



APPLICATION MANUAL

Explosionproof universal instrument housing

Type: XD-SI, XD-SIwin, XD-SILwin

Contents:

1. Destination.
2. Flameproof joints.
3. Earth and protection terminals.
4. Cover locking.
5. Protection against water and dust ingress
6. Way of mounting.
7. Marking.


NOTES OF SAFETY

The XD-SI... types are designed to accomodate various electronic instruments. If used incorrectly it is possible that application-related dangers may arise.

The XD-SI... uniwersal instrument housing may be used by qualified and authorized company and people only, under strict obsevrance of these application manual and relevant standards, legal requirements, and, where appropriate, the certificate.

Only the empty XD-SI... housing is certified. When used as part of an end product assembly, subsequent approval of the end use equipment assembly is required.

1. DESTINATION.

CERTIFICATIONS	STANDARDS	HAZARDOUS AREAS
	FM 3600 FM 3615 FM 3810 ANSI/NEMA 250	Class I, Groups A, B, C, D Class II, Groups E, F, G Class III Type 4x
	CSA C22.2 No.0.4 CSA C22.2 No.0.5 CSA C22.2 No.25 CSA C22.2 No.30 CSA C22.2 No.94	

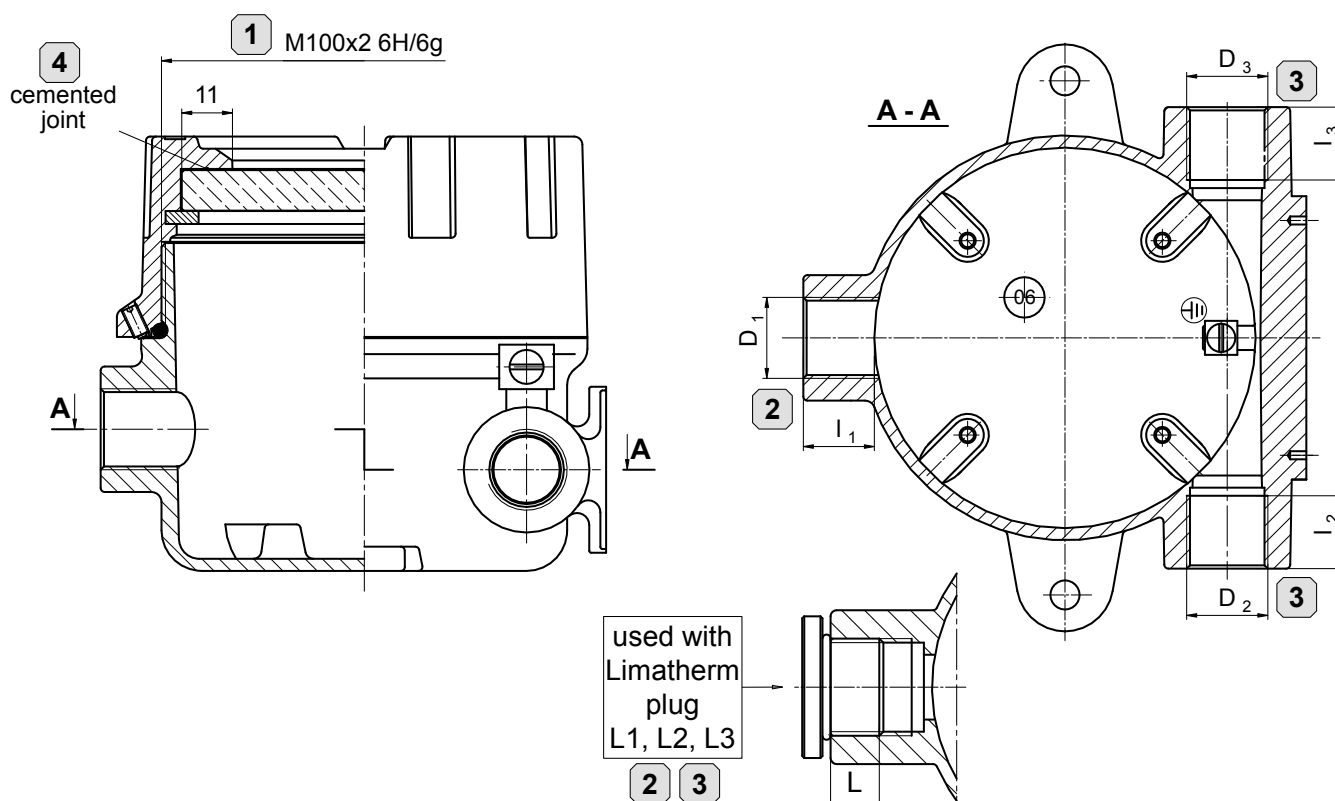
Ambient temperature

Housing type	T_{amb}	
	VQM rubber	FKM rubber
XD-SI	-58 to +302 °F (-50 to +150 °C)	-4 to +392°F (-20 to +200°C)
XD-SIwin XD-SILwin	-58 to +185 °F (-50 to +85 °C)	-4 to +185°F (-20 to +85°C)

Possible application

Division	Protection Code
Division 1 Division 2	Explosionproof

2. FLAMEPROOF JOINTS.



Lp.	Connection type		Requirements of FM 3615 CSA C22.2 No. 30	Achieved values			
1	M100×2 6H/6g		threads engaged ≥ 7	9			
			width of engagement ≥ 12,5mm	18,5mm			
2	D ₁ proces opening	M20×1.5 6H M24×1.5 6H M25×1.5 6H	class 2 fit	l ₁	6g of male thread should be ensured by customer	L ₁	6H/6g
			threads engaged ≥ 5		should be ensured by customer, possible to reach: 11		6,5
		M27×2 6H	class 2 fit	l ₁	6g of male thread should be ensured by customer	L ₁	6H/6g
			threads engaged ≥ 5		should be ensured by customer, possible to reach: 8,5		5
		½NPTmod ¾NPTmod	threads engaged ≥ 5	l ₁	should be ensured by customer, possible to reach: 5,0 ÷ 5,5	L ₁	5
		3	D ₂ , D ₃ conduit openings	M20×1.5 6H M24×1.5 6H M25×1.5 6H	class 2 fit	l ₂ , l ₃	6g of male thread should be ensured by customer
threads engaged ≥ 5	should be ensured by customer, possible to reach: 11				6,5		
½NPTmod ¾NPTmod	threads engaged ≥ 5			l ₂ , l ₃	should be ensured by customer, possible to reach: 5,0 ÷ 5,5	L ₂ , L ₃	5
4	Cemented joint			min. joint length 10mm	11mm		
NPT threads are modified to reach 5÷5,5 engaged threads and can create flameproof joint with threaded male part with standard cutting tolerance.							

! Only NPT threads in conduit entries admissible for CSA Division !

Process opening can be used for mounting sensor (e.g. level, flow sensor) or thermowell.

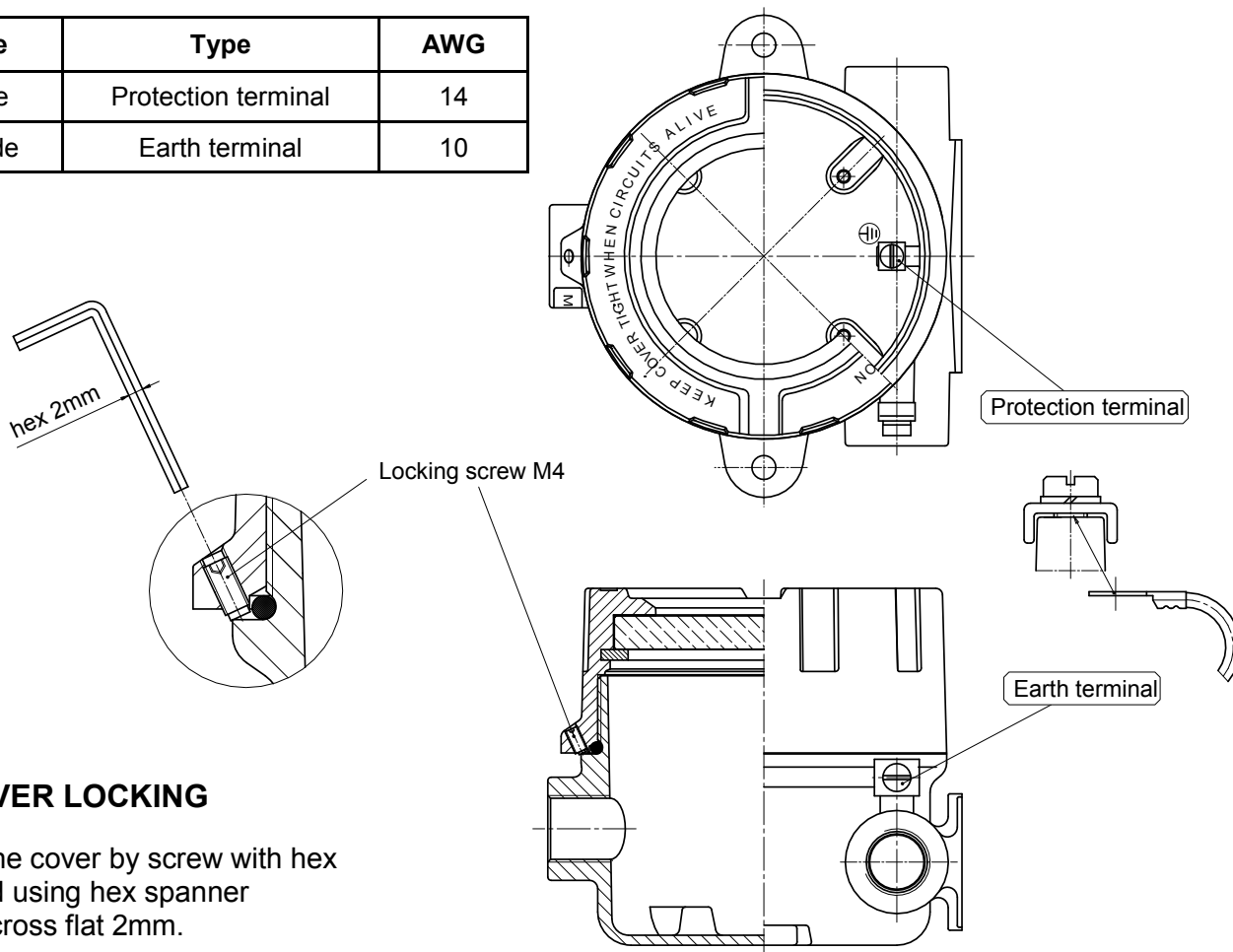
Conduit openings can be used to equip it with certificated Ex d flameproof cable glands, fill sealing fittings, flexible couplings or thermowells.

Each D₁, D₂ and D₃ opening can be **plugged**.

3. EARTH AND PROTECTION TERMINALS.

Both, solid wire and stranded wire cables can be connected to these terminals.

Place	Type	AWG
Inside	Protection terminal	14
Outside	Earth terminal	10



4. COVER LOCKING

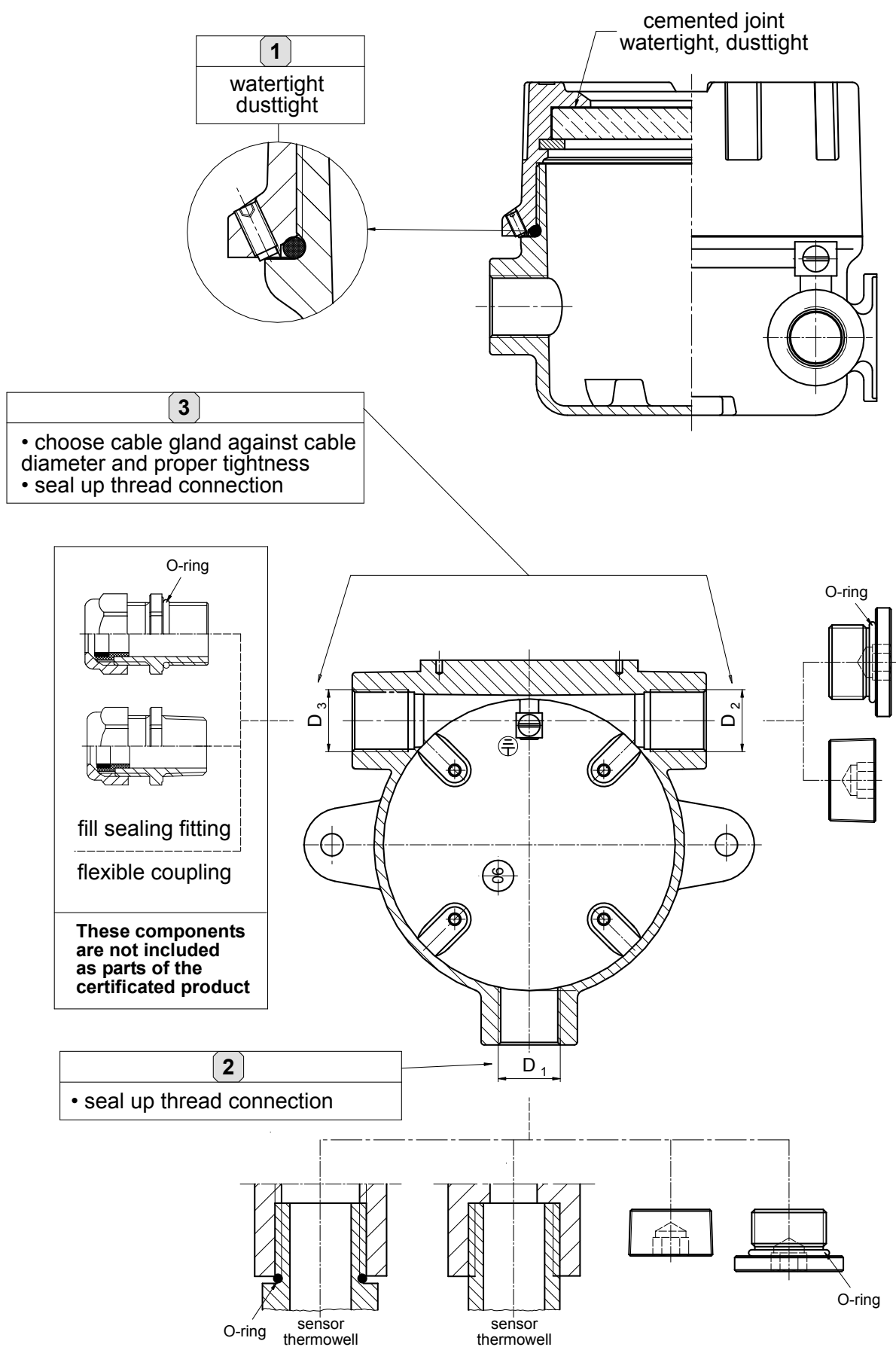
Lock the cover by screw with hex socket using hex spanner with across flat 2mm.

5. PROTECTION AGAINST WATER AND DUST INGRESS, (Enclosure type 4x)

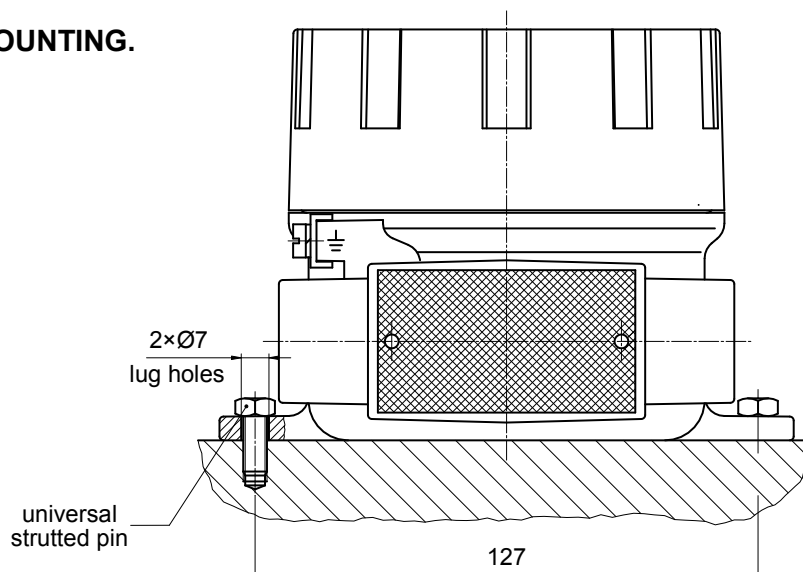
There are three connections of assembled device deciding about water and dust tightness:

- 1 – cover
- 2 – process opening
- 3 – conduit openings.

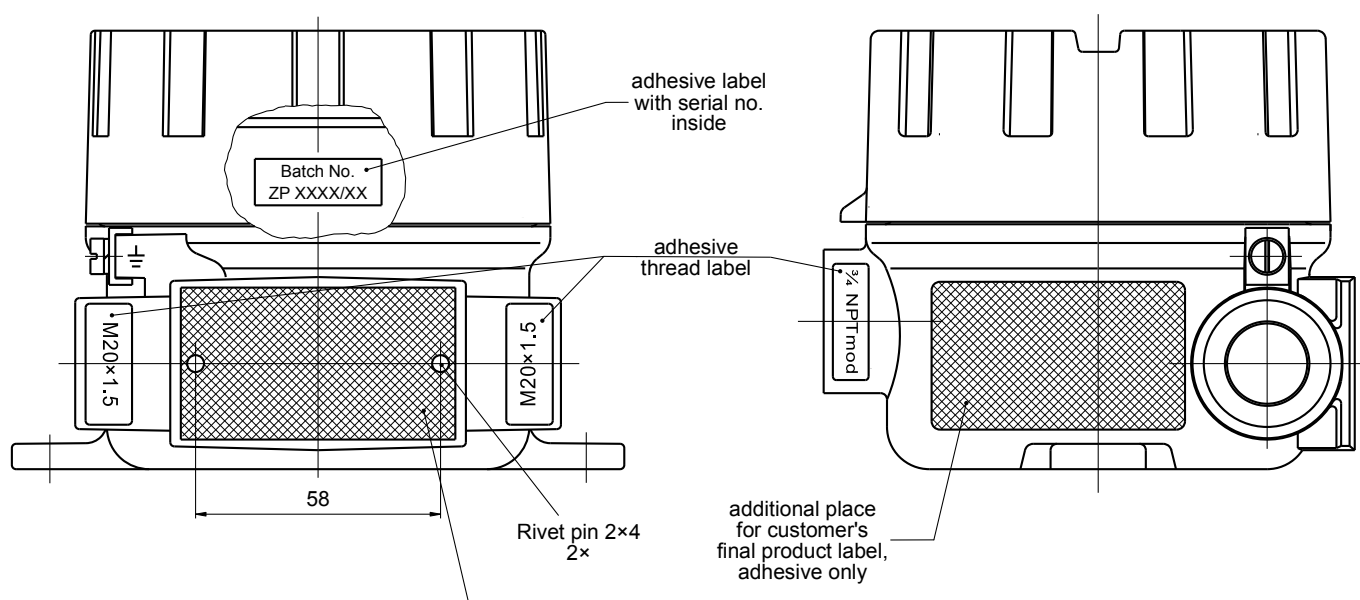
Threaded connection sealing	Protection against water and dust ingress
Without sealing - standard accuracy class thread	NO
Use of a sealant, e.g. Loctite 577	YES
Thread tightened with O-ring	YES



6. WAY OF MOUNTING.



7. MARKING.



Limatherm's product nameplate

