



Upgrade your DBF, DBT, DRS to the advanced UR or UR^{Plus}

DBF, DBT, DRS - DIGITAL BREAKER FAILURE, SUPERVISION AND RECLOSER

The DBF is a digital breaker failure relay that provides phase and ground backup protection if the primary circuit breaker fails to clear a system fault.. The DBT is a digital relay that supervises the integrity of the breaker's tripping and closing coils. The DRS provides both single pole and three pole reclosing for one or two breakers. These devices are usually combined to created a Breaker Control Scheme.

The UR and UR^{Plus} product portfolio offered by GE Multilin has more options to meet your specific application needs. To take advantage of the latest in technology and the new developments, and to reduce hardware on Breaker Control Schemes, consider replacing the DBF, DBT and DRS with a single C60 or C90Plus system.

UR AND UR^{PLUS} FAMILY

- C60 Breaker Monitoring and Control System
- C90Plus Substation Automation Logic Controller

KEY BENEFITS

- Enhanced operation during external faults
- Flash memory for product field upgrade
- Multiple breakers and disconnect switches support
- Reduced installation space requirements through compact design - True convergence of protection, metering and control functions, multiple I/O options programmable pushbuttons and status LEDs, and communication interfaces
- Modular construction simplifying and reducing the stock of spare parts
- Advanced programmable logic for building customized schemes
- Embedded IEC61850 Protocol - No external protocol converters required
- Comprehensive metering - current, voltage, power, energy, frequency, phasors
- Customize protection and control functions with Programmable logic (FlexLogic™), custom time-current curves (FlexCurves™), and custom built protection and control functions (FlexElements™)
- Front panel display and keypad for local direct access, with a RS232 port for local PC access (USB port on UR^{Plus})
- Multi-language support - French, Chinese, Russian option
- Networking options - Ethernet cooper or fiber (optional redundancy), RS485
- Pilot channel options - Direct fiber for up to 150 km, RS422, G.703, direct to multiplexer fiber C37.94
- Multiple protocols - IEC61850, DNP 3.0 Level 2, DNP TCP/IP, Modbus RTU, Modbus TCP/IP, IEC 60870-5-104, HTTP, TFTP,SNTP, EGD
- Reduced relay to relay wiring and associated installation costs through high-speed inter-relay communications
- Dependable - Globally accepted, with performance backed up by more than a decade of field experience
- Reduce cooper wiring and labor cost of electrical substations through the IEC61850 Process Bus solution "HARFIBER"

C60 Breaker Monitoring and Control System

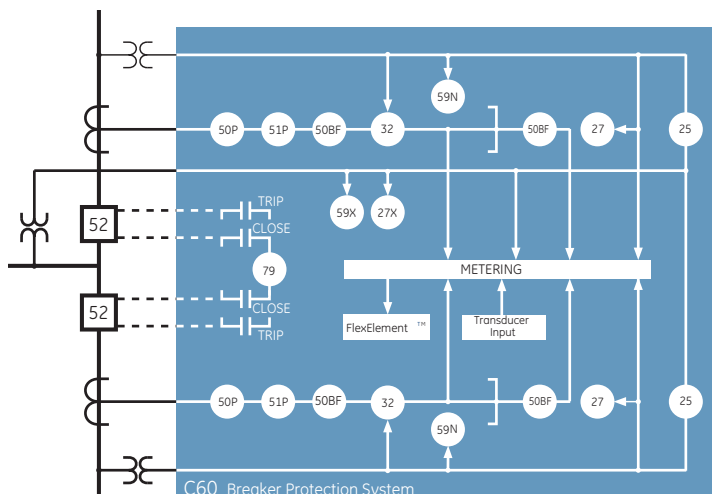


- Complete breaker control, monitoring and integration in a single platform
- Complete IEC 61850 Process Bus solution providing resource optimization and minimizing total P&C lifecycle costs
- Reduced wiring through the use of high-speed peer-to-peer communication for accepting Trip and Close commands from other relays
- Advanced automation capabilities for providing customized protection and control solutions
- Ambient temperature monitoring with alarming when outside temperature exceeds upper thresholds
- Stand-alone breaker monitoring and control
- Multiple breaker configuration control including Breaker-and-a-Half and Ring Bus
- Breaker monitoring - accumulated wear and operation time, number of operations, breaker flashover and trip coil monitoring

C60 Enhanced Front Panel



Functional Block Diagram



ANSI Device Numbers & Functions

Device Number	Function
25	Synchrocheck
27P	Phase Undervoltage
27X	Auxiliary Undervoltage
32	Directional Power
50G	Ground Instantaneous Overcurrent
50N	Neutral Instantaneous Overcurrent
50P	Phase Instantaneous Overcurrent
51G	Ground Time Overcurrent
51N	Neutral Time Overcurrent
51P	Phase Time Overcurrent
59N	Neutral Overvoltage
59X	Auxiliary Overvoltage
79	Autoreclose
50BF	Breaker Failure

