	
• <b>Bandwidth</b>	• 100 Hz	
• <b>Type</b>		• Switching output (Open collector)
• <b>Switching current</b>		• Max. 500 mA
<b>Display elements</b>	Booting, Ready for operation, Input failure, Digital input active	
<b>Mounting</b>	35-mm standard mounting rail	
<b>Protection type</b>	IP 20	
<b>Ambient temperature</b>	Operation: -30°C to +60°C Storage: -30°C to +55°C	
<b>Certifications</b>	CE; UKCA; EAC UL/CSA (by using Power supply NEC Class-2)	

**ProLink CMS: maximal configuration with vibration and I/O modules**



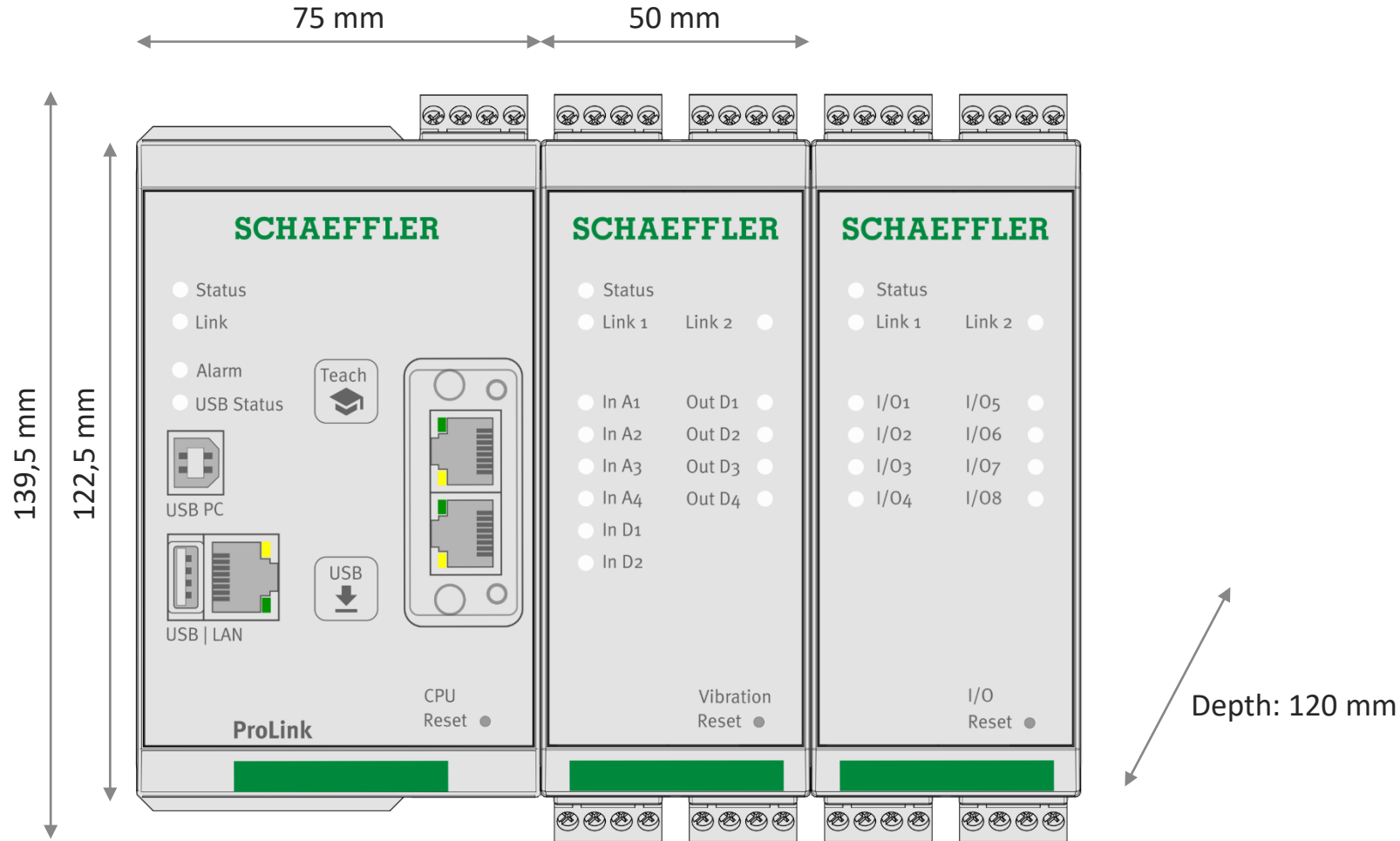
- 1 CPU module + max. 8 modules
- 16 IEPE inputs
- 8 digital inputs (thereof 8 pulse inputs, A/B coded)
- 16 switching outputs (digital)
- 32 input/output signals (adjustable via SmartWeb software)

# Distributed assembly on the example of a paper machine



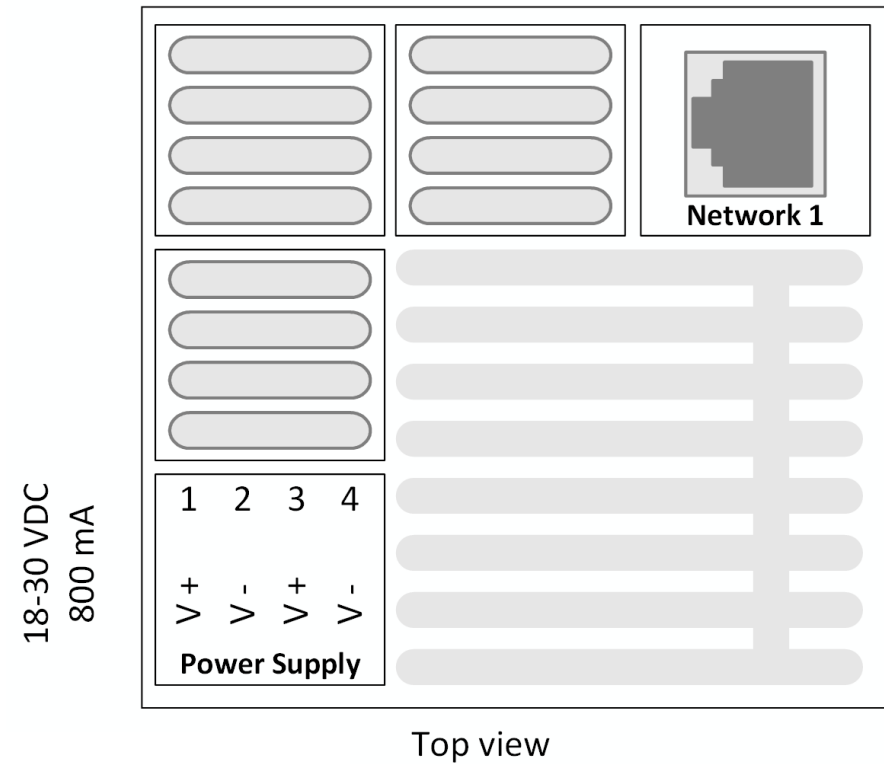
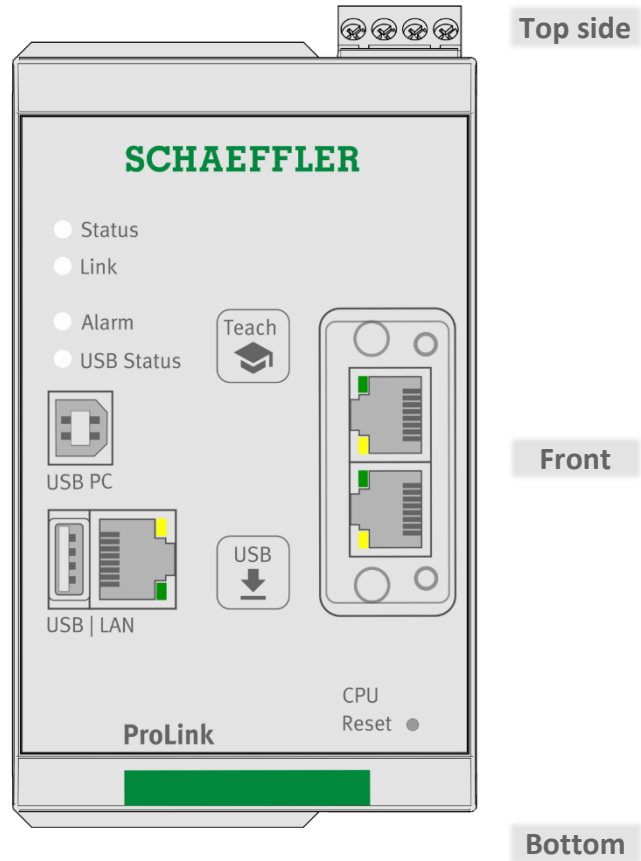
Notice:  
An additional power supply unit is required in each control cabinet.

# Dimensions

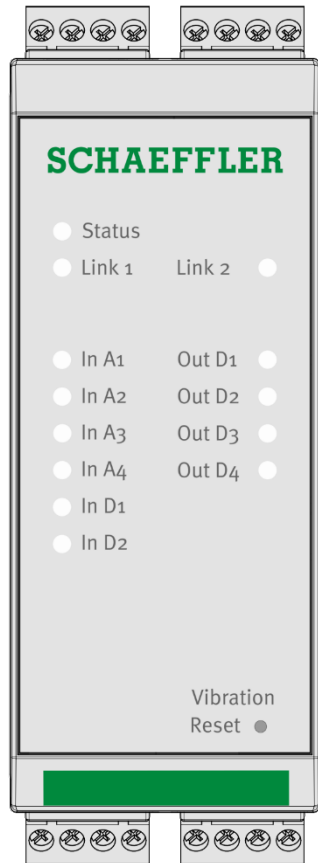




# Connections CPU



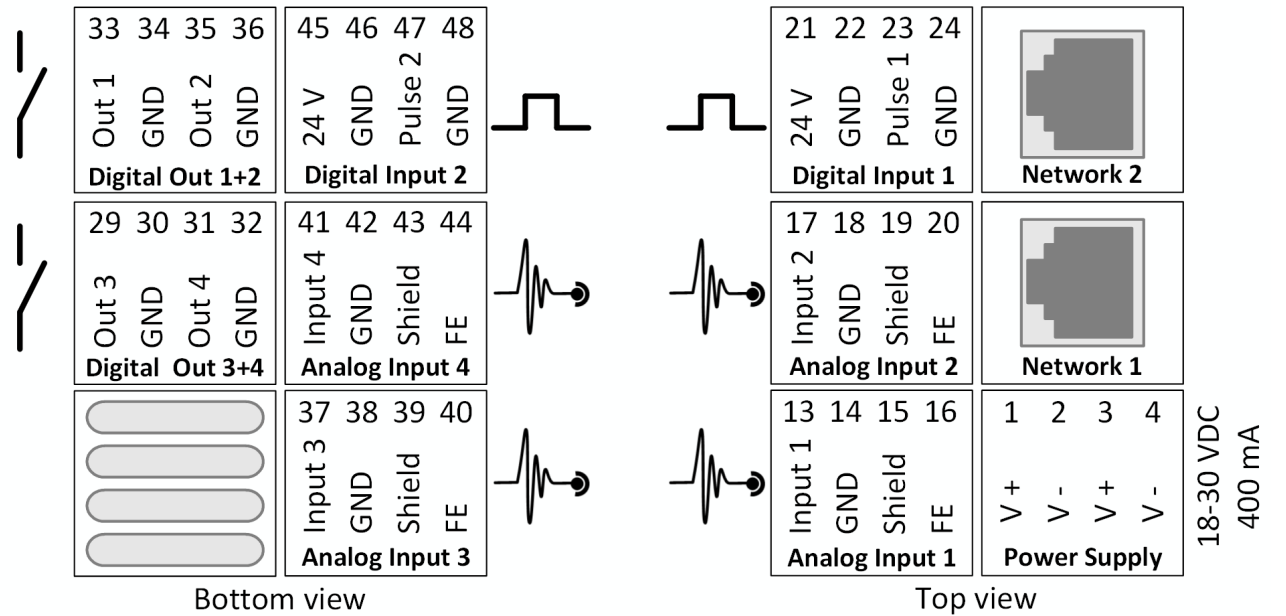
**Connections vibration module**



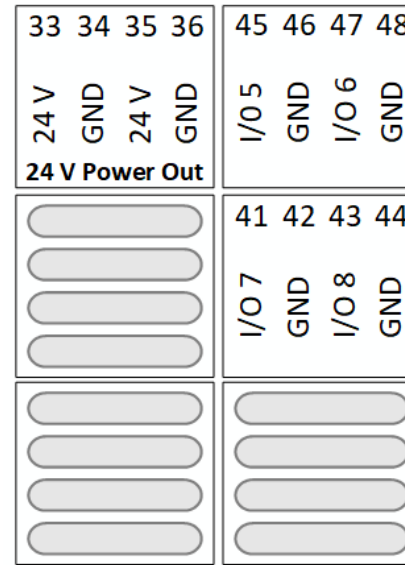
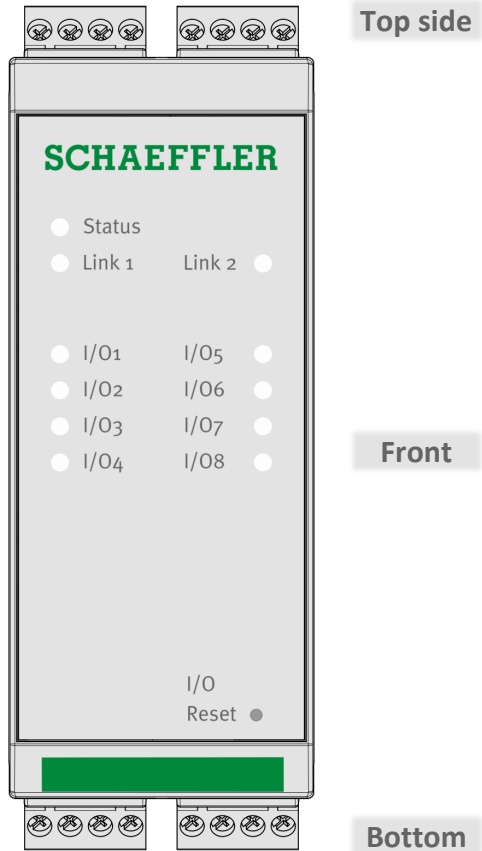
Top side

Front

Bottom

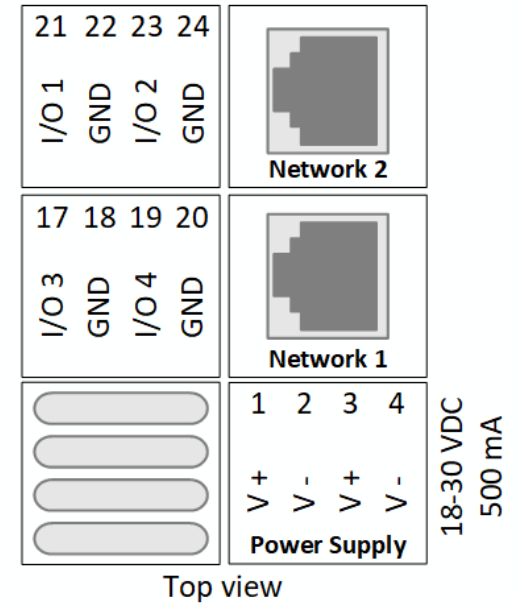


# Connections I/O module

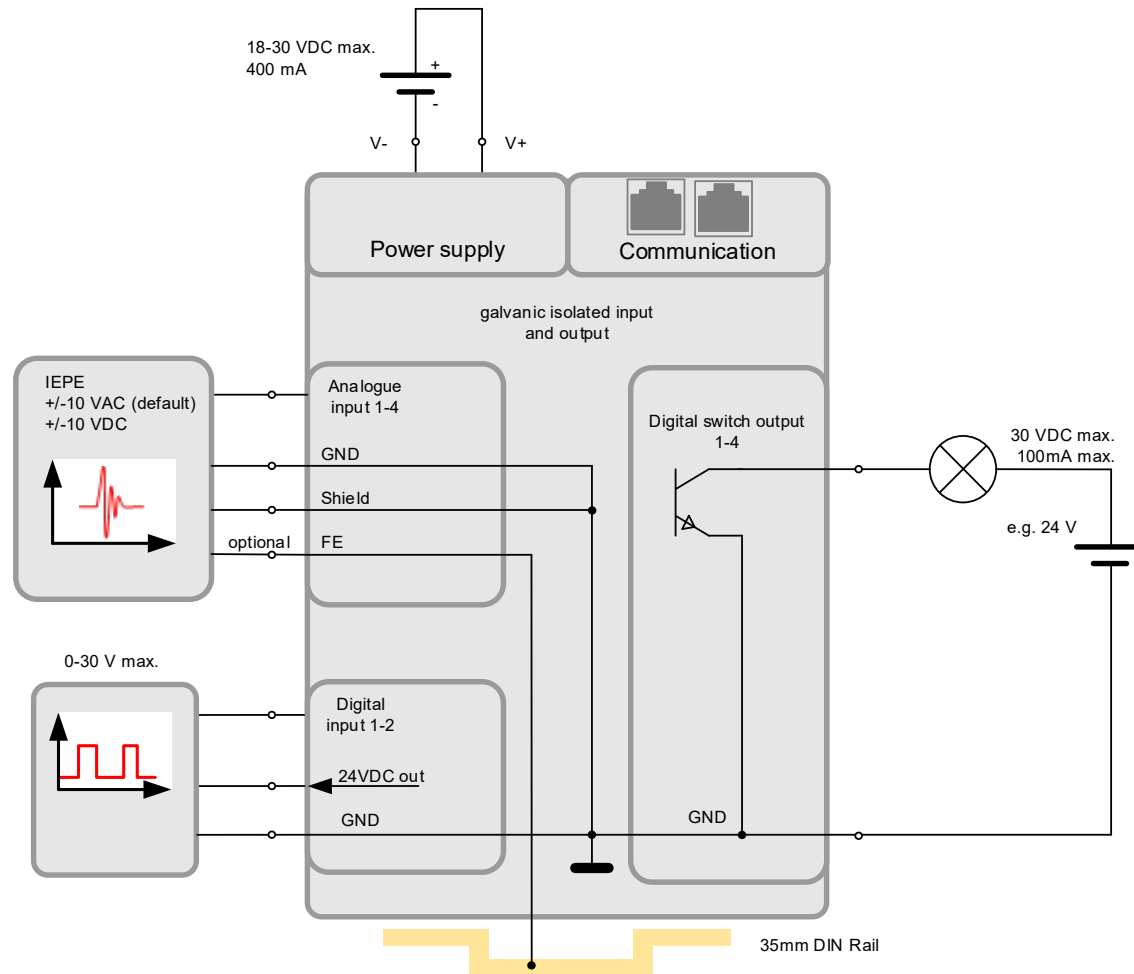


**Input**  
 0-10 V  
 0-20 mA  
 4-20 mA  
 0/24 V  
 PT100/PT1000

**Output**  
 0-10 V  
 0-20 mA  
 4-20 mA  
 Open Collector

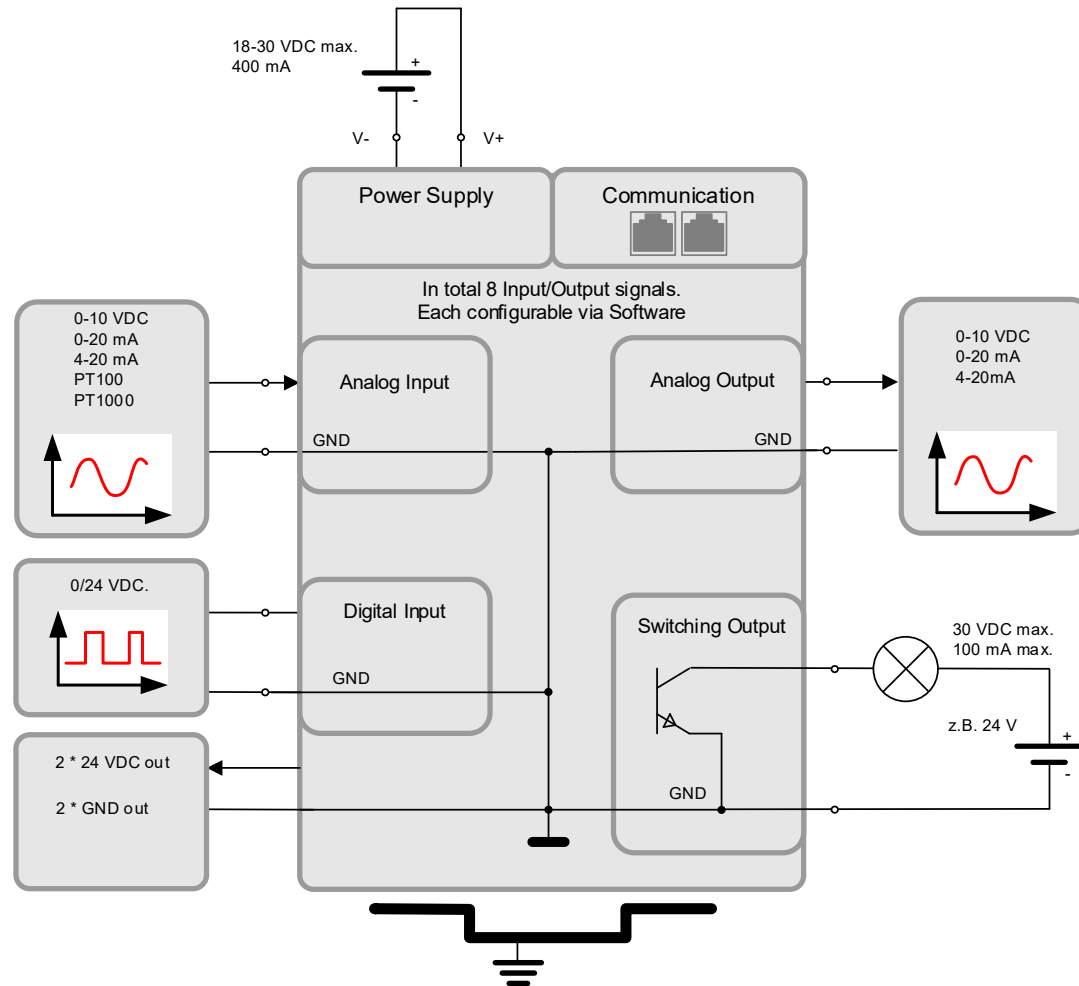


**Vibration module: Galvanic insulation**



- Power supply 24 VDC galvanic insulated
- Communication (Ethernet) galvanic insulated
- Analog/Digital input with common ground
- Switching output with common ground

**I/O module: Galvanic insulation**



- Power supply 24 VDC galvanic insulated
- Communication (Ethernet) galvanic insulated
- I/O galvanic insulated to power and communication

## Agenda

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## ProLink modules

Starter Kit:  
PROLINK-CMS-KIT-4CH



Material number:  
094565090-0000-10

Additional Vibration module  
PROLINK.VIB-IEPE-4CH



Material number:  
094565511-0000-10

Additional I/O module  
PROLINK.IO-AD-8CH



Material number:  
097347906-0000-01

Optional: License package  
PROLINK-LICENSE-PACKAGE

- OPC/UA Server
- E-Mail
- Channel monitoring

Material number:  
095525971-0000

Each module will be delivered with TCP/IP uplink cable + power bridge

## Switching cabinet small (PROLINK-CABINET-8CH)

ProLink CMS switching cabinet - small:  
PROLINK-CABINET-8CH



Materialnummer:  
095566430-0000-10



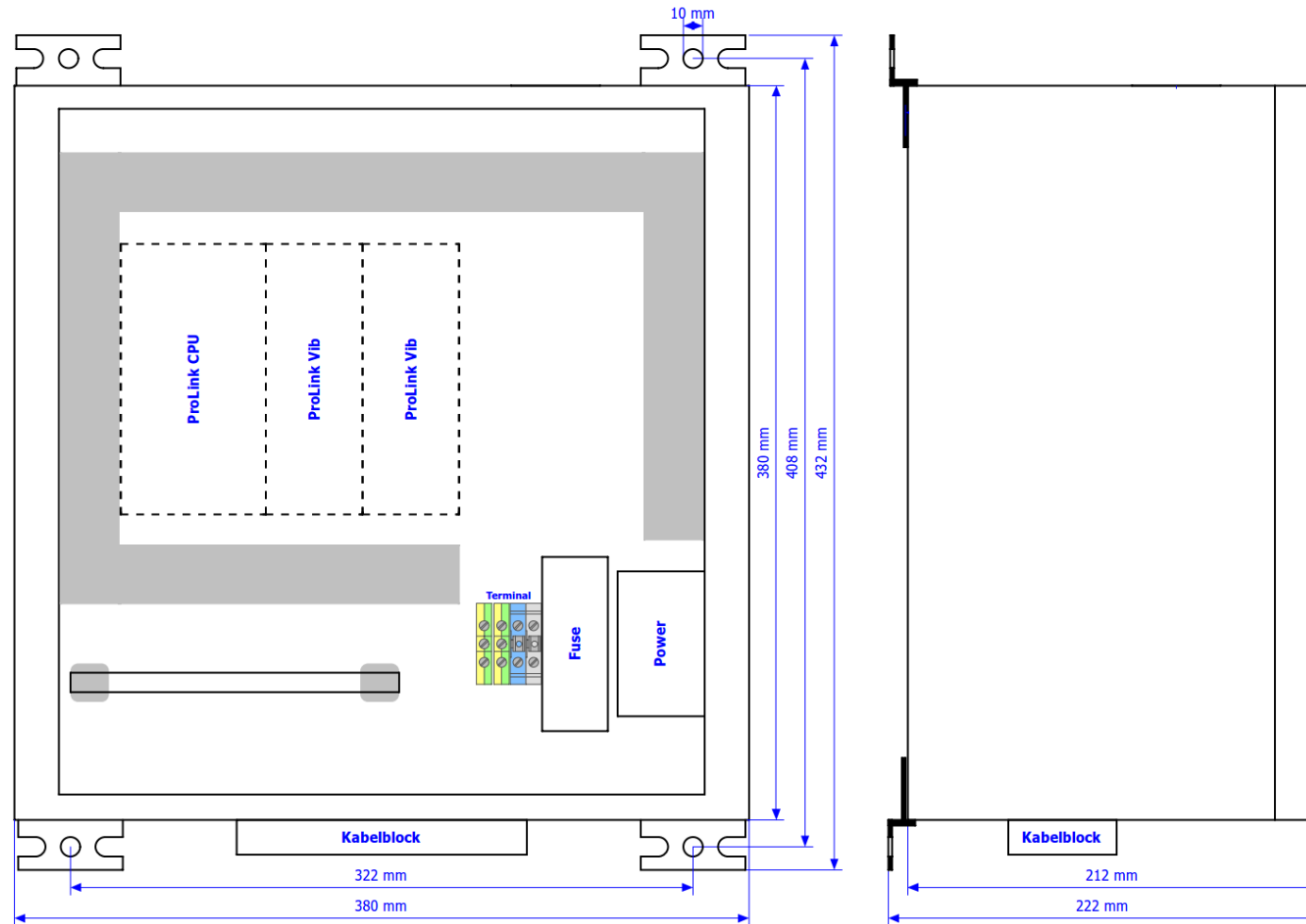
ProLink CMS switching cabinet with space for 1 Starter Kit and 1 additional module

- Including power supply 110/230 VAC to 24 VDC, 60 W
- Dimensions: 380 mm x 380 mm x 210 mm (height x width x depth)

- Including Power supply
- Pre-wired
- Steel Housing
- IP66
- RAL 7035



## Switching cabinet small (PROLINK-CABINET-8CH)

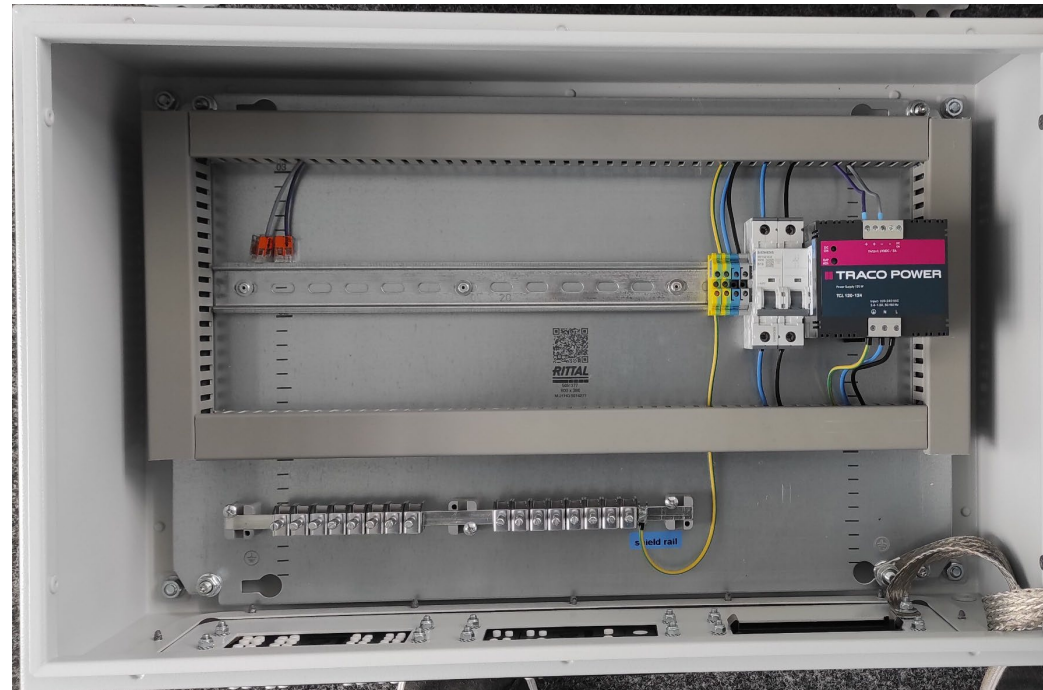


## Switching cabinet big (PROLINK-CABINET-16CH)

ProLink CMS switching cabinet large:  
PROLINK-CABINET-16CH



Materialnummer:  
095566449-0000-10

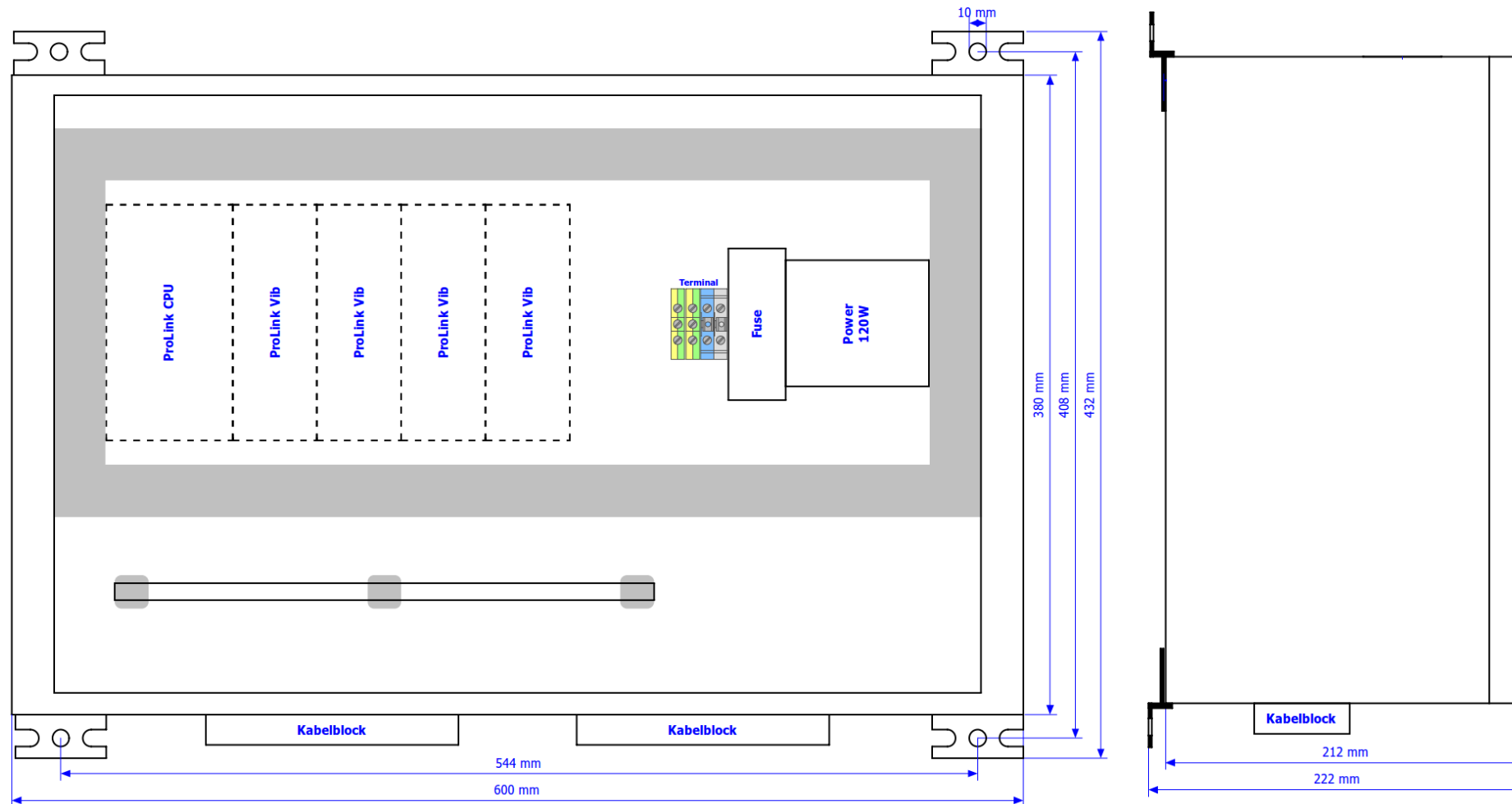


- Including power supply
- Pre-wired
- Steel housing
- IP 66
- RAL 7035

ProLink CMS switching cabinet with space for 1 Starter Kit and 3 additional modules

- Including power supply 110/230 VAC to 24 VDC, 120 W
- Dimensions: 380 mm x 600 mm x 210 mm (height x width x depth)

## Switching cabinet big (PROLINK-CABINET-16CH)



## Standard DIN rail power supply

EP1 number	EP1 designation	Description
086657461-0000-10	DTECTX1.POWER-SUPPLY-24V-60W	Maximum 2,5 A, suitable for 1 CPU + 4 add. modules
096119977-0000-10	DTECTX1.POWER-SUPPLY-24V-120W	Maximum 5 A, suitable for 2 CPU + 8 add. modules



- Universal input 85 - 264 VAC, 50/60 Hz
- Output voltage 24 VDC
- Output current: max. 2,5 A / 5 A
- Detachable screw terminal blocks
- Temperature range: -10 °C to +70 °C
- Protection class: IP 20
- Mounting on 35 mm standard DIN rail

Planned specifications. Subject to change.

## Standard “C02” acceleration sensors with integrated cable

EP1 number	EP1 designation	Description
056073992-0000-10	SENSOR-C002-01S1-5M-OEM8	Standard ICP side exit accelerometer FAG, integrated PU-cable, 5 m
056074140-0000-10	SENSOR-C002-01S1-7M-OEM8	Standard ICP side exit accelerometer FAG, integrated PU-cable, 7 m
056074190-0000-10	SENSOR-C002-01S1-12M-OEM8	Standard ICP side exit accelerometer FAG, integrated PU-cable, 12 m
056074352-0000-10	SENSOR-C002-01S1-20M-OEM8	Standard ICP side exit accelerometer FAG, integrated PU-cable, 20 m
056074530-0000-10	SENSOR-C002-01S1-30M-OEM8	Standard ICP side exit accelerometer FAG, integrated PU-cable, 30 m
064831442-0000-10	SENSOR-C002-01S1-50M-OEM8	Standard ICP side exit accelerometer FAG, integrated PU-cable, 50 m

Other acceleration sensors on request for:

- High temperature
- Low frequency
- High frequency
- Other dimensions



Frequency range: 0,5 Hz – 10 kHz  
 Sensitivity: 100 mV/G  
 Temperature: 121 °C  
 Mounting bold: M8

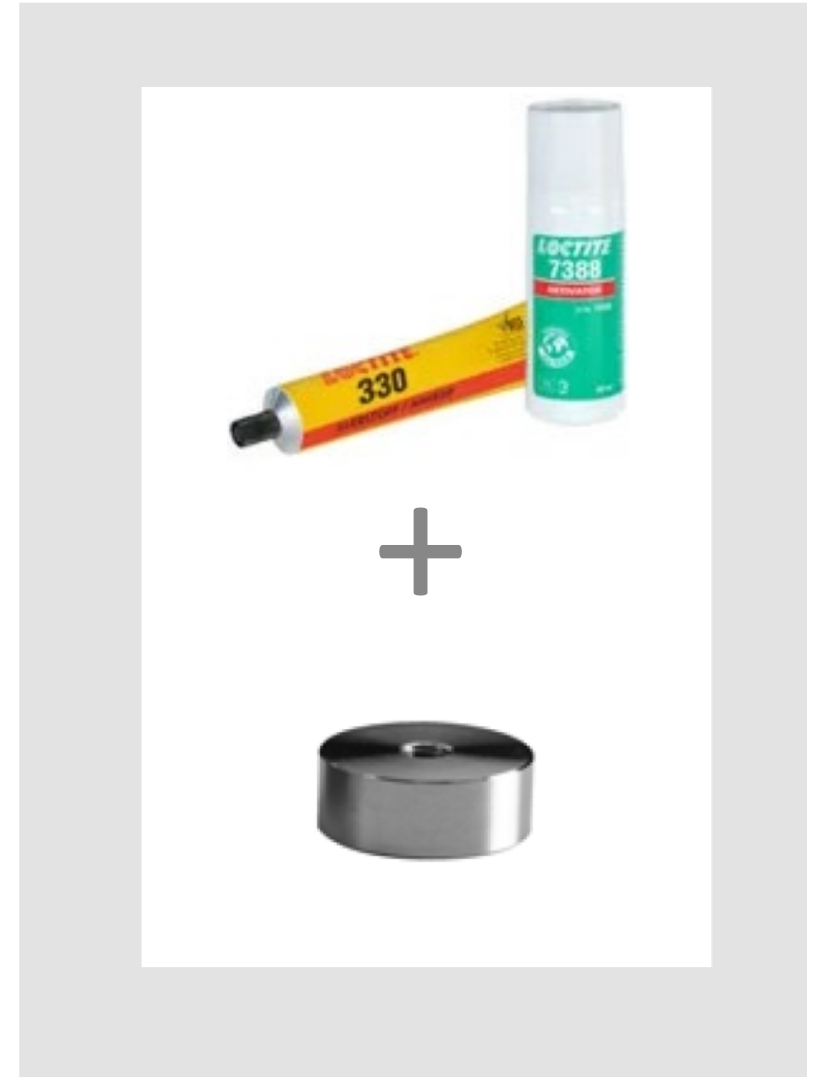
## Standard “C02” Acceleration Sensors with MIL Connector and extension cable

EP1 number	EP1 designation	Description
056059760-0000-10	SENSOR-C002-01S0-00MILM8	Standard ICP side exit accelerometer FAG, MIL-connector
085079553-0000-10	SENSOR.CABLE-MIL-OE-3M	sensor cable, MIL-connector, open cable ends, 85 °C, 3 m
039697550-0000-10	SENSOR.CABLE-MIL-OE-5M	sensor cable, MIL-connector, open cable ends, 85 °C, 5m
039697517-0000-10	SENSOR.CABLE-MIL-OE-10M	sensor cable, MIL-connector, open cable ends, 85 °C, 10 m
039697525-0000-10	SENSOR.CABLE-MIL-OE-15M	sensor cable, MIL-connector, open cable ends, 85 °C, 15 m
039697533-0000-10	SENSOR.CABLE-MIL-OE-20M	sensor cable, MIL-connector, open cable ends, 85 °C, 20 m
039697541-0000-10	SENSOR.CABLE-MIL-OE-30M	sensor cable, MIL-connector, open cable ends, 85 °C, 30 m
085079715-0000-10	SENSOR.CABLE-MIL-OE-40M	sensor cable, MIL-connector, open cable ends, 85 °C, 40 m
085079731-0000-10	SENSOR.CABLE-MIL-OE-50M	sensor cable, MIL-connector, open cable ends, 85 °C, 50 m



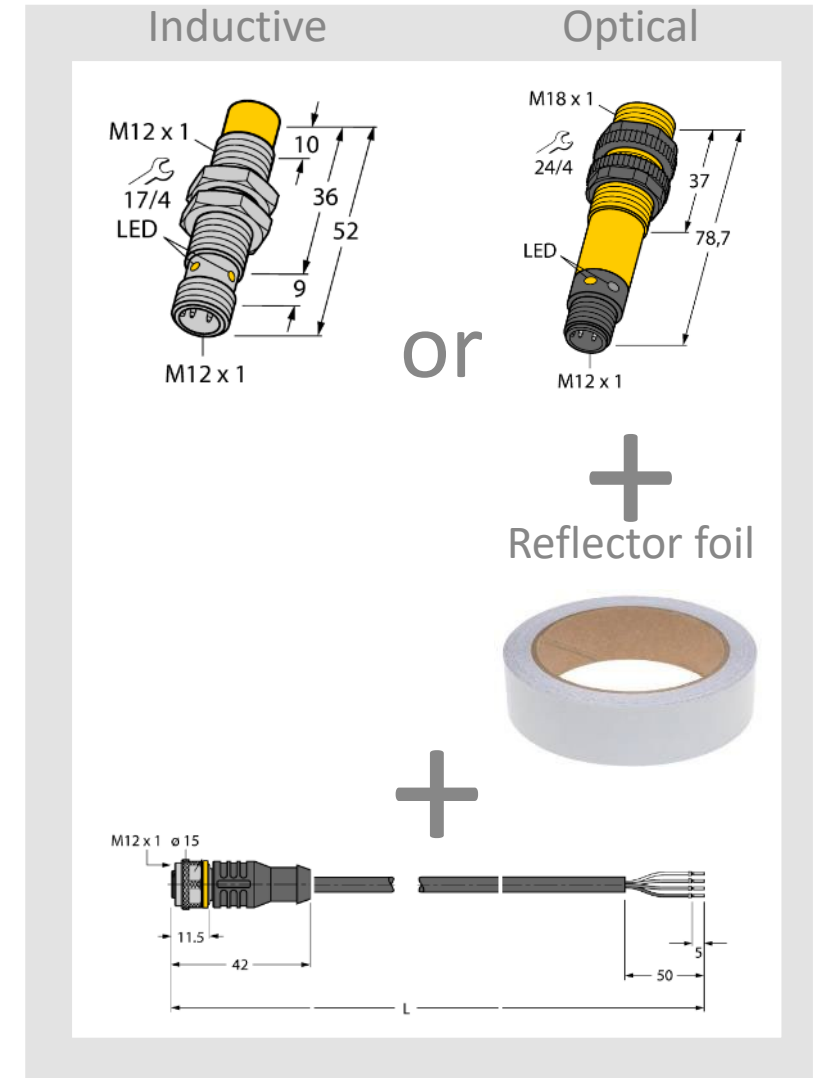
## Mounting adapters

EP1 number	EP1 designation	Description
039697592-0000-10	SENSOR.FIX-PLATE-M8	mounting shims, diameter: 25 mm, height: 13 mm, stainless steel, M8-thread
020961278-0000-10	SENSOR.PLATE-GLUE	Adhesive to glue mounting shims



## Speed Measurement

EP1 number	EP1 designation	Description
056784953-0000-10	DTECTX1.SENSOR-SPEED-INDU	Inductive speed sensor
056790082-0000-10	DTECTX1.SENSOR-SPEED-OPT	Optical speed sensor
056790139-0000-10	DTECTX1.SENSOR-SPEED-REFL	Reflector foil for optical speed sensor, 9 m
058299009-0000-10	DTECTX1.SENSOR-SPEED-CABLE-10M	Cable for speed sensor, 10 m, open cable ends





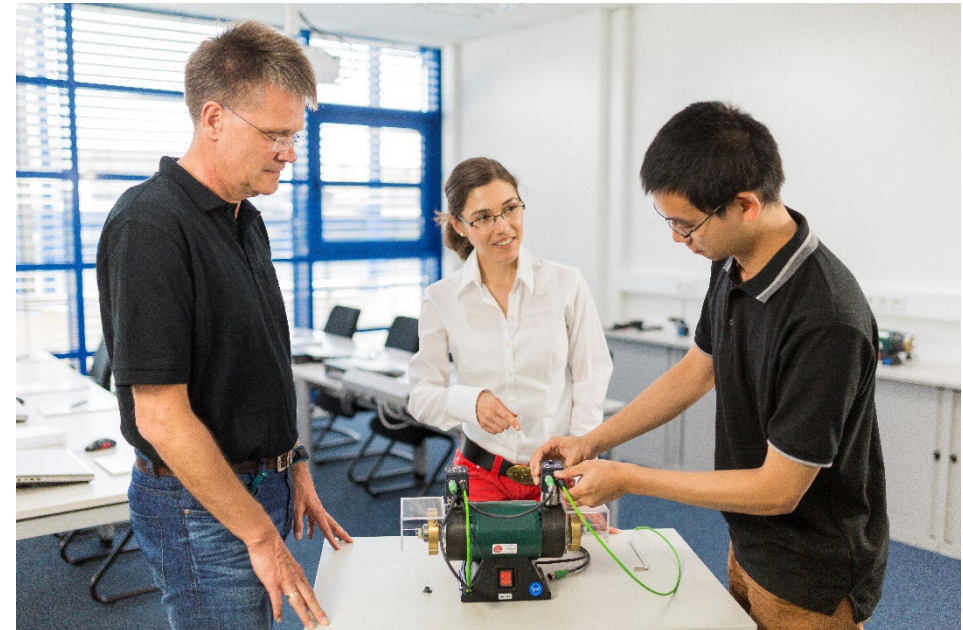
## Agenda

- 1 Technical details
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## Training 1: Introductory product training

- **Schaeffler SmartCheck and ProLink CMS with SmartUtility software**
  - Installation and commissioning of the SmartCheck and ProLink CMS
  - Overview of the core functions of the SmartCheck and ProLink CMS
  - Working with the standard configuration
  - First inspection of the measured data
  - Learning phase, alarm thresholds and alarms
  - Download of measured data
  - Exercises

**Duration: 1 day**



Planned specifications, subject to change!

## Training 2: Advanced product Training

- **Schaeffler SmartCheck and ProLink CMS with SmartUtility software**
  - Basic vibration theory
  - Basic signal processing
  - Machine vibrations caused by faults and defects
  - Condition monitoring
  - Vibration measurement with SmartCheck and ProLink CMS on machines with constant and variable speed
  - Analysis and assessment of vibration measurements
  - Exercises

Duration: 3 days

