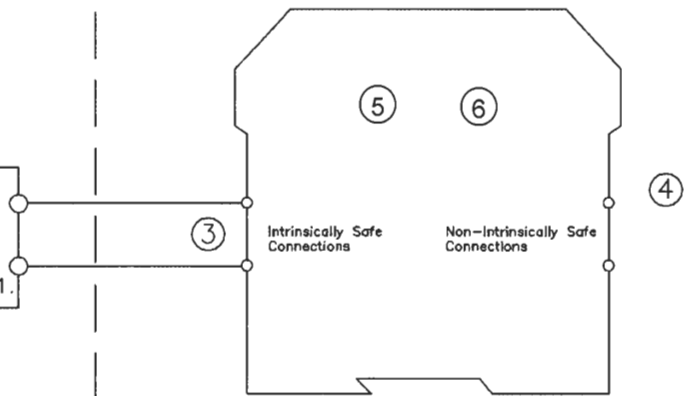


Seal of the certification authority	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Pepperl + Fuchs GB Ltd. 77 Ripponden Road Oldham OL1 4EL, Lancs. </div> <div style="border: 1px solid black; padding: 5px;"> Tel: 0161 633 6431 Fax: 0161 624 6537 </div>
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NONHAZARDOUS LOCATION
or
HAZARDOUS (CLASSIFIED) LOCATION
CLASS I, DIVISION 1, GROUPS A,B,C,D
CLASS II, DIVISION 1, GROUPS E,F,G
CLASS III, DIVISION 1
or
CLASS I, ZONE 0 and 1, IIC

NONHAZARDOUS LOCATION
or
CLASS I, DIVISION 2, GROUPS A,B,C,D
or
CLASS I, ZONE 2, GROUP IIC

Any Simple Apparatus ② or approved device with Entity Concept ① parameters (V_{max} , I_{max} , C_i , L_i) appropriate for connection to Associated Apparatus with Entity Concept parameters listed in Table 1.



NB. KFD0-SD2-Ex1.1180 is not Approved for Groups A, B, IIC

NOTES:

- ① The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system when the approved values of V_{oc} (or U_o), I_{sc} (or I_o) and P_o for the associated apparatus are less than or equal to $V_{max}(U_i)$, $I_{max}(I_i)$ and P_i for the intrinsically safe apparatus and the approved values of $C_a(C_o)$ and $L_a(L_o)$ for the associated apparatus are greater than $C_i + C_{cable}$ and $L_i + L_{cable}$, respectively, for the intrinsically safe apparatus.
- ② Simple Apparatus: An electrical component or combination of components of simple construction with well defined electrical parameters that does not generate more than 1.5 volts, 100 milliamps, and 25 milliwatts, or a passive component that does not dissipate more than 1.3 watts and is compatible with the intrinsic safety of the circuit in which it is used.
- ③ Wiring methods must be in accordance with the electrical code of the country in use (National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code, as applicable). For the two-channel associated apparatus, each wiring pair shall be installed as a separate intrinsically safe circuit in accordance with the National Electrical Code or Canadian Electrical Code, as applicable. Canadian installations shall be in accordance with Part One of the Canadian Electrical Code (C22.1).
- ④ Barriers shall not be connected to any device which uses or generates internally any voltage in excess of 250V r.m.s. or DC unless the device has been determined to adequately isolate the voltage from the barrier.

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!			
This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!			
CONFIDENTIAL acc. to ISO 16016			date: 2008-Jan-16
	Control Drawing	respons. <i>TC</i>	266-031FM-12
	KFD0-SD2-Ex*** series Solenoid Drivers	approved <i>P.T.</i>	
	Worldwide	norm <i>P.T.</i>	

CONFIDENTIAL

Original-Seal

- ⑤ The barriers are rated 'Nonincendive'. If the barriers are intended to be mounted in a Division 2 location, they must be mounted in an enclosure with a minimum ingress protection of IP2X. If the barriers are intended to be mounted in a Zone 2 location that is subject to contamination by water or dust, they must be mounted in an enclosure with a minimum ingress protection of IP54. If the barriers are intended to be mounted in a Zone 2 indoor location that is not subject to contamination by water or dust, they must be mounted in an enclosure with a minimum ingress protection of IP4X. The enclosure must be able to accept Division 2 / Zone 2 wiring methods. A temperature rating of T4 applies to all nonincendive rated barriers.
- ⑥ **WARNING:** Substitution of components may impair intrinsic safety and suitability for Division 2/ Zone 2 hazardous (classified) Locations.
ADVERTISEMENT: La substitution de composants peut compromettre la sécurité intrinsèque.

TABLE 1 – ENTITY PARAMETERS

Parameter	Models / Terminals				
	KFD0-SD2-Ex*.1045	KFD0-SD2-Ex*.1245	KFD0-SD2-Ex*.1065	KFD0-SD2-Ex1.10100	KCD0-SD2-Ex1.1180
	1,2,3,(4,5,6)	1,2,3,(4,5,6)	1,2,3,(4,5,6)	1,2,3	1, 2,3
Voc, Uo (V)	25.2	25.2	17.22	17.0	25.2
Isc, Io (mA)	93	110	220	271	184
Po (mW)	586	693	947	1.152	1.159
Ca, Co, Groups, A, B, IIC (uF)	0.107	0.107	0.353	0.375	-
Ca, Co, Groups C, IIB (uF)	0.82	0.82	2.06	2.20	0.82
Ca, Co, Groups D, E, F, G, IIA, (uF)	2.9	2.9	8.5	9.0	2.90
La, Lo, Groups, A, B, IIC (mH)	4.11	2.93	0.73	0.48	-
La, Lo, Groups C, IIB (mH)	16.44	11.75	2.93	1.93	4.20
La, Lo, Groups D, E, F, G, IIA, (mH)	32.88	23.5	5.87	3.87	8.40
Lo/Ro, Groups A, B, IIC (uH/Ω)	60	51	37	30	30
Lo/Ro, Groups C, IIB (uH/Ω)	242	205	150	123	123
Lo/Ro, Groups D, E, F, G, IIA (uH/Ω)	485	410	300	246	246


Notes:

Select field wiring with an insulation temperature rating that is suitable for the application.

In Class I, Zone 2 installations, the installer shall ensure protection of supply terminals against transient voltages exceeding the rated supply voltage by greater than 40%.

In Class I, Division 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Division 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1), as applicable.

In Class I, Zone 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Zone 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1), as applicable. The equipment shall be installed in an enclosure with a minimum ingress protection rating of IP54 unless the apparatus is intended to be afforded an equivalent degree of protection by location

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