


LWT Series

Specific Conditions of Use

1. Light metals can generate ignition-capable sparks when subjected to impact or friction.
 - a. Transmitter enclosure: When installed in Zone 0, 1, 20, 21 (EPL Ga, Gb, Da, Db required) or Division 1, transmitter enclosures which are constructed of aluminum alloy shall be protected such that sparks resulting from impact or friction cannot occur, taking into account rare malfunctions. Such enclosures include housing model/option types D1, D2, R1 and R2. Where special housing type Z9 is present, it is the responsibility of the installer to determine if the transmitter housing is constructed of aluminum alloy.
 - b. Probe: When installed in Zone 0, 1, 20, 21 (EPL Ga, Gb, Da, Db required) or Division 1, probes which are constructed of light metals, including aluminum, magnesium, titanium or zirconium shall be protected such that sparks resulting from impact or friction cannot occur, taking into account rare malfunctions. Such probes include wetted part model/option types PMT2, PMT5 and PMU9. Where special probe type PMZ9 is present, it is the responsibility of the installer to determine if the probe incorporates light metals.
2. When EPL Da is required, the instrument housing shall not be subjected to uncontrolled dust layers.
3. The equipment includes flameproof joints. Consult with ABB if repair of flameproof joints is required
4. For installations relying upon type of protection Ex nAc [ia Ga] Gc, the transmitter shall be installed within a location providing protection against pollution of not less than Pollution Degree 2. In Pollution Degree 2, only non-conductive pollution occurs except that occasionally a temporary conductivity caused by condensation is expected. This restriction is not applicable to the probe (simple apparatus supplied by intrinsically safe [ia] circuit.
5. The equipment presents a potential risk of electrostatic sparking. Clean only with a damp cloth.
6. The transmitter does not provide isolation from earth. When installed as Ex ia, Ex ic [ia], intrinsically safe, Class I, II, III, Division 1, the associated apparatus used to limit energy to the transmitter shall provide isolation from earth at not less than 500 Vrms.
7. Using the check box provided on the nameplate, the user shall permanently mark the type of protection chosen for the specific installation. Once the type of protection has been marked it shall not be changed."
8. Wetted materials for LWT300 series include TEFLON (PTFE), along with alloy and o'ring materials selected in order matrix for process coupler and probe. Wetted materials for LWT400 series include alumina (Al2O3), graphite gasket, along with alloy materials selected in order matrix for process coupler and probe. It is the responsibility of the user to ensure that process and environment do not damage the equipment.

CRITICAL / SCHEDULE DOCUMENT NO MODIFICATION PERMITTED WITHOUT APPROVAL FROM AGENCY / NOTIFIED BODY			
ABB inc. 3400, rue Pierre-Ardouin, Québec, Qc, Canada, G1P 0B2 Tel (418) 877-2944 Fax (418) 877-2834			
LWT Conditions of Use for Hazardous Locations Specific Conditions of Use			
TITLE	SIZE	DRAWING NO.	REV.
	A	3KXL001249U0109	B
SCALE	FILE NAME	SHEET	
N/A	3KXL001249U0109 Rev B.vsdX	1 of 2	

Product					
LWT series					
Rev	Description	Date	By	Chk	App
B	Correction of note 8: o'ring replaced by graphite gasket. Replaced word "box" by "check box" in note 7. Drawing renamed from ABBCABOM07790 to 3KXL001249U0109	2019-07-10	J. Marcotte	J-F Ferland	J-F Ferland
A	First release	2019-06-26	J. Marcotte	J-F Ferland	J-F Ferland
					Checked J-F Ferland
					Checked
					Approved J-F Ferland
REVISION HISTORY					

LWT Series

Wiring Specifications


1. For signal / power connections, use twisted, stranded pairs of wiring, 18 to 22 AWG / 0.8 to 0.35 mm2 Ø up to 1500 m (5,000ft). Longer loops require lower gauge wire. ABB recommends use of ferrule on stranded wires.
2. Shielded cables are recommended by ABB to achieve electromagnetic immunity specifications. Shield must be connected only at one end. If shield is connected at transmitter end, use terminal inside housing marked with the appropriate symbol.
3. Wire insulation temperature must be at least 100°C.
4. Recommended wiring terminal screw torque is 1.7 n.m (15 lb.in).

EPL Ga (zone 0) and Gb (zone 1) specific notes

1. Ga/Gb partition wall material is made of glass to metal seal between stainless steel SS316L body and a gold plated alloy 52 Nickel-Iron electrical contact. Stainless steel SS316L body is also welded to the front-end electronics enclosure. Refer to drawing 3KXL001120U0009 for more details.
2. Where the LWT is installed across the boundary of areas requiring EPL Ga (Zone 0) and EPL Gb (Zone 1), care shall be taken to ensure effective sealing between areas requiring EPL Ga and EPL Gb for the purposes of:
 - a. Preventing transmission of combustible gasses from the area requiring EPL Ga to the area requiring EPL Gb.
 - b. In case of ignition of an explosive gas atmosphere in the surrounding EPL Gb area, there is no flame propagation into the area requiring EPL Ga.

Ingress protection specific notes

Enclosure Ingress protection: IP66, IP68 for submersion in water at 1 meter for up to 72 hours.

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TITLE LWT Conditions of Use for Hazardous Locations Other Specific Notes		
SIZE A	DRAWING NO. 3KXL001249U0109	REV. B
SCALE N/A	FILE NAME 3KXL001249U0109 Rev B.vsd	SHEET 2 of 2