

Active field distributor AFD4 for PROFIBUS PA for foundation Fieldbus H1, 4 short circuit-proof spur lines with bounce protection logic Automatic bus termination for line and ring topology for extended temperature range Degree of protection IP66



| General information                              |                                       |
|--|---------------------------------------|
| Product function                                 |                                       |
| • Repeater function                              | No                                    |
| Supply voltage                                   |                                       |
| permissible range, lower limit (DC)              | 16 V                                  |
| permissible range, upper limit (DC)              | 32 V                                  |
| Reverse polarity protection                      | Yes; only in conjunction with FDC 157 |
| Overvoltage protection                           | No                                    |
| Input current                                    |                                       |
| Current consumption (in no-load operation), typ. | 24 mA; 54 mA at the end of the cable  |
| Current consumption, max.                        | 264 mA                                |
| Power loss                                       |                                       |
| Power loss, typ.                                 | 384 mW                                |
| Power loss, max.                                 | 3.2 W                                 |
| Interfaces                                       |                                       |
| PROFIBUS PA                                      |                                       |
| • Transmission rate, max.                        | 31.25 kbit/s                          |
| • Number of connectable PA field devices         | 4                                     |
| • Current output to PA field devices, max.       | 240 mA                                |
| • permissible current per spur line              | 60 mA                                 |
| Protocols  |                                       |
| PROFIBUS DP                                      | No                                    |
| PROFIBUS PA                                      | Yes                                   |
| AS-Interface                                     | No                                    |
| FOUNDATION Fieldbus H1                           | Yes                                   |
| Interrupts/diagnostics/status information        |                                       |
| Status indicator                                 | Yes                                   |
| Alarms   | No                                    |
| Diagnostics function                             | Yes                                   |
| Diagnostics indication LED                       |                                       |
| • Main line status                               | Yes                                   |
| • Main line failure                              | Yes                                   |
| • Spur line status/fault                         | Yes                                   |
| • automatic bus termination                      | Yes                                   |
| Potential separation                             |                                       |
| between main line and spur lines                 | No                                    |
| Degree and class of protection                   |                                       |
| IP degree of protection                          | IP66                                  |
| Standards, approvals, certificates               |                                       |
| Use in hazardous areas                           |                                       |

|   |                              |
|---|------------------------------|
| • ATEX Zone 1   | No                           |
| • ATEX Zone 21  | No                           |
| • ATEX Zone 2   | Yes                          |
| • ATEX Zone 22  | Yes                          |
| • FM Class I Zone 1   | No                           |
| • FM Class I Zone 2, Division 2   | Yes                          |
| <b>Ambient conditions</b>   |                              |
| Ambient temperature during operation  |                              |
| • min.  | -40 °C                       |
| • max.  | 70 °C                        |
| Ambient temperature during storage/transportation                               |                              |
| • min.  | -40 °C                       |
| • max.  | 85 °C                        |
| Relative humidity   |                              |
| • Operation, max.   | 95 %                         |
| <b>connection method</b>  |                              |
| connection method / main cable / header   |                              |
| • number of connections / for PROFIBUS PA main cable                            | 2                            |
| • design of the electrical connection / for PROFIBUS PA main cable              | Screw terminal block         |
| • design of the thread / of cable screw connection / for PROFIBUS PA main cable | M16                          |
| • design of the PROFIBUS PA main cable  | Type A                       |
| • diameter / of the PROFIBUS PA main cable / connectable / minimum              | 4 mm                         |
| • diameter / of the PROFIBUS PA main cable / connectable / maximum              | 9 mm                         |
| • connectable conductor cross-section / of the PROFIBUS PA main cable / minimum | 0.2 mm <sup>2</sup>          |
| • connectable conductor cross-section / of the PROFIBUS PA main cable / maximum | 2.5 mm <sup>2</sup>          |
| • product function / of the PROFIBUS PA main cable / automatic bus termination  | Yes                          |
| • output current / for PROFIBUS PA main cable / maximum permissible             | 1 A                          |
| connection method / spur line / header  |                              |
| • Number of spur lines  | 4                            |
| • design of the electrical connection / for PROFIBUS PA spur line               | Screw terminal block         |
| • design of the thread / of cable screw connection / for PROFIBUS PA spur line  | M16                          |
| • Type of cable   | Type A                       |
| • Cable diameter, min.  | 4 mm                         |
| • Cable diameter, max.  | 9 mm                         |
| • Conductor cross-section, min.   | 0.2 mm <sup>2</sup>          |
| • Conductor cross-section, max.   | 2.5 mm <sup>2</sup>          |
| • total current output to field devices, max.                                   | 240 mA                       |
| • Number of connectable field devices   | 4                            |
| • Current limitation per field device, max.                                     | 60 mA                        |
| • No-load voltage, max.   | 30 V                         |
| • Short-circuit current (test current); max.                                    | 6 mA                         |
| • intrinsically safe according to FISCO model                                   | No                           |
| • Debounce logic  | Yes                          |
| <b>Dimensions</b>   |                              |
| Width   | 220 mm                       |
| Height  | 120 mm; without screw glands |
| Depth   | 83 mm                        |
| <b>Weights</b>  |                              |
| Weight, approx.   | 2 000 g                      |

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