Ex inspection record (IEC 60079-17)

Yellow cells are for you to fill in. Free template from Deskely · deskely.com/resources/ex-inspection-checklist

Project / facility	Report number	Revision	Date of inspection

Area / location	Area classification drawing	Inspector	Competence reference

Zone	Gas or dust group	Temperature class required	Next inspection due

Inspection grade	Inspection type	Ambient temperature range	Permit / isolation reference

EQUIPMENT COVERED BY THIS RECORD

No.	Tag	Description	Protection type	EPL	T class	Ex marking and certificate no.	EPL suits zone	T class suits area
1	*JB-2101*	*Junction box, separator instruments*	*Ex e*	*Gb*	*T6*	*Ex eb IIC T6 Gb, IECEx XXX 12.0034X*		
2								
3								
4								
5								
6								

List the items this record covers (same location and protection type). For dust (group III) equipment, enter the maximum surface temperature in the remarks; the T class check is for gas.

Grades: D = Detailed, C = Close, V = Visual. A dot marks the grades at which each check is made: a detailed inspection covers every check, a close inspection the C checks, a visual inspection the V checks. Pick the grade above and the In this grade column follows; checks outside the grade fade out. Initial inspections are detailed. The checks follow the grouping of IEC 60079-17 Table 1 (Ex d, e, n and t) in our own words: check them against the edition your procedure cites.

Result

Checks in this grade: 0 Pass: 0 Fail: 0 N/A: 0 Still to answer: 0 Overall: incomplete

No.	Check	D	C	V	In this grade	Result	Defect found	Defect category	Re-inspect by
GENERAL									
1	Equipment protection level (EPL) and protection type suit the zone of the location	●	●	●					
2	Equipment group suits the gas or dust group of the area	●	●						
3	Temperature class or maximum surface temperature suits the area	●	●						
4	Circuit identification of the equipment is correct	●							
5	Equipment is tagged and its circuit identification is available	●	●	●					
6	Certificate available; specific conditions of use (X) are met	●							
EQUIPMENT									
7	Enclosure, glass parts and glass-to-metal seals undamaged	●	●	●					
8	No unauthorised modifications (at close and visual grades: none visible)	●	●	●					
9	Bolts, cable glands and blanking elements of the right type, complete and tight (checked by hand at D and C, by eye at V)	●	●	●					
10	Threaded covers of the right type, tight and secured	●	●						
11	Flameproof joint faces clean and undamaged, gaps within limits (Ex d)	●							
12	Enclosure gaskets in good condition; no water or dust inside	●							
13	Electrical connections tight; unused terminals tightened	●							
14	Lamps of the right type, rating and position; no end-of-life effects	●							
15	Motor fan has enough clearance to its cover	●							

No.	Check	D	C	V	In this grade	Result	Defect found	Defect category	Re-inspect by
16	Cooling and ventilation air flow not obstructed	●	●	●					
17	Breathing and drain devices in good condition	●	●						
18	Motor winding insulation resistance acceptable	●							
INSTALLATION									
19	Cable type suits the installation	●							
20	No visible damage to cables	●	●	●					
21	Sealing of trunking, ducts, pipes and conduits in good condition	●	●	●					
22	Stopping boxes and cable boxes correctly filled	●							
23	Conduit system intact, including where it meets other wiring systems	●							
24	Earthing and bonding connections tight and of adequate size (checked by hand at D, by eye at C and V)	●	●	●					
25	Earth fault loop impedance or earth resistance acceptable	●							
26	Protective devices set correctly and operate within limits; no automatic reset where it is not allowed	●							
27	Cables not in use correctly terminated	●							
28	Nothing obstructs flameproof flanged joints closer than the installation rules allow	●	●	●					
29	Variable speed drive installation matches its documentation	●	●						
ENVIRONMENT									
30	Equipment protected against corrosion, weather, vibration and other external factors	●	●	●					
31	No undue build-up of dust or dirt	●	●	●					
32	Electrical insulation clean and dry	●							
EXTRA CHECKS FOR EX I AND EX P (WHERE FITTED)									
33	Ex i: loop documentation available and matching the installation	●	●	●					

No.	Check	D	C	V	In this grade	Result	Defect found	Defect category	Re-inspect by
34	Ex i: intrinsically safe cables identified and kept apart from other circuits	●	●						
35	Ex i: cable screens and IS earthing as the loop documentation shows	●	●						
36	Ex p: protective gas pressure or flow adequate and free of contamination	●	●	●					
37	Ex p: pressurisation alarms and interlocks work	●							

Defect category: 1 Immediate (unsafe: isolate or make safe now), 2 Urgent (repair within the time your procedure sets), 3 Planned (repair at the next opportunity). Copy every fail to the Defect list sheet.

Remarks

Sign-off	Name	Signature	Date
Inspector			
Reviewed by			

Ex defect list

One line per failed check. Open category 1 defects mean the equipment is isolated or made safe until repaired.

Project / facility	Area / location	List owner

Status

Defects: 1 Open: 1 Closed: 0 Category 1 open: 0 Open past re-inspection date: 0

Defect no.	Report no.	Tag	Check no.	Defect	Category	Action required	Owner	Re-inspect by	Status	Closed
D-001	*EX-21-014*	*JB-2101*	*9*	*One cable gland loose; seal not compressed*	*2 Urgent*	*Retighten the gland to the maker's instructions and check the seal*	*E&I contractor*	*22-Nov-26*	***Open***	