DNV•GL

# Magnetic level switch ERH-xx-20 

Level signalling of the medium having minimum density $0,70 \mathrm{~g} / \mathrm{cm}^{3}$. The basic version, mounted from the top, is available with $92 \times 92 \mathrm{~mm}$ flange connector, head made from aluminium alloy and M20x1,5 cable gland with casing protection degree IP68. Other versions of mechanic or threaded flange connectors according to the ordering code. There is also a possibility of ordering the level swicth with connector according to the requirements, e. g. with flange acc. to DIN or ANSI standard. The level switch can also be ordered in version fully made from acidproof steel, with additional cover protecting the float, made from stainless steel, with additional cover protecting the float, as
 well as with certified cable of optional length. The level switch has DNV GL Marine approval and ATEX certification.

## Technical data

| Min. medium density | $0,70 \mathrm{~g} / \mathrm{cm}^{3}$ |
| :--- | :--- |
| Max. process pressure | $1,0 \mathrm{MPa}$ |
| Ambient temperature | $-25^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ |
| Medium temperature | $-25^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ |
| Switching points | $1,2 \mathrm{or} 3$ |
| Switching rate * | $230 \mathrm{~V} \mathrm{AC;} 100 \mathrm{VA} ; 1 \mathrm{~A}$ |
|  | $230 \mathrm{~V} \mathrm{DC;} \mathrm{50W;} 0,5 \mathrm{~A}$ |
| Hysteresis | 10 mm |
| Ingress Protection | IP 68 |


| Type of temp. senor | Pt100 |
| :--- | :--- |
| ATEX | Ex $\\| 2 \mathrm{G}$ Ex db IIC T3 $\div \mathrm{T} 6 \mathrm{~Gb}$ |
| Material of the wet part | 316 L |
| Material of the dry part | aluminum alloy |
|  | or 316 |
| Floating element | $\varnothing 40 \times 35 \mathrm{~mm}$ |
| Protection tube | $\varnothing 60$ |
| Weight of the level switch ** | $0,3 \ldots . .5,5 \mathrm{~kg}$ |
| Weight of the cable | $0,15 \mathrm{~kg} / \mathrm{m}$ |

* maximum parameters of the reed relays apply to the loads of resistance character; for inductive loads such as relay coils, one should apply adequate protecting systems (detailed pieces of information in Operation Manual)
** it depends on the version


[^0]
## Ordering procedure

| ERH-02-20 | Level switch with flange connector 92 mm (4 holes $\varnothing 14 / \varnothing 92 \mathrm{~mm}$ ) |
| :---: | :---: |
| ERH-04-20 | Level switch with flange connector $\not 1120 \mathrm{~mm}$ ( 6 holes $\varnothing 12 / \varnothing 100 \mathrm{~mm}$ ) |
| ERH-06-20 | Level switch with flange connector DN80PN40 (8 holes $\varnothing 18 / \varnothing 160 \mathrm{~mm}$ ) |
| ERH-09-20 | Level switch with threaded connector 2" NPT |
| ERH-XX-20 | Level switch with connector according to the order |
| /A/0/0 | 1 switching point (give value A in mm) |
| /A/B/0 | 2 switching points (give values A and B in mm)* |
| /A/B/C | 3 switching points (give values A, B and C in mm) * |
| -1 | Electric connector IP68 without cable (not available with Ex option) |
| -2 | Electric connector IP68 with cable 3m length ** (not available with Ex option) |
| -3 | Electric connector ER2-1593 (IP68) with cable 3m length ** (not available with Ex option) |
| -4 | Electric connector IP68 with marking ATEX Ex d IIC |
| -5 | Electric connector without cable gland (thread M20x1,5) |
| -K | Fully stainless steel version |
| -P | With protection of float |
| -T | With Pt100 sensor |
| -PT | With protection of float and Pt100 sensor |
| -KP | Fully stainless steel version with protection of float |
| -KT | Fully stainless steel version with Pt100 sensor |
| -KPT | Fully stainless steel version with protection of float and Pt100 sensor |
| /Ex |  |


| ERH-11-20 | Level switch with mounting clamp (mini version - fully stainless steel) |
| :---: | :---: |
| /H-2 | 1 switching point approximately in the middle of tube length + electric connector with cable 3m length ** |
| -Y | With yoke / shackle |
| -P | With protection of float |
| -YP | With yoke / shackle and protection of float |
| -YP/Tester | With yoke / shackle, protection of float and tester |

* the dimensions $A, B$ and $C$ depend on the ordered version; for one signalling point: A min. 50 mm , A max. 1000mm; for two signalling points: A min. 150 mm , A max 1000 mm ; B min. 50 mm , B max 900 mm ; ( $A-B$ ) min. 100mm; for three signalling points: $A \min .250 \mathrm{~mm}$, $A \max 1000 \mathrm{~mm}$; $B \min .150 \mathrm{~mm}$, $B$ max 900 mm ; $C$ min. $50 \mathrm{~mm}, C$ max $800 \mathrm{~mm} ;(A-B) \mathrm{min}$. 100 mm , (B - C) min. 100mm
** other lengths of cable upon the order


## Float level switch ERH-01-18

```
\checkmark ~ M i n / m a x ~ s i g n a l i z a t i o n ~
\checkmark ~ R a n g e ~ c h a n g e ~ p o s s i b l e ~ b y ~ c h a n g i n g ~ w e i g h t ~ p o s i t i o n
\checkmark ~ D i r e c t ~ c o n t r o l ~ o f ~ l o w ~ p o w e r ~ p u m p s
\checkmark \quad \text { Chemical resistance to most common media}
\checkmark ~ H i g h ~ m e c h a n i c a l ~ a n d ~ e l e c t r i c a l ~ r e s i s t a n c e
```


## Technical data

Minimal signalization range
Max. medium temperature
Max. pressure
Nominal current Inc
Power supply
Contacts
Ambient temperature
Ingress protection class
Cable length
Cable type
Float material
Additional accessories
$350 \mathrm{~mm} \pm 15 \%$
$85^{\circ} \mathrm{C}$
0,35 MPa
20 A
250 V AC-50/60Hz
filling - black - blue
emptying - black - brown
$-25 \ldots+80^{\circ} \mathrm{C}$
IP68
10 or 20 m
Neoprene HR HY H07RN8-F $3 \times 1 \mathrm{~mm}{ }^{2}$
Copolymer polypropylene
Weight


## Ordering procedure

## ERH-01-18 / L = ... m/...

Cable length: 10 or 20 m Optional: weight


[^0]:    The dimensions $A, B$ and $C$ depend on the ordered version. For one signalling point: $A$ min. $50 \mathrm{~mm}, A$ max. 1000 mm . For two signalling points: A min. 150 mm , A max 1000 mm ; $B$ min. 50 mm , $B$ max 900 mm ; ( $A-B$ ) min. 100mm. For three signalling points: A min. $250 \mathrm{~mm}, A$ $\max 1000 \mathrm{~mm} ; B \min .150 \mathrm{~mm}, B \max 900 \mathrm{~mm} ; C \min .50 \mathrm{~mm}, C \max 800 \mathrm{~mm} ;(A-B) \mathrm{min} .100 \mathrm{~mm},(B-C) \mathrm{min} .100 \mathrm{~mm}$.

