



# EU-TYPE EXAMINATION CERTIFICATE

- 1      **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU**
- 2      **EU-Type Examination Certificate No:** FM16ATEX0016X
- 3      **Equipment or protective system:** Tank Gauge Radar Micropilot NMR81 and NMR84  
**(Type Reference and Name)**
- 4      **Name of Applicant:** Endress+Hauser SE+Co. KG
- 5      **Address of Applicant:** Hauptstrasse 1  
79689 Maulburg  
Germany
- 6      This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.
- 7      FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26<sup>th</sup> February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

3057382 dated 12<sup>th</sup> July 2016

- 8      Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015,  
PD IEC/TS 60079-40:2015 and EN 60529:1991+A1:2000+A2:2013

- 9      If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
- 10     This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

**Richard Zammitt**  
Certification Manager, FM Approvals Europe Ltd.

Issue date: 02<sup>nd</sup> April 2021

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# SCHEDULE



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- 12 The marking of the equipment or protective system shall include:

**NMR81**



- II 1/2 G Ex ia/db IIC T4...T1 Ga/Gb  
II 2 (1) G Ex db [ia Ga] IIC T4...T1 Gb  
II 1/2 G Ex ia/db IIC T6...T1 Ga/Gb  
II 2 (1) G Ex db [ia Ga] IIC T6...T1 Gb

See Description Section below for Ambient Temperature Ranges.

**NMR84**

- II 1/2 G Ex ia/db IIC T6...T1 Ga/Gb  
II 2 (1) G Ex db [ia Ga] IIC T6...T1 Gb

See Description Section below for Ambient Temperature Ranges.

- 13 **Description of Equipment or Protective System:**

**General** - The Tank Gauge Radar Micropilot NMR8x is used for the contactless, continuous measurement of liquids in hazardous areas with gas atmosphere. Two different types of transmitters are available, the NMR81 and NMR84, each with a different transmitter, antenna and working frequencies for different applications. Short microwave impulses are radiated from the antenna, reflected by the medium surface and picked up again by the antenna. The delay time between radiation and receiving is measured and converted into a signal to calculate the level.

**Construction** - The Tank Gauge Radar Micropilot NMR81 and NMR84 Series comprises a single compartment flameproof enclosure with a thread-on window cover — housing the display module, electronics assembly, radar module — along with a feedthrough and a process connector with antenna. NMR81 and NMR84 have a unique radar box, feedthrough, connection cable and antenna while they share the same enclosure, display and electronics assembly. The enclosure for NMR81 and NMR84 can be Aluminum or Stainless Steel, with 7 integral M20 sized field wiring entries. Integral threaded inserts allow for optional field wiring entry options including M25, ½ NPT or ¾ NPT.

The Tank Gauge Radar Micropilot NMR81 and NMR84 is comprised of certified Tank Gauge Platform Enclosures (FM16ATEX0031U) and certified Tank Gauge Platform Electronic Modules (FM16ATEX0020U).

The following enclosures and electronic modules may be used:

- Enclosure TRC[01-10-11] ALU C-Band  
Enclosure TRC[01-20-11] ALU E- Band  
Enclosure TRC[02-10-12] SS C-Band  
Enclosure TRC[02-20-12] SS E- Band

- Module TRC[00] FP Front Plane Board
- Module TRC[01] PS\_HV Power Supply, High Voltage
- Module TRC[02] PS\_LV\_AC Power Supply, Low Voltage, AC
- Module TRC[03] PS\_LV\_DC Power Supply, Low Voltage, DC
- Module TRC[10] MB Main Board,
- Module TRC[20] IOM\_A IO Module Analog
- Module TRC[21] IOM\_A IO Module Analog

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- Module TRC[31] IOM\_D IO Module Digital
- Module TRC[32] IOM\_Mod\_FF IO Module Modbus/FF
- Module TRC[33] IOM\_V1\_WM550 IO Module V1/WM550

**Ratings** - The Tank Gauge Radar NMR8x operates at 85-264 Vac (28.8 Volt-Amperes), 52-75Vac (21.6 Volt-Amperes) and 19-64Vdc (13.4 Watts). The transmitters are rated for use in an ambient temperature range of -40°C to +60°C. The transmitter probes are rated for use in a process temperature range of -40°C to +200°C (NMR81) or -40°C to +150°C (NMR84). For further information regarding the Temperature Class and Ambient Temperature Ranges, refer to the temperature and configuration tables.

The enclosure of the Tank Gauge Radar NMR8x has an ingress protection rating of IP66 and IP68.

The Tank Gauge Radar NMR8x is evaluated as "Process Sealed" in accordance with PD IEC/TS 60079-40.

NMR81 (E-Band Radar with Aluminum enclosure):

Temperature Class	Maximum ambient temperature / °C	Maximum allowed ambient temperature at maximum process temperature / °C	Maximum process temperature / °C
<b>Configuration 1</b>			
T6	55	51	85
T5	55	46	100
T4	55	50	135
T3, T2, T1	55	47	200
<b>Configuration 2</b>			
T6	60	51	85
T5	60	46	100
T4	60	58	135
T3, T2, T1	60	54	200
<b>Configuration 3</b>			
T6	58	51	85
T5	58	46	100
T4	58	54	135
T3, T2, T1	58	51	200
<b>Configuration 4</b>			
T6	60	51	85
T5	60	46	100
T4	60	56	135
T3, T2, T1	60	53	200
<b>Configuration 5</b>			
T6	55	51	85
T5	55	46	100
T4	55	52	135
T3, T2, T1	55	49	200

NMR81 (E-Band Radar with Stainless Steel enclosure):

Temperature Class	Maximum ambient temperature / °C	Maximum allowed ambient temperature at maximum process temperature / °C	Maximum process temperature / °C

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Configuration 1			
T6	43	40	85
T5	43	37	100
T4	43	37	135
T3, T2, T1	43	32	200
Configuration 2			
T6	55	46	85
T5	55	38	100
T4	55	52	135
T3, T2, T1	55	46	200
Configuration 3			
T6	50	45	85
T5	50	38	100
T4	50	45	135
T3, T2, T1	50	40	200
Configuration 4			
T6	53	46	85
T5	53	38	100
T4	53	46	135
T3, T2, T1	53	43	200
Configuration 5			
T6	45	44	85
T5	45	38	100
T4	45	40	135
T3, T2, T1	45	36	200

NMR84 (C-Band Radar with Aluminum enclosure):

Temperature Class	Maximum ambient temperature / °C	Maximum allowed ambient temperature at maximum process temperature / °C	Maximum process temperature / °C
Configuration 1			
T6	55	52	85
T5	55	52	100
T4	55	49	135
T3, T2, T1	55	49	150
Configuration 2			
T6	60	60	85
T5	60	59	100
T4	60	56	135
T3, T2, T1	60	56	150
Configuration 3			
T6	58	55	85
T5	58	55	100
T4	58	53	135
T3, T2, T1	58	53	150
Configuration 4			
T6	60	57	85

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T5	60	57	100
T4	60	54	135
T3, T2, T1	60	54	150
Configuration 5			
T6	55	55	85
T5	55	54	100
T4	55	51	135
T3, T2, T1	55	51	150

NMR84 (C-Band Radar with Stainless Steel enclosure):

Temperature Class	Maximum ambient temperature / °C	Maximum allowed ambient temperature at maximum process temperature / °C	Maximum process temperature / °C
Configuration 1			
T6	43	39	85
T5	43	39	100
T4	43	36	135
T3, T2, T1	43	36	150
Configuration 2			
T6	55	55	85
T5	55	54	100
T4	55	51	135
T3, T2, T1	55	51	150
Configuration 3			
T6	50	47	85
T5	50	47	100
T4	50	44	135
T3, T2, T1	50	44	150
Configuration 4			
T6	53	50	85
T5	53	50	100
T4	53	46	135
T3, T2, T1	53	46	150
Configuration 5			
T6	45	43	85
T5	45	43	100
T4	45	39	135
T3, T2, T1	45	39	150

Configuration of Electronics					
	1 (worst case)	2 (best case)	3	4	5
Enclosure (Alu)	X	X	X	X	X
Slot A - IOM_D	X		X	X	X
Slot B - IOM_D	X				
Slot B - IOM_A(Ex ia)			X		X

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Slot C - IOM_A(Ex ia)	X				
Slot D - IOM_D	X				X
PS_LV_DC	X	X	X	X	X
MB	X	X	X	X	X
ExLi	X	X	X	X	X

**Tank Gauge Radar Micropilot NMR81-aabcddeeffgghiijjkkklll + (options)**

<b>aa</b>	<b>Approval:</b> BE - ATEX T4 BC - ATEX T6
<b>b</b>	<b>Terminal Type:</b> 1 - Spring Terminals 2 - Screw Terminals 9 - Special version, TSP (not relevant for safety)
<b>c</b>	<b>Power Supply:</b> B - 85-264VAC, LCD + operation D - 52-75VAC, LCD + operation E - 19-64VDC, LCD + operation Y - Special Version (not relevant for safety)
<b>dd</b>	<b>Primary Output:</b> A1 - Modbus – RS485 B1 - V1 C1 - WM550 E1 - 4-20mA HART Exd H1 - 4-20mA HART Ex i Y9 - Special Version (not relevant for safety)
<b>ee</b>	<b>Secondary I/O Analog:</b> A1 - Ex d – 1 x 4-20mA HART; 1 x RTD Input A2 - Ex d – 2 x 4-20mA HART; 2 x RTD Input B1 - Ex i – 1 x 4-20mA HART; 1 x RTD Input B2 - Ex i – 2 x 4-20mA HART; 2 x RTD Input C2 - Ex i – 1 x 4-20mA HART; 2 x RTD Input + 1 x Ex d 4-20mA HART X0 - Prepared for I/O Analog RTD input Y9 - Special Version (not relevant for safety)
<b>ff</b>	<b>Secondary I/O Digital Ex d:</b> A1 - 2 x relay + 2 x module discrete A2 - 4 x relay + 4 x module discrete A3 - 6 x relay + 6 x module discrete B1 - Modbus RS485 B2 - Modbus RS485 + 2 x relay + 2 x module discrete B3 - Modbus RS485 + 4 x relay + 4 x module discrete C1 - V1 C2 - V1 + 2x relay + 2x discrete module C3 - V1 + 4x relay + 4x discrete module E1 - W550 E2 - W550 + 2 x relay + 2 x module discrete E3 - W550 + 4 x relay + 4 x module discrete X0 - Prepared for I/O digital Ex d Y9 - Special Version (not relevant for safety)
<b>gg</b>	<b>Housing:</b> AC - Transmitter Housing Aluminum coated process 316/316L

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	BC - Transmitter + Process 316/316L Y9 - Transmitter Housing 316/316L special coating for e.g. marine applications
<b>h</b>	<b>Electrical Connection:</b> A - Thread M20 B - Thread M25 E - Thread NPT1/2" F - Thread NPT3/4" Y - Special Version (not relevant for safety)
<b>ii</b>	<b>Antenna:</b> AB - 50mm/2" AC - 80mm/3" AD - 100mm/4" YY - Special Version (not relevant for safety)
<b>jj</b>	<b>Process Sealing:</b> A1 - HNBR -30...150°C / -22...302°F B1 - FKM GLT -40...200°C / -40...392°F B2 - FFKM -20...200°C / -4...392°F B3 - FKM, -10...160°C/-14...340°F YY - Special Version (not relevant for safety)
<b>kkk</b>	<b>Process Connection:</b> Any 3 characters combinations (not relevant for safety)
<b>III</b>	<b>Accuracy, Weight + Measure Approval:</b> Any 3 characters combinations (not relevant for safety)
<b>(options)</b>	<b>Options:</b> not relevant for safety

**Tank Gauge Radar Micropilot NMR84-aabcddeeffgghijjjkkklll + (options)**

<b>aa</b>	<b>Approval:</b> BC - ATEX T6
<b>b</b>	<b>Terminal Type:</b> 1 - Spring Terminals 2 - Screw Terminals 9 - Special version, TSP (not relevant for safety)
<b>c</b>	<b>Power Supply:</b> B - 85-264VAC, LCD + operation D - 52-75VAC, LCD + operation E - 19-64VDC, LCD + operation Y - Special Version (not relevant for safety)
<b>dd</b>	<b>Primary Output:</b> A1 - Modbus – RS485 B1 - V1 C1 - WM550 E1 - 4-20mA HART Exd H1 - 4-20mA HART Ex i Y9 - Special Version (not relevant for safety)
<b>ee</b>	<b>Secondary I/O Analog:</b> A1 - Ex d – 1 x 4-20mA HART; 1 x RTD Input A2 - Ex d – 2 x 4-20mA HART; 2 x RTD Input B1 - Ex i – 1 x 4-20mA HART; 1 x RTD Input B2 - Ex i – 2 x 4-20mA HART; 2 x RTD Input C2 - Ex i – 1 x 4-20mA HART; 2 x RTD Input + 1 x Ex d 4-20mA HART X0 - Prepared for I/O Analog RTD input Y9 - Special Version (not relevant for safety)
<b>ff</b>	<b>Secondary I/O Digital Ex d:</b>

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	A1 - 2 x relay + 2 x module discrete A2 - 4 x relay + 4 x module discrete A3 - 6 x relay + 6 x module discrete B1 - Modbus RS485 B2 - Modbus RS485 + 2 x relay + 2 x module discrete B3 - Modbus RS485 + 4 x relay + 4 x module discrete C1 - V1 C2 - V1 + 2x relay + 2x discrete module C3 - V1 + 4x relay + 4x discrete module E1 - W550 E2 - W550 + 2 x relay + 2 x module discrete E3 - W550 + 4 x relay + 4 x module discrete X0 - Prepared for I/O digital Ex d Y9 - Special Version (not relevant for safety)
<b>gg</b>	<b>Housing:</b> AC - Transmitter Housing Aluminum coated process 316/316L BC - Transmitter + Process 316/316L Y9 - Transmitter Housing 316/316L special coating for e.g. marine applications
<b>h</b>	<b>Electrical Connection:</b> A - Thread M20 B - Thread M25 E - Thread NPT1/2" F - Thread NPT3/4" Y - Special Version (not relevant for safety)
<b>ii</b>	<b>Antenna:</b> BD - Planar 100mm/4" BF - Planar 150mm/6" BG - Planar 200mm/8" BH - Planar 250mm/10" BJ - Planar 300mm/12" YY - Special Version (not relevant for safety)
<b>jj</b>	<b>Process Sealing:</b> A1 - HNBR - -30...150°C / -22...302°F B1 - FKM GLT - -40...150°C / -40...392°F B2 - FFKM, -20...150°C/-4...392°F YY - Special Version (not relevant for safety)
<b>kkk</b>	<b>Process Connection:</b> Any 3 characters combinations (not relevant for safety)
<b>III</b>	<b>Accuracy, Weight + Measure Approval:</b> Any 3 characters combinations (not relevant for safety)
<b>(options)</b>	<b>Options:</b> not relevant for safety

## 14 Specific Conditions of Use:

1. For Ambient Temperature Range refer to Safety Instructions document XA01410G.
2. An antenna coated with non-conductive material can be used if avoiding electrostatic charging (e.g. through friction, cleaning, maintenance, strong medium flow).
3. Flamepath joints are not for repair. Contact the manufacturer.
4. Use heat resisting cables rated  $\geq 85^\circ\text{C}$  for  $T_a > 50^\circ\text{C}$ .
5. Precautions shall be taken to minimize the risk from electrostatic discharge of non-metallic labels, varnishes/coatings on the stainless steel 316L, and isolated metal tags applied to the enclosure.
6. To maintain the ingress protection ratings (IP66/68), Teflon tape or pipe dope is required for blanking plugs.
7. Ex d certified seals are required within 50 mm (2") on all used housing entries.

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## 15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

## 16 Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

## 17 Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

## 18 Certificate History

Details of the supplements to this certificate are described below:

Date	Description
12 <sup>th</sup> July 2016	Original Issue.
08 <sup>th</sup> August 2016	<u>Supplement 1:</u> Report Reference: RR206161 dated 05 <sup>th</sup> August 2016. Description of the Change: Correction to Model NMR81 model code options.
11 <sup>th</sup> July 2018	<u>Supplement 2:</u> Report Reference: PR450190 dated 02 <sup>nd</sup> July 2018. Description of the Change: 1) Qualification of a new, alternate process seal option and associated documentation update. 2) Change in company name from "Endress+Hauser GmbH+Co KG" to "Endress+Hauser SE+Co KG". 3) Added EN PD IEC/TS 60079-40:2015 along with the words "Process Sealed" to the marking.
12 <sup>th</sup> February 2019	<u>Supplement 3:</u> Report Reference: PR450370 dated 01 <sup>st</sup> February 2019. Description of the Change: 1) Updated model code: a) Add T6 model code option aa = "BC" to NMR81 b) Add alternative process sealing option jj = "B3" to NMR81 c) Add alternative process sealing option jj = "B2" to NMR84. 2) Corrected errors in model codes 3) Introduce Stainless Steel enclosure 4) Introduce a Dual Seal 5) Updated EN 60079-0:2012+A11:2013 to EN IEC 60079-0:2018.

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21 <sup>st</sup> March 2019	<u>Supplement 4:</u> Description of the Change: Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809.
06 <sup>th</sup> February 2020	<u>Supplement 5:</u> Report Reference: –RR220881 dated 04 <sup>th</sup> February 2020. Description of the Change: Updated Label material and Coating material. Aligned product information across all product certificates.
21 <sup>st</sup> October 2020	<u>Supplement 6:</u> Report Reference: –PR458124 dated 19 <sup>th</sup> October 2020. Description of the Change: 1) Model code amendments due to Tank Gauge Platform electronics module updates and enclosure updates to add special coating for marine applications 2) Specific Condition of Use 5) revised due to updated enclosure option 3) Modification to inner antenna construction
02 <sup>nd</sup> April 2021	<u>Supplement 7:</u> Report Reference: RR227003 dated 02 <sup>nd</sup> April 2021 Description of the Change: Document updates due to addition of UKEx Certificate.

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**Endress+Hauser SE+Co KG (1000001123)**

**Class No 3615**

**Original Project I.D. 3057382**

**Certificate I.D. FM16ATEX0016X**

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
960014603	-	Zone separation device (C-Band)	3057382
960015969	-	Bloc diagram DSP-E	3057382
960016686	-	Bloc diagram DSP-C	3057382
960017032	D	Technical Description TG-Radar Micropilot NMR8x IECEx / ATEX	RR227003
960017256	-	Circuit diagram HF-E	3057382
960017257	-	Assembly plan Side A HF-E	3057382
960017258	-	Assembly plan Side B HF-E	3057382
960017259	-	Printed circuit board HF-E	3057382
960017260	-	Conductive pattern layer A1	3057382
960017261	-	Conductive pattern layer A2	3057382
960017262	-	Conductive pattern layer B2	3057382
960017263	-	Conductive pattern layer B1	3057382
960017264	-	Circuit diagram	3057382
960017265	-	Assembly plan Side A	3057382
960017266	-	Assembly plan Side B	3057382
960017267	-	Printed circuit board	3057382
960017268	-	Conductive pattern layer A1	3057382
960017269	-	Conductive pattern layer A2	3057382
960017270	-	Conductive pattern layer B2	3057382
960017271	-	Conductive pattern layer B1	3057382
960017366	A	TG-R NMR8x Housing assy.	PR450370
960017373	-	Bloc diagram HF-C	3057382
960017374	-	Bloc diagram HF-E	3057382
960017546	A	Circuit diagram DSP-E,	3057382
960017547	-	Assembly plan Side A DSP-E	3057382
960017548	-	Assembly plan Side B DSP-E	3057382
960017549	-	Printed circuit board DSP-E	3057382
960017550	-	Conductive pattern layer A1	3057382
960017551	-	Conductive pattern layer A2	3057382
960017552	-	Conductive pattern layer A3	3057382
960017553	-	Conductive pattern layer A4	3057382
960017554	-	Conductive pattern layer A5	3057382
960017555	-	Conductive pattern layer B5	3057382
960017556	-	Conductive pattern layer B4	3057382
960017557	-	Conductive pattern layer B3	3057382
960017558	-	Conductive pattern layer B2	3057382
960017559	-	Conductive pattern layer B1	3057382
960017560	-	Circuit diagram DSP-C	3057382
960017561	-	Assembly plan Side A DSP-C	3057382
960017562	-	Assembly plan Side B DSP-C	3057382
960017563	-	Printed circuit board DSP-C	3057382
960017564	-	Conductive pattern layer A1	3057382
960017565	-	Conductive pattern layer A2	3057382
960017566	-	Conductive pattern layer A3	3057382
960017567	-	Conductive pattern layer A4	3057382
960017568	-	Conductive pattern layer A5	3057382
960017569	-	Conductive pattern layer B5	3057382
960017570	-	Conductive pattern layer B4	3057382
960017571	-	Conductive pattern layer B3	3057382
960017572	-	Conductive pattern layer B2	3057382
960017573	-	Conductive pattern layer B1	3057382
960017604	-	Bloc diagram electr. C- /E-Band	3057382
960017605	-	Wave guide with Zone separation device (E-Band)	3057382
960017610	-	BV Radarbox / C- / E-Band NMR8x	3057382
960017656	A	HF-E coupler	PR450190
960017669	-	BV NMR84 Planar (Drip off) DN100 / DN150	3057382
960017670	A	NMR81-Antenna DN50 / DN80 / DN100 / alignment unit	PR458124
960017674	-	NMR8x overview electrostatics	3057382

960017741	-	BV Micropilot NMR8x	3057382
960017744	-	NMR81 lead-sealing flange	3057382
960017745	-	Adjustable flange seal	3057382
960017751	-	Conductive pattern layer A3	3057382
960017752	-	Conductive pattern layer B3	3057382
960017754	-	Micropilot NMR8x scheme	3057382
960017799	-	Radarbox C / E-Band, Bloc diagram (TB)	3057382
960017810	-	Coax cable, (HF-C-board)	3057382
960017811	-	Coax cable (zone separation)	3057382
960017921	-	Protection foil	3057382
960017930	-	inter-connection cable	3057382
960017942	-	Coax cable C-Band antenna side	3057382
960017952	-	TG-R C-Band Ex d / XP FT cpl.	3057382
960017954	-	TG-R E-Band Ex d / XP FT cpl.	3057382
960017980	-	Circuit diagram HF-C	3057382
960017981	-	Assembly plan Side A HF-C	3057382
960017982	-	Assembly plan Side B HF-C	3057382
960017983	-	Printed circuit board HF-C	3057382
960017984	-	Conductive pattern layer A1	3057382
960017985	-	Conductive pattern layer A2	3057382
960017986	-	Conductive pattern layer B2	3057382
960017987	-	Conductive pattern layer B1	3057382
960018037	D	Overview approved laser printed adhesive nameplate materials and coatings for aluminum enclosures	RR220881
960018096	C	TG-Radar Micropilot NMR8x / IECEx / ATEX nameplate	PR458124
960018109	-	TG-R MPLT NMR8x device configuration	3057382
960018110	-	Display with device configuration label	3057382
960018122	-	Device configuration label "spare part" list	3057382
960018123	-	Terminal compartment label	3057382
960018127	A	Tank Gauging Radar NMR8x uses Tank Gauging Platform (TGP) modules	PR450370
960018516	-	Glass window E-Band	3057382
960018524	-	Glass feedthrough 6 Ghz	3057382
961000238	A	Circuit diagram HF-E-2	PR450370
961000239	A	Assembly plan Side A HF-E-2	PR450370
961000240	A	Assembly plan Side B HF-E-2	PR450370
961000241	A	Printed circuit board HF-E-2	PR450370
961000242	A	Conductive pattern layer A1 HF-E-2	PR450370
961000243	A	Conductive pattern layer A2 HF-E-2	PR450370
961000244	A	Conductive pattern layer B2 HF-E-2	PR450370
961000245	A	Conductive pattern layer B1 HF-E-2	PR450370
961002343	A	HF-E-2 coupler	PR450370
961002811	B	NMR81-Antenna DN50 / DN80 / DN100 / alignment unit	PR458124
961002812	A	Assembly waveguide/glass window with adaptor	PR450190
961002956	A	Bloc diagram HF-E-2	PR450370
XA01410G	D	Safety advice TG-Radar Micropilot NMR8x ATEX/IECEx	PR458124