

Barrier/Associated apparatus

Associated Apparatus		
Ex marking:	Ex e mb ib IIC T*	
Ta:	-20...50degC	
Certificate no.:	Baseefa08ATEX0184X	
Manufacturer:	nVent Thermal	
Model no.:	NGC-20-CL-E / NGC-20-C-E	
Description:	Heat-tracing control unit	
	Umax	254 V
	Uo	4,5 V
	Io	81 mA
	Po	96 mW
	(From EN 60079-11) Lo	8 mH
	(From EN 60079-11) Co	100 μF
	Lc/Rc	μH/Ω

Safety check Components	
Parameter	Suitable
Uo ≤ Ui	YES
Io ≤ Ii	YES
Po ≤ Pi	YES
Lo ≥ Li	YES
Co ≥ Ci	YES

Cable parameters	
Manufacturer:	(From EN 60079-14, 16.2.2.2)
Type:	EN 60079-14, 16.2.2.2)
Installed length:	100 meters
Capacitance:	200 nF/km
Inductance:	1 mH/km
Resistance:	12,9 Ω/km
L/R ratio	30 μH/Ω
Calculated L/R ratio	38,8 μH/Ω
Actual cable parameters based on lenght	
Cc	20 μF
Lc	0,1 mH
Lc/Rc	1,29 μH/Ω

Allowable cable parameters	
Cc=Co-Ci	100 μF
Lc=Lo-Li	8 mH
Lc/Rc	N/A μH/Ω
Max length	8000 meters

Field device

I.S. apparatus		
Ex marking:	Simple apparatus	
Ta:	N/A	
Certificate no.:	N/A	
Manufacturer:	N/A	
Model no.:	N/A	
Description:	PT100	
NOTE: need to withstand dielectric 500VAC/750VDC between element / chassis		
	Ui	24 V
	Ii	100 mA
	Pi	100 mW
	Li	0 mH
	Ci	0 μF

Safety check System	
Parameter	Suitable
Uo ≤ Ui	YES
Io ≤ Ii	YES
Po ≤ Pi	YES
Lo ≥ Li+Lc	YES
Co ≥ Ci+Cc	YES
L/R ratio	N/A