



**QPS Evaluation Services Inc**  
**Testing, Certification and Field Evaluation Body**  
**Accredited in Canada, the USA, and Internationally**

<b>File</b>
<b>LR1380</b>

**CERTIFICATE OF COMPLIANCE**  
**(ISO TYPE 3 CERTIFICATION SYSTEM)**

Issued to	Thompson Valves Ltd.
Address	17 Balena Close Creekmoor, Poole Dorset, BH17 7EF UK
Project Number	LR1380-2R9
Product	Electrically Operated Valves
Model Number	ICO3S (Explosion-Proof), ICO3S (Intrinsically Safe), ICO4S, ICO4E, SOV and Maxseal POV
Ratings	<p><u>ICO3S (Explosion-Proof):</u>  Class I, Division 1, Groups B, C, D; Temperature Code T4/T6  Class I, Zone 1, AEx d IIC T4/T6  Zone 1, Ex d IIC T4/T6 Gb  Ta = -60/-55/20° to +40/50/90°C  24-240Vac, 40-60 Hz or 12 – 240 Vdc and up to 14 W  Max. pressure: Automatic Reset Valve 700bar (10153psi), Manual Reset Valve 350 bar (5076 psi), Safety Valve 12 bar (174 psi),  Dual Seal, Type 4X / IP66/X8  Safety Valve (as per CSA C22.2 no. 139)</p> <p><u>ICO3S (Intrinsically Safe):</u>  Class I, Division 1, Groups A, B, C, D; Temperature Code T4/T6  Class I, Zone 0, AEx ia IIC T4/T6  Zone 0, Ex ia IIC T4/T6 Gb  T6 = -**°C to +50°C  T4 = -**°C to +69°C  “**” = either -60°C/-55 °C/ -50°C/ -40°C or -30°C dependant on O-ring gasket materials  Max. pressure: Automatic Reset Valve 700bar (10153psi), Manual Reset Valve 350 bar (5076 psi), Safety Valve 12 bar (174 psi),  Dual Seal, Type 4X / IP66/X8  Safety Valve (as per CSA C22.2 no. 139)</p> <p>Rated Ui = 28Vdc, Ii = 300mA, Ci = 0, Li = 0 Pi = 1.3 W.</p> <p><u>ICO4S:</u>  Class I, Division 1, Groups B, C, D; Temperature Code T4/T6  Class I, Zone 1, AEx d IIC T4/T6  Zone 1, Ex d IIC T4/T6 Gb  Ta = -60/30° to +48/90°C  110-440Vac, 40-60 Hz or 12 – 240 Vdc and up to 18 W  Max. pressure 300 bar (4351 psi), Dual Seal, Type 4X / IP66/X8</p>



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Maxseal POV

24-240Vac, 40-60 Hz or 12 – 240 Vdc and up to 14 W  
 110-440Vac, 40-60 Hz or 12 – 240 Vdc and up to 18 W  
 Max. pressure 82 bar, Media temperature range (0°C to 150°C)

ICO4E:

Class I, Division 1, Groups A, B, C, D; Temperature Code T4/T6  
 Class I, Zone 1, AEx d IIC T4/T6  
 Ex d IIC T4/T6 Gb  
 -60 /-55/-50/-40/-35/-30°C to +43/79/90 °C  
 110-440Vac, 40-60 Hz or 12 – 240 Vdc and up to 20 W.  
 Maximum operating pressure is 300 bar (4351 psi), Dual Seal.  
 Type 4X / IP66/X8

SOV:

Class I, Division 1, Groups B, C, D; Temperature Code T4/T6  
 Class I, Zone 1, AEx d IIC T4/T6  
 Ex db IIC T4/T6 Gb  
 -60 /-55/-50/-40/-30°C to +40/79/90 °C  
 24-440Vac, 40-60 Hz or 12 – 250 Vdc and up to 150 W.  
 Maximum operating pressure is 82 bar (1189 psi), Dual Seal.  
 Type 4X / IP66/X8

Applicable Standards

ICO3S(Explosion-Proof), ICO4S, Maxseal POV

CSA C22.2 No. 30-M1986 (R2007), C22.2 No 139-2013,  
 CSA C22.2 No. 142-1987 (R2014), CSA C22.2 No. 60079-0-11,  
 CSA C22.2 No. 60079-1-11, ANSI/ISA – 12.27.01:2011  
 UL 429 7th ed., UL 1002 7th ed, UL1203-5th ed., FM 3600-2011, FM3615-  
 2006, FM3810-2005, ANSI/ISA-60079-0-2013, ANSI/ISA-60079-1-2013,  
 ANSI/NEMA 250-1991, ANSI/IEC 60529-2004

ICO4E

CSA C22.2 No. 30-M1986 (R2007), C22.2 No 139-2013,  
 CSA C22.2 No. 60079-0-11, CSA C22.2 No. 60079-1-11,  
 ANSI/ISA – 12.27.01:2011, UL 429 7th ed., UL 1002 7th ed.,  
 FM 3600-2011, FM3615-2006, FM3810-2005, ANSI/ISA-60079-0-2013,  
 ANSI/ISA-60079-1-2013, ANSI/NEMA 250-1991, ANSI/IEC 60529-2004

ICO3S (Intrinsically Safe)

C22.2 No. 157-92 (R2016), C22.2 No 139-2013, C22.2 No. 60079-0-11, C22.2  
 No. 60079-11-14, ANSI/ISA – 12.27.01:2011, UL 429 7th Edition, UL 1002 7th  
 Edition, FM 3600-2011, FM 3610-2015, FM 3810-2005, ANSI/ISA-60079-0-  
 2013, ANSI/ISA 60079-11-2014, ANSI/NEMA 250-1991, ANSI/IEC 60529-2004

SOV

CSA C22.2 No. 30-M1986 (R2007), C22.2 No 139-2013, CSA C22.2 No.  
 60079-0-11, CSA C22.2 No. 60079-1-11, ANSI/ISA – 12.27.01:2011  
 UL 429 7th ed., UL 1002 7th ed, UL1203-5th ed., FM 3600-2011, FM3615-  
 2006, FM3810-2005, ANSI/ISA-60079-0-2013, ANSI/ISA-60079-1-2013,  
 ANSI/IEC 60529-2004, ANSI/NEMA 250-1991

Factory/Manufacturing Location

Same as Applicant



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**Statement of Compliance:** The product(s) identified in this Certificate and described in the Report covered under the above referenced project number have been investigated and found to be in compliance with the relevant requirements of the above referenced standard(s). As such, they are eligible to bear the QPS Certification Mark shown below, in accordance with the provisions of QPS's Service Agreement.



or



Issued By: **Dave Adams, P.Eng.**  
Manager, Hazardous Locations Dept. [Ex Equipment]

Signature:

Date: April 18, 2019