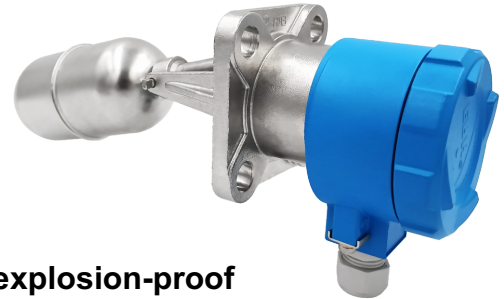


Level switches

ERH-xx-04, -06, -07, -16 i -16.1

- ✓ Reliable switching method
- ✓ Mounting from the side or top
- ✓ Flanged connections 92x92 and DN80 or threaded R2", G2" and 2 "NPT
- ✓ Option of execution entirely in stainless steel
- ✓ Enclosure protection IP66 or IP68
- ✓ DNV, LR, BV and PRS marine certificates, ATEX explosion-proof certificate and PZH hygienic certificate



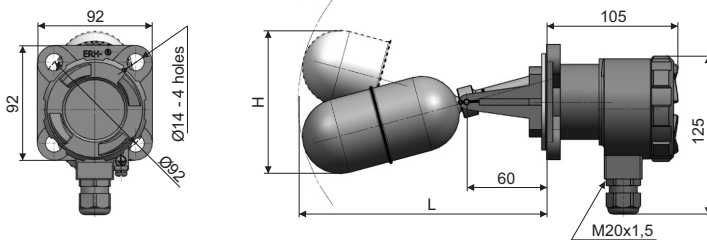
Application

Level regulators are designed for signaling limit levels or two-state control of liquid levels in open and closed pressure vessels, in explosive atmospheres. The regulators can operate in aggressive liquids that do not affect 316/316L steel.

Dimensions

ERH-01-04 (-06,-07,-16,-16.1)

- basic version with flange connection 92x92

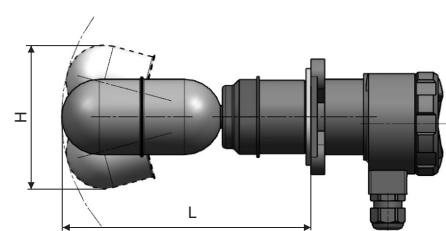


Dimensions for standar versions (for non-hazardous area)
ERH-01-04 (-06,-07); ERH-02-04 (-06,-07)

CODE	H mm	L mm	Hysteresis mm
- 1	120	190	10
- 2	140	230	20
- 3	150	255	30

ERH-02-04 (-06,-07,-16,-16.1)

- version with float protection

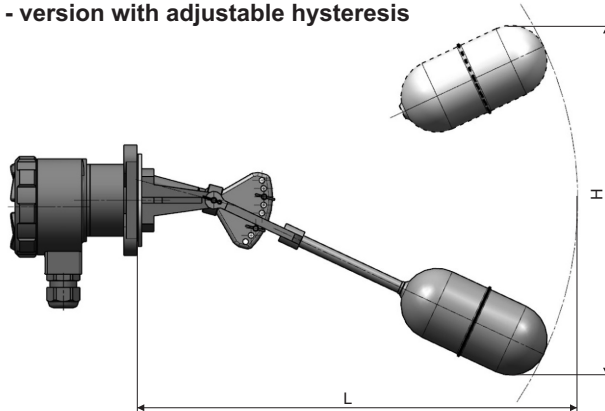


Dimensions for explosion proof versions
ERH-01-16 (-16.1); ERH-02-16 (-16.1)

CODE	H mm	L mm	Hysteresis mm
- 1	140	230	10
- 2	180	305	20
- 3	240	405	30

ERH-03-04 (-06,-07,-16,-16.1)

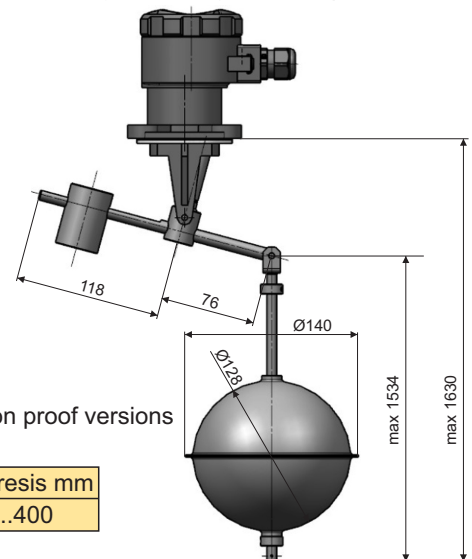
- version with adjustable hysteresis



Dimensions for standar versions
(for non-hazardous area) ERH-03-04 (-06,-07)

CODE	H mm	L mm	Hysteresis mm
- 1	680	510	100...400
- 2	450	380	50...250

ERH-04-04 (-06,-07,-16,-16.1) -version with adjustable hysteresis (top mounted)



Dimensions for explosion proof versions
ERH-03-16 (-16.1)

H mm	L mm	Hysteresis mm
680	510	50...400

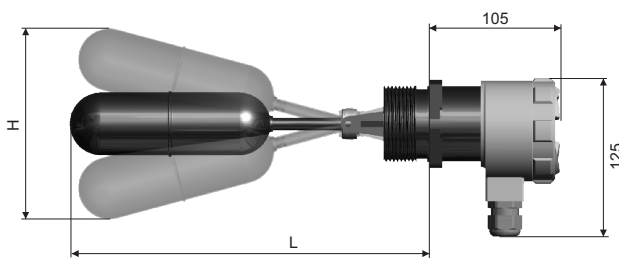
ERH-07-04 (-06,-07,-16,-16.1); ERH-08-04 (-06,-07,-16,-16.1); ERH-09-04 (-06,-07,-16,-16.1)

Certificates

ThreadR2"	ThreadG2"	Thread2"NPT	H mm	L mm	Hysteresis mm
ERH-07-04-1	ERH-08-04-1	ERH-09-04-1	124	231	18
ERH-07-06-1	ERH-08-06-1	ERH-09-06-1			
ERH-07-07-1	ERH-08-07-1	ERH-09-07-1			
ERH-07-04-2	ERH-08-04-2	ERH-09-04-2	139	260	26
ERH-07-06-2	ERH-08-06-2	ERH-09-06-2			
ERH-07-07-2	ERH-08-07-2	ERH-09-07-2			
ERH-07-04-3	ERH-08-04-3	ERH-09-04-3	152	285	32
ERH-07-06-3	ERH-08-06-3	ERH-09-06-3			
ERH-07-07-3	ERH-08-07-3	ERH-09-07-3			
ERH-07-16-1	ERH-08-16-1	ERH-09-16-1	139	260	13
ERH-07-16.1-1	ERH-08-16.1-1	ERH-09-16.1-1			
ERH-07-16-2	ERH-08-16-2	ERH-09-16-2	178	335	24
ERH-07-16.1-2	ERH-08-16.1-2	ERH-09-16.1-2			
ERH-07-16-3	ERH-08-16-3	ERH-09-16-3	230	435	37
ERH-07-16.1-3	ERH-08-16.1-3	ERH-09-16.1-3			



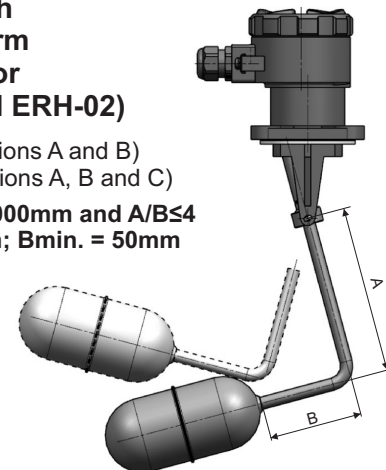
Remark! Level switches with threaded process connection available only with float ER2-1661.



Level switch with bent arm (available for ERH-01 and ERH-02)

L-type (dimensions A and B)
Z-type (dimensions A, B and C)

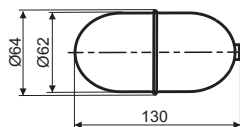
A+B = max. 1000mm and A/B ≤ 4
A_{min.} = 50mm; B_{min.} = 50mm



Floats

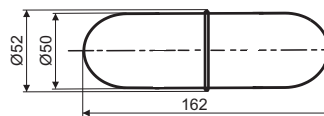
Float in standard execution:

- ER2-1101 for ERH-01(02)-04-1
ERH-01(02)-06-1
ERH-01(02)-07-1
- ER2-1024 for other types of ERH, including Ex version



Float in special version*:

- ER2-1661-1 for ERH-01(02)-04-1
ERH-01(02)-06-1
ERH-01(02)-07-1
- ER2-1661-2 for other types of ERH, including Ex version
* standard version for ERH with threaded connection



Certificates

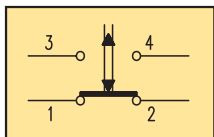
Type	Description	IP class	ATEX	DNV	LR	BV	PRS	PZH
ERH-xx-04	Standard version	IP66						<input checked="" type="checkbox"/>
ERH-xx-06	Marine version	IP66		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ERH-xx-07	Submersible version	IP68		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
ERH-xx-16	Version for hazardous area (explosion proof)	IP66	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
ERH-xx-16.1	Submersible version for hazardous area (explosion proof)	IP68	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Technical data

Parameters		ERH-01-	ERH-02-	ERH-03-	ERH-04-	ERH-07- ERH-08- ERH-09-
Hysteresis	ERH-xx-04, -06, -07	10, 20, 30 mm		50...250 mm 100...400 mm	32...1350 mm (more on request)	18, 26, 32 mm
	ERH-xx-16, -16.1			50...400mm		
Min. medium density		0,60 g/cm ³				
Max. medium pressure	ERH-xx-04, -06, -16	4,0 MPa			1,6 MPa	4,0 MPa
	ERH-xx-07, -16.1	0,2 MPa				
Max. medium temperature	ERH-xx-04, -06	250°C				
	ERH-xx-16	100°C				
	ERH-xx-07, -16.1	70°C				
Ambient temperature		-25...+70°C				
Ingress protection class	ERH-xx-04, -06, -16	IP66				
	ERH-xx-07, -16.1	IP68				
Weight	ERH-xx-yy	1,8 kg	2,0 kg	2,1 kg	3,0 kg	1,8 kg
	ERH-xx-yy-k	2,6 kg	2,8 kg	2,9 kg	3,8 kg	2,6 kg
	1mb of cable	0,2 kg				
Explosion proof	ERH-xx-16, -16.1	Ⓔ II 1/2G c Ex de IIB T4 Ga/Gb				
Application		Liquids without contamination by solid suspensions			Liquids without and with contamination by solid suspensions	Liquids without contamination by solid suspensions
Electrical parameters	ERH-xx-04, -06	AC15* U ≤ 400V, (50...60)Hz; I ≤ 10A; durability of contacts ≥ 3x10 ⁵ DC13** U _e ≤ 220V=; I ≤ 0,6A; durability of contacts ≥ 0,3x10 ⁵ Minimum voltage and switching current 5V; 5mA Cross section of connecting cables: one-wire 1...2,5mm ² multi-wire 0,75...1,5mm ²				
	ERH-xx-16, -16.1, -07	AC15* U ≤ 230V, (50...60)Hz; I ≤ 2,5A; durability of contacts ≥ 1x10 ⁷ DC13** U _e ≤ 220V; I ≤ 0,3A; durability of contacts ≥ 1x10 ⁷ Minimum voltage and switching current 5V; 5mA Cross section of connecting cables: one-wire 1mm ² multi-wire 1mm ²				

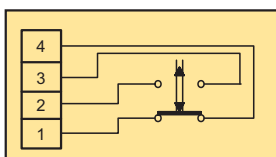
Microswitches

ERH-xx-04, -06, -07



Microswitch for standard version
83 140

ERH-xx-16, -16.1



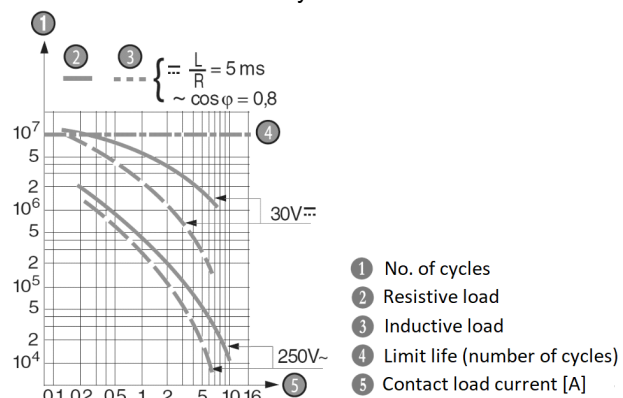
Microswitch for Ex version
ER3-1536

Category of usage:

* acc. PN-EN 60947-5-1, Electromagnet control (>72VA)

** acc. PN-EN 60947-5-1, Electromagnet control

Calculation of contact life for any load



Ordering procedure

ERH-01	Level switch with flange connection 92x92	
ERH-02	Level switch with flange connection 92x92 with protection sleeve	
	-04	Standard version IP66
	-06	Marine version IP66
	-07	Submersible version IP68
	-16	Explosion proof version IP66
	-16.1	Submersible explosion proof version IP68
	-1	Hysteresis 10mm
	-2	Hysteresis 20mm
	-3	Hysteresis 30mm
	* -4-0	Bent arm A=125mm B=125mm
	-4-1	Bent arm A=185mm B=80mm
	-4-2	Bent arm A=250mm B=125mm
	-4-3	Bent arm A=140mm B=120mm
	-4-4	Bent arm A=100mm B=120mm
	-4-5	Bent arm A=120mm B=80mm
	-4-6	Bent arm A=150mm B=80mm
	-4-x	Bent arm acc. to customer specification
Options for ERH-xx-07	-1	Without cable
	-2	With 3m of cable – other length on request
	-k	Stainless steel version

* For bent arm (type L) the following conditions must be met
 $A+B=\max.1000\text{mm}$ and $A/B\leq 4$; $A_{\min.}=50\text{mm}$; $B_{\min.}=50\text{mm}$

ERH-03	Level switch with flange connection 92x92 with adjustable hysteresis	
	-04	Standard version IP66
	-06	Marine version IP66
	-07	Submersible version IP68
	-16	Explosion proof version IP66
	-16.1	Submersible explosion proof version IP68
	Options for ERH-xx-04, -06, -07 **	
	-1	Hysteresis 100...400mm
	-2	Hysteresis 50...250mm
Options for ERH-xx-07	-1	Without cable
	-2	With 3m of cable – other length on request
	-k	Stainless steel version

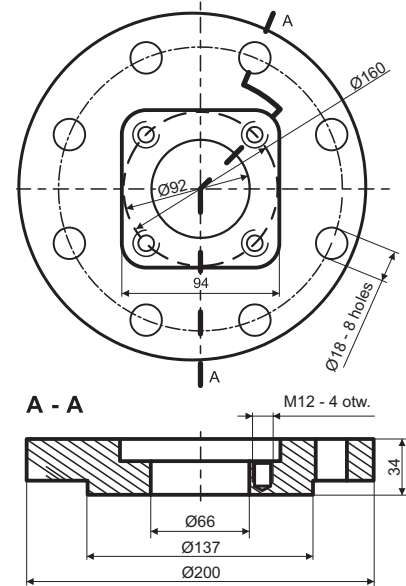
** for ERH-xx-16 and -16.1 only one execution with hysteresis 50...200mm

ERH-04	Level switch with flange connection 92x92 top mounted	
	-04	Standard version IP66
	-06	Marine version IP66
	-07	Submersible version IP68
	-16	Explosion proof version IP66
	-16.1	Submersible explosion proof version IP68
Options for ERH-xx-07	-1	Without cable
	-2	With 3m of cable – other length on request
	-k	Stainless steel version

ERH-07	Level switch with threaded connection R2" (2"BSPT)	
ERH-08	Level switch with threaded connection G2" (2"BSPP)	
ERH-09	Level switch with threaded connection 2"NPT	
	-04	Standard version IP66
	-06	Marine version IP66
	-07	Submersible version IP68
	-16	Explosion proof version IP66
	-16.1	Submersible explosion proof version IP68
	-1	Hysteresis 18mm (for Ex version 13mm)
	-2	Hysteresis 26mm (for Ex version 24mm)
	-3	Hysteresis 32mm (for Ex version 37mm)
Options for ERH-xx-07	-1	Without cable
	-2	With 3m of cable – other length on request
	-k	Stainless steel version

Accessories

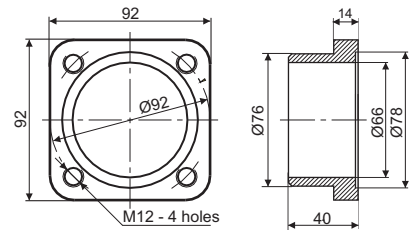
Flange DN80 ER2-1587 stainless steel



Connection flange according to customer specification (DIN, ANSI, JIS) - on request

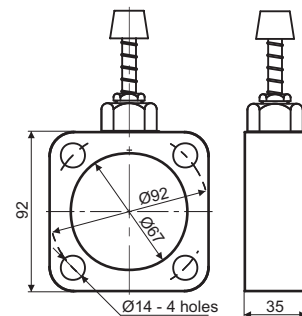
Counterflange ER2-1646

ER2-1646-1 carbon steel
 ER2-1646-2 stainless steel



Tester ER3-1560

ER3-1560-1 carbon steel
 ER3-1560-2 stainless steel



Level switches ERH-01 i ERH-02 with float ER2-1661 available on request.