

## EUROPROT+

DVEZ IEDs (inteligent electronic devices) are used for bay control unit applications in transmission and distribution network. They provides full control for any type of switchgears (included the interlocking functions) and other substation application. The DVEZ factory configurations implement the basic functionality, but you can add optional functions to increase functionality of the device.

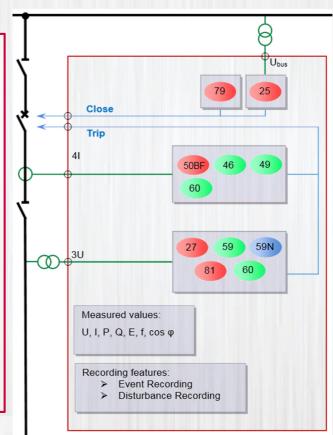
# Native IEC 61850 compatibility



#### **COLOR TFT TOUCHSCREEN**

VGA (320 x 240) 65536 color 3.5" (optionally 5.7") TFT display

- Flexible functionality to meet the requirement
- Solution for complete measurement (U, I, f, P, Q, S, power factor, energies etc.)
- Switchgear interlocking
- Optimized for connection to three-position disconnectors
- Including breaker failure protection
- Synchrocheck and synchroswitch function possibility
- Automatic reclosing function for HV/MV networks
- Load shedding
- Up to 128 binary inputs and 96 relay outputs
- Inputs for mA and temperature measuring
- Option for remote binary transmission
- Automatic voltage regulator (AVR) / tap change control



#### Communication possibilities:

- Front panel communication port via RJ-45 or EOB
- IEC61850 substation automation standard including horizontal GOOSE communication.
- IEC 60870-5-101, -103, -104 serial communication
- DNP 3.0, Modbus protocols
- SPA bus

### **DVEZ - CONFIGURATIONS**

Function scale			Configurations	
Name	IEC	ANSI	E1	E2
Circuit breaker control			✓	✓
Disconnector control			1	1
Voltage measurement				<b>√</b> *
Current measurement				<b>√</b> *
Line measurement				<b>√</b> *
Average and maximum				1.
measurement				<b>√</b> *
Fuse failure protection		60		<b>√</b> *
(VTS supervision)		00		•
Current unbalance		60		<b>√</b> *
protection				
Synchrocheck		25		Op.
Automatic reclosing			16_11	
function for HV/MV	0 - >1	79	Op.	Op.
networks				
Remote binary transmission			Op.	Op.
Remote Binary				
Communication			Op.	Op.
Circuit breaker wear				<b>J</b> *
Definite time overvoltage	U >,			•
protection	U >>	59		
Residual overvoltage	Uo>,			
protection	Uo >>	59N		Op.
Definite time	U <,	27		0
undervoltage protection	U <<			Op.
Automatic voltage				
regulator (AVR) / tap		90V		Op.
change control				
Load shedding				Op.
Thermal protection	T>	49		Op.

Version	Recommended application
E1	This configuration has no analog inputs, it is designed for simplified bay control functions to switch and supervise any kind of switchgears at the substation. All binary alarm or warning signals of the substation can be handled in this configuration.
E2	The configuration is designed to meet the requirements of a complex field control unit for transformer, line or other bays. The measurement functions are implemented, as well. The configuration can be supplemented with current and voltage based functions.



**Op.**: Optional

✓\*: If the HW permits, then basic





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#### **OTHER FEATURES**

- Use your web browser for complete device handling
- User friendly configuration and parameterizing software
- High capacity disturbance recorder (DRE) and event logging:
  - DRE for up to eight analogue signal channels and 32 digital signal channels.
  - Event recorder can store more than 5,000 events.
- Built-in self supervision
- Several mounting methods