

Table 1

Temperatures in Celsius

Standard model code pos. GG				Standard model code pos. HH										15,40,60	21, 60	27,40,60	28, 60	40,60	28, 60
Model code alternative "D" pos. F				model code alternative "D" pos. G										2	-	2, 3	1, 3	2, 3	1, 3
④	Note	SWITCH	Type	Ci nF	Li uH	Ui V	li mA	Pi mW	Min. temp	T4 (*)	T5 (*)	T6 (*)	ATEX ia	IECEX ia	FM IS	FM NI	CSA IS	CSA NI	
F9	-	3	IN0097 - IN-2002-ABOA RT	I					-25	80	-	-							
FE	-	4,10	NS5003 - IS-2002-N/1D/1G/2G	N	80	110	15	50	120	-20	-	70	x						
FJ	-	3	IN5263 - IN-2002-FRKG/PH RT	I					-25	80	-	-							
FK	-	9,10	NS5002 - IS-2002-N/OLED/1D/2G	N	80	110	15	50	120	-20	-	70	x						
MG	-		Mechanical switch gold		1	1	28	45	31,5	-40	78	60	45	x	x	x		x	
N2	-	1,2,7	NJ2-12GK-N	N	45	50	16	52	169	-25	80	66	51	x					
N3	-	1,2,5	SJ3,5-S1N	N	30	100	16	52	169	-25	68	40	28	x					
N4	-	1,2,5	NJ2-12GK-SN	N	50	150	16	52	169	-40	74	46	34	x					
N8	S	1,2,6	NJ2-V3-N	N	40	50	16	52	169	-25	68	40	28	x	x	x	x	x	
R1	M		NBB3-V3-Z4-3G-3D	I	40	50	30	50		-25			50						
R5	-	1,2,6	NCN4-V3-N0	N	100	100	16	52	169	-25	68	40	28	x					
NB	-	1,2,7	NJ2-12GM-N	N	30	50	16	52	169	-25	80	57	45	x					
NC	-	1,2,7	NJ4-12GM-N	N	45	50	16	52	169	-25	67	44	32	x					
NE	-	1,2,7	NCB2-12GM35-N0	N	90	100	16	52	169	-25	80	57	45	x					
NF	-	1,2,7	NCN4-12GM35-N0	N	95	100	16	52	169	-25	80	57	45	x					
NG	-	2,7	NJ5-11-N-G	N	45	50	16	52	169	-25	80	57	42	x					
NH	-	1,2,7	NCB4-12GM40-N0	N	120	50	16	52	169	-25	74	46	34	x					
NL	-	1,2,6	NCB2-V3-N0	N	100	100	16	52	169	-25	80	60	45	x					
NM	-	1,2,5	NJ2-11-SN-G	N	50	150	16	52	169	-40	80	57	45	x					
NP	-	1,2,8	SJ3,5-N	N	50	250	16	52	169	-25	68	40	28	x		x		x	
NQ	-	1,2,7	NJ4-12GK-N	N	45	50	16	52	169	-25	80	66	51	x		x		x	
NR	-	2	NJ4-12GM40-E1	I	40	50	16	52	169	-25	67	64	49		x			x	
NS	-	2	NJ4-12GM40-E2	I	40	50	16	52	169	-25	60	60	49		x			x	
NT	-	2	NJ4-12GK40-E2	I	40	50	16	52	169	-25	60	60	51		x			x	
NV	-	1,2,7	NJ2-11-N-G	N	30	50	16	52	169	-25	80	57	45	x					
NW	-	1,2,5	SJ3,5-SN	N	30	100	16	52	169	-40	68	40	28	x					
NY	-	1,2,5	NJ4-12GK-SN	N	70	150	16	52	169	-40	74	46	34	x					
P4	-		ALEPH Proximity	P	1	1	28	45	31,5	-10	40			x	x	x	x	x	
P5	-		Hamlin Proximity	P	1	1	28	45	31,5	-40	80			x		x	x	x	
PE	-		Sabre Proximity	P	1	1	28	45	31,5	-40	80(**)	70 (**)	55	x	x	x	x	x	
PP	K		Phazer Proximity	P	1	1	28	45	31,5	-40	80(**)	70 (**)	55			x		x	
PT	B		Phazer BRS Proximity	P	1	1	28	45	31,5	-40	80(**)	70 (**)	55	x	x	x	x	x	

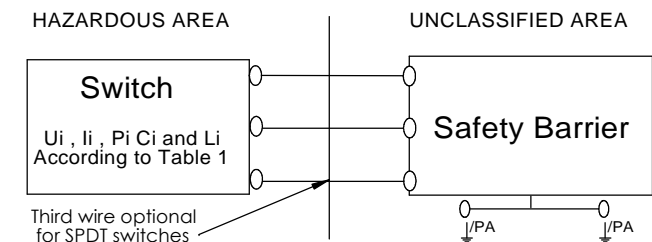
Type: I= Inductive; N= NAMUR (Inductive); P= Proximity

- Table 1 note 1: FM US recognized Control Dwg. 116-0165F
- Table 1 note 2: UL listed NRKH E87056 and CSA certificate 1007121(LR 91321-2)
- Table 1 note 3: CSA certificate 1226851
- Table 1 note 4: CSA certificate 1350433, FM certificate 3015422, ATEX PTB02ATEX2217
- Table 1 note 5: For additional values see PTB 00 ATEX 2049 X
- Table 1 note 6: For additional values see PTB 00 ATEX 2032 X
- Table 1 note 7: For additional values see PTB 00 ATEX 2048 X
- Table 1 note 8: For additional values see PTB 99 ATEX 2219 X
- Table 1 note 9: ATEX PTB02ATEX2191
- Table 1 note 10: Gas group for FE and FK switches ar limited to IIB

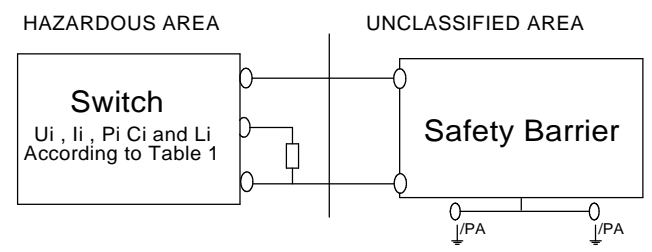
Table 1 (*) T6 is not valid for FM or CSA intrinsically safe, Maximum temperature for CSA IS and CSA Div.2/NI is never above 60C for all temperature classes. (Example: If table say 67 C, value for CSA is 60C. If table say 44C value for CSA is 44C)

Table 1 (**) CSA max temp. +55C

switches (1 through 4 quantaty)



Or for three wire inductive switches



Standard model code guide

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
A	B	C	C	D	E	F	G	G	-	H	H	-	I	J	K	L

GG = Switch code
HH = Certification code

Model code alternative "D", guide

1	2	3	4	5	6	7	8
A	B	C	D	E	F	G	H

F = Switch code
G = Certification Code

In alternative code "D" Position C must be designated P

xxPxxxxx

Scheduled drawing
No modification permitted without reference to the Notified Body

REVISIONS			
REV.	DESCRIPTION	DATE	SIGNATURE
3	Re drawn	2012-11-30	LRW
4	Modelcode alt D updated	2012-12-06	LRW
5	ATEX ia updated/CSA added/FM updated	2013-09-03	LRW

WARNINGS/AVERTISSEMENT:

Substitution of components may impair intrinsic safety and suitability for Div. 2 locations. Do not disconnect equipment unless area is known to be non-hazardous. To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing, or; read, understand and adhere to the manufacturer's live maintenance procedures. Potential electrostatic charging hazard- see instructions.

La substitution de composants peut compromettre la sécurité intrinsèque et l'aptitude à la Div. 2. Ne pas déconnecter l'équipement sans zone est connue pour être non dangereux. Pour éviter l'inflammation d'atmosphères inflammables ou combustibles, débrancher l'alimentation avant l'entretien ou, lire, comprendre et respecter les procédures d'entretien du fabricant en direct. Danger potentiel de charges électrostatiques voir les instructions

Caution/ Attention:

Bonding between conduit and connections is not automatic and must be provided as part of installation. Collage entre le conduit et connexions n'est pas automatique et doit être fournie dans le cadre de l'installation.

ATEX: II 1G Ex ia IIC T4/T5/T6
II 1G Ex ia IIB T5/T6
IECEX: Ex ia IIC T4/T5/T6

- The equipment shall withstand dielectric strength test with 500 VAC for 1 minute, acc. to clause 6.3.12 of the IEC EN 60079-11 requirements.

FM only:

Class I Division 1 Group A,B,C,D T4
Class I Division 2 Group A,B,C,D T4

INSTALLATION NOTES:

- Control equipment connected to the associated apparatus shall not use or generate more than 250Vrms or Vdc.
- Associated apparatus manufacturer's installations drawing shall be followed when installing this equipment.
- If more than one conduit is used, make sure that they are bonded together acc. to NEC article 250.100.

The intrinsically safety entity concept:

Allows the interconnection of two intrinsically safe devices FM approved with entity parameters not specifically examined in combination as a system when:
Uo or Voc or Vt ≤ Vmax*, Io or Isc or It ≤ Imax*, Po ≤ Pi, Ca or Co ≥ Ci + Ccable, La or Lo ≥ Li + Lcable.

The non-incendive field wiring concept:

Allows the interconnection of non-incendive field wiring apparatus with associated non-incendive field apparatus, using any of the wiring methods permitted for non-hazardous (unclassified) locations when:
Uo or Voc or Vt ≤ Vmax*, Io or Isc or It ≤ Imax*, Po ≤ Pi, Ca or Co ≥ Ci + Ccable, La or Lo ≥ Li + Lcable.

The non-incendive:

Use IS values as general except for proximity switches, Vmax = 30V (Proximity Switch), Imax = 500mA (Proximity Switch).

For division 1 installations:

- The configurations of associated apparatus shall be FM approved under entity concept.
- Division1 installations should be in accordance with ASI/ISA RP12.06.01 "installation of intrinsically safe systems for hazardous (classified) locations" and the national electrical code (ANSI/NFPA 70).

For division 2 installations:

- Using non-incendive field wiring concept, the associated apparatus shall be FM approved under entity concept or non-incendive field wiring concept.
- The associated apparatus is not required to be FM approved under entity concept or non-incendive field wiring concept. If the unit is installed in accordance with the national electrical code (ANSI/NFPA 70) for division 2 wiring methods excluding non-incendive field wiring.

*Vmax = Ui ; Imax = li

Control Drawing		-	-		
PART NO.	PCS	DESCRIPTION	MATERIAL	DIMENSION	ANNOTATION
HOLE TOL.		UNSPECIFIED TOLERANCES ACCORDING TO:	SURFACE	PROJECTION EUROPA	-
		PMV Switchboxes		DRW BY	APPR. BY
		PS/PM		SCALE	DATE
					121203
PALMSTIERNA INTERNATIONAL AB			DRAWING NO. RA-2		
KORTA GATAN 9 SE-171 54 SOLNA SWEDEN - Tel: +46(0)8 555 106 00-Fax: +46(0)8 555 106 01 - www.pmv.nu					