



# Type Approval Certificate

*This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.*

This certificate is issued to:

<b>PRODUCER</b>	Dräger Safety AG & Co. KGaA Revalstraße 1 23560 Lübeck Germany
<b>DESCRIPTION</b>	Gas detection system PIR 7x00
<b>TYPES</b>	PIR 7000 <sup>(1)</sup> : (IDS 01x1, IDS 01x2) PIR 7200 <sup>(2)</sup> : (IDS 01x5)
<b>APPLICATION</b>	Marine, offshore and industrial applications for use in environmental categories ENV2, ENV4 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – July 2015.
<b>ADDITIONAL TESTS</b>	70 °C and -25° C for 2 hrs
<b>STANDARD</b>	IEC 61508: 2010 EN 60079-29-1 <sup>(1)</sup> : 2007 EN 45544-1 <sup>(2)</sup> , -2 <sup>(2)</sup> : 2015 (for carbon dioxide measurement) EN 60079-0: 2012 + Corrigendum A11: 2013 IEC 60092-504: 2001 + Corrigendum 1: 2011 IEC 60533: 1999
<b>RATINGS</b>	Gases to be detected: = <sup>(1)</sup> flammable hydrocarbons = <sup>(2)</sup> carbon dioxide Power supply: = 24 V, 3-wire Temperature: = -40 to +80 °C (operating) Long-term drift: = ≤ ±0.03 % vol. after 12 months
<b>Certificate No.</b>	18/20034
<b>Issue Date</b>	17 May 2018
<b>Expiry Date</b>	16 May 2023
<b>Sheet</b>	1 of 2

  
 Lloyd's Register  
 Jochen Körner  
 Hamburg Technical Support Office  
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LR031.1.2013.12

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*The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.*

*The Design Appraisal Document No. HTS/ETS 36887-18 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

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**Sheet** 2 of 2

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