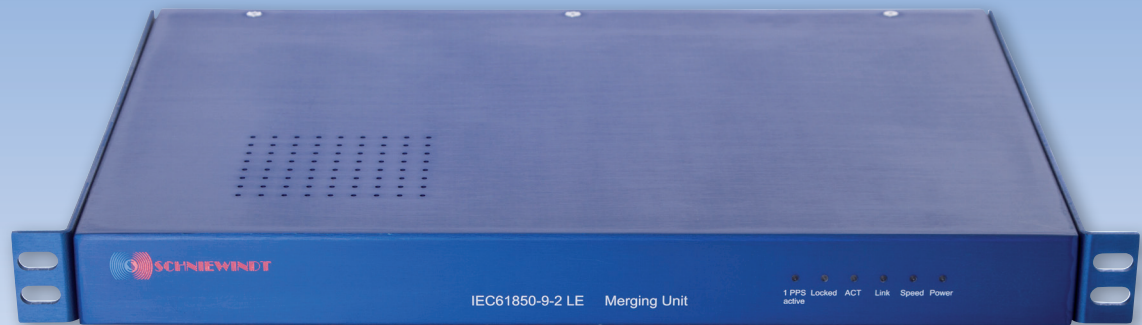




Unabhängigkeit = Ressourcen x Innovation

SCHNEIEWINDT

seit 1829 unter Strom



Stand Alone Merging Unit (SAMU) for conventional instrument transformers

Australia - New Zealand Distributor:
Rod Hughes Consulting Pty Ltd
+61 419 845 253
rgh@rodhughesconsulting.com



since 1829

IEC 61850 Merging Unit

The IEC 61850 Merging Unit is the optimal solution for Process Bus interfacing. It allows the consolidation of measurements made in the switchyard, feeding protection relays, meters and fault recorders located in the control room. The use of fiber-optical communications makes it inherently safe. By eliminating the majority of copper wiring, the Merging Unit addresses key technical and logistic challenges affecting the cost of substation design, construction and maintenance.

The robust and simple architecture of the open IEC 61850-9-2 process bus allows a mixture of relay, meter and fault-recording equipment manufacturers.

The IEC 61850 merging unit collects data from conventional instrument transformers and converts the analog signals into a digital protocol defined by IEC 61850-9-2. The Merging Unit transmits the converted signal through fiber-optics utilizing industrial grade Ethernet hardware. Due to the low electrical burden to the instrument transformers, the merging unit can be inserted into an operational substation without impacting existing installations.

This technology allows the customer to access process bus information at the substation and at higher level control and monitoring facilities.



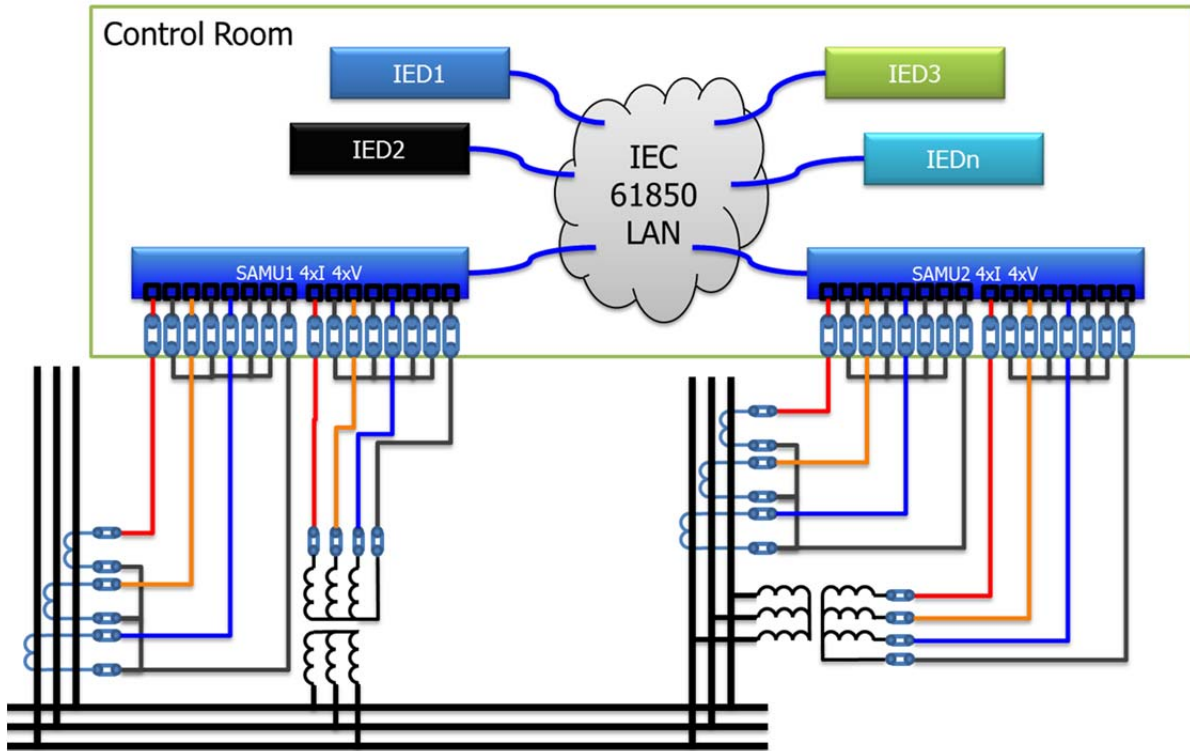
Applications

New, retrofit and parallel installations for:

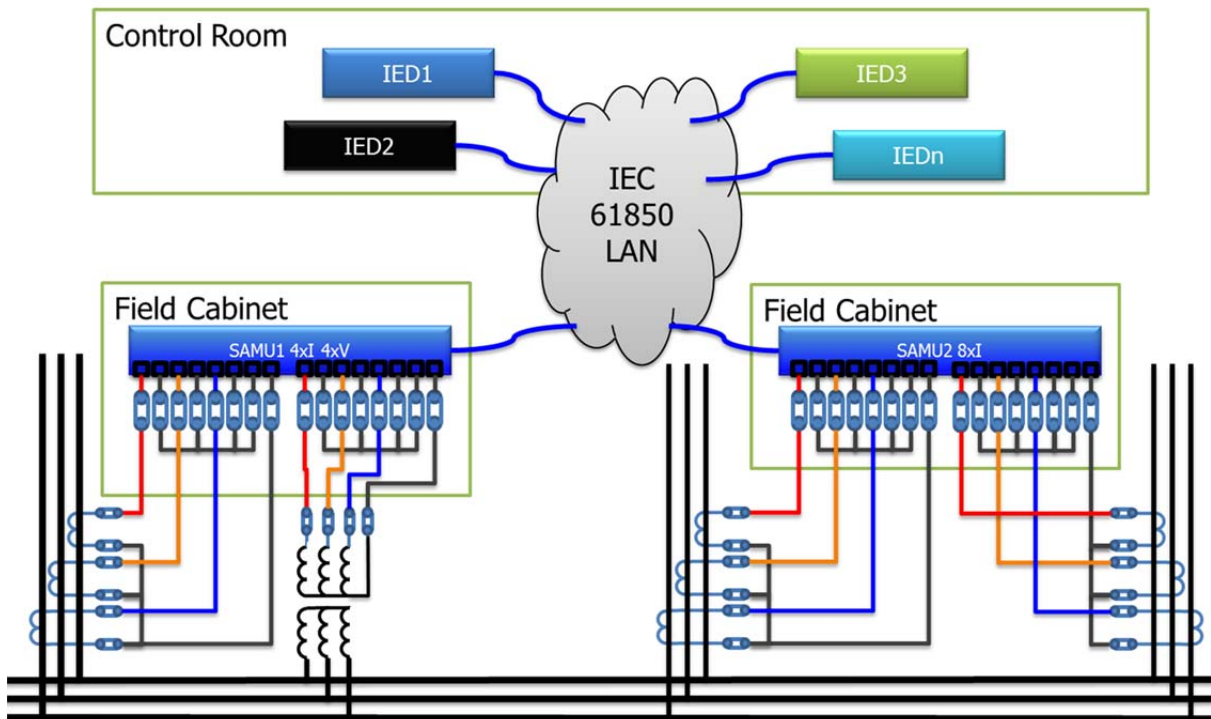
- Power generation
- Transmission and distribution systems
- Bus protection
- Transmission Line protection
- Transformer protection
- Generator protection
- Fault Recording
- Metering

Benefits

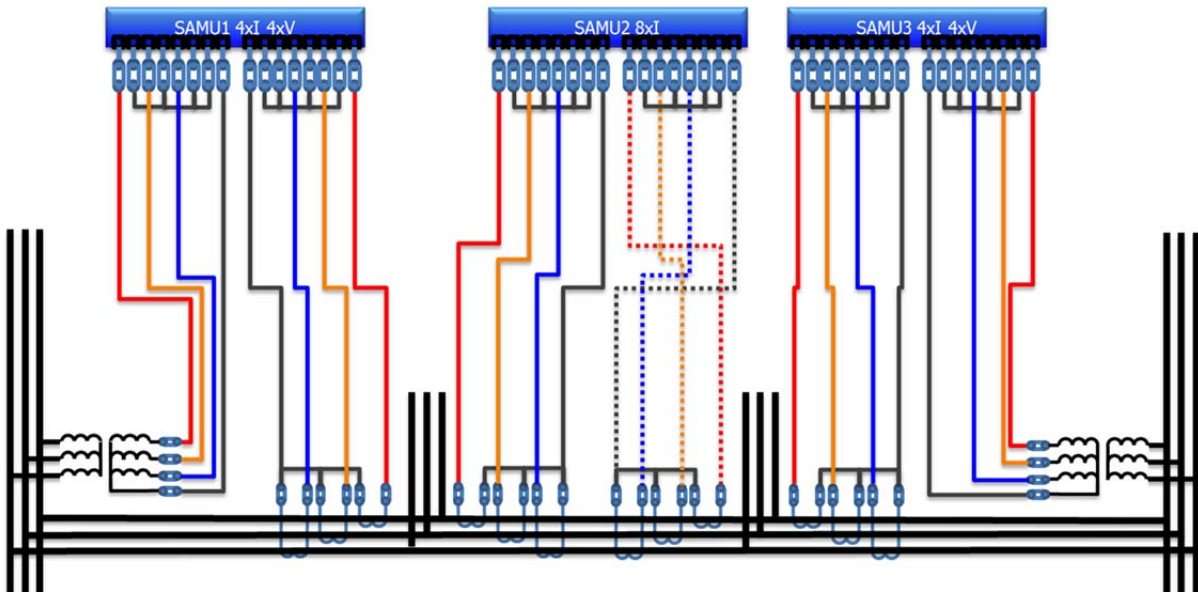
- Eliminates high energy primary electrical sensor signals in the control room
- Reduces electrical wiring
- Distributes signals safely through fiber-optics
- Provides low instrument transformer loading
- Allows retrofitting existing substation with minimal operational impact
- Utilizes manufacturer independent standardized protocol
- Employs industrial Ethernet based hardware
- Permits easy sharing of process data
- Is intrinsically cyber-safe



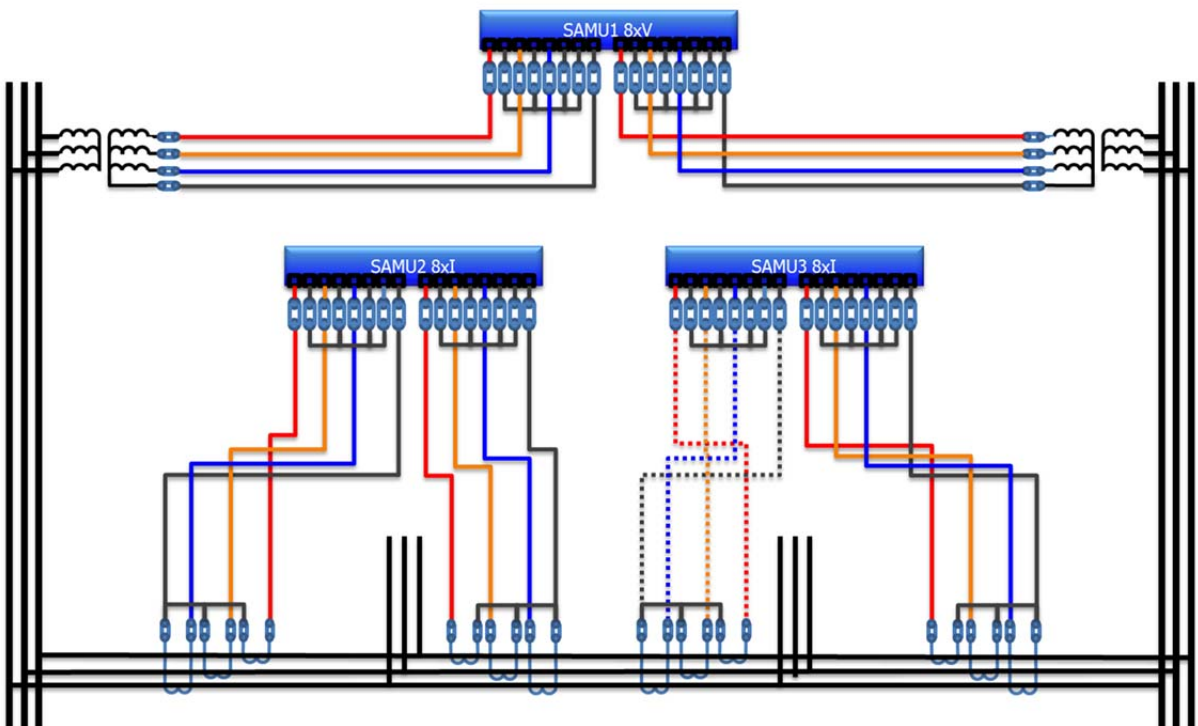
Example application: 2 off SAMU (4xI, 4xV) installed inside control room



Example application: 1 off SAMU (4xI, 4xV) and 1 off SAMU (8xI) outdoor units to minimise yard wiring



Example 1 1/2 Breaker application: 2 off SAMU (4xI, 4xV) and 1 off SAMU (8xI) per diameter



Example 1 1/2 Breaker application: 2 off SAMU (8xI) per diameter and 1 off SAMU (8xV)



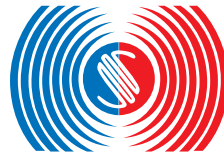
Detailed view of connectors



LED's displays the status of the SAMU

Specifications

Module size:	1U 84HP – 1.750 x 19.000 x 12.000 inches (19 ⁿ -inch rack dimension) (44,45 mm x 482,6 mm x 304,8 mm) Distance between mounting holes vertical: 0.625 inches (15,875 mm)
Installation:	Rack mount or customized side flange mount
Weight:	3,2 kg
Storage environment:	-40 to +80 °C (prevent humidity condensation)
Operating environment:	+15 to +45 °C (prevent humidity condensation) Optional: -40 to +85 °C (outdoor version)
Power Supply:	AC 85 - 250 V, 0,3 A, 50 - 60 Hz DC 88 - 270 V, 0,17 A
Input:	4 Current Inputs: Ratings: Option 1: 1 A nominal, 20 x range, < 0,2 VA Option 2: 5 A nominal, 20 x range, < 0,2 VA Remark: Range can be customized 4 Voltage Inputs: Ratings: 110 V nominal, 2 x range, < 0,2 VA
Output:	100 Base FX, Ethernet IEC 61850-9-2 LE protocol
Synchronization:	Optical 1PPS
Sampling rate:	80 Samples per cycle according IEC 61850-9-2 LE protocol
Optical fibers:	2 x 62,5 / 125 µm multimode with ST connectors



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SCHNIEWINDT

seit 1829 unter Strom



Founded 1829 in Germany, Schniewindt GmbH & Co. KG has been producing high and low voltage resistors since 1902 and is thus generally acknowledged as one pioneer of electrical resistor and high voltage sensor technology.

Schniewindt has an international reputation and can offer your company

- technically mature and proven designs for operation both outdoors and indoors
- high withstand against overvoltage
- low inductivity
- long term stability
- reliable design and technology
- precision



At Schniewindt, product development and product quality are an incorporate part of company policy. Tests on performance, insulation, extreme climate and earthquake capabilities – conducted by independent institutes such as KEMA and IABG – regularly confirm the high quality standards of our products.

The special CSN quality assurance system exceeding the requirements as per EN ISO 9001 guarantees a permanent in production monitoring process and ensures that our products reach you in perfect working order.

Individual consultation is a matter of course at Schniewindt.



Schniewindt GmbH & Co. KG

P.O. Box 1360
58805 Neuenrade
Germany

Schöntaler Weg 46
58809 Neuenrade
Germany

Phone: +49 (0) 2392 – 6 92 0

Fax: +49 (0) 2392 – 6 92 11

info@schniewindt.de

www.schniewindt.de

Australia - New Zealand Distributor:
Rod Hughes Consulting Pty Ltd
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rgh@rodhughesconsulting.com