

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Limiting Switches

with type designation(s)

OPTISWITCH 5100C / 5150C, OPTISWITCH 5200C / 5250C

Issued to

Krohne S.A.S.

Romans sur Isere, France

is found to comply with

DNV GL rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
OPTISWITCH 5100C / 5150C	D	B	B	B	C / D
OPTISWITCH 5200C / 5250C	D	B	A	B	C / D

Issued at **Hamburg** on **2017-04-26**

This Certificate is valid until **2021-12-20**.

for **DNV GL**

DNV GL local station: **Augsburg**

Approval Engineer: **Dariusz Lesniewski**

.....
Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

OPTISWITCH 5100C and 5150C aM b c d e f
OPTISWITCH 5200C and 5250C aM b c d e

- a =**
- X** without Ex approval
 - C** with Ex approval (only in connection with Z- and N-Electronics)
 - D** with Ex approval (only in connection with housing variants: M, U, 4)
Ex approvals to be requested by the manufacturer
- b =** Process connection
flanges/ threads according to standards 1 to 3 letters A-Z
- c =** Adapter / process temperature X, T, G, D
- d =** Housing / Protection / Cable entry
- P** Plastic single chamber / IP66 / IP67 / M20 x 1,5
 - N** Aluminium single chamber IP66 / IP67 / ½ NPT
 - M** Aluminium single chamber IP66 / IP67 / M20 x 1,5
 - 7** Special colour Aluminium single chamber IP66 / IP67 / M20 x 1,5
 - U** Aluminium single chamber IP66 / IP67/ ½ NPT
 - 4** Special colour Aluminium single chamber IP66 / IP67 / ½ NPT
 - V** StSt single chamber / IP66 / IP67 / M20 x 1,5
 - A** StSt single chamber / IP66 / IP67/ ½ NPT
 - G** Plastic single chamber / IP 65 with plug connector ISO4400
 - H** Aluminium single chamber / IP 65 with plug connector ISO4400
 - I** Plastic single chamber / IP 65 / Plug connector Harting HAN 8D (straight)
 - J** Aluminium single chamber / IP 65 / Plug connector Harting HAN 8D (straight)
 - L** Plastic single chamber / IP 65 / Plug connector Harting HAN 8D (bent)
 - Q** Aluminium single chamber / IP 65 / Plug connector Harting HAN 8D (bent)
 - T** Plastic single chamber / IP 66 / IP 67 / Plug connector M12 x 1 (4-pole)
 - Z** Aluminium single chamber / IP66/IP67 / Plug connector M12 x 1 (4-pole)
 - W** Plastic single chamber / IP66/IP67 / Plug connector M12 x 1 (5-pole)
 - Y** Plastic single chamber / IP66/IP67 / plug M12x1 (5 pole); EN50044
 - D** Plastic single chamber / IP66/IP67 / plug M12x1 (4 pole); EN50044
 - 3** Aluminium Single chamber / IP 66 / IP 68 (1 bar) / M20x1,5
 - 5** StSt steel single chamber (precision casting) / IP 66 / IP 68 (1bar) / M20x1,5
- e =** Electronics
- C** Contactless 20...253VAC/DC
 - R** Relais 20...72VDC/20...253VAC
 - T** Transistor 10...55 VDC
 - V** Transistor 10...55 VDC (250ms)
 - Z** Two-wire (8/16 mA)12...36 VDC
 - N** Namur signal
 - W** Namur signal (250ms)
- f =** Switching Point
- X** Standard
 - L** as LS300/3000

Application/Limitation

OPTISWITCH 5200/5250 sensors with insertion length > 700mm are to be supported at 700mm and then at every following 1500mm.

Type Approval documentation



Job Id: **262.1-025354-1**
Certificate No: **TAA000016T**

Tests carried out

Applicable tests according to Class Guidance DNVGL-CG-0339, November 2015.

Marking of product

The products to be marked with:

- model name
- manufacturer name
- serial number

END OF CERTIFICATE