

## CONNECTION TO INTRINSICALLY SAFE CIRCUITS - "CATEGORY 1G and 2G SENSORS"

The **category 1G and 2G** NAMUR inductive sensors ATEX SERIES should be connected only to **intrinsically safe circuits** which are approved with the EC type examination certificate and with following values:

**$V_o < 17V$**        **$I_o < 17mA$**        **$P_o < 73mW$**        **$C_o > 0.123\mu F$**        **$L_o > 175\mu H$**

where:

**$V_o$**  = Maximum output voltage in an **intrinsically safe circuit** that can appear under open circuit conditions at the connection facilities of the apparatus.

**$I_o$**  = Maximum current in an **intrinsically safe circuit** that can be taken from the connection facilities of the apparatus.

**$P_o$**  = Maximum electrical power in an **intrinsically safe circuit** that can be taken from the apparatus.

**$C_o$**  = Maximum capacitance in an **intrinsically safe circuit** that can be connected to the connection facilities of the apparatus without invalidating intrinsic safety.

**$L_o$**  = Maximum value of inductance in an **intrinsically safe circuit** that can be connected to the connection facilities of the apparatus.

## CONNECTION TO ENERGY LIMITED CIRCUITS - "CATEGORY 3G SENSORS"

The **category 3G** NAMUR inductive sensors ATEX SERIES should be connected only to **energy limited circuits** with following values:

**$V_o < 17V$**        **$I_o < 17mA$**        **$P_o < 73mW$**        **$C_o > 0.235\mu F$**        **$L_o > 195\mu H$**   
 **$V_o < 15.8V$**        **$I_o < 20mA$**        **$P_o < 79mW$**        **$C_o > 0.475\mu F$**        **$L_o > 160\mu H$  (SIP40-N15... Models only)**

where:

**$V_o$**  = Maximum output voltage in an **energy limited circuit** that can appear under open circuit conditions at the connection facilities of the apparatus.

**$I_o$**  = Maximum current in an **energy limited circuit** that can be taken from the connection facilities of the apparatus.

**$P_o$**  = Maximum electrical power in an **energy limited circuit** that can be taken from the apparatus.

**$C_o$**  = Maximum capacitance in an **energy limited circuit** that can be connected to the connection facilities of the apparatus.

**$L_o$**  = Maximum value of inductance in an **energy limited circuit** that can be connected to the connection facilities of the apparatus.