RID16 is suitable for the connection to a Profibus-Fieldbus. The polarity for connecting + and - is of no importance due to an internal rectifier. The voltage Uo (or Voc or Vt) of the associated apparatus has to be limited to the voltage Uo or Voc or Vt, the current Io or Isc or It and the power (Po or Pmax) levels which can be delivered by the associated apparatus, considering faults and applicable factors. In addition, the maximum unprotected capacitance (Ci) and inductance (Li) of each apparatus (other than the termination) connected to the fieldbus must be less than or equal to 5 nF and 10 μH respectively. In each segment only one active device, normally the associated apparatus is allowed to provide the necessary energy for the fieldbus system.

The voltage Uo (or Voc or Vt) of the associated apparatus has to be limited to the range of 14V to 24V d.c. All other equipment connected to the bus cable has to be passive, meaning that they are not allowed to provide energy to the system, except to a leakage current of 50 μA for each connected device. Separately powered equipment needs a galvanic isolation to assure that the intrinsically safe fieldbus circuit remains passive.

The cable used to interconnect the devices has to meet the following values:
- Loop resistance R: 15 ... 150 Ω/km, inductance L: 0.4 ... 1 mH/km, capacitance C: 80 ... 200 nF/km
- The voltage Uo or Vmax, Ca, Li of the associated apparatus and its associated apparatus is not specifically examined in combination as a system using any of the wiring methods permitted for uncompartmentalized locations, where Voc ≤ Vmax, Ca ≥ Ci + Ccable, La ≥ Li + Lcable. Field indicator Nonincendive Field Wiring parameters are as follows:
  - Ui or Vmax ≤ 35 V DC
  - Ci ≤ 5 nF
  - Li ≤ 10 μF

For these current controlled circuits, the parameter Imax is not required and need not to be aligned with parameter Isc and It of the associated apparatus.

Warning: Explosion Hazard - Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.

The field indicator is suitable to be installed according the FISCO concept.