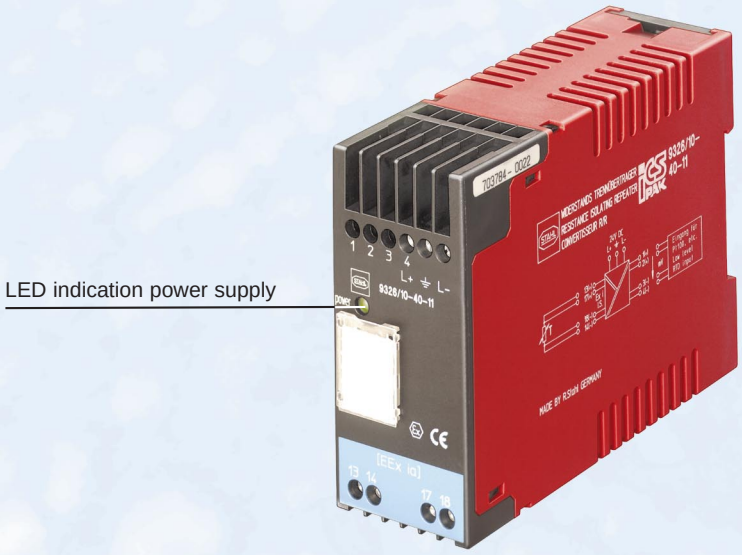
# I.S. Isolators



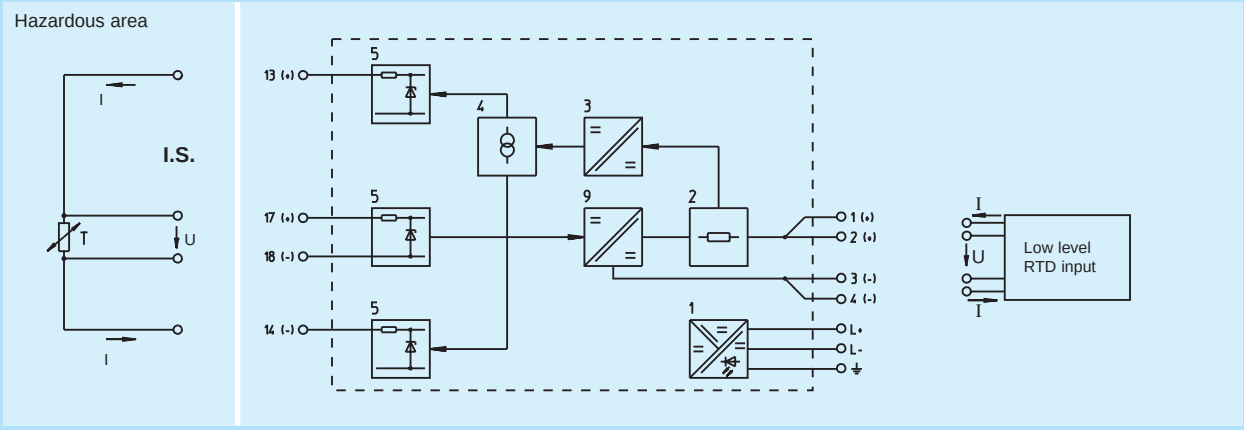

**I.S. Isolators**
**(DIN Rail Mounting)**
**Resistance Isolating Repeater**
**Type 9326/10-40**

- Intrinsically safe input [EEx ia] IIC
- Galvanic isolation between input, output and power supply
- Power supply 18 .. 35 V DC
- For 4-wire circuits
- Resistance range from 19 Ω up to 4 kΩ
- Sensor current from 0.25 mA up to 5 mA
- Installation in Zone 2 (Div 2) possible
- EMC tested, CE marking

STAHL

Basic function: analog input, Ω, 1 channel.

The resistance isolating repeaters are used for the intrinsically safe operation of resistance thermometers (Pt 100, Ni 100, Pt 500, etc) or other resistance sensors.



| Selection table | |
|---|---|
| Version | **Ordering code** |
| 4-wire circuit | **9326 / 10 - 40 - 11** |

| Safety data for input | |
|---|---|
| Certifications | BVS (Europe, CENELEC), CSA (Canada), SEV (Switzerland), FTZU (Czech Republic), BKI (Hungary), KDB (Poland), VNIIEF (Russia), FM (USA) |
| Marking | [EEx ia] IIC/IIB according to CENELEC |
| Classifications | associated electrical apparatus |

| Safe maximum values (CENELEC) | |
|---|---|
| Max. voltage $U_m$ | 13.7 V |
| Max. current $I_m$ | 29 mA |
| Max. power $P_m$ | 100 mW |
| Max. capacitance $C_a$ for [EEx ia] IIC / IIB | 250 nF / 800 nF |
| Max. inductance $L_a$ for [EEx ia] IIC / IIB | 1 mH / 5 mH |

Further information and combinations of values, see certifications.

| Technical data | | |
|---|---|---|
| **Power supply** | | |
| Rated voltage $U_N$ | | 24 V DC |
| Voltage range | | 18 .. 35 V |
| Rated current (for $U_N$) $I_N$ | ≤ | 25 mA |
| Max. power consumption | | 875 mW |
| Polarity reversal protection | | yes |
| **Signal transmission** | | |
| Sensor current range (for specified accuracy) $I_F$ | | 0.25 .. 5 mA |
| Sensor resistance range $R_F$ | | 19 Ω .. 4 kΩ |
| Response time (10 .. 90%) | ≤ | 100 ms |
| **Input** | | |
| Connection type (no. of conductors) | | 4 |
| Line resistance per conductor in 4-wire connection | ≤ | 50 Ω |
| **Output** (passive) | | |
| Connection type (no. of conductors) | | 2, 3, 4 |
| **Open circuit / short circuit** | | |
| Output behavior for open circuit or short circuit on sensor side | $U_A$ ≤ | 10 mV or $U_A$ ≥ 5.5 V |
| **Error limits** | | |
| Tolerance band setting, linearity and offset error for $U_N$, 23 °C | | |
| In 4-wire circuit | | |
| at sensor current $I_F$ | | 0.25 .. 0.5 mA & 4 .. 5 mA |
| $R_F$ = 19 Ω .. 400 Ω (in % of $R_F$) | ≤ | 0.3 % |
| at sensor current $I_F$ | | 0.5 .. 1 mA |
| $R_F$ = 19 Ω .. 400 Ω (in % of $R_F$) | ≤ | 0.2 % |
| at sensor current $I_F$ | | 1 .. 4 mA |
| $R_F$ = 19 Ω .. 400 Ω (in %of $R_F$) | ≤ | 0.1 % |
| at sensor current $I_F$ | | 0.25 .. 0.5 mA |
| $R_F$ = 400 Ω .. 4 kΩ (in % of $R_F$) | ≤ | 0.3 % |
| at sensor current $I_F$ | | 0.5 .. 1 mA |
| $R_F$ = 400 Ω .. 4 kΩ (in % of $R_F$) | ≤ | 0.2 % |
| at sensor current $I_F$ | | 1 .. 4 mA |
| $R_F$ = 400 Ω .. 4 kΩ (in % of $R_F$) | ≤ | 0.1 % |
| Temperature effect per 10 K | | |
| (in % of $R_F$ or in % of 100 Ω, the lower value counts) | ≤ | 0.1 % |

Dimensions (Casing type E), mechanical data, ambient conditions and accessories see page 3/58f.