CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **KEMA 03ATEX1122 X** Issue Number: **5**

(4) Product: **Two-wire Proximity Sensors, Types .i..-..18-Li.-Exi.-…., .i..-..30-Li.-Exi.-…., WIM…-Q25L-Li-Exi…, BIM-G18-Y1/S926 and Ri…P.-DSU35…-ELi-Exi**

(5) Manufacturer: **Hans Turck GmbH & Co. KG**

(6) Address: **Witzlebenstrasse 7, 45466 Mülheim an der Ruhr, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number NL/DEK/ExTR14.0071/01.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018 **EN 60079-11 : 2012**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 1 G Ex ia IIB/IIC T4...T6 Ga and/or
II 2 G Ex ia IIC T4...T6 Gb and/or
II 2 D Ex ia IIIC T85 °C…T115 °C Db

Date of certification: 7 May 2021

DEKRA Certification B.V.

R. Schuller
Certification Manager

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

(13) # SCHEDULE

(14) **to EU-Type Examination Certificate KEMA 03ATEX1122 X** Issue No. **5**

(15) **Description**

Two-wire Proximity Sensors Types .i..-.18-Li.-Exi-…., .i..-.30-Li.-Exi-…. and WIM…-Q25L-Li-Exi… are used for signalling distance-, resp. postion-values being detected. A 4 to 20 mA supply and output signal provides feedback.

Two-wire Proximity Sensor, Type BIM-G18-Y1/S926, is used as a magnetically actuated sensor, e.g. used for the detection of the number of revolutions. A NAMUR supply and output signal provides feedback.

Two-wire Proximity Sensor, Type Ri…P.-DSU35…-ELi-Exi, is used to measure the angle of e.g. an actuator. An internal switch is connected to the teach-input, for defining the upper- and lower-scale angles of the actuator. A 4 to 20 mA supply and output signal provides feedback.

The Proximity Sensors can optionally be provided with a permanently connected cable.

Thermal and electrical data

Minimum ambient temperature:
for Sensor Type .i..-.18-Li.-Exi-…. and type BIM-G18-Y1/S926: -40 °C
and for all other types: -25 °C.

Two-wire Proximity Sensors Types .i..-.18-Li.-Exi-…. and .i..-.30-Li.-Exi-….:

Supply and output signal:
in type of protection intrinsic safety Ex ia IIB/IIC or Ex ia IIIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:
U_i = 30 V; I_i = 120 mA; C_i = C_{cable} = 120 pF/m; L_i = L_{cable} = 1µH/m.
The relation between temperature class, maximum surface temperature, ambient temperature and P_i, can be taken from the table below:

Maximum ambient temperature	Temperature class	Maximum surface temperature	P_i (mW)
+ 90 °C	T4	T115 °C	1000
+ 75 °C	T5	T100 °C	1000
+ 68 °C	T6	T85 °C	600
+ 64 °C	T6	T85 °C	800
+ 60 °C	T6	T85 °C	1000

Two-wire Proximity Sensors Type BIM-G18-Y1/S926:

Supply and output signal:
in type of protection intrinsic safety Ex ia IIB/IIC or Ex ia IIIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:
U_i = 16 V; I_i = 20 mA; P_i = 200 mW; C_i = C_{cable} = 120 pF/m; L_i = L_{cable} = 1µH/m.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 03ATEX1122 X** Issue No. **5**

The relation between temperature class, maximum surface temperature and the ambient temperature, can be taken from the table below:

Maximum ambient temperature	Temperature class	Maximum surface temperature
+ 100 °C	T4	T115 °C
+ 91 °C	T5	T100 °C
+ 76 °C	T6	T85 °C

Two-wire Proximity Sensors Type WIM…-Q25L-Li-Exi…:

Supply and output signal:
in type of protection intrinsic safety Ex ia IIB/IIC or Ex ia IIIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:
U_i = 30 V; I_i = 120 mA; P_i = 675 mW; C_i = C_{cable} = 120 pF/m; L_i = L_{cable} = 1µH/m.
The relation between temperature class, maximum surface temperature and the ambient temperature, can be taken from the table below:

Maximum ambient temperature	Temperature class	Maximum surface temperature
+ 96 °C	T4	T115 °C
+ 81 °C	T5	T100 °C
+ 66 °C	T6	T85 °C

Two-wire Proximity Sensors Type Ri…P.-DSU35…-ELi-Exi:

Supply and output signal (terminals 1 and 2 or permanently connected cable):
in type of protection intrinsic safety Ex ia IIB/IIC or Ex ia IIIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:
U_i = 30 V; I_i = 120 mA; P_i = see table; C_i = C_{cable} = 120 pF/m; L_i = L_{cable} = 1µH/m.
Teach input (terminal 3 and 4):
in type of protection intrinsic safety Ex ia IIB/IIC or Ex ia IIIC, only for connection to a passive switch.
Terminals 5 and 7, resp. terminals 6 and 8 only function as internal wire bridges, that are infallibly separated from the other circuits.
The relation between temperature class, maximum surface temperature, ambient temperature and P_i, can be taken from the table below:

Maximum ambient temperature	Temperature class	Maximum surface temperature	P_i (mW)
+79 °C	T4	T106 °C	1000
+73 °C	T5	T100 °C	1000
+66 °C	T6	T85 °C	600
+62 °C	T6	T85 °C	800
+58 °C	T6	T85 °C	1000

(13) # SCHEDULE

(14) **to EU-Type Examination Certificate KEMA 03ATEX1122 X** Issue No. **5**

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. NL/DEK/ExTR14.0071/01.

(17) **Specific conditions of use**

For the ambient temperature range and electrical data, see (15).

The Proximity Sensors shall not be installed in an explosive atmosphere requiring the use of equipment protection level Ga, if the ambient temperature is higher than 80 °C.

The Proximity Sensors, Type .i..-.30-Li.-Exi.- …., shall not be used in an explosive atmosphere of group IIC where the use of equipment protection level Ga is required.

If Proximity Sensors, Type WIM…-Q25L-Li-Exi…., are applied for EPL Ga group IIA/IIB/IIC, or EPL Gb group IIC, electrostatic charging of the non-metallic parts of the enclosure shall be avoided.

If the Proximity Sensors, Type WIM…-Q25L-Li-Exi…, are installed in an explosive atmosphere requiring the use of equipment protection level Ga, they must be installed such, that ignition sources due to impact and friction sparks are excluded.

If Proximity Sensors, Type Ri…P.-DSU35…-ELi-Exi, are:
- installed in an explosive atmosphere of group IIC, or
- installed in an explosive atmosphere of group IIA/IIB, requiring the use of equipment protection level Ga,

electrostatic charging of the enclosure and the associated positioning element shall be avoided.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR14.0071/01.

(20) **Certificate history**

Issue 5	-	225488900	Change in BIM-G18-Y1/S926 ambient temperature range. Update to latest standards

EU-Konformitätserklärung Nr.: 5019-2M

EU Declaration of Conformity No.:

Wir/ We: HANS TURCK GMBH & CO KG
WITZLEBENSTR. 7, 45472 MÜLHEIM A.D. RUHR

erklären in alleiniger Verantwortung, dass die Produkte
declare under our sole responsibility that the products

Zweidraht Näherungsschalter
Two wire proximity switch:

.i..-..18-Li.-Exi.-…., .i..-..30-Li.-Exi.-…., WIM…-Q25L-Li-Exi…
Ri…P.-DSU35…-Eli-Exi-…, BIM-G18-Y1/S926

auf die sich die Erklärung bezieht, den Anforderungen der folgenden EU-Richtlinien durch Einhaltung der folgenden Normen genügen:
to which this declaration relates are in conformity with the requirements of the following EU-directives by compliance with the following standards:

EMV - Richtlinie /EMC Directive EN 60947-5-6:2000	2014 / 30 / EU	26.02.2014
ATEX - Richtlinie /Directive ATEX EN IEC 60079-0:2018 EN 60079-11:2012	2014 / 34 / EU	26.02.2014
RoHS – Richtlinie /RoHS Directive	2011 / 65 / EU	08.06.2011

Weitere Normen, Bemerkungen:
additional standards, remarks:

Zusätzliche Informationen:
Supplementary infomation:

Angewandtes ATEX-Konformitätsbewertungsverfahren:
ATEX - conformity assessment procedure applied:

Modul B /module B
Modul D /module D
Modul E /module E

EU-Baumusterprüfbescheinigung
EC-type examination certificate

KEMA 03 ATEX 1122 X

ausgestellt:
issued by:

DEKRA Certification B.V.,
Utrechtseweg 310, 6812 AR Arnhem
Kenn-Nr. /number: 0344

Zertifizierung des QS-Systems gemäß Modul D durch:
certification of the QS-system in accordance with module D by :

Physikalisch Technische Bundesanstalt,
Bundesallee 100, 38116 Braunschweig
Kenn-Nr. /number: 0102

Mülheim, den 12.05.2021

i.V. Dr. M. Linde, Bereichsleiter Zulassungen /Head of Approvals

Ort und Datum der Ausstellung /
Place and date of issue

Name, Funktion und Unterschrift des Befugten /
Name, function and signature of authorized person