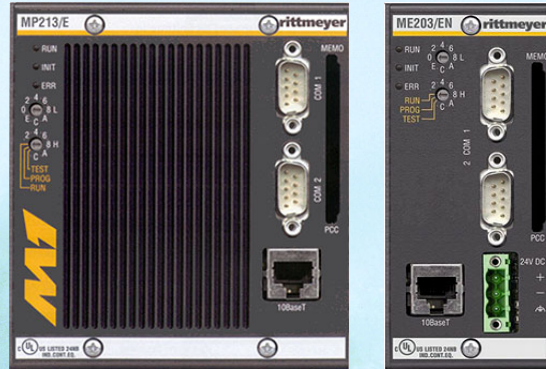


**New!**

# RIFLEX M1®

## Automation and Telecontrol System



### Performance

Intel processors ensure fast and reliable reactions

### Open Communication

Standard protocols enable the connection of other systems or equipment and increase flexibility

### Scalability

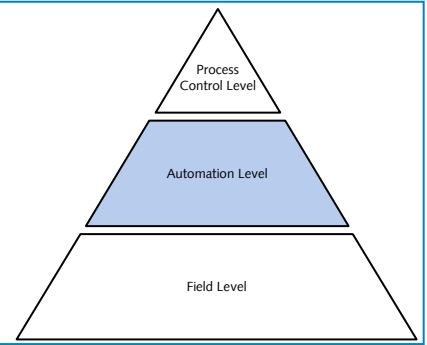
RIFLEX M1 can be variably extended and enlarged

### Compatibility

RIFLEX M1 is fully compatible with previous systems

# Arguments in favour of RIFLEX M1

- Continuous object-orientated system together with the RITOP® Process Control System and the metrology products from Rittmeyer AG
- Almost unlimited communication possibilities with telecontrol on bus systems and networks
- Optimised for the water and energy supply industries, power stations and hydrography as well as process and environmental technology
- Investment protection by means of continuous and compatible technology
- A planning tool for all control systems



## Hardware

### CPUs



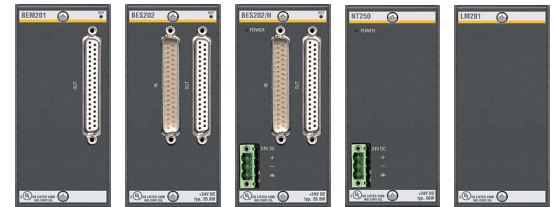
**RMMP213.E08** CPU P133MHz 8MB  
**RMMP213.E16** CPU P133MHz 16MB  
**RMME203.E** CPU 386/33MHz, 8MB  
**RMME203.EN** CPU with power supply 386/33MHz, 8MB

### Communication modules



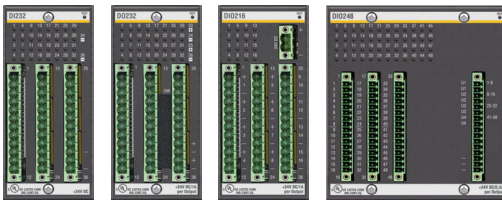
**RMDPM200** Profibus DP Master  
**RMRS204.R** Ser. IF 1xRS232, 3xRS232/422/485  
**RMHUB** Ethernet Hub RJ45, 4 Ports

### Bus expansion



**RMBEH201** Bus expansion Master  
**RMBS201** Bus expansion Slave  
**RMBS201.N** Bus expansion Slave with power supply  
**RMNT250** Power supply 24V, 45W  
**RMLM201** Spacer Slot protection

### Digital I/Os



**RMDI232** Digital Input Modul 32 Bit 24V / 48V  
**RMDO232** Digital Output Modul 32 Bit 24V / 48V  
**RMDIO216** Digital Input / Output Modul 16 I/O, 24V  
**RMDIO248** Digital I/O Modul 16I, 16O, 16I/O, 24V

### Analog I/Os



**RMAI202** Analog Input Modul 2 Kan. 0..20mA  
**RMAI204** Analog Input Modul 4 Kan. 0..20mA  
**RMAO202** Analog Output Modul 2 Kan. 0..20mA  
**RMAO204** Analog Output Modul 4 Kan. 0..20mA  
**RMAIO288** Analog In/Out Modul 8xIn, 8xOut

### FAST - bus expansion



**RMFM212** FAST-Bus-Master Fibre opt. 2x  
**RMFM211** FAST-Bus-Slave Fibre opt. 1x  
**RMFS211** FAST-Bus-Slave Fibre opt. 2x

## Software

### Integrated Telecontrol System

- Object orientated continuity between RIFLEX M1 and the Process Control System RITOP

### Processing

- Cyclic, calendar cyclic and spontaneous
- Logic and arithmetic functions
- Classical control functions
- Fuzzy logic
- Functional blocks and macros for our branches
- Cycle times up to 10ms (Pentium CPU)

### Programming

- Graphical programming according to IEC1131-3
- Object orientated
- Over 100 functional block types and macros
- Signal lists – Import
- On-line Test
- Documentation

### Diagnosis, Maintenance

- Remote diagnosis via Telnet (TCP/IP)
- Software download via FTP

### Communication: Protocols

- RIFLEX Telecontrol (DIN 19'244)
- IEC60870-5-103
- IEC60870-5-104 (TCP/IP)
- MODBUS RTU (Master / Slave)
- PROFIBUS DP (Master)
- Radio clock
- Process control system RITOP
- Generalized third party system connection

### Communication: Media

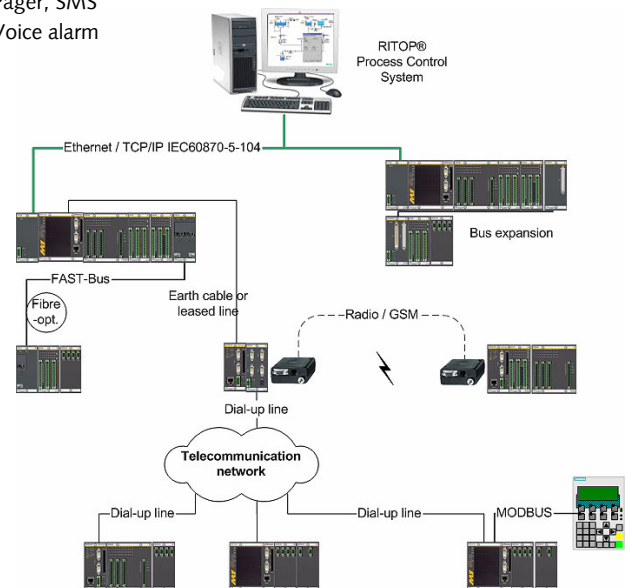
- Dedicated lines
  - Leased lines
  - Cu cable
  - Fibre-optics
  - Radio
  - Ethernet
- Switched lines
  - Analogue, ISDN
  - GSM
  - Infranet

### Local Operation

- Graphical touch panels
- Text orientated Operator Panels

### Alarm

- Pager, SMS
- Voice alarm



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