

# RSD-GW3-Ex2.DPE

## PROFIBUS Gateway

Pepperl+Fuchs RSD-GW3-Ex2.DPE is a PROFIBUS DP V1 gateway for the intrinsically safe Remote I/O system. It links the internal backplane and field modules to a PROFIBUS host while supporting HART communication and documented media redundancy.

| IDENTITY       | VERIFIED VALUE   |
|----------------|------------------|
| Manufacturer   | Pepperl+Fuchs    |
| Complete model | RSD-GW3-Ex2.DPE  |
| Product role   | PROFIBUS Gateway |
| System family  | Remote I/O       |

### Document scope

Exact identity, verified technical data, applications, precautions, model-specific FAQ and controlled acceptance records.

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## Technical Specifications

| PARAMETER               | VERIFIED VALUE                           |
|-------------------------|------------------------------------------|
| Product identity        | RSD-GW3-Ex2.DPE                          |
| Function                | PROFIBUS DP V1 gateway with HART support |
| System                  | Intrinsically safe Remote I/O            |
| Installation areas      | Zones 1, 2 and 22                        |
| Fieldbus protection     | Ex ib IIC                                |
| PROFIBUS rate           | 9.6 to 1500 kbit/s                       |
| Address range           | 1 to 99 by switch                        |
| Gateways on IS bus      | Up to 10                                 |
| I/O modules per gateway | Up to 8                                  |

| PARAMETER             | VERIFIED VALUE                                  |
|-----------------------|-------------------------------------------------|
| Internal cycle time   | 1.6 ms                                          |
| Rated supply          | 8.88 to 9.5 V                                   |
| Power consumption     | 8.5 W                                           |
| Status indication     | PWR, INT, EXT and RED LEDs                      |
| Media redundancy      | PROFIBUS supported                              |
| Configuration         | PACTware                                        |
| Hot swap              | Permitted in Zone 1 under documented conditions |
| Degree of protection  | IP20; separate enclosure required               |
| Operating temperature | -20 to 70 degrees C                             |

### Engineering boundary

Confirm the exact RSD-GW3-Ex2.DPE marking, approved Ex power supply, backplane modules, PROFIBUS address, line termination, grounding and enclosure protection before commissioning.

# Functions and Applications

### PROFIBUS DP V1 link

Connects the intrinsically safe remote I/O station to the configured PROFIBUS host.

### HART signal handling

Transfers documented HART information through the gateway architecture.

### Media redundancy

Supports the documented redundant PROFIBUS connection arrangement.

### Zone 1 hot swap

Allows controlled module exchange under the manufacturer conditions for Zone 1.

## Common Applications

| APPLICATION                  | ENGINEERING CONTEXT                                                                     |
|------------------------------|-----------------------------------------------------------------------------------------|
| Hazardous-area remote I/O    | Links approved remote I/O modules from Zones 1, 2 or 22 to the host.                    |
| PROFIBUS process integration | Exchanges cyclic data, configuration and diagnostics with a DP V1 master.               |
| HART asset access            | Carries supported HART information for connected field instruments.                     |
| Redundant fieldbus station   | Uses the documented media-redundant PROFIBUS arrangement for installed process systems. |

### Controlled acceptance duty

Confirm identity, interfaces, configured values and functional response against the installed-system record before release.

## Engineering Precautions

| NO. | PRECAUTION                                                                         |
|-----|------------------------------------------------------------------------------------|
| 1   | Verify the complete RSD-GW3-Ex2.DPE marking and Ex approval.                       |
| 2   | Use only the documented RSD2-PSD2-Ex4.34 or RSA6-PSD-Ex4.34 supply arrangement.    |
| 3   | Confirm the hazardous-area classification and enclosure protection.                |
| 4   | Record the PROFIBUS address and termination-switch positions.                      |
| 5   | Verify every installed backplane and I/O module against the approved design.       |
| 6   | Preserve fieldbus shielding, grounding and intrinsically safe separation.          |
| 7   | Follow the manufacturer hot-swap conditions for Zone 1.                            |
| 8   | Complete host communication, diagnostics, redundancy and I/O tests before release. |

## Model-Specific FAQ - Part 1

| QUESTION                                                       | ANSWER                                                                                    |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| What is Pepperl+Fuchs RSD-GW3-Ex2.DPE?                         | RSD-GW3-Ex2.DPE is a PROFIBUS DP V1 gateway for the intrinsically safe Remote I/O system. |
| Which zones support Pepperl+Fuchs RSD-GW3-Ex2.DPE?             | The official data sheet lists Zones 1, 2 and 22.                                          |
| How many I/O modules can Pepperl+Fuchs RSD-GW3-Ex2.DPE manage? | It supports up to eight I/O modules through the backplane.                                |
| Which PROFIBUS rates support Pepperl+Fuchs RSD-GW3-Ex2.DPE?    | The documented range is 9.6 to 1500 kbit/s.                                               |

## Related Products

| MODEL                          | APTER POWER PAGE                                    |
|--------------------------------|-----------------------------------------------------|
| Pepperl+Fuchs HD2-DM-B         | <a href="#">View Pepperl+Fuchs HD2-DM-B</a>         |
| Pepperl+Fuchs MBHC-FB-4R       | <a href="#">View Pepperl+Fuchs MBHC-FB-4R</a>       |
| Pepperl+Fuchs KFD2-SOT3-EX1.LB | <a href="#">View Pepperl+Fuchs KFD2-SOT3-EX1.LB</a> |
| Allen-Bradley 1747-SN          | <a href="#">View Allen-Bradley 1747-SN</a>          |

## Model-Specific FAQ - Part 2

| QUESTION                                                              | ANSWER                                                                                                            |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| How is the Pepperl+Fuchs RSD-GW3-Ex2.DPE address set?                 | The address is set from 1 to 99 using the gateway switches.                                                       |
| Does Pepperl+Fuchs RSD-GW3-Ex2.DPE support HART?                      | Yes. The manufacturer data sheet lists HART signal support.                                                       |
| Does Pepperl+Fuchs RSD-GW3-Ex2.DPE support PROFIBUS media redundancy? | Yes. Media redundancy is a documented gateway feature.                                                            |
| What confirms Pepperl+Fuchs RSD-GW3-Ex2.DPE commissioning?            | Verify power, address, termination, host communication, redundancy, diagnostics and every configured I/O channel. |

## Related Products and Release

| MODEL                    | APTER POWER PAGE                              |
|--------------------------|-----------------------------------------------|
| Allen-Bradley 1756-DHRIO | <a href="#">View Allen-Bradley 1756-DHRIO</a> |
| Siemens 6GK1543-1AA01    | <a href="#">View Siemens 6GK1543-1AA01</a>    |
| Siemens CTI 2572         | <a href="#">View Siemens CTI 2572</a>         |
| GE IC670PBI001           | <a href="#">View GE IC670PBI001</a>           |

### MANUFACTURER SOURCE RECORDS

1. Pepperl+Fuchs RSD-GW3-Ex2.DPE Product Data Sheet, document 122622\_ENG
2. Pepperl+Fuchs Remote I/O engineering requirements for the RSD gateway family

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