



10197E00

## Ex Plug Connector mini CLIX Series 8591

- For use in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- Available as
  - flange socket
  - device plug
  - plug / coupler
- Material
  - polyamide
  - brass, nickel-plated
  - stainless steel
- Connection options
  - crimp / leads
  - spring clamp
- Can be used for bus-applications up to 100 MBit/s
- Suitable for rugged industrial conditions
  - IP 66 / IP 68
  - ambient temperature - 55 °C ... + 75 °C

STAHL

The new Ex plug-and-socket connector „mini CLIX“ from R. STAHL is especially uncomplicated and can be used in a multitude of applications.

Now it's possible to carry installation and maintenance tasks in Zones 1 & 2, 21 & 22 without first obtaining „hot works“ permissions.

Hot Swap - plug-in and plug-out while energized - is now even possible for non-intrinsically-safe circuits.

Can be used even for fieldbus installation because of the high transmission rate of 100 MBit/s.

# Zones 1 & 2, 21 & 22

## miniCLIX pull - twist - pull

### Maintenance-friendly

#### Handling

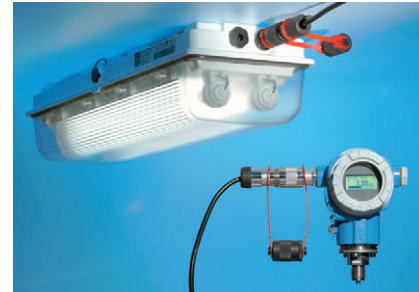
- safe, fast disconnection under load
- no specialist personnel required
- no hot work permission required
- Coded to prevent confusion

#### Cable terminal

- crimp terminal or spring clamp terminal
- direct connection via led-out single conductors
- option for connection of armoured cables

#### Example applications

- power connection for explosion protected devices
- plug-in signal and data line
- pre-wiring of power supply systems
- installation and assembly
- expansion, exchange and conversion
- modernisation
- maintenance and servicing



10713E00

### Bus-enabled

#### Data transmission

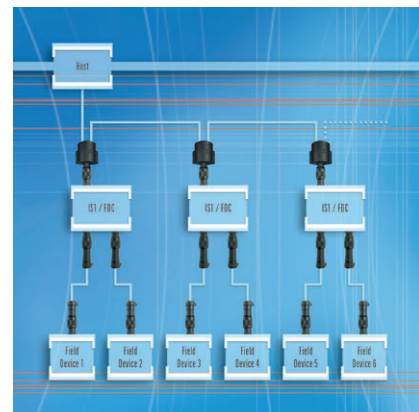
- up to 100 MBit/s
- perfectly shielded
- option for additional power supply

#### Advantages

- suitable for high data rates
- can be installed and maintained conveniently
- no need to switch off the entire fieldbus system in the case of repair
- easy modification and conversion
- y-adaptor for looping through data and power supply lines

#### Example applications

- particularly suitable for non-intrinsically safe fieldbus applications
- FF H1-Bus, Profibus PA, Profibus DP
- Industrial Ethernet



10708E00

### Flexible

#### Flexibility

- clear, fast installation
- modifications to the connections or terminals can be made at any time
- option for extension of electrical installations during operation
- easy disconnection of individual areas

#### Installation

- simply screw into existing openings and wire

#### Example applications

- socket outlets and junction boxes
- direct connection to Ex d housings (CUBEx)
- setting up patch boards in hazardous areas



10703E00

### Portable

#### Advantages

- variable and changeable
- safe
- fast
- simple and poses no problems

#### Example applications

- connection lines and extension cables
- connection of transportable apparatus in hazardous areas
- in conjunction with servicing interfaces
- installation in the SolConeX plug and socket connector



10704E00

## Selection table

| Version                                                                                                           | Material                                                                                                                                  | Number of pins                                                                                                  | Voltage                    | Coding                                  | Ordering code    |                  |                  |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------|------------------|------------------|------------------|
| <br>Coupler, plastic<br>10203E00 | Plastic                                                                                                                                   | 2 P + $\frac{1}{2}$                                                                                             | 110 V AC                   | 04 h                                    | 8591/13.-04-0.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 230 V AC                   | 06 h                                    | 8591/13.-06-0.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 24 V AC                    | 12 h                                    | 8591/13.-12-0.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           | 4 P <sup>*)</sup>                                                                                               | Bus                        | 02 h                                    | 8591/13.-02-0.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           | 4 P                                                                                                             | 24 V DC                    | 08 h                                    | 8591/13.-08-0.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           | 4 P + $\frac{1}{2}$ <sup>**) (**)</sup>                                                                         | Bus + Shield               | 01 h                                    | 8591/431-01-0.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 24 V DC + Shield           | 05 h                                    | 8591/43.-05-0.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 230 V AC + Shield          | 10 h                                    | 8591/43.-10-0.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           | <br>Coupler, metal<br>10200E00 | Brass                      | 2 P + $\frac{1}{2}$                     | 110 V AC         | 04 h             | 8591/13.-04-3.0. |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 |                            |                                         | 230 V AC         | 06 h             | 8591/13.-06-3.0. |
| 24 V AC                                                                                                           | 12 h                                                                                                                                      |                                                                                                                 |                            |                                         | 8591/13.-12-3.0. |                  |                  |
| 4 P <sup>*)</sup>                                                                                                 | Bus                                                                                                                                       |                                                                                                                 |                            | 02 h                                    | 8591/13.-02-3.0. |                  |                  |
| 4 P                                                                                                               | 24 V DC                                                                                                                                   |                                                                                                                 |                            | 08 h                                    | 8591/13.-08-3.0. |                  |                  |
| 4 P + $\frac{1}{2}$ <sup>**) (**)</sup>                                                                           | Bus + Shield                                                                                                                              |                                                                                                                 |                            | 01 h                                    | 8591/431-01-3.0. |                  |                  |
|                                                                                                                   | 24 V DC + Shield                                                                                                                          |                                                                                                                 |                            | 05 h                                    | 8591/43.-05-3.0. |                  |                  |
|                                                                                                                   | 230 V AC + Shield                                                                                                                         |                                                                                                                 |                            | 10 h                                    | 8591/43.-10-3.0. |                  |                  |
| Stainless steel                                                                                                   | 2 P + $\frac{1}{2}$                                                                                                                       |                                                                                                                 |                            | 110 V AC                                | 04 h             | 8591/13.-04-1.0. |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 230 V AC                   | 06 h                                    | 8591/13.-06-1.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 24 V AC                    | 12 h                                    | 8591/13.-12-1.0. |                  |                  |
|                                                                                                                   | 4 P <sup>*)</sup>                                                                                                                         |                                                                                                                 | Bus                        | 02 h                                    | 8591/13.-02-1.0. |                  |                  |
|                                                                                                                   | 4 P                                                                                                                                       |                                                                                                                 | 24 V DC                    | 08 h                                    | 8591/13.-08-1.0. |                  |                  |
|                                                                                                                   | 4 P + $\frac{1}{2}$ <sup>**) (**)</sup>                                                                                                   |                                                                                                                 | Bus + Shield               | 01 h                                    | 8591/431-01-1.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 24 V DC + Shield           | 05 h                                    | 8591/43.-05-1.0. |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 230 V AC + Shield          | 10 h                                    | 8591/43.-10-1.0. |                  |                  |
|                                                                                                                   | <br>Coupler, metal,<br>for armoured cables<br>06470E00 |                                                                                                                 | Brass, for armoured cables | 2 P + $\frac{1}{2}$ <sup>**) (**)</sup> | 110 V AC         | 04 h             | 8591/13.-04-4.01 |
| 230 V AC                                                                                                          |                                                                                                                                           |                                                                                                                 |                            |                                         | 06 h             | 8591/13.-06-4.01 |                  |
| 24 V AC                                                                                                           |                                                                                                                                           | 12 h                                                                                                            |                            |                                         | 8591/13.-12-4.01 |                  |                  |
| 4 P                                                                                                               |                                                                                                                                           | Bus                                                                                                             |                            | 02 h                                    | 8591/131-02-4.01 |                  |                  |
| 4 P <sup>**) (**)</sup>                                                                                           |                                                                                                                                           | 24 V DC                                                                                                         |                            | 08 h                                    | 8591/13.-08-4.01 |                  |                  |
| 4 P + $\frac{1}{2}$ <sup>**) (**)</sup>                                                                           |                                                                                                                                           | Bus + Shield                                                                                                    |                            | 01 h                                    | 8591/431-01-4.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           | 24 V DC + Shield                                                                                                |                            | 05 h                                    | 8591/43.-05-4.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           | 230 V AC + Shield                                                                                               |                            | 10 h                                    | 8591/43.-10-4.01 |                  |                  |
| Stainless steel, for armoured cables                                                                              |                                                                                                                                           | 2 P + $\frac{1}{2}$ <sup>**) (**)</sup>                                                                         |                            | 110 V AC                                | 04 h             | 8591/13.-04-2.01 |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 230 V AC                   | 06 h                                    | 8591/13.-06-2.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 24 V AC                    | 12 h                                    | 8591/13.-12-2.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           | 4 P                                                                                                             | Bus                        | 02 h                                    | 8591/13.-02-2.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           | 4 P <sup>**) (**)</sup>                                                                                         | 24 V DC                    | 08 h                                    | 8591/13.-08-2.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           | 4 P + $\frac{1}{2}$ <sup>**) (**)</sup>                                                                         | Bus + Shield               | 01 h                                    | 8591/431-01-2.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 24 V DC + Shield           | 05 h                                    | 8591/43.-05-2.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 | 230 V AC + Shield          | 10 h                                    | 8591/43.-10-2.01 |                  |                  |
|                                                                                                                   |                                                                                                                                           |                                                                                                                 |                            |                                         |                  |                  |                  |
|                                                                                                                   |                                                                                                                                           | Add. to ordering code                                                                                           |                            |                                         |                  |                  |                  |
| Connection                                                                                                        | Crimp 1,5 mm <sup>2</sup> <sup>***)</sup>                                                                                                 |                                                                                                                 |                            |                                         | 8591/..1-... ..  |                  |                  |
|                                                                                                                   | Crimp 2,5 mm <sup>2</sup> <sup>***)</sup>                                                                                                 |                                                                                                                 |                            |                                         | 8591/..2-... ..  |                  |                  |
|                                                                                                                   | Spring clamp                                                                                                                              |                                                                                                                 |                            |                                         | 8591/..6-... ..  |                  |                  |
|                                                                                                                   | <sup>*)</sup> only crimp 1,5 mm <sup>2</sup> and spring clamp connection possible                                                         |                                                                                                                 |                            |                                         |                  |                  |                  |
|                                                                                                                   | <sup>**) only crimp 1,5 mm<sup>2</sup> and crimp 2,5 mm<sup>2</sup> connection possible</sup>                                             |                                                                                                                 |                            |                                         |                  |                  |                  |
|                                                                                                                   | <sup>***)</sup> metal version with cables 1,5 mm <sup>2</sup> resp. 2,5 mm <sup>2</sup> ;<br>cable length approx 30 cm                    |                                                                                                                 |                            |                                         |                  |                  |                  |
| Locking mechanism                                                                                                 | without (standard)                                                                                                                        |                                                                                                                 |                            |                                         | 8591/... ..0..   |                  |                  |
|                                                                                                                   | with                                                                                                                                      |                                                                                                                 |                            |                                         | 8591/... ..9..   |                  |                  |
| Cable entry                                                                                                       | unarmoured cables:                                                                                                                        |                                                                                                                 | Ø 4 mm ... 7,5 mm          |                                         | 8591/... ..1     |                  |                  |
|                                                                                                                   | armoured cables:                                                                                                                          |                                                                                                                 | Ø 12 mm ... 19 mm          |                                         |                  |                  |                  |
|                                                                                                                   | Ø 7,5 mm ... 11 mm                                                                                                                        |                                                                                                                 |                            |                                         | 8591/... ..2     |                  |                  |
| Note                                                                                                              | Further information about codings please see table „Proposed coding of connectors“                                                        |                                                                                                                 |                            |                                         |                  |                  |                  |

STAHL

| Selection table                                                                                                |                                                                                                                                     |                             |                                            |                             |                             |                  |                  |                  |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------|-----------------------------|-----------------------------|------------------|------------------|------------------|
| Version                                                                                                        | Material                                                                                                                            | Number of pins              | Voltage                                    | Coding                      | Ordering code               |                  |                  |                  |
| <br>Plug, plastic<br>10208E00 | Plastic                                                                                                                             | 2 P + ⊥                     | 110 V AC                                   | 04 h                        | 8591/17.-04-0.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     |                             | 230 V AC                                   | 06 h                        | 8591/17.-06-0.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     |                             | 24 V AC                                    | 12 h                        | 8591/17.-12-0.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     | 4 P <sup>*)</sup>           | Bus                                        | 02 h                        | 8591/17.-02-0.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 4 P                         | 24 V DC                     | 08 h             | 8591/17.-08-0.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 4 P + ⊥ <sup>**) (**)</sup> | Bus + Shield                | 01 h             | 8591/471-01-0.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 24 V DC + Shield            | 05 h             | 8591/47.-05-0.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 230 V AC + Shield           | 10 h             | 8591/47.-10-0.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             |                             |                  |                  |                  |
| <br>Plug, metal<br>10209E00   | Brass                                                                                                                               | 2 P + ⊥                     | 110 V AC                                   | 04 h                        | 8591/17.-04-3.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     |                             | 230 V AC                                   | 06 h                        | 8591/17.-06-3.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     |                             | 24 V AC                                    | 12 h                        | 8591/17.-12-3.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     | 4 P <sup>*)</sup>           | Bus                                        | 02 h                        | 8591/17.-02-3.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 4 P                         | 24 V DC                     | 08 h             | 8591/17.-08-3.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 4 P + ⊥ <sup>**) (**)</sup> | Bus + Shield                | 01 h             | 8591/471-01-3.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 24 V DC + Shield            | 05 h             | 8591/47.-05-3.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 230 V AC + Shield           | 10 h             | 8591/47.-10-3.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             |                             |                  |                  |                  |
|                                                                                                                |                                                                                                                                     | Stainless steel             | 2 P + ⊥                                    | 110 V AC                    | 04 h                        | 8591/17.-04-1.0. |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 230 V AC                    | 06 h                        | 8591/17.-06-1.0. |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 24 V AC                     | 12 h                        | 8591/17.-12-1.0. |                  |                  |
|                                                                                                                | 4 P <sup>*)</sup>                                                                                                                   |                             | Bus                                        | 02 h                        | 8591/17.-02-1.0.            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 4 P                         | 24 V DC                     | 08 h             | 8591/17.-08-1.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 4 P + ⊥ <sup>**) (**)</sup> | Bus + Shield                | 01 h             | 8591/471-01-1.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 24 V DC + Shield            | 05 h             | 8591/47.-05-1.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 230 V AC + Shield           | 10 h             | 8591/47.-10-1.0. |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             |                             |                  |                  |                  |
|                                                                                                                | <br>Plug, metal, for armoured cables<br>06468E00 |                             | Brass, for armoured cables                 | 2 P + ⊥ <sup>**) (**)</sup> | 110 V AC                    | 04 h             | 8591/17.-04-4.01 |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 230 V AC                    | 06 h             | 8591/17.-06-4.01 |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 24 V AC                     | 12 h             | 8591/17.-12-4.01 |                  |
|                                                                                                                |                                                                                                                                     | 4 P                         |                                            | Bus                         | 02 h                        | 8591/17.-02-4.01 |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 4 P <sup>**) (**)</sup>     | 24 V DC          | 08 h             | 8591/17.-08-4.01 |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 4 P + ⊥ <sup>**) (**)</sup> | Bus + Shield     | 01 h             | 8591/471-01-4.01 |
| 24 V DC + Shield                                                                                               |                                                                                                                                     |                             |                                            |                             |                             | 05 h             | 8591/47.-05-4.01 |                  |
| 230 V AC + Shield                                                                                              |                                                                                                                                     |                             |                                            |                             |                             | 10 h             | 8591/47.-10-4.01 |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             |                             |                  |                  |                  |
| Stainless steel, for armoured cables                                                                           |                                                                                                                                     | 2 P + ⊥ <sup>**) (**)</sup> |                                            | 110 V AC                    | 04 h                        | 8591/17.-04-2.01 |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 230 V AC                    | 06 h                        | 8591/17.-06-2.01 |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 24 V AC                     | 12 h                        | 8591/17.-12-2.01 |                  |                  |
|                                                                                                                |                                                                                                                                     | 4 P                         | Bus                                        | 02 h                        | 8591/17.-02-2.01            |                  |                  |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 4 P <sup>**) (**)</sup>     | 24 V DC                     | 08 h             | 8591/17.-08-2.01 |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            | 4 P + ⊥ <sup>**) (**)</sup> | Bus + Shield                | 01 h             | 8591/471-01-2.01 |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 24 V DC + Shield            | 05 h             | 8591/47.-05-2.01 |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             | 230 V AC + Shield           | 10 h             | 8591/47.-10-2.01 |                  |
|                                                                                                                |                                                                                                                                     |                             |                                            |                             |                             |                  |                  |                  |
|                                                                                                                |                                                                                                                                     | Add. to ordering code       |                                            |                             |                             |                  |                  |                  |
|                                                                                                                |                                                                                                                                     | Connection                  | Crimp 1,5 mm <sup>2</sup> <sup>****)</sup> |                             |                             |                  | 8591/..1-... ..  |                  |
|                                                                                                                |                                                                                                                                     |                             | Crimp 2,5 mm <sup>2</sup> <sup>****)</sup> |                             |                             |                  | 8591/..2-... ..  |                  |
| Spring clamp                                                                                                   |                                                                                                                                     |                             |                                            | 8591/..6-... ..             |                             |                  |                  |                  |
| <sup>*)</sup> only crimp 1,5 mm <sup>2</sup> and spring clamp connection possible                              |                                                                                                                                     |                             |                                            |                             |                             |                  |                  |                  |
| <sup>**) (**)</sup> only crimp 1,5 mm <sup>2</sup> and crimp 2,5 mm <sup>2</sup> connection possible           |                                                                                                                                     |                             |                                            |                             |                             |                  |                  |                  |
|                                                                                                                | <sup>****)</sup> metal version with cables 1,5 mm <sup>2</sup> resp. 2,5 mm <sup>2</sup> ; cable length approx 30 cm                |                             |                                            |                             |                             |                  |                  |                  |
| Locking mechanism                                                                                              | without (standard)                                                                                                                  |                             |                                            |                             | 8591/... ..0..              |                  |                  |                  |
|                                                                                                                | with                                                                                                                                |                             |                                            |                             | 8591/... ..9..              |                  |                  |                  |
| Cable entry                                                                                                    | unarmoured cables:                                                                                                                  | Ø 4 mm ... 7,5 mm           |                                            |                             | 8591/... ..1                |                  |                  |                  |
|                                                                                                                | armoured cables:                                                                                                                    | Ø 12 mm ... 19 mm           |                                            |                             |                             |                  |                  |                  |
|                                                                                                                | Ø 7,5 mm ... 11 mm                                                                                                                  |                             |                                            |                             | 8591/... ..2                |                  |                  |                  |
| Note                                                                                                           | Further information about codings please see table „Proposed coding of connectors“                                                  |                             |                                            |                             |                             |                  |                  |                  |



Selection table

| Version                                                                                                                 | Material                                                                                                    | Number of pins                                                                                                        | Voltage                        | Coding           | Ordering code    |      |                  |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------------|------|------------------|
| <br>10201E00<br>Flange socket, plastic | Plastic                                                                                                     | 2 P + ⊥                                                                                                               | 110 V AC                       | 04 h             | 8591/18.-04-0.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 230 V AC                       | 06 h             | 8591/18.-06-0.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 24 V AC                        | 12 h             | 8591/18.-12-0.01 |      |                  |
|                                                                                                                         |                                                                                                             | 4 P                                                                                                                   | Bus                            | 02 h             | 8591/181-02-0.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 24 V DC                        | 08 h             | 8591/18.-08-0.01 |      |                  |
|                                                                                                                         |                                                                                                             | 4 P + ⊥                                                                                                               | Bus + Shield                   | 01 h             | 8591/481-01-0.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 24 V DC + Shield               | 05 h             | 8591/48.-05-0.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 230 V AC + Shield              | 10 h             | 8591/48.-10-0.01 |      |                  |
|                                                                                                                         |                                                                                                             | <br>10204E00<br>Flange socket, metal | Brass                          | 2 P + ⊥          | 110 V AC         | 04 h | 8591/18.-04-3.01 |
|                                                                                                                         |                                                                                                             |                                                                                                                       |                                |                  | 230 V AC         | 06 h | 8591/18.-06-3.01 |
| 24 V AC                                                                                                                 | 12 h                                                                                                        |                                                                                                                       |                                |                  | 8591/18.-12-3.01 |      |                  |
| 4 P                                                                                                                     | Bus                                                                                                         |                                                                                                                       |                                | 02 h             | 8591/181-02-3.01 |      |                  |
|                                                                                                                         | 24 V DC                                                                                                     |                                                                                                                       |                                | 08 h             | 8591/18.-08-3.01 |      |                  |
| 4 P + ⊥                                                                                                                 | Bus + Shield                                                                                                |                                                                                                                       |                                | 01 h             | 8591/481-01-3.01 |      |                  |
|                                                                                                                         | 24 V DC + Shield                                                                                            |                                                                                                                       |                                | 05 h             | 8591/48.-05-3.01 |      |                  |
|                                                                                                                         | 230 V AC + Shield                                                                                           |                                                                                                                       |                                | 10 h             | 8591/48.-10-3.01 |      |                  |
|                                                                                                                         | Stainless steel                                                                                             |                                                                                                                       |                                | 2 P + ⊥          | 110 V AC         | 04 h | 8591/18.-04-1.01 |
|                                                                                                                         |                                                                                                             |                                                                                                                       |                                |                  | 230 V AC         | 06 h | 8591/18.-06-1.01 |
|                                                                                                                         |                                                                                                             | 24 V AC                                                                                                               | 12 h                           |                  | 8591/18.-12-1.01 |      |                  |
|                                                                                                                         |                                                                                                             | 4 P                                                                                                                   | Bus                            | 02 h             | 8591/181-02-1.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 24 V DC                        | 08 h             | 8591/18.-08-1.01 |      |                  |
|                                                                                                                         |                                                                                                             | 4 P + ⊥                                                                                                               | Bus + Shield                   | 01 h             | 8591/481-01-1.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 24 V DC + Shield               | 05 h             | 8591/48.-05-1.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 230 V AC + Shield              | 10 h             | 8591/48.-10-1.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | Brass with thread<br>1/2" NPT  | 2 P + ⊥          | 110 V AC         | 04 h | 8591/18.-04-6.01 |
|                                                                                                                         |                                                                                                             |                                                                                                                       |                                |                  | 230 V AC         | 06 h | 8591/18.-06-6.01 |
| 24 V AC                                                                                                                 | 12 h                                                                                                        |                                                                                                                       |                                |                  | 8591/18.-12-6.01 |      |                  |
| 4 P                                                                                                                     | Bus                                                                                                         |                                                                                                                       |                                | 02 h             | 8591/181-02-6.01 |      |                  |
|                                                                                                                         | 24 V DC                                                                                                     |                                                                                                                       |                                | 08 h             | 8591/18.-08-6.01 |      |                  |
| 4 P + ⊥                                                                                                                 | Bus + Shield                                                                                                |                                                                                                                       |                                | 01 h             | 8591/481-01-6.01 |      |                  |
|                                                                                                                         | 24 V DC + Shield                                                                                            |                                                                                                                       |                                | 05 h             | 8591/48.-05-6.01 |      |                  |
|                                                                                                                         | 230 V AC + Shield                                                                                           |                                                                                                                       |                                | 10 h             | 8591/48.-10-6.01 |      |                  |
|                                                                                                                         | Stainless steel<br>with thread<br>1/2" NPT                                                                  |                                                                                                                       |                                | 2 P + ⊥          | 110 V AC         | 04 h | 8591/18.-04-5.01 |
|                                                                                                                         |                                                                                                             |                                                                                                                       |                                |                  | 230 V AC         | 06 h | 8591/18.-06-5.01 |
|                                                                                                                         |                                                                                                             | 24 V AC                                                                                                               | 12 h                           |                  | 8591/18.-12-5.01 |      |                  |
|                                                                                                                         |                                                                                                             | 4 P                                                                                                                   | Bus                            | 02 h             | 8591/181-02-5.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 24 V DC                        | 08 h             | 8591/18.-08-5.01 |      |                  |
|                                                                                                                         |                                                                                                             | 4 P + ⊥                                                                                                               | Bus + Shield                   | 01 h             | 8591/481-01-5.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 24 V DC + Shield               | 05 h             | 8591/48.-05-5.01 |      |                  |
|                                                                                                                         |                                                                                                             |                                                                                                                       | 230 V AC + Shield              | 10 h             | 8591/48.-10-5.01 |      |                  |
|                                                                                                                         |                                                                                                             | Add. to ordering code                                                                                                 |                                |                  |                  |      |                  |
|                                                                                                                         |                                                                                                             | Connection                                                                                                            | Crimp 1,5 mm <sup>2</sup> ***) |                  |                  |      | 8591/..1-...-... |
| Crimp 2,5 mm <sup>2</sup> ***)                                                                                          |                                                                                                             |                                                                                                                       |                                | 8591/..2-...-... |                  |      |                  |
|                                                                                                                         | ***) metal version with cables 1,5 mm <sup>2</sup> resp. 2,5 mm <sup>2</sup> ;<br>cable length approx 30 cm |                                                                                                                       |                                |                  |                  |      |                  |
| Locking mechanism                                                                                                       | without (standard)                                                                                          |                                                                                                                       |                                |                  | 8591/.....0..    |      |                  |
|                                                                                                                         | with                                                                                                        |                                                                                                                       |                                |                  | 8591/.....9..    |      |                  |
| Note                                                                                                                    | Further information about codings please see table „Proposed coding of connectors“                          |                                                                                                                       |                                |                  |                  |      |                  |

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| Selection table                                                                                                                                                      |                                                                                                                                               |                                            |               |              |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------|--------------|------------------|
| Version                                                                                                                                                              | Material                                                                                                                                      | Number of pins                             | Voltage       | Coding       | Ordering code    |
| <br>10202E00<br>Device plug, metal,<br>for Ex d enclosures<br>with volume > 2 litre | Brass                                                                                                                                         | 2 P + $\perp$                              | 110 V AC      | 04 h         | 8591/16.-04-3.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 230 V AC      | 06 h         | 8591/16.-06-3.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 24 V AC       | 12 h         | 8591/16.-12-3.01 |
|                                                                                                                                                                      |                                                                                                                                               | 4 P                                        | Bus           | 02 h         | 8591/161-02-3.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 24 V DC       | 08 h         | 8591/16.-08-3.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 4 P + $\perp$ | Bus + Shield | 01 h             |
|                                                                                                                                                                      |                                                                                                                                               | 24 V DC + Shield                           |               | 05 h         | 8591/46.-05-3.01 |
|                                                                                                                                                                      |                                                                                                                                               | 230 V AC + Shield                          |               | 10 h         | 8591/46.-10-3.01 |
|                                                                                                                                                                      |                                                                                                                                               | Stainless steel                            | 2 P + $\perp$ | 110 V AC     | 04 h             |
|                                                                                                                                                                      | 230 V AC                                                                                                                                      |                                            |               | 06 h         | 8591/16.-06-1.01 |
|                                                                                                                                                                      | 24 V AC                                                                                                                                       |                                            |               | 12 h         | 8591/16.-12-1.01 |
|                                                                                                                                                                      | 4 P                                                                                                                                           |                                            | Bus           | 02 h         | 8591/161-02-1.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 24 V DC       | 08 h         | 8591/16.-08-1.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 4 P + $\perp$ | Bus + Shield | 01 h             |
|                                                                                                                                                                      | 24 V DC + Shield                                                                                                                              |                                            |               | 05 h         | 8591/46.-05-1.01 |
|                                                                                                                                                                      | 230 V AC + Shield                                                                                                                             |                                            |               | 10 h         | 8591/46.-10-1.01 |
|                                                                                                                                                                      | Brass with thread<br>1/2" NPT                                                                                                                 |                                            | 2 P + $\perp$ | 110 V AC     | 04 h             |
|                                                                                                                                                                      |                                                                                                                                               | 230 V AC                                   |               | 06 h         | 8591/16.-06-6.01 |
|                                                                                                                                                                      |                                                                                                                                               | 24 V AC                                    |               | 12 h         | 8591/16.-12-6.01 |
|                                                                                                                                                                      |                                                                                                                                               | 4 P                                        | Bus           | 02 h         | 8591/161-02-6.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 24 V DC       | 08 h         | 8591/16.-08-6.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 4 P + $\perp$ | Bus + Shield | 01 h             |
|                                                                                                                                                                      |                                                                                                                                               | 24 V DC + Shield                           |               | 05 h         | 8591/46.-05-6.01 |
|                                                                                                                                                                      |                                                                                                                                               | 230 V AC + Shield                          |               | 10 h         | 8591/46.-10-6.01 |
|                                                                                                                                                                      |                                                                                                                                               | Stainless steel<br>with thread<br>1/2" NPT | 2 P + $\perp$ | 110 V AC     | 04 h             |
|                                                                                                                                                                      | 230 V AC                                                                                                                                      |                                            |               | 06 h         | 8591/16.-06-5.01 |
|                                                                                                                                                                      | 24 V AC                                                                                                                                       |                                            |               | 12 h         | 8591/16.-12-5.01 |
|                                                                                                                                                                      | 4 P                                                                                                                                           |                                            | Bus           | 02 h         | 8591/161-02-5.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 24 V DC       | 08 h         | 8591/16.-08-5.01 |
|                                                                                                                                                                      |                                                                                                                                               |                                            | 4 P + $\perp$ | Bus + Shield | 01 h             |
|                                                                                                                                                                      | 24 V DC + Shield                                                                                                                              |                                            |               | 05 h         | 8591/46.-05-5.01 |
|                                                                                                                                                                      | 230 V AC + Shield                                                                                                                             |                                            |               | 10 h         | 8591/46.-10-5.01 |
| Add. to ordering code                                                                                                                                                |                                                                                                                                               |                                            |               |              |                  |
| Connection                                                                                                                                                           | Crimp 1,5 mm <sup>2</sup> ***)                                                                                                                |                                            |               |              | 8591/..1-... ..  |
|                                                                                                                                                                      | Crimp 2,5 mm <sup>2</sup> ***)<br>***) metal version with cables 1,5 mm <sup>2</sup> resp. 2,5 mm <sup>2</sup> ;<br>cable length approx 30 cm |                                            |               |              | 8591/..2-... ..  |
| Locking mechanism                                                                                                                                                    | without (standard)                                                                                                                            |                                            |               |              | 8591/...-...-0.. |
|                                                                                                                                                                      | with                                                                                                                                          |                                            |               |              | 8591/...-...-9.. |
| Note                                                                                                                                                                 | Further information about codings please see table „Proposed coding of connectors“                                                            |                                            |               |              |                  |

**Selection table**

| Version                                                                                                               | Material                                                                                                    | Number of pins                                                                                                                                                        | Voltage           | Coding           | Ordering code    |                  |                  |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|------------------|------------------|------------------|
| <br>Device plug, plastic<br>10205E00 | Plastic                                                                                                     | 2 P + ⊥                                                                                                                                                               | 110 V AC          | 04 h             | 8591/19.-04-0.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 230 V AC          | 06 h             | 8591/19.-06-0.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 24 V AC           | 12 h             | 8591/19.-12-0.01 |                  |                  |
|                                                                                                                       |                                                                                                             | 4 P                                                                                                                                                                   | Bus               | 02 h             | 8591/191-02-0.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 24 V DC           | 08 h             | 8591/19.-08-0.01 |                  |                  |
|                                                                                                                       |                                                                                                             | 4 P + ⊥                                                                                                                                                               | Bus + Shield      | 01 h             | 8591/491-01-0.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 24 V DC + Shield  | 05 h             | 8591/49.-05-0.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 230 V AC + Shield | 10 h             | 8591/49.-10-0.01 |                  |                  |
|                                                                                                                       |                                                                                                             | <br>Device plug , metal,<br>for Ex d enclosures<br>with volume < 2 litre<br>10202E00 | Brass             | 2 P + ⊥          | 110 V AC         | 04 h             | 8591/19.-04-3.01 |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       |                   |                  | 230 V AC         | 06 h             | 8591/19.-06-3.01 |
| 24 V AC                                                                                                               | 12 h                                                                                                        |                                                                                                                                                                       |                   |                  | 8591/19.-12-3.01 |                  |                  |
| 4 P                                                                                                                   | Bus                                                                                                         |                                                                                                                                                                       |                   | 02 h             | 8591/191-02-3.01 |                  |                  |
|                                                                                                                       | 24 V DC                                                                                                     |                                                                                                                                                                       |                   | 08 h             | 8591/19.-08-3.01 |                  |                  |
| 4 P + ⊥                                                                                                               | Bus + Shield                                                                                                |                                                                                                                                                                       |                   | 01 h             | 8591/491-01-3.01 |                  |                  |
|                                                                                                                       | 24 V DC + Shield                                                                                            |                                                                                                                                                                       | 05 h              | 8591/49.-05-3.01 |                  |                  |                  |
|                                                                                                                       | 230 V AC + Shield                                                                                           |                                                                                                                                                                       | 10 h              | 8591/49.-10-3.01 |                  |                  |                  |
| Stainless steel                                                                                                       | 2 P + ⊥                                                                                                     |                                                                                                                                                                       | 110 V AC          | 04 h             | 8591/19.-04-1.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 230 V AC          | 06 h             | 8591/19.-06-1.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 24 V AC           | 12 h             | 8591/19.-12-1.01 |                  |                  |
|                                                                                                                       | 4 P                                                                                                         |                                                                                                                                                                       | Bus               | 02 h             | 8591/191-02-1.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 24 V DC           | 08 h             | 8591/19.-08-1.01 |                  |                  |
|                                                                                                                       | 4 P + ⊥                                                                                                     |                                                                                                                                                                       | Bus + Shield      | 01 h             | 8591/491-01-1.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 24 V DC + Shield  | 05 h             | 8591/49.-05-1.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 230 V AC + Shield | 10 h             | 8591/49.-10-1.01 |                  |                  |
|                                                                                                                       | Brass with thread<br>1/2" NPT                                                                               |                                                                                                                                                                       | 2 P + ⊥           | 110 V AC         | 04 h             | 8591/19.-04-6.01 |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       |                   | 230 V AC         | 06 h             | 8591/19.-06-6.01 |                  |
|                                                                                                                       |                                                                                                             | 24 V AC                                                                                                                                                               |                   | 12 h             | 8591/19.-12-6.01 |                  |                  |
|                                                                                                                       |                                                                                                             | 4 P                                                                                                                                                                   | Bus               | 02 h             | 8591/191-02-6.01 |                  |                  |
| 24 V DC                                                                                                               |                                                                                                             |                                                                                                                                                                       | 08 h              | 8591/19.-08-6.01 |                  |                  |                  |
| 4 P + ⊥                                                                                                               |                                                                                                             | Bus + Shield                                                                                                                                                          | 01 h              | 8591/491-01-6.01 |                  |                  |                  |
|                                                                                                                       |                                                                                                             | 24 V DC + Shield                                                                                                                                                      | 05 h              | 8591/49.-05-6.01 |                  |                  |                  |
|                                                                                                                       |                                                                                                             | 230 V AC + Shield                                                                                                                                                     | 10 h              | 8591/49.-10-6.01 |                  |                  |                  |
| Stainless steel<br>with thread<br>1/2" NPT                                                                            |                                                                                                             | 2 P + ⊥                                                                                                                                                               | 110 V AC          | 04 h             | 8591/19.-04-5.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 230 V AC          | 06 h             | 8591/19.-06-5.01 |                  |                  |
|                                                                                                                       |                                                                                                             |                                                                                                                                                                       | 24 V AC           | 12 h             | 8591/19.-12-5.01 |                  |                  |
|                                                                                                                       |                                                                                                             | 4 P                                                                                                                                                                   | Bus               | 02 h             | 8591/191-02-5.01 |                  |                  |
|                                                                                                                       | 24 V DC                                                                                                     |                                                                                                                                                                       | 08 h              | 8591/19.-08-5.01 |                  |                  |                  |
|                                                                                                                       | 4 P + ⊥                                                                                                     | Bus + Shield                                                                                                                                                          | 01 h              | 8591/491-01-5.01 |                  |                  |                  |
|                                                                                                                       |                                                                                                             | 24 V DC + Shield                                                                                                                                                      | 05 h              | 8591/49.-05-5.01 |                  |                  |                  |
|                                                                                                                       |                                                                                                             | 230 V AC + Shield                                                                                                                                                     | 10 h              | 8591/49.-10-5.01 |                  |                  |                  |
|                                                                                                                       |                                                                                                             | Add. to ordering code                                                                                                                                                 |                   |                  |                  |                  |                  |
| Connection                                                                                                            | Crimp 1,5 mm <sup>2</sup> ***)                                                                              |                                                                                                                                                                       |                   |                  | 8591/..1-...-... |                  |                  |
|                                                                                                                       | Crimp 2,5 mm <sup>2</sup> ***)                                                                              |                                                                                                                                                                       |                   |                  | 8591/..2-...-... |                  |                  |
|                                                                                                                       | ***) metal version with cables 1,5 mm <sup>2</sup> resp. 2,5 mm <sup>2</sup> ;<br>cable length approx 30 cm |                                                                                                                                                                       |                   |                  |                  |                  |                  |
| Locking mechanism                                                                                                     | without (standard)                                                                                          |                                                                                                                                                                       |                   |                  | 8591/.....0..    |                  |                  |
|                                                                                                                       | with                                                                                                        |                                                                                                                                                                       |                   |                  | 8591/.....9..    |                  |                  |
| Note                                                                                                                  | Further information about codings please see table „Proposed coding of connectors“                          |                                                                                                                                                                       |                   |                  |                  |                  |                  |

**STAHL**

## Technical Data

|                            |                                                                                                                                                             |                                                      |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Explosion protection       |                                                                                                                                                             |                                                      |
| Gas explosion protection   | ⊕ II 2 G EEx de IIC T6                                                                                                                                      |                                                      |
| Dust explosion protection  | ⊕ II 2 D IP 66 T52 °C                                                                                                                                       |                                                      |
| Certificates               | PTB 03 ATEX 1097 X                                                                                                                                          |                                                      |
| Rated values               |                                                                                                                                                             |                                                      |
| AC voltage                 | 250 V                                                                                                                                                       |                                                      |
| AC current                 | 10 A                                                                                                                                                        |                                                      |
| Frequency                  | 50 / 60 Hz                                                                                                                                                  |                                                      |
| cos φ                      | 0.9                                                                                                                                                         |                                                      |
| DC voltage                 | 60 V                                                                                                                                                        |                                                      |
| DC current                 | 2.5 A                                                                                                                                                       |                                                      |
| L/R                        | 10 ms                                                                                                                                                       |                                                      |
| Switching capacity         | EN 60 947-4                                                                                                                                                 | EN 61 984                                            |
|                            | AC 3: 250 V / 1 A                                                                                                                                           | AC: 250 V / 10 A                                     |
|                            | DC 3: 60 V / 0,5 A                                                                                                                                          | DC: 60 V / 2,5 A                                     |
| Fuse capacity              |                                                                                                                                                             |                                                      |
| without thermal protection | 10 A                                                                                                                                                        |                                                      |
| with thermal protection    | 20 A gL                                                                                                                                                     |                                                      |
| Transmission rate          | up to 100 MBit/s, (acc. to TIA/EIA-568-B.2 Category 5e)                                                                                                     |                                                      |
| Frequency range            | 0 MHz ... 100 MHz (Fast Ethernet compatible)                                                                                                                |                                                      |
| Enclosure material         | brass, nickel-plated; plastic, polyamide resin; stainless steel AISI 316L                                                                                   |                                                      |
| Connectors                 | Coupler / Plug                                                                                                                                              |                                                      |
|                            | crimp 1.5 mm <sup>2</sup> *)                                                                                                                                | 0.75 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>         |
|                            | crimp 2.5 mm <sup>2</sup> *)                                                                                                                                | 1.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>          |
|                            | spring clamp                                                                                                                                                | 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (flexible) |
|                            |                                                                                                                                                             | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (solid)  |
|                            | Flange socket / Device plug                                                                                                                                 |                                                      |
|                            | crimp 1.5 mm <sup>2</sup> *)                                                                                                                                | 0.75 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>         |
|                            | crimp 2.5 mm <sup>2</sup> *)                                                                                                                                | 1.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>          |
|                            | with leads (30 cm;<br>only for metal version)                                                                                                               | 1.5 mm <sup>2</sup> ; 2.5 mm <sup>2</sup>            |
|                            | Flange socket / Device plug made of metal                                                                                                                   |                                                      |
|                            | Version for armoured cables                                                                                                                                 |                                                      |
|                            | outer insulation                                                                                                                                            | Ø 12 mm ... 21 mm                                    |
|                            | inner insulation                                                                                                                                            | Ø 8.5 mm ... 16 mm                                   |
|                            | armouring                                                                                                                                                   | up to 1.5 mm                                         |
|                            | PE-bracket connection                                                                                                                                       |                                                      |
|                            | crimp 1.5 mm <sup>2</sup> *)                                                                                                                                | 0.75 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>         |
|                            | crimp 2.5 mm <sup>2</sup> *)                                                                                                                                | 1.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>          |
|                            | *) only with special crimping tool, see accessories;<br>alternative: soldering 0.34 mm <sup>2</sup> ... 1 mm <sup>2</sup> (with heat shrink tubing)         |                                                      |
| Cable entries              | 8591/...-...1                                                                                                                                               | Ø 4 mm ... 7.5 mm                                    |
|                            | 8591/...-...2                                                                                                                                               | Ø 7.5 mm ... 11 mm                                   |
| Mounting                   | Flange socket / device plug simply screw into existing openings and wire                                                                                    |                                                      |
|                            | - plastic version: thread M 20 x 1.5                                                                                                                        |                                                      |
|                            | - metal version: thread M 20 x 1.5 or 1/2" NPT                                                                                                              |                                                      |
| Degree of protection       | IP 66 / IP 68 (2 m water column, 1 hour)<br>acc. to EN 60529<br>(with protective caps closed and secured as well as properly fitted and secured components) |                                                      |
| Safety class               | I - fulfilled by metal versions<br>II - fulfilled by plastic versions<br>acc. to EN 60598                                                                   |                                                      |
| Ambient temperature        | - 55 °C ... + 40 °C (with rated current 10 A)<br>- 55 °C ... + 75 °C (with rated current 2 A)                                                               |                                                      |
| Storage temperature        | - 55 °C ... + 80 °C (in original packaging)                                                                                                                 |                                                      |

**Technical Data**

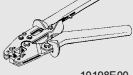
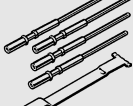
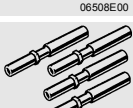
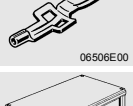
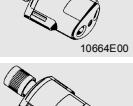
| Test torque                                           |                                   | Plastic          | Metal (Ex e) | Metal (Ex d)             |
|-------------------------------------------------------|-----------------------------------|------------------|--------------|--------------------------|
|                                                       | Screw-in threads (M 20 x 1.5)     |                  |              |                          |
|                                                       | angled adaptor                    | 2.5 Nm           | 2.5 Nm       | 3.5 Nm                   |
|                                                       | flanged socket                    | 2.5 Nm           | 2.5 Nm       | 3.5 Nm                   |
|                                                       | device plug                       | 2.5 Nm           | 2.5 Nm       | 3.5 Nm                   |
|                                                       | Coupling ring                     | 2.5 Nm           | 2.5 Nm       | 2.5 Nm                   |
|                                                       | Protective cap                    | 2.5 Nm           | 2.5 Nm       | 2.5 Nm                   |
|                                                       | Pressure screw with strain relief | 2.5 Nm           | 3.5 Nm       | --                       |
| Weight                                                | Lock-screws                       | 1.0 Nm           | --           | --                       |
|                                                       |                                   | Plastic          | Metal        | Metal - armoured version |
|                                                       | Coupler <sup>1)</sup>             | 8591/3.-.-.-.-.  | approx 54 g  | approx 118 g             |
|                                                       | Plug                              | 8591/7.-.-.-.-.  | approx 53 g  | approx 148 g             |
|                                                       | Flange socket <sup>1)</sup>       | 8591/8.-.-.-.-.  | approx 37 g  | approx 128 g             |
|                                                       | Device plug <sup>1)</sup>         | 8591/9.-.-.-.-.  | approx 41 g  | approx 141 g             |
|                                                       | Angled adaptor                    | 8591/11.-.-.-.-. | approx 26 g  | approx 164 g             |
|                                                       | Protective cap:                   |                  |              |                          |
|                                                       | for plug / device plug            | approx 10 g      | approx 44 g  |                          |
|                                                       | for coupler / flange socket       | approx 13 g      | approx 80 g  |                          |
| <sup>1)</sup> Weight including plastic protective cap |                                   |                  |              |                          |

**Proposed coding of connectors**

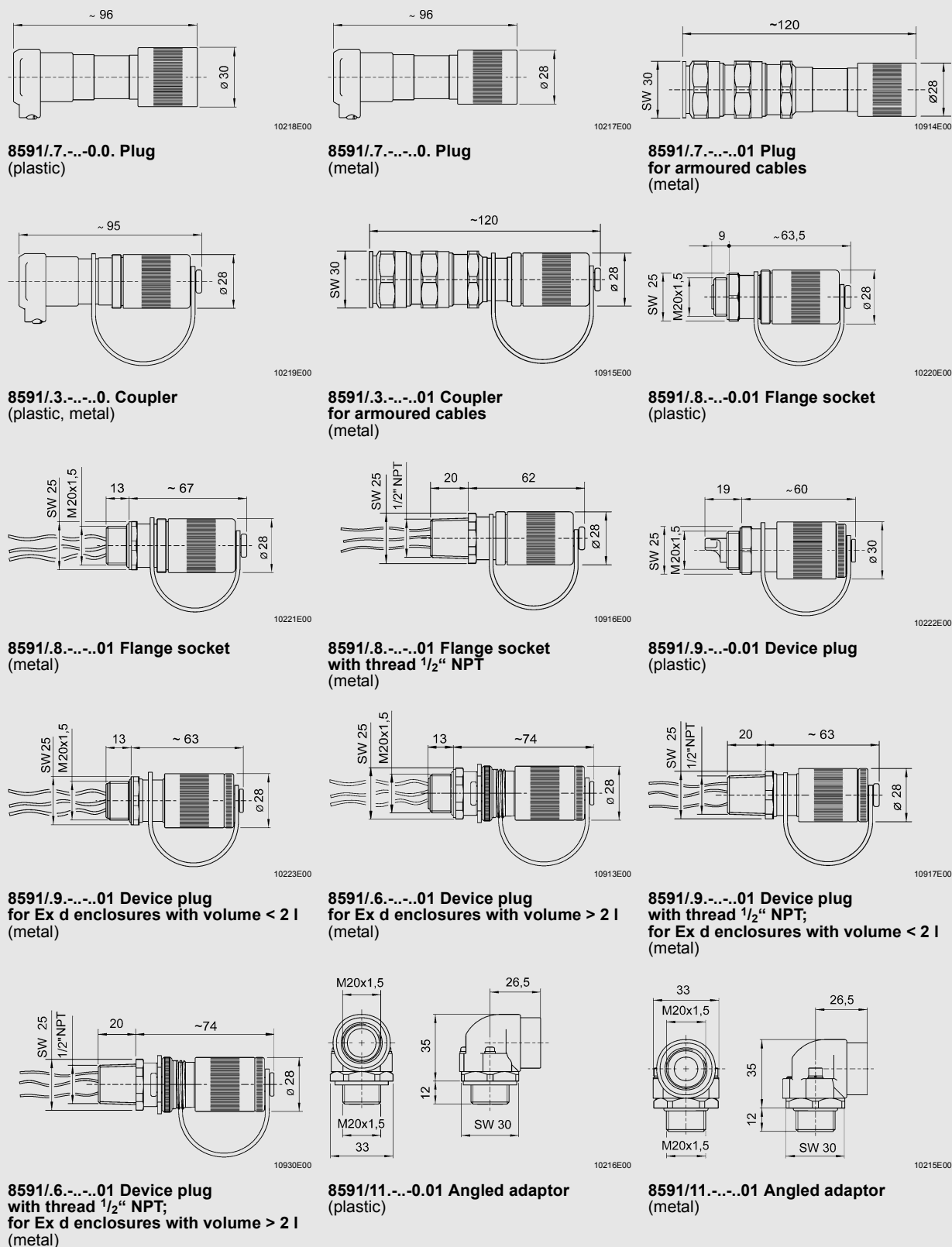
Turn down nose/notch (6 h)  
All other codings result out of this position

| Voltage            | Number of pins  | Coding | Coupler / Flange socket                                                                         | Plug / Device plug                                                                               | Proposed colour coding |
|--------------------|-----------------|--------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------|
| Bus                | 4 P             | 2 h    | <br>10905E00 | <br>10906E00 | green                  |
| Bus + Shield       | 4 P + $\perp$ * | 1 h    | <br>10903E00 | <br>10904E00 | without                |
| 24 V AC            | 2 P + $\perp$   | 12 h   | <br>10237E00 | <br>10259E00 | without                |
| 110 V ... 130 V AC | 2 P + $\perp$   | 4 h    | <br>10234E00 | <br>10258E00 | yellow                 |
| 230 V ... 250 V AC | 2 P + $\perp$   | 6 h    | <br>10235E00 | <br>10257E00 | red                    |
|                    | 4 P + $\perp$ * | 10 h   | <br>10236E00 | <br>10258E00 | blue                   |
| 24 V DC            | 4 P + $\perp$ * | 5 h    | <br>06452E00 | <br>06474E00 | green / red            |
|                    | 4 P             | 8 h    | <br>10238E00 | <br>10260E00 | grey                   |

\* with PE bracket

| Accessories and spare parts               |                                                                                                 |                                                                                     |                     |
|-------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|
| Designation                               | Illustration                                                                                    | Description                                                                         | Ordering code       |
| Angled adaptor                            | <br>10212E00   | plastic (polyamide resin)                                                           | 8591/110-00-0001    |
| Angled adaptor                            | <br>10213E00   | brass, nickel-plated                                                                | 8591/110-00-3001    |
| Protective cap for coupler, flange socket | <br>10211E00   | plastic (polyamide resin)                                                           | 4646180             |
|                                           |                                                                                                 | brass, nickel-plated                                                                | 4646160             |
| Protective cap for plug, device plug      | <br>10210E00   | plastic (polyamide resin)                                                           | 4646190             |
|                                           |                                                                                                 | brass, nickel-plated                                                                | 4646170             |
| Crimping tool                             | <br>10198E00   | up to 4 mm <sup>2</sup> , for all versions with crimp connectors                    | 4618990             |
| Twist protection                          | <br>10891E00   | for flange socket and device plug                                                   | 8591801290          |
| Strain relief                             | <br>10892E00 | with gasket and plate Ø 4 mm ... 7,5 mm                                             | 8591802290          |
|                                           |                                                                                                 | with gasket and plate Ø 7,5 mm ... 11 mm                                            | 8591803290          |
| Male connectors                           | <br>06507E00 | 4 x 1,5 mm <sup>2</sup> for plug                                                    | 4646220             |
|                                           |                                                                                                 | 4 x 2,5 mm <sup>2</sup> for plug                                                    | 4646230             |
|                                           |                                                                                                 | 4 x 1,5 mm <sup>2</sup> for plug (incl. PE connection, PE longer)                   | 4646240             |
|                                           |                                                                                                 | 4 x 2,5 mm <sup>2</sup> for plug (incl. PE connection, PE longer)                   | 4646250             |
| Male connectors + PE bracket              | <br>06508E00 | 4 x 1,5 mm <sup>2</sup> + PE bracket for plug                                       | 4646340             |
|                                           |                                                                                                 | 4 x 2,5 mm <sup>2</sup> + PE bracket for plug                                       | 4646350             |
| Female connectors                         | <br>06505E00 | 4 x 1,5 mm <sup>2</sup> for coupler or flange socket                                | 4646260             |
|                                           |                                                                                                 | 4 x 2,5 mm <sup>2</sup> for coupler or flange socket                                | 4646270             |
| Female connectors + PE bracket            | <br>06506E00 | 4 x 1,5 mm <sup>2</sup> + PE bracket for coupler or flange socket                   | 4646360             |
|                                           |                                                                                                 | 4 x 2,5 mm <sup>2</sup> + PE bracket for coupler or flange socket                   | 4646370             |
| Distribution box                          | <br>10261E00 | with 1, 2, 4 or 6 branches (flange socket: plastic or metal)<br>in plastic or metal | on request          |
| Y-Adapter with cable gland                | <br>10664E00 | for looping of data, signal or power lines; can be used for<br>fieldbus cables      | see Data Sheet 8592 |
| Y-Adapter with connectors                 | <br>10912E00 | for looping of data, signal or power lines; all connections<br>pluggable            | see Data Sheet 8593 |

## Dimension drawings (all dimensions in mm) - subject to alterations



We reserve the right to make alterations to the technical data, weights, dimensions, designs and products available without notice. The illustrations cannot be considered binding.