





NOTIFIED BODY No. 1488
INSTYTUT TECHNIKI BUDOWLANEJ
CERTIFICATION DEPARTMENT

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e-mail: certyfikacja@itb.pl, www.itb.pl



CERTIFICATE OF CONSTANCY OF PERFORMANCE 1488-CPR-0038/W

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product

Building hardware - Single-axis hinges WALA

general identification, intended use and performance of the product are described in the Annex No. Z-1488-CPR-0038/W which is an integral part of this certificate

placed on the market under the name or trade mark of:

WALA Sp. z o.o.
ul. Parkowa 16
43-365 Wilkowice
Poland

and produced in the manufacturing plant:

WALA Sp. z o.o.
ul. Parkowa 16
43-365 Wilkowice
Poland

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard:

EN 1935:2002+ EN 1935:2002/AC:2003

under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the constancy of performance of the construction product.

This certificate was first issued on 15.12.2006 as a certificate No 1488-CPD-0038 (updated on 14.07.2009, 29.09.2009, 06.12.2010, 09.05.2011, 30.05.2012, 24.06.2013, 26.11.2015, 07.03.2016, 18.03.2019, 21.04.2021, 10.01.2023 and 19.01.2024) and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

DEPUTY HEAD
of the Certification Department

Piotr Maciejak, M.Sc. Eng.



Warsaw, 19.01.2024

DEPUTY DIRECTOR
of Instytut Techniki Budowlanej

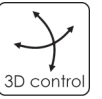
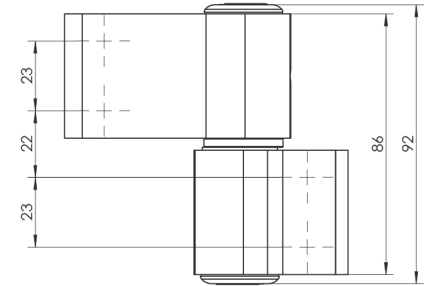
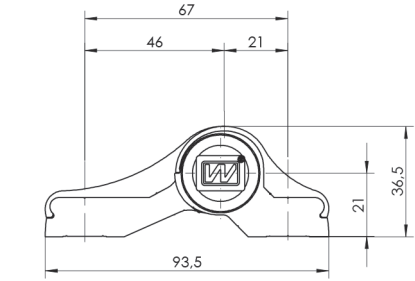
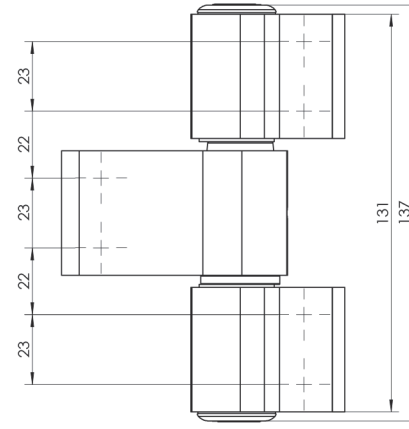
Anna Panek, M.Sc. Eng.









ASYMMETRICAL

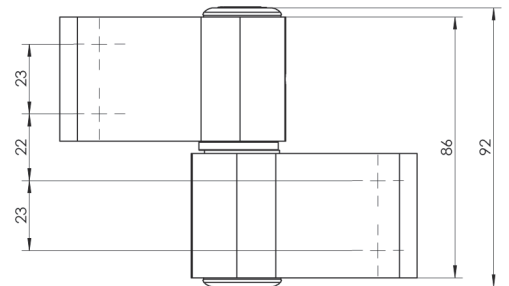
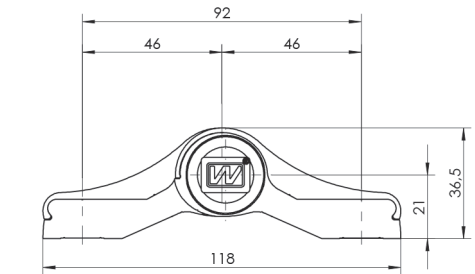
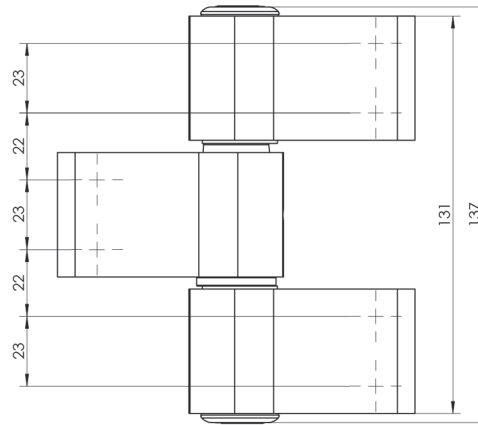
-  7016
-  7021
-  7024
-  9005
-  8077
-  8019
-  8017
-  8003
-  9001
-  1036W
-  9010
-  9016
-  7035
-  9006
-  ANODE NATURAL
-  INOX COATING
-  GOLDEN ELECTROPOLER
-  GOLD W3
-  GOLD W4
-  RAL



SYMMETRICAL

- SUBLIMATION

 GOLDEN OAK
-  WALNUT
-  BLACK PLASTIC
-  WHITE PLASTIC

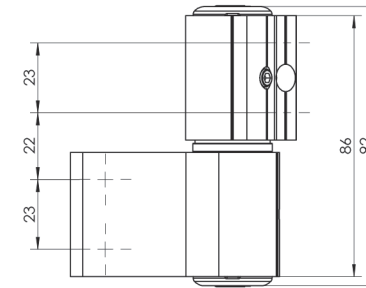
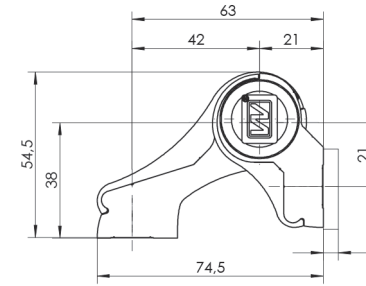
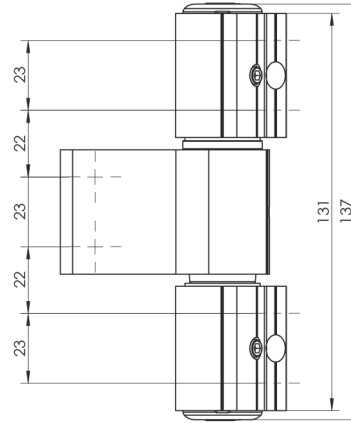




WX

SURFACE HINGES / HINGES

ANGULAR



- 7016
- 7021
- 7024
- 9005
- 8077
- 8019
- 8017
- 8003
- 9001
- 1036W
- 9010
- 9016
- 7035
- 9006
- ANODE NATURAL
- INOX COATING
- GOLDEN ELECTROPOLER
- GOLD W3
- GOLD W4
- RAL

WX HINGE ADJUSTMENT

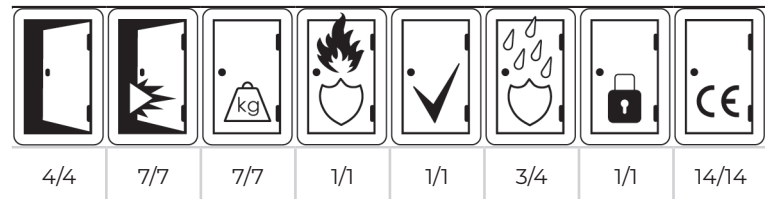
- +0,9 mm
- +0,5 mm
- 0 mm
- 0,5 mm
- 0,9 mm



3-wing hinge adjustment is provided on our website www.wala.pl

WX HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in fire door and emergency exit doors



- SUBLIMATION
- GOLDEN OAK
- WALNUT
- BLACK PLASTIC
- WHITE PLASTIC





Private building



Public building



Door closer



2-wing hinge



3-wing hinge

		W	S	800	900	1000	1100	1200	1300	1400		
= 2x 	2000			122	113	105	97	90	83	77		
	2100			129	119	110	102	95	88	81		
	2200	130	130	125	116	107	99	92	85			
	2300					122	113	104	96	89		
	2400			128	118	109	101	94				
	2500					124	115	106	99			
	2600	130	130					121	112	103		
	2700							127	117	109		
	2800								123	114		
	2900									129	120	
	3000										130	126

		W	S	800	900	1000	1100	1200	1300	1400		
= 3x 2x 	2000			173	160	148	137	127	117	109		
	2100	180	180	168	155	144	133	123	114			
	2200					176	163	151	140	130	120	
	2300					171	159	147	136	126		
	2400	180	180				167	154	143	132		
	2500							175	162	150	139	
	2600	180	180					170	157	146		
	2700							179	165	153		
	2800								174	161		
	2900									180	169	
	3000										180	177

		W	S	800	900	1000	1100	1200	1300	1400	
= 3x 	2000			216	200	185	171	159	147	136	
	2100	220	220	210	194	180	167	154	143		
	2200					204	189	175	162	150	
	2300			214	198	184	170	157			
	2400					208	193	179	165		
	2500	220	220			219	202	187	174		
	2600							213	197	182	
	2700							207	191		
	2800								217	201	
	2900									211	
	3000										220

		W	S	800	900	1000	1100	1200	1300	1400	
= 4x 	2000	250	250	238	220	204	189	175	162		
	2100					249	231	214	198	183	170
	2200					243	225	208	193	178	
	2300	250	250				236	218	202	187	
	2400							248	229	212	197
	2500	250	250					241	223	206	
	2600									234	217
	2700								246	228	
	2800									250	239
	2900										250
	3000										

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





WX LOAD SELECTION

SURFACE HINGES / HINGES



Private building



Public building



Door closer



2-wing hinge



3-wing hinge

W	S	800	900	1000	1100	1200	1300	1400				
		2000	140	140	140	130	120	111	103	96		
2100	137	126				117	108	100				
2200	140	140				133	123	114	105			
2300						139	129	119	111			
2400	140	140				140	140	135	125	116		
2500								132	122			
2600								138	128			
2700	140	140				140	140	140	134			
2800									140	140	140	140
2900												
3000												

W	S	800	900	1000	1100	1200	1300	1400													
		2000	200	200	200	200	200	200	200	198	184	170	157	146	135	125					
2100	193	179								165	153	142	131								
2200	200	200								200	200	200	200	200	187	174	161	149	138		
2300															197	182	169	156	145		
2400	200	200								200	200	200	200	200	200	200	200	191	177	164	152
2500																		186	172	159	
2600																		195	181	167	
2700	200	200								200	200	200	200	200	200	200	200	200	190	176	
2800																			199	185	
2900																			200	200	200
3000	200																				

W	S	800	900	1000	1100	1200	1300	1400															
		2000	230	230	230	230	230	230	230	230	216	200	185	171	159	147							
2100	227	210									194	180	167	154									
2200	230	230									230	230	230	230	230	230	230	230	221	204	189	175	162
2300																			214	198	184	170	
2400	230	230									230	230	230	230	230	230	230	230	230	225	208	193	179
2500																				219	203	188	
2600																				213	197		
2700	230	230									230	230	230	230	230	230	230	230	230	223	207		
2800																				217			
2900																				230	230	230	230
3000	230																						

W	S	800	900	1000	1100	1200	1300	1400																													
		2000	280	280	280	280	280	280	280	280	280	280	280	280	280	280	259	240	222	206	191	176															
2100	272	252															233	216	200	185																	
2200	280	280															280	280	280	280	280	280	280	280	280	280	280	280	280	265	245	227	210	194			
2300																														278	257	238	221	204			
2400	280	280															280	280	280	280	280	280	280	280	280	280	280	280	280	280	270	250	232	214			
2500																															263	243	225				
2600																															276	255	236				
2700	280	280															280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280		
2800																																				268	248
2900																																				280	280
3000	261	241																																			

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





Private building



Public building



Door closer



2-wing hinge



3-wing hinge

W	S	800	900	1000	1100	1200	1300	1400
		2000	98	91	84	78	72	67
2100	103	95	88	82	76	70	65	
2200	108	100	93	86	79	74	68	
2300	113	105	97	90	83	77	71	
2400	119	110	102	95	88	81	75	
2500	125	116	107	99	92	85	79	
2600	130	122	113	104	97	89	83	
2700		128	118	109	101	94	87	
2800	130	130	124	115	106	99	91	
2900			121	112	103	96		
3000			127	117	109	101		

W	S	800	900	1000	1100	1200	1300	1400
		2000	131	121	112	104	96	89
2100	137	127	118	109	101	93	86	
2200	144	133	123	114	106	98	91	
2300	151	140	130	120	111	103	95	
2400	159	147	136	126	117	108	100	
2500	167	154	143	132	123	113	105	
2600	175	162	150	139	129	119	110	
2700	180	180	170	158	146	135	125	116
2800			179	165	153	142	131	122
2900	180	180	174	161	149	138	128	
3000			180	169	156	145	134	

W	S	800	900	1000	1100	1200	1300	1400
		2000	169	157	145	134	124	115
2100	178	164	152	141	131	121	112	
2200	186	173	160	148	137	127	118	
2300	196	181	168	155	144	133	123	
2400	206	190	176	163	151	140	130	
2500	216	200	185	171	159	147	136	
2600	220	220	210	194	180	167	154	143
2700			204	189	175	162	150	
2800	220	220	214	198	184	170	157	
2900			208	193	179	165		
3000			219	202	187	174		

W	S	800	900	1000	1100	1200	1300	1400
		2000	219	203	188	174	161	149
2100	230	213	197	183	169	157	145	
2200	242	224	207	192	178	165	152	
2300	250	250	235	218	202	187	173	160
2400			247	229	212	196	181	168
2500	250	250	240	222	206	190	176	
2600			233	216	200	185		
2700	250	250	245	227	210	194		
2800			238	220	204			
2900	250	250	232	214				
3000			243	225				

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.



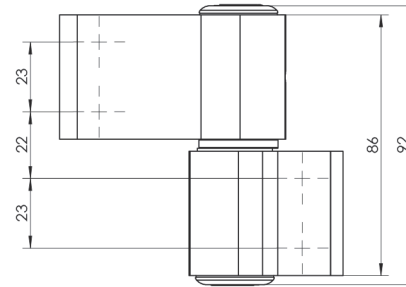
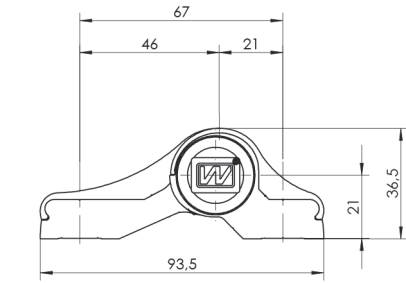
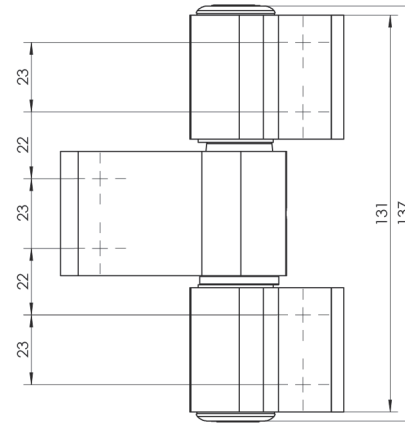


MX

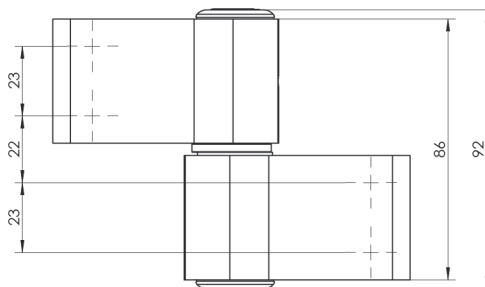
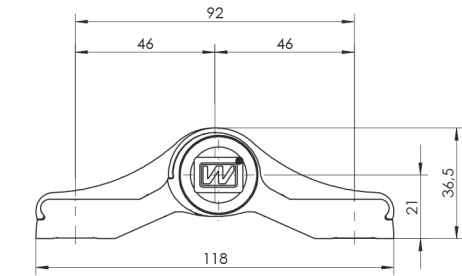
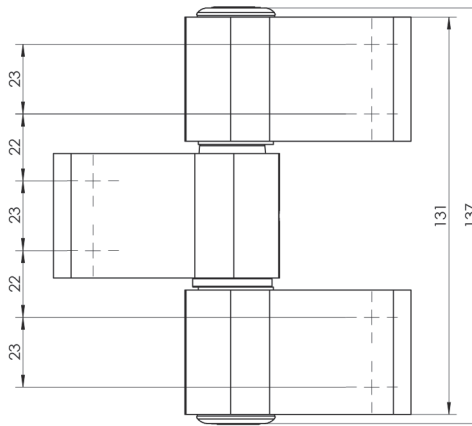
SURFACE HINGES / HINGES



















ASYMMETRICAL



SYMMETRICAL

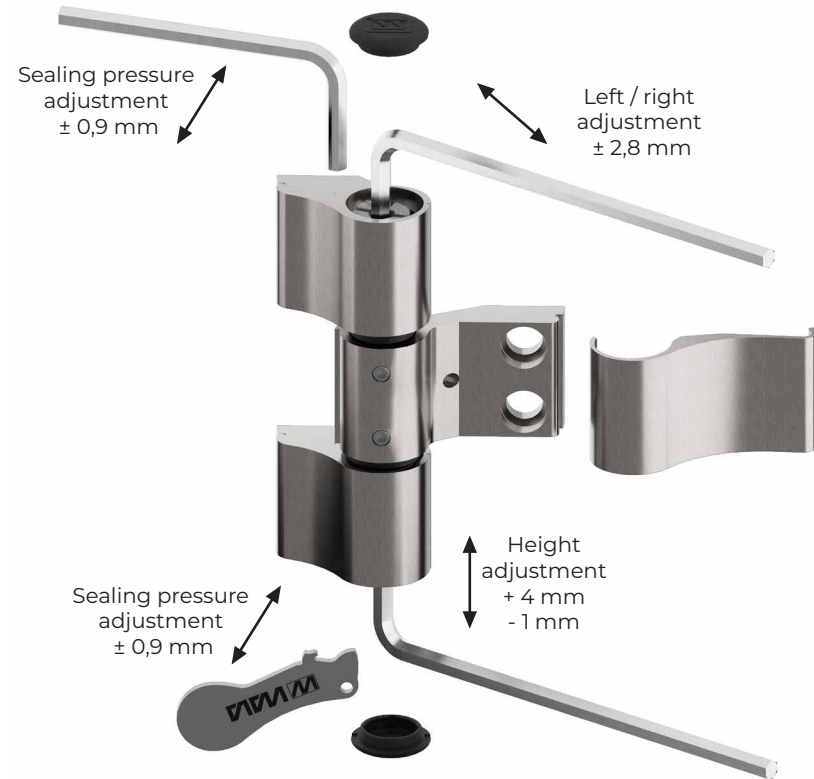
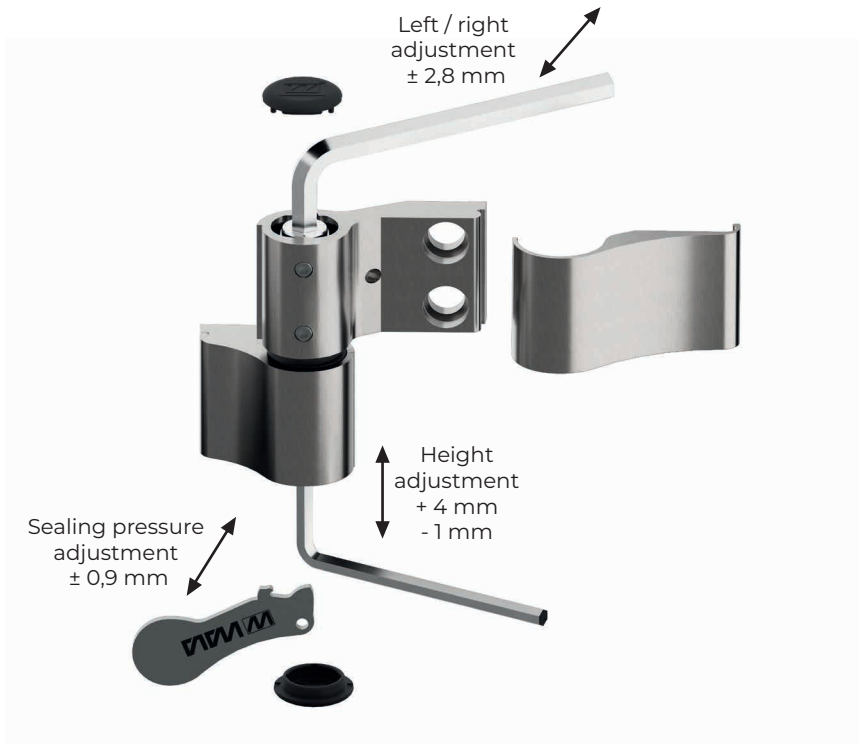


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9001
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1036W
- 
9010
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9016
- 
7035
- 
9006
- 
ANODE NATURAL
- 
INOX COATING
- 
GOLD W3
- 
GOLD W4
- 
RAL

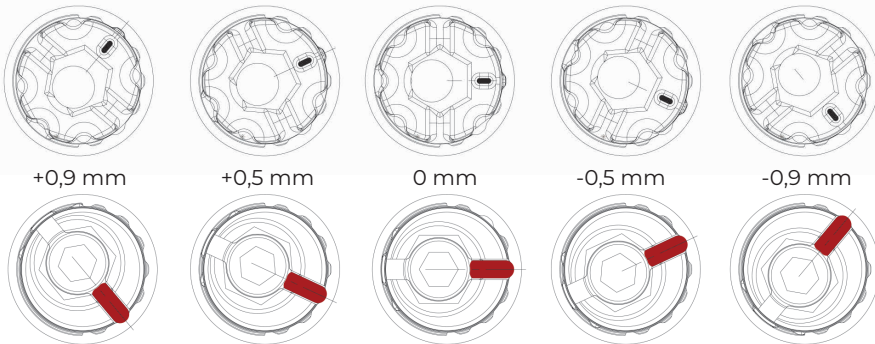




MX HINGE ADJUSTMENT



Top sleeve in the 3-wing hinge



Bottom sleeve in the 2-wing and 3-wing hinge

MX HINGE CLASSIFICATION
EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors

4/4	7/7	7/7	0/1	1/1	3/4	1/1	14/14

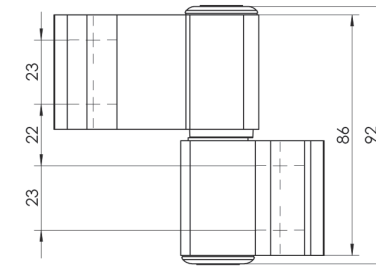
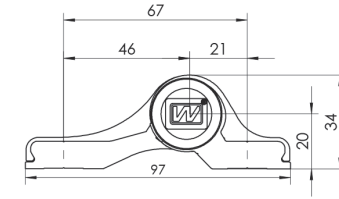
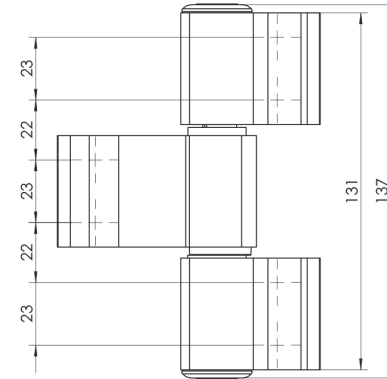




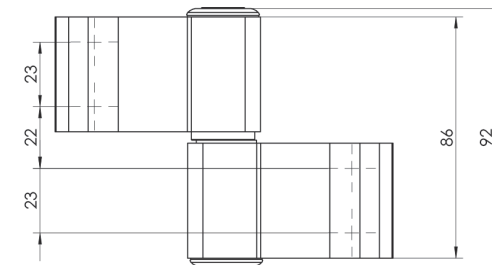
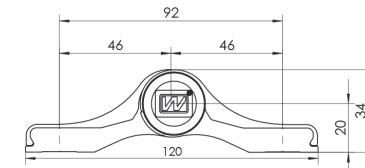
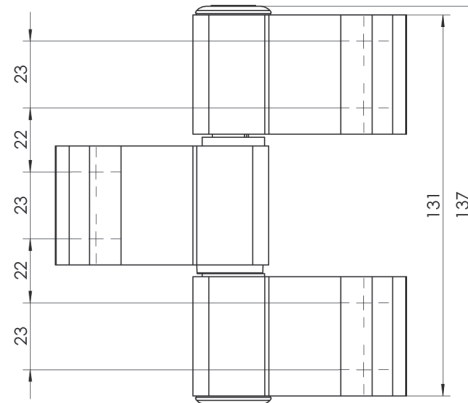
WEX

SURFACE HINGES / HINGES

ASYMMETRICAL



SYMMETRICAL



- 7016
- 7021
- 7024
- 9005
- 8077
- 8019
- 8017
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- 9006
- ANODE NATURAL
- INOX COATING
- GOLD W3
- GOLD W4
- RAL

- SUBLIMATION
- GOLDEN OAK
 - WALNUT

- BLACK PLASTIC
- WHITE PLASTIC



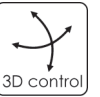
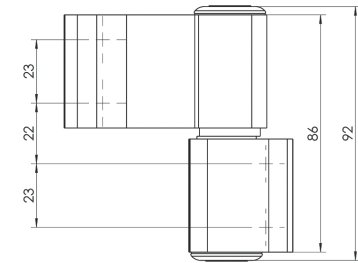
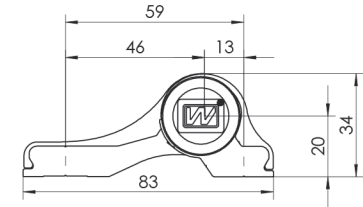
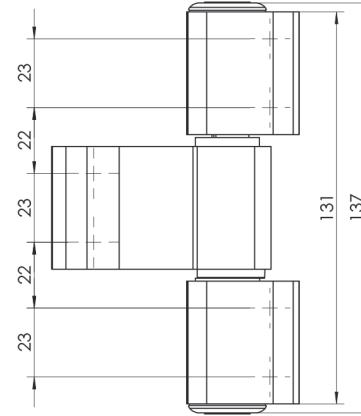


NARROW FRAME

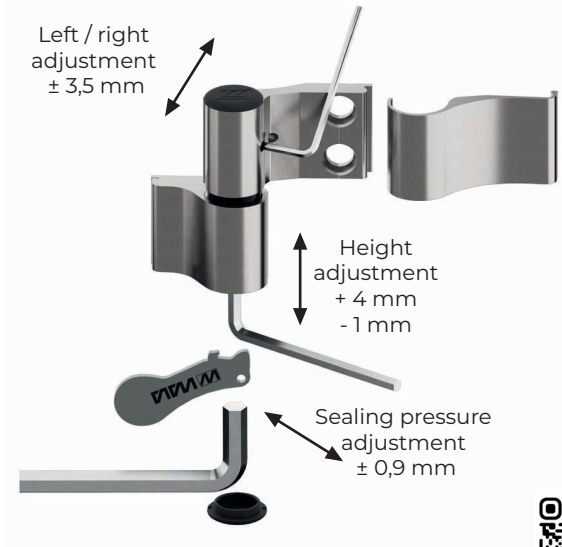
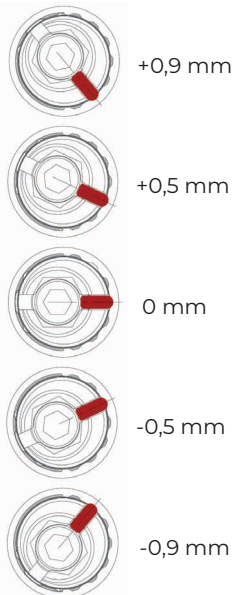
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- 7021
- 7024
- 9005
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- ANODE NATURAL
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- RAL

- SUBLIMATION
- GOLDEN OAK
- WALNUT

- BLACK PLASTIC
- WHITE PLASTIC



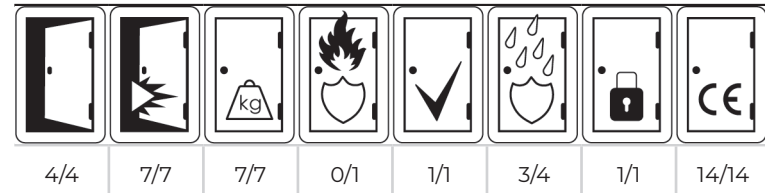
WEX HINGE ADJUSTMENT



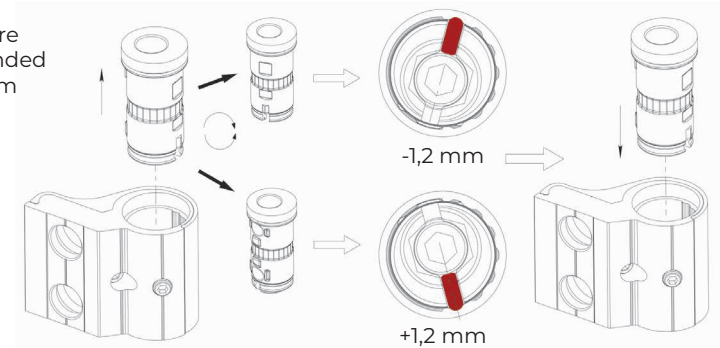
3-wing hinge adjustment is provided on our website www.wala.pl

WEX HINGE CLASSIFICATION
EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors



Sealing pressure adjustment extended position ±1.2mm

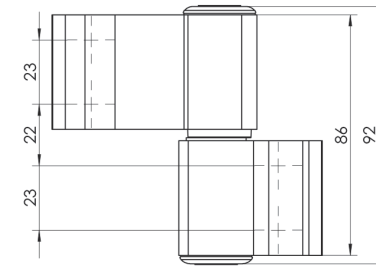
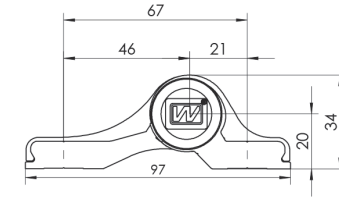
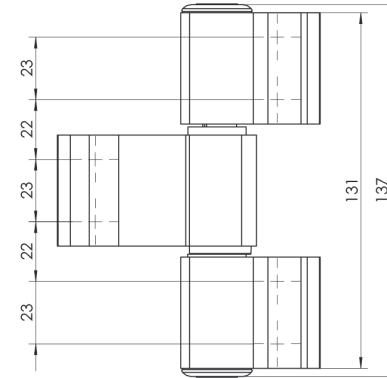




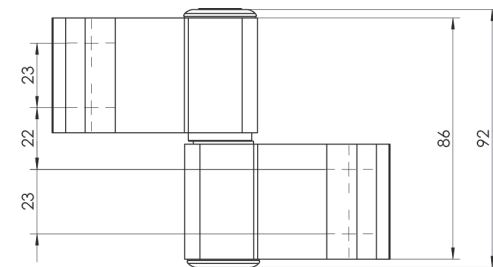
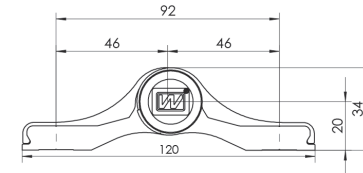
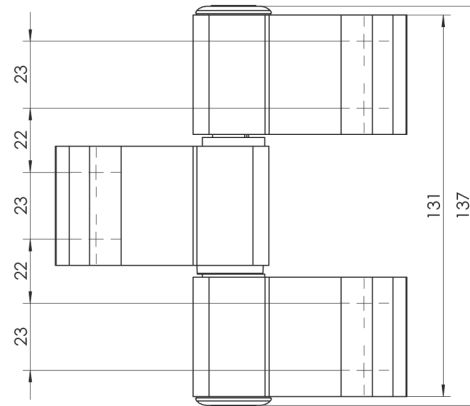
MEX











SURFACE HINGES / HINGES

ASYMMETRICAL



SYMMETRICAL



- 
7016
- 
7021
- 
7024
- 
9005
- 
8077
- 
8019
- 
8017
- 
8003
- 
9001
- 
1036W
- 
9010
- 
9016
- 
7035
- 
9006
- 
ANODE NATURAL
- 
INOX COATING
- 
GOLD W3
- 
GOLD W4
- 
RAL

- SUBLIMATION

GOLDEN OAK
- 
WALNUT

- 
BLACK PLASTIC
- 
WHITE PLASTIC



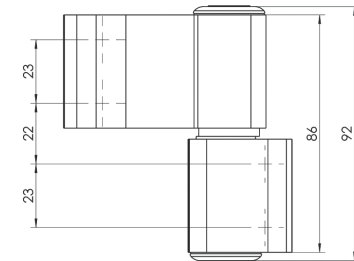
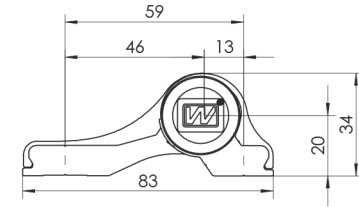
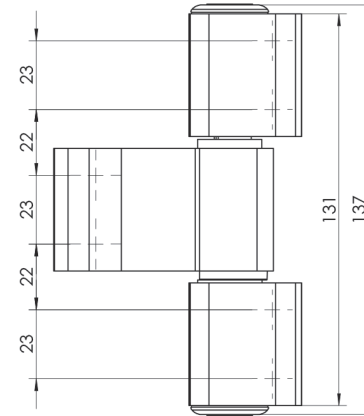


NARROW FRAME

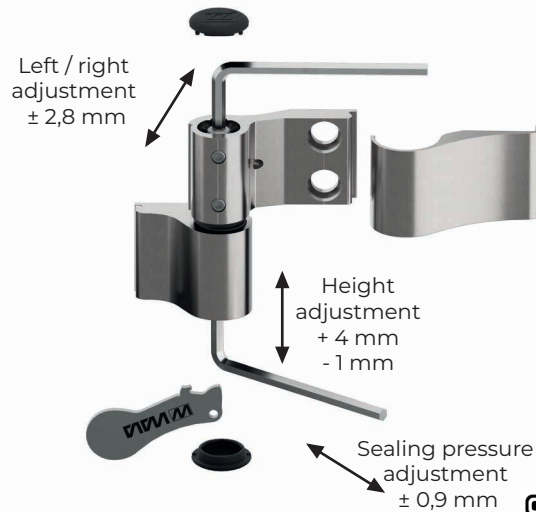
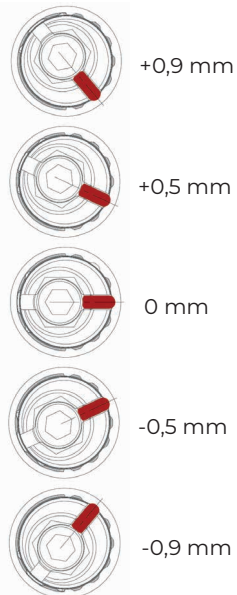
- 7016
- 7021
- 7024
- 9005
- 8077
- 8019
- 8017
- 8003
- 9001
- 1036W
- 9010
- 9016
- 7035
- 9006
- ANODE NATURAL
- INOX COATING
- GOLD W3
- GOLD W4
- RAL

- SUBLIMATION GOLDEN OAK
- SUBLIMATION WALNUT

- BLACK PLASTIC
- WHITE PLASTIC



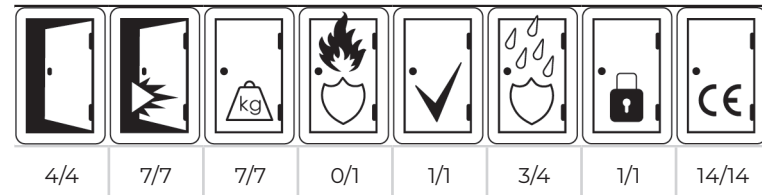
MEX HINGE ADJUSTMENT



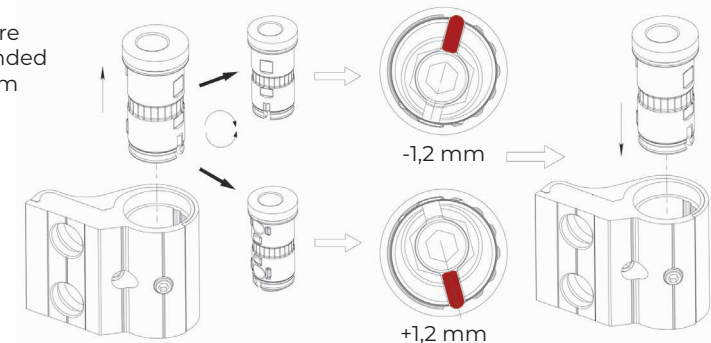
3-wing hinge adjustment is provided on our website www.wala.pl

MEX HINGE CLASSIFICATION
EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors



Sealing pressure adjustment extended position ± 1.2 mm





MX / WEX / MEX LOAD SELECTION

SURFACE HINGES / HINGES



Private building



Public building



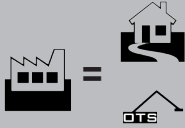
Door closer



2-wing hinge

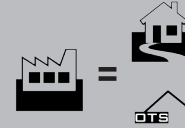


3-wing hinge




2x

W	S	800	900	1000	1100	1200	1300	1400
2000		98	90	84	78	72	66	62
2100		103	95	88	82	76	70	65
2200		104	100	93	86	79	74	68
2300			104	98	90	83	77	71
2400		104		102	94	87	81	75
2500			104	104	99	92	85	79
2600		104			104	97	90	82
2700			104	104		102	94	87
2800		104			104	98	91	
2900			104	104		103	96	
3000		104			104	104	101	



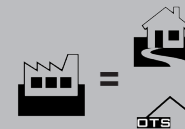
3x **2x**

W	S	800	900	1000	1100	1200	1300	1400
2000		138	128	118	110	102	94	87
2100		144	134	124	115	106	98	91
2200			144	141	130	121	112	104
2300		144		144	137	127	118	109
2400			144		144	134	123	114
2500		144		144		140	130	120
2600			144		144	144	136	126
2700		144		144			144	143
2800			144		144	144		139
2900		144		144			144	144
3000			144		144	144		144



3x

W	S	800	900	1000	1100	1200	1300	1400
2000		173	160	148	137	127	118	109
2100		176	168	155	144	134	123	114
2200			176	163	151	140	130	120
2300		176		171	158	147	136	126
2400			176	176	166	154	143	132
2500		176			176	175	162	150
2600			176	176		170	158	146
2700		176			176	176	166	153
2800			176	176			176	174
2900		176			176	176		176
3000			176	176			176	176



4x

W	S	800	900	1000	1100	1200	1300	1400
2000		200	190	176	163	151	140	130
2100			200	199	185	171	158	146
2200		200		200	194	180	166	154
2300			200		200	189	174	162
2400		200		200		198	183	170
2500			200		200	200	193	178
2600		200		200			200	187
2700			200		200	200		197
2800		200		200			200	199
2900			200		200	200		200
3000		200		200			200	200

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





Private building



Public building



Door closer



2-wing hinge



3-wing hinge

	W	S	800	900	1000	1100	1200	1300	1400	
			2x	112	112	104	96	89	82	77
	110	101	94			86	80			
	106	98	91			84				
	111	103	95			89				
	108	100	93							
	106	98								
	110	102								
	107									
	112	112								

	W	S	800	900	1000	1100	1200	1300	1400	
			3x 2x	160	160	158	147	136	126	117
	154	143	132			122	114	105		
	150	139	129			119	110			
	158	146	135			125	116			
	153	142	131			122				
	149	138	127							
	156	145	134							
	152	141								
	159	148								
	160	155								
		160								

	W	S	800	900	1000	1100	1200	1300	1400	
			3x	184	184	173	160	148	137	127
	182	168	155			144	134	123		
	177	163	151			140	130			
	171	158	147			136				
	180	166	154			143				
	175	162	150							
	170	158								
	178	166								
	174									
	184	182								
		184								

	W	S	800	900	1000	1100	1200	1300	1400	
			4x	224	224	207	192	178	165	153
	218	202	186			173	160	148		
	212	196	182			168	155			
	222	206	190			177	163			
	216	200	186			171				
	210	194	180							
	221	204	189							
	214	198								
	224	209								
		224	219							
			224							

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





MX / WEX / MEX LOAD SELECTION

SURFACE HINGES / HINGES



Private building



Public building



Door closer



2-wing hinge



3-wing hinge

		W	S	800	900	1000	1100	1200	1300	1400
 2x 	2000			78	73	67	62	58	54	50
	2100			82	76	70	66	61	56	52
	2200			86	80	74	69	63	59	54
	2300			90	84	78	72	66	62	57
	2400			95	88	82	76	70	65	60
	2500			100	93	86	79	74	68	63
	2600			104	98	90	82	78	71	66
	2700				102	94	87	81	75	70
	2800			104	104	99	92	85	79	73
	2900					97	90	82	77	
3000					102	94	87	81		

		W	S	800	900	1000	1100	1200	1300	1400
 3x 2x 	2000			105	97	90	83	77	71	66
	2100			110	102	94	87	81	74	69
	2200			115	106	98	91	85	78	73
	2300			121	112	104	96	89	82	76
	2400			127	118	109	101	94	86	80
	2500			134	123	114	106	98	90	84
	2600			140	130	120	111	103	95	88
	2700			144	136	126	117	108	100	93
	2800				143	132	122	114	105	98
	2900			144	144	139	129	119	110	102
3000			144			135	125	116	107	

		W	S	800	900	1000	1100	1200	1300	1400
 3x 	2000			135	126	116	107	66	92	86
	2100			142	131	122	113	105	97	90
	2200			149	138	128	118	110	102	94
	2300			157	145	134	124	115	106	98
	2400			165	152	141	130	121	112	104
	2500			173	160	148	137	127	118	109
	2600			176	168	155	144	134	123	114
	2700				176	163	151	140	130	120
	2800			176		176	171	158	147	136
	2900				166		154	143	132	
3000					175	162	150	139		

		W	S	800	900	1000	1100	1200	1300	1400
 4x 	2000			175	162	150	139	129	119	110
	2100			184	170	158	146	135	126	116
	2200			194	179	166	154	142	132	122
	2300			200	188	174	162	150	138	128
	2400				198	183	170	157	145	134
	2500			200	200	192	178	165	152	141
	2600					200	200	186	173	160
	2700			200	200			196	182	168
	2800					200	200	200	190	176
	2900			200	200				200	186
3000							194	180		

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





<p>PROFILE WITHOUT THERMAL BARRIER (COLD)</p>				<p>FOR PROFILES WITHOUT A THERMAL BREAK OR WITH A THERMAL BREAK THAT HAVE A CHAMBER ON THE HINGE SIDE MORE THAN 8 MM DEEP</p>			
WX80SU4700 (INOX)*	WX80104700	WX80SU4710 (INOX)*	WX80104710	WX80SU4900 (INOX)*	WX80104900	WX80SU4910 (INOX)*	WX80104910
4 x positioning screw 2 x WN block	4 x M8x25 screw 4 x positioning sleeve 2 x WN block	6 x positioning screw 1 x WN block 1 x WN long block	6 x M8x25 screw 6 x positioning sleeve 1 x WN block 1 x WN long block	4 x positioning screw 2 x Wku block	4 x M8x25 screw 4 x positioning sleeve 2 x Wku block	6 x positioning screw 3 x Wku block	6 x M8x25 screw 6 x positioning sleeve 3 x Wku block

* mounting available in stainless and INOX variants

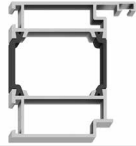
MOUNTING SETS-BIG PACK				WX DISTANCE PLATE			
WX50SU4700	WX50SD4980	WX50SD5100	WX50SD5000	THE PLATE MUST BE SELECTED FOR A SUITABLE MOUNTING SET			
						THICKNESS [A]	
Positioning screw: 200pcs. WN block: 100pcs.	Quick-fastening screw 58,5mm: 200pcs.	Quick-fastening screw 71,5mm: 200pcs.	Quick-fastening screw 84,5mm: 200pcs.			2mm	
						3mm	
						5mm	
						8mm	
						10mm	





WX / MX MOUNTING SETS

SURFACE HINGES / HINGES



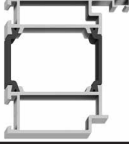






MOUNTING SETS FOR PROFILE WITH THERMAL BARRIER (WARM)

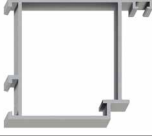


WX80104720	WX80104980	WX80105100	WX80SD4980 (INOX)*	WX80SD5100 (INOX)*	WX80SD5000	WX80SD5120	WX80SD5220	WX80DU5120 (INOX)*	WX80DU5220 (INOX)*
4 x M8x53 screw 4 x positioning sleeve 4 x adjusting sleeve (22-35mm) 2 x WN block	4 x M8x53 screw 4 x short positioning sleeve 4 x dowel sleeve TKO 48mm	4 x M8x65 screw 4 x positioning sleeve 4 x dowel sleeve TKO fire bushing 64mm	4 x quick-fastening screw 58,5mm	4 x quick-fastening screw 71,5mm	4 x long quick-fastening screw 84,5mm	2 x M8x33 screw 2 x positioning sleeve 1 x WN block 2 x quick-fastening screw 58,5mm	2 x M8x33 screw 2 x positioning sleeve 1 x WN block 2 x quick-fastening screw 71,5mm	2 x positioning screw 1 x WN block 2 x quick-fastening screw 58,5mm	2 x positioning screw 1 x WN block 2 x quick-fastening screw 71,5mm
WX80104730	WX80104990	WX80105110	WX80SD4990 (INOX)*	WX80SD5110 (INOX)*	WX80SD5001	WX80SD5130	WX80SD5230	WX80DU5130 (INOX)*	WX80DU5230 (INOX)*
6 x M8x53 screw 6 x positioning sleeve 6 x adjusting sleeve 1 x WN block 1 x long WN block	6 x M8x53 screw 6 x short positioning sleeve 6 x dowel sleeve TKO 48mm	6 x M8x65 screw 6 x positioning sleeve 6 x dowel sleeve TKO fire bushing 64mm	6 x quick-fastening screw 58,5mm	6 x long quick-fastening screw 71,5mm	6 x long quick-fastening screw 84,5mm	4 x M8x33 screw 4 x positioning sleeve 1 x long WN block 2 x quick-fastening screw 58,5mm	4 x M8x33 screw 4 x positioning sleeve 1 x long WN block 2 x quick-fastening screw 71,5mm	4 x positioning screw 1 x long WN block 2 x quick-fastening screw 58,5mm	4 x positioning screw 1 x long WN block 2 x quick-fastening screw 71,5mm

* mounting available in stainless and INOX variants





 PROFILE WITH THERMAL BARRIER (WARM)		
WX80SD4980	WX80SD5100	WX80SD5000
		
4 x long quick-fastening screw 58,5mm	4 x long quick-fastening screw 71,5mm	4 x long quick-fastening screw 84,5mm
WX50SD4980	WX50SD5100	WX50SD5000
BIG PACK 200 x long quick-fastening screw 58,5mm	BIG PACK 200 x long quick-fastening screw 71,5mm	BIG PACK 200 x long quick-fastening screw 84,5mm
WX80SD4990	WX80SD5110	WX80SD5001
		
6 x long quick-fastening screw 58,5mm	6 x long quick-fastening screw 71,5mm	6 x long quick-fastening screw 84,5mm

 PROFILE WITHOUT THERMAL BARRIER (COLD)
WX80SU4700

4 x positioning screw 2 x WN block
WX50SU4700
BIG PACK 200 x positioning screw 100 x WN block
WX80SU4710

6 x positioning screw 1 x WN block 1 x WN long block

MOUNTING SETS FOR NARROW FRAME HINGES		
MEX8010SU4700	MEX8010SD4980	MEX8010SD5100
		
2 x positioning screw 2 x M8x25 screw 2 x positioning sleeve narrow frame hinge 2 x WN block	2 x M8x50 screw 2 x dowel sleeve TKO 48mm 2 x long quick-fastening screw 58,5mm	2 x M8x65 screw 2 x dowel sleeve TKO fire bushing 64mm 2 x long quick-fastening screw 71,5mm
MEX8010SU4710	MEX8010SD4990	MEX8010SD5110
		
2 x positioning screw 4 x M8x25 screw 4 x positioning sleeve narrow frame hinge 1 x WN block 1 x WN long block	4 x M8x50 screw 4 x dowel sleeve TKO 48mm 2 x long quick-fastening screw 58,5mm	4 x M8x65 screw 4 x dowel sleeve TKO fire bushing 64mm 2 x long quick-fastening screw 71,5mm





WX ELECTRO

SURFACE HINGES / HINGES



WX ELECTRO Hinge is intended to transfer ICT signals from the door frame to the door leaf. The signal can be transmitted via a 3-core cable with a cross-section of 0.5 or a 10-core cable with a cross-section of 0.14. Thanks to this, it is suitable for LAN computer networks, to supply LED lighting or handles with e-line components, replacing commonly used cable glands.

ASYMMETRICAL



SYMMETRICAL

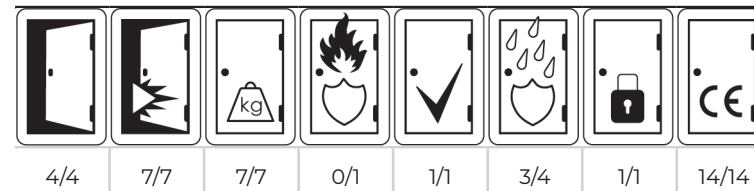


PROFILE WITHOUT THERMAL BARRIER (COLD)		MOUNTING SETS FOR PROFILE WITH THERMAL BARRIER (WARM)	
WX80104710E	WX80SU4710E	WX80SD4990E (INOX)	WX80104990E
5 x M8x25 screw 5 x positioning sleeve 1 x WN block electro 1 x long WN block	5 x positioning screw 1 x WN block electro 1 x long WN block	5 x quick-fastening screw 58,5mm	5 x M8x53 screw 5 x positioning sleeve 5 x dowel sleeve TKO



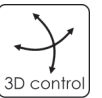
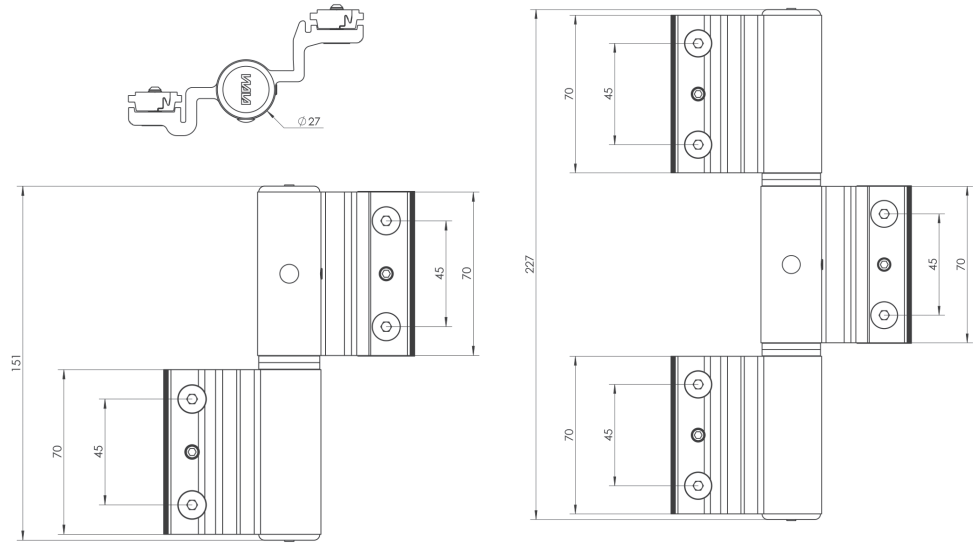
WX ELECTRO HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors

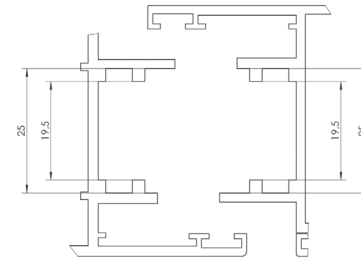
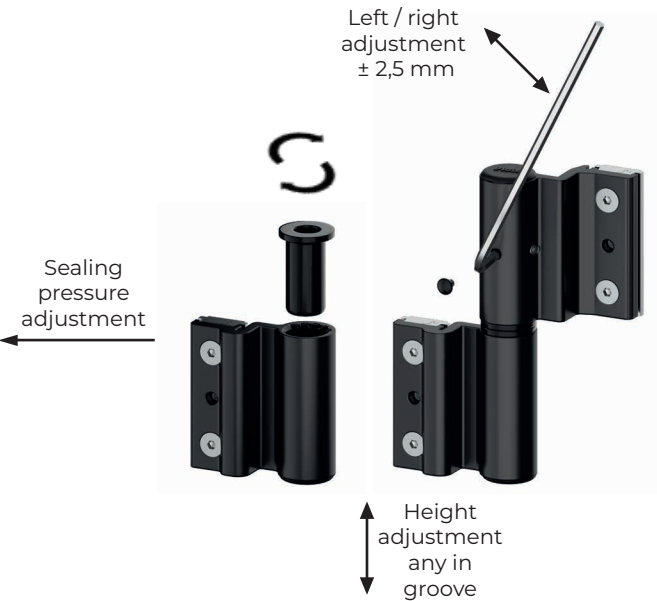
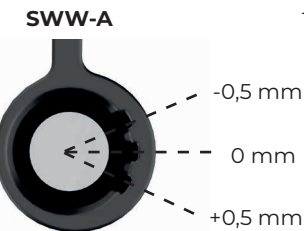
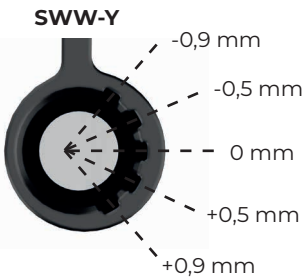




-  7016
-  7024
-  8077
-  8017
-  9001
-  9010
-  7035
-  ANODE NATURAL
-  GOLD W3
-  RAL
-  7021
-  9005
-  8019
-  8003
-  1036W
-  9016
-  9006
-  INOX COATING
-  GOLD W4



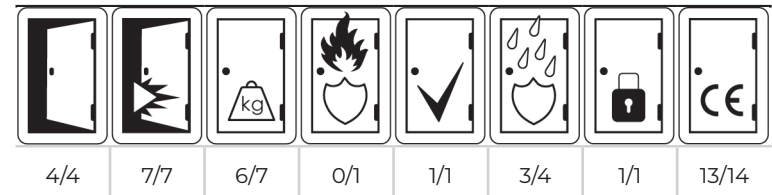
SWW HINGE ADJUSTMENT

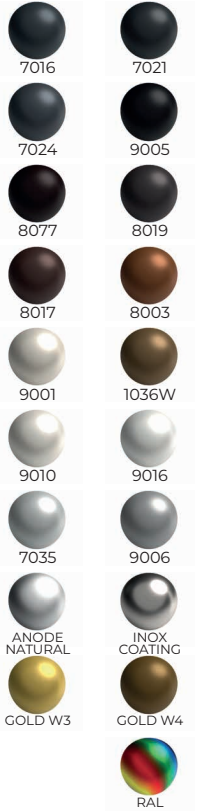
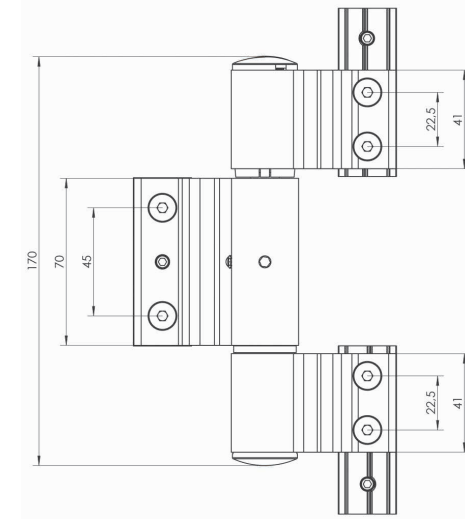
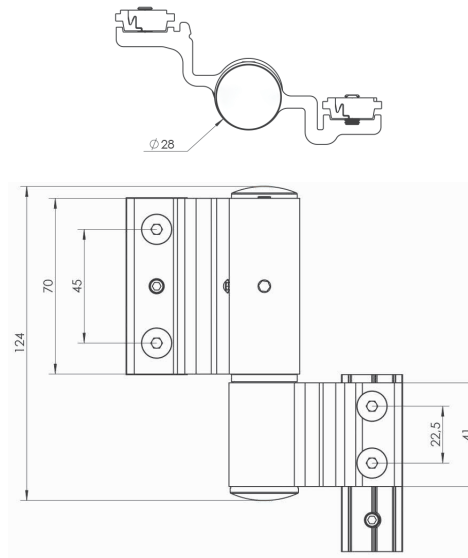


SWW Hinge is suitable for grooves 25/19,5 to the following profiles	SYMBOL	COMPANY	SYSTEM
	Y	YAWAL	PBI 50N
	A	ALUPROF	MB-59S, MB-45S

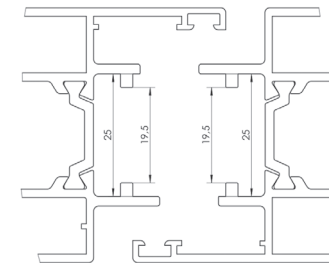
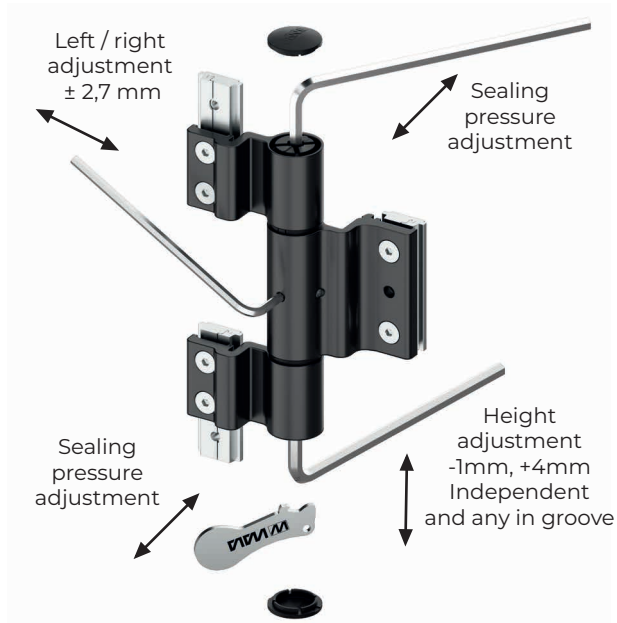
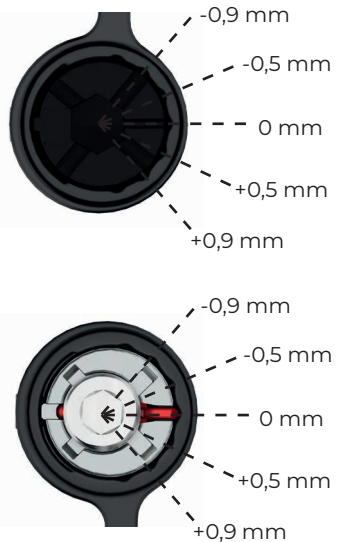
SWW HINGE CLASSIFICATION
EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors





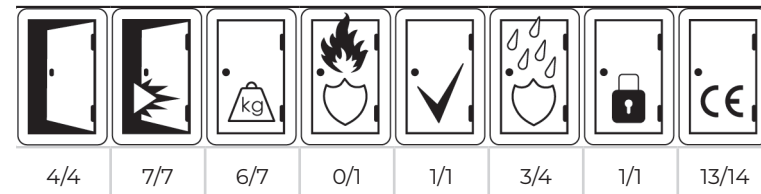
XWW HINGE ADJUSTMENT



XWW Hinge is suitable for grooves 25/19,5 to Aluron systems: ACS 50 or AS 52

XWW HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors





Private building



Public building



Door closer



2-wing hinge



3-wing hinge

		W	S	800	900	1000	1100	1200
 2x	2000			58	54	50	46	43
	2100	60	60	57	53	49	45	45
	2200							
	2300	60	60	58	54	50	52	55
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 3x 2x	2000			76	70	65	60	56
	2100	85	85	80	74	68	63	59
	2200							
	2300	85	85	84	77	72	66	61
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 3x	2000			99	92	85	79	73
	2100	105	105	104	96	89	83	77
	2200							
	2300	105	105	101	94	87	80	84
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 4x	2000			117	108	100	93	86
	2100	120	120	113	105	97	90	90
	2200							
	2300	120	120	119	110	102	95	99
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 2x	2000			64	59	55	51	47
	2100	75	75	67	62	58	53	50
	2200							
	2300	75	75	71	65	61	56	52
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 3x 2x	2000			87	81	75	69	64
	2100	95	95	92	85	79	73	68
	2200							
	2300	95	95	89	83	77	71	74
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 3x	2000			105	97	90	83	77
	2100	110	110	102	95	88	81	81
	2200							
	2300	110	110	107	99	92	85	89
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 4x	2000			128	119	110	102	94
	2100	130	130	125	116	107	99	99
	2200							
	2300	130	130	127	118	109	104	109
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 2x	2000			70	65	60	56	51
	2100	130	130	73	68	63	58	54
	2200							
	2300	130	130	77	71	66	61	57
	2400							
	2500							

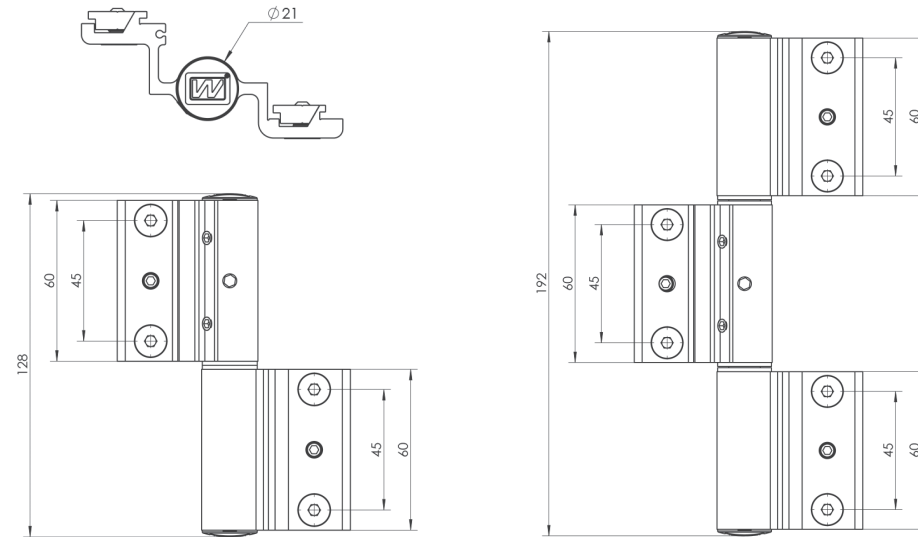
		W	S	800	900	1000	1100	1200
 3x 2x	2000			93	86	80	74	69
	2100	135	135	98	91	84	78	72
	2200							
	2300	135	135	103	95	88	82	76
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 3x	2000			117	108	100	93	86
	2100	135	135	122	113	105	97	90
	2200							
	2300	135	135	129	119	110	102	95
	2400							
	2500							

		W	S	800	900	1000	1100	1200
 4x	2000			134	124	115	106	99
	2100	150	150	141	130	121	112	104
	2200							
	2300	150	150	148	137	127	117	109
	2400							
	2500							

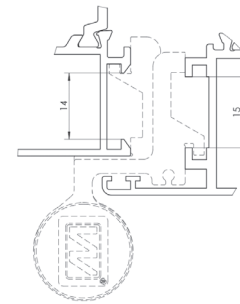
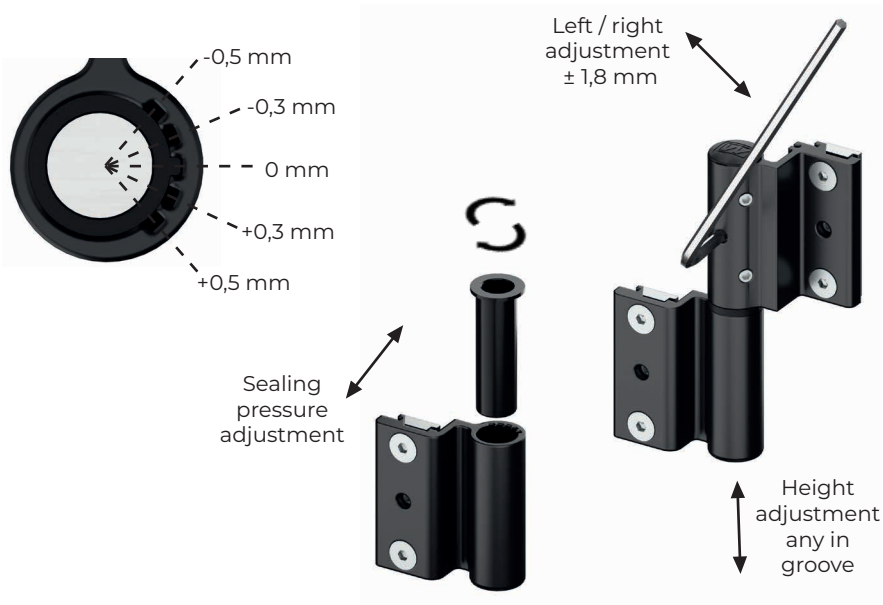
If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulk the door.





RWE Hinge is suitable for aluminium euro groove systems with the door frame of the width 14mm and the door leaf of the width 15mm

REGULACJA ZAWIASU RWE



Height regulator RWE eases the door height adjustment and protects doors against falling if the assembly screws are loosened for adjustment. Made of cast zinc alloy, screws are made of stainless steel.



- 7016
- 7021
- 7024
- 9005
- 8077
- 8019
- 8017
- 8003
- 9001
- 1036W
- 9010
- 9016
- 7035
- 9006
- ANODE NATURAL
- INOX COATING
- GOLD W3
- GOLD W4
- RAL





Private building



Public building



Door closer



2-wing hinge



3-wing hinge

	W	S	800	900	1000	1100	1200
	2x	2000	50	45	40	35	30
	2100	55	50	45	40	35	
	2200	60	55	50	45	40	
	2300		60	55	50	45	
	2400			55	50		
	2500		60	55			

	W	S	800	900	1000	1100	1200
	3x 2x	2000	72	65	59	52	46
	2100	78	72	65	59	52	
	2200	85	78	72	65	59	
	2300		85	78	72	65	
	2400			78	72		
	2500		85	78			

	W	S	800	900	1000	1100	1200
	3x	2000	89	82	74	66	58
	2100	97	89	82	74	66	
	2200	105	97	89	82	74	
	2300		105	97	89	82	
	2400			97	89		
	2500		105	97			

	W	S	800	900	1000	1100	1200
	4x	2000	106	97	88	78	69
	2100	116	106	97	88	78	
	2200	125	116	106	97	88	
	2300		125	116	106	97	
	2400			116	106		
	2500		125	116			

	W	S	800	900	1000	1100	1200
	2x	2000	60	55	50	45	40
	2100	65	60	55	50	45	
	2200	70	65	60	55	50	
	2300		70	65	60	55	
	2400			65	60		
	2500		70	65			

	W	S	800	900	1000	1100	1200
	3x 2x	2000	82	75	69	62	56
	2100	88	82	75	69	62	
	2200	95	88	82	75	69	
	2300		95	88	82	75	
	2400			88	82		
	2500		95	88			

	W	S	800	900	1000	1100	1200
	3x	2000	99	92	84	76	68
	2100	107	99	92	84	76	
	2200	115	107	99	92	84	
	2300		115	107	99	92	
	2400			107	99		
	2500		115	107			

	W	S	800	900	1000	1100	1200
	4x	2000	116	107	98	88	79
	2100	126	116	107	98	88	
	2200	135	126	116	107	98	
	2300		135	126	116	107	
	2400			126	116		
	2500		135	126			

	W	S	800	900	1000	1100	1200
	2x	2000	70	65	60	55	50
	2100	75	70	65	60	55	
	2200	80	75	70	65	60	
	2300		80	75	70	65	
	2400			75	70		
	2500		80	75			

	W	S	800	900	1000	1100	1200
	3x 2x	2000	92	85	79	72	66
	2100	98	92	85	79	72	
	2200	105	98	92	85	79	
	2300		105	98	92	85	
	2400			98	92		
	2500		105	98			

	W	S	800	900	1000	1100	1200
	3x	2000	109	102	94	86	78
	2100	117	109	102	94	86	
	2200	125	117	109	102	94	
	2300		125	117	109	102	
	2400			117	109		
	2500		125	117			

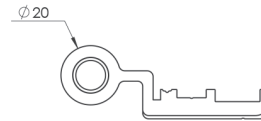
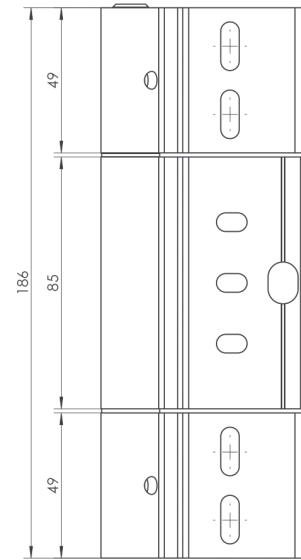
	W	S	800	900	1000	1100	1200
	4x	2000	131	122	113	103	94
	2100	141	131	122	113	103	
	2200	150	141	131	122	113	
	2300		150	141	131	122	
	2400			141	131		
	2500		150	141			

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulk the door.

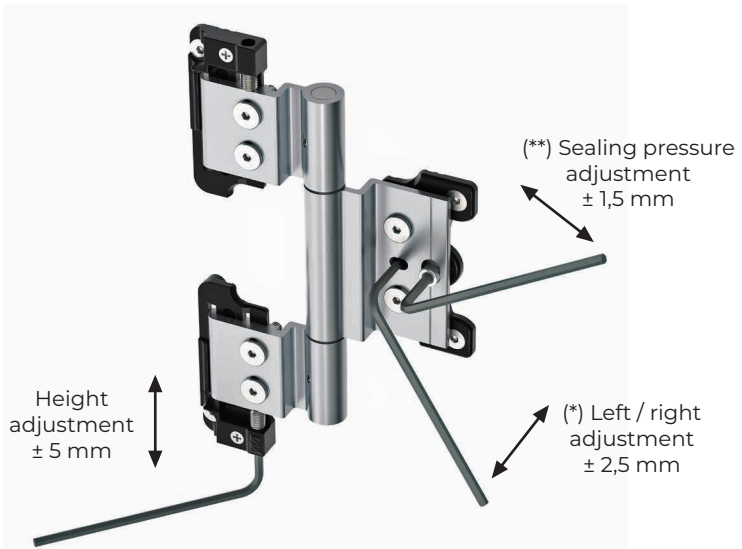




The Hinge is also available with the covers made of 304 stainless steel. External dimension of the cover: Ø22mm.



WR HINGE ADJUSTMENT



(*) For aluminium systems with a gap of least 6mm, for systems with the gap 5mm, adjustment range is -1,5mm to +2,5mm (because of the wing's thickness 3,5mm)
(**) Actual range of adjustment may be smaller depending on the aluminum system and its limitation

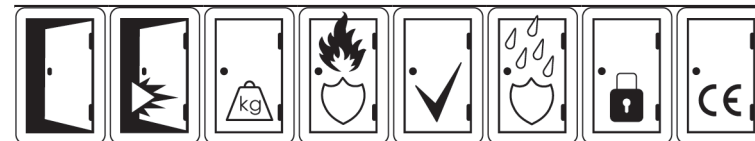


Full adjustment range of the gap (left/right) in negative direction for most aluminium systems can be achieved by milling the door profile and covering it with the mask.



WR HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in fire door and emergency exit doors



4/4 7/7 7/7 1/1 1/1 4/4 1/1 14/14










Private building









Door closer








Public building

	W S	700	800	900	1000	1100	1200	1300	1400
  3x 	2000	120	120	120	120	110	105	95	90
	2100					115	110	105	95
	2200					120	115	110	100
	2300						120	115	110
	2400					120		115	110
	2500						120	115	115
	2600					120		120	120
	2700								
	2800					120	120	120	120
	2900								
3000									

	W S	700	800	900	1000	1100	1200	1300	1400
   3x 4x 	2000	150	150	150	150	140	135	125	120
	2100					145	140	135	125
	2200					150	145	140	130
	2300						150	145	140
	2400					150		145	140
	2500						150	145	145
	2600					150		150	150
	2700								
	2800					150	150	150	150
	2900								
3000									

	W S	700	800	900	1000	1100	1200	1300	1400
 2x 	2000	120	120	120	120	111	107	103	99
	2100					116	111	107	103
	2200					120	116	111	107
	2300						120	116	111
	2400					120		116	111
	2500						120	120	120
	2600								
	2700					120	120	120	120
	2800								
	2900								
3000									

	W S	700	800	900	1000	1100	1200	1300	1400
  2x 	2000	100	100	100	100	91	87	83	79
	2100					96	91	87	83
	2200					100	96	91	87
	2300						100	96	91
	2400					100		96	91
	2500						100	100	100
	2600								
	do					100	100	100	100
	3000								

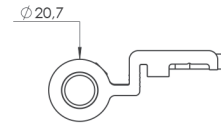
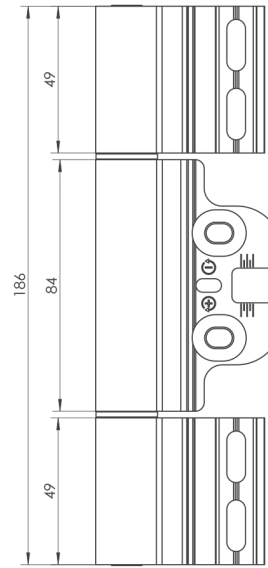
	W S	700	800	900	1000	1100	1200	1300	1400
 4x 	2000	180	180	180	180	170	165	155	150
	2100					175	170	165	155
	2200					180	175	170	160
	2300						180	175	170
	2400					180		175	170
	2500						180	180	180
	2600								
	do					180	180	180	180
	3000								

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.

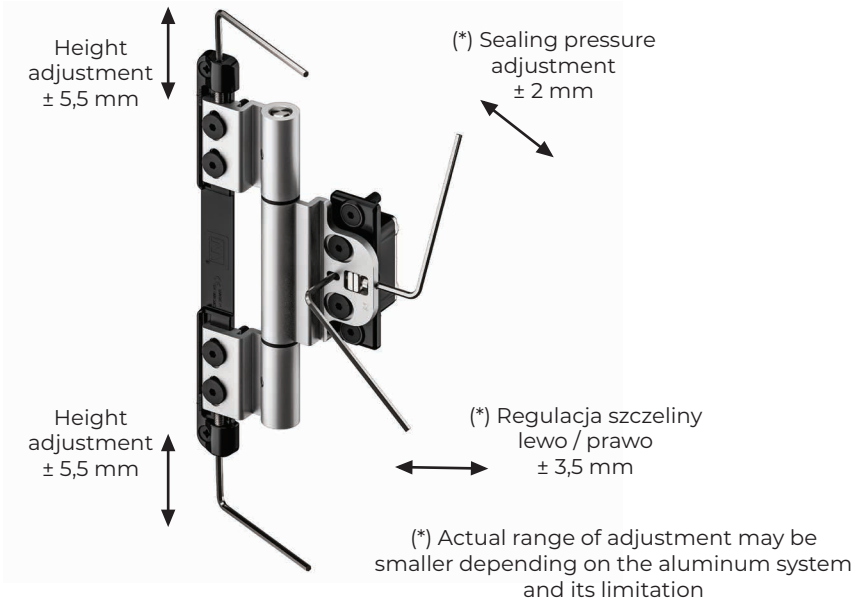




The Hinge is also available with the covers made of 304 stainless steel. External dimension of the cover: $\varnothing 22,5\text{mm}$.



WR-1R HINGE ADJUSTMENT

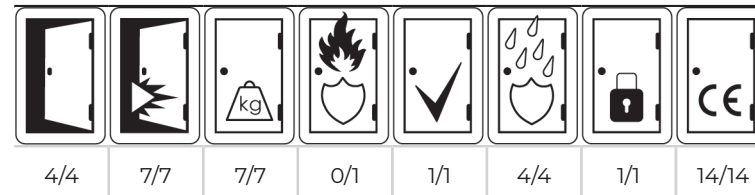


Full adjustment range of the gap (left/right) in negative direction for most aluminium systems can be achieved by milling the door profile and covering it with the mask.



WR-1R HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors










Private building









Door closer








Public building

W S	700	800	900	1000	1100	1200	1300	1400	
	100				90	85	75	70	
					95	90	85	75	
3x					100	100	95	90	80
							95	90	
						100	100	95	90
								95	90
						100	100	95	90
								95	90
						100	100	95	90
								95	90

W S	700	800	900	1000	1100	1200	1300	1400	
	130				120	115	105	100	
					125	120	115	105	
					130	130	125	120	110
3x							130	130	125
4x						130			130
							130	130	
						130			130
							130	130	
						130			130
							130	130	
	130	130	125	120					

W S	700	800	900	1000	1100	1200	1300	1400	
	110				101	97	93	89	
2x					106	101	97	93	
					110	110	106	101	97
							110	110	106
						110			110
							110	110	
						110			110
							110	110	
						110			110
							110	110	

W S	700	800	900	1000	1100	1200	1300	1400	
	80				71	67	63	59	
					76	71	67	63	
2x					80	80	76	71	67
							80	80	76
						80			80
							80	80	
						80			80
							80	80	
						80			80
							80	80	
	80	80	76	71					

W S	700	800	900	1000	1100	1200	1300	1400	
	160				150	145	135	130	
4x					155	150	145	135	
					160	160	155	150	140
							160	160	155
						160			160
							160	160	
						160			160
							160	160	
						160			160
							160	160	
	160	160	155	150					

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





WR-1R LOAD SELECTION (ALTERNATIVE))

ROLLER HINGES / HINGES






Private building









Door closer








Public building

	W S	800	900	1000	1100	1200	1300	1400		
  3x 	2000	80			70	65	55	50		
	2100				75	70	65	55		
	2200				80	75	70	60		
	2300					80	75	70		
	2400				75		70			
	2500				75					
	2600				80				80	80
	2700								80	80
	2800									80
	2900									80
3000	80									

	W S	800	900	1000	1100	1200	1300	1400		
   3x 4x 	2000	100			90	85	75	70		
	2100				95	90	85	75		
	2200				100	95	90	80		
	2300					100	95	90		
	2400				95		90			
	2500				95					
	2600				100				100	100
	2700								100	100
	2800									100
	2900									100
3000	100									

	W S	800	900	1000	1100	1200	1300	1400		
 2x 	2000	90			81	77	73	69		
	2100				86	81	77	73		
	2200				90	86	81	77		
	2300					90	86	81		
	2400				86		81			
	2500				86					
	2600				90				90	90
	2700								90	90
	2800									90
	2900									90
3000	90									

	W S	800	900	1000	1100	1200	1300	1400		
  2x 	2000	70			61	57	53	49		
	2100				66	61	57	53		
	2200				70	66	61	57		
	2300					70	66	61		
	2400				66		61			
	2500				66					
	2600				70				70	70
	do								70	70
	2800									70
	3000									70

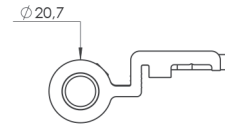
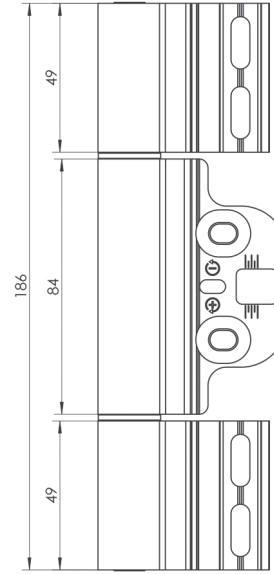
	W S	800	900	1000	1100	1200	1300	1400		
 4x 	2000	130			120	115	105	100		
	2100				125	120	115	105		
	2200				130	125	120	110		
	2300					130	125	120		
	2400				125		120			
	2500				125					
	2600				130				130	130
	do								130	130
	2800									130
	3000									130

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.

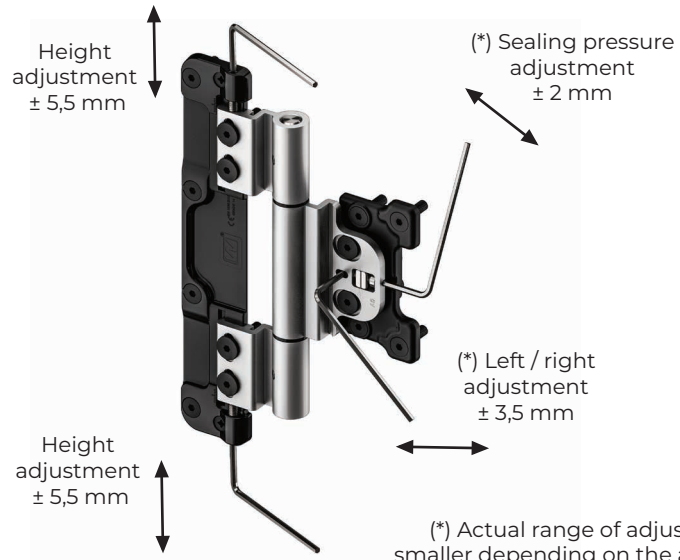




The Hinge is also available with the covers made of 304 stainless steel. External dimension of the cover: Ø22,5mm.



WR-2R HINGE ADJUSTMENT



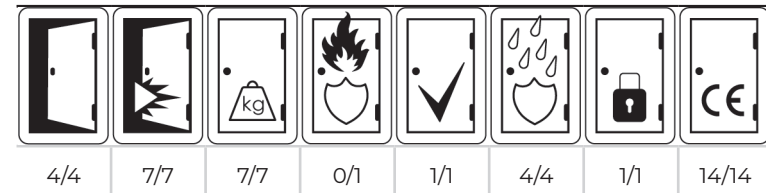
(*) Actual range of adjustment may be smaller depending on the aluminum system and its limitation



Full adjustment range of the gap (left/right) in negative direction for most aluminium systems can be achieved by milling the door profile and covering it with the mask.

WR-2R HINGE CLASSIFICATION
EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors





WR-2R LOAD SELECTION

ROLLER HINGES / HINGES






Private building









Door closer








Public building

W S	700	800	900	1000	1100	1200	1300	1400				
	120				110	105	95	90				
					115	110	105	95				
3x					120	115	110	100				
						115	110	110				
						115	110	115				
						115	110	115				

W S	700	800	900	1000	1100	1200	1300	1400				
	150				140	135	125	120				
					145	140	135	125				
					150	145	140	130				
3x						145	140	140				
4x						145	140	145				
						145	140	145				

W S	700	800	900	1000	1100	1200	1300	1400				
	120				111	107	103	99				
2x					116	111	107	103				
					120	116	111	107				
						116	111	111				
						116	111	111				
						116	111	116				

W S	700	800	900	1000	1100	1200	1300	1400				
	100				91	87	83	79				
					96	91	87	83				
2x					100	96	91	87				
						96	91	91				
						96	91	91				
						96	91	96				

W S	700	800	900	1000	1100	1200	1300	1400				
	180				170	165	155	150				
4x					175	170	165	155				
					180	175	170	160				
						175	170	170				
						175	170	170				
						175	170	175				

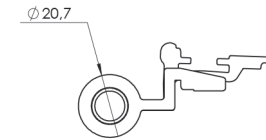
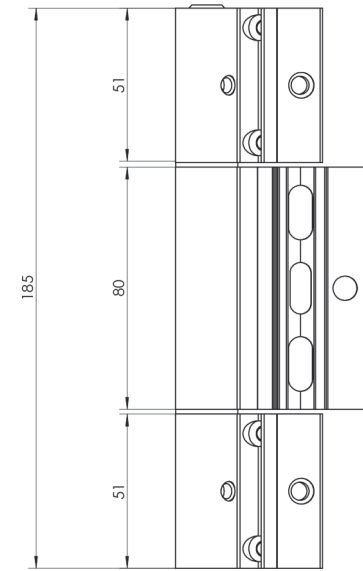
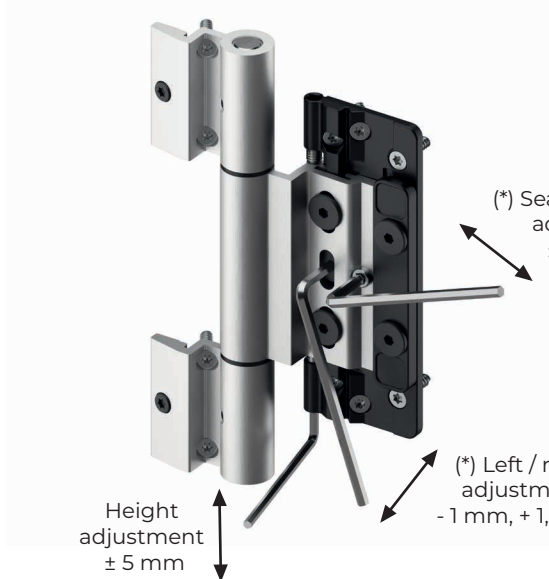
If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





The Hinge is also available with the covers made of 304 stainless steel. External dimension of the cover: Ø22,5mm.

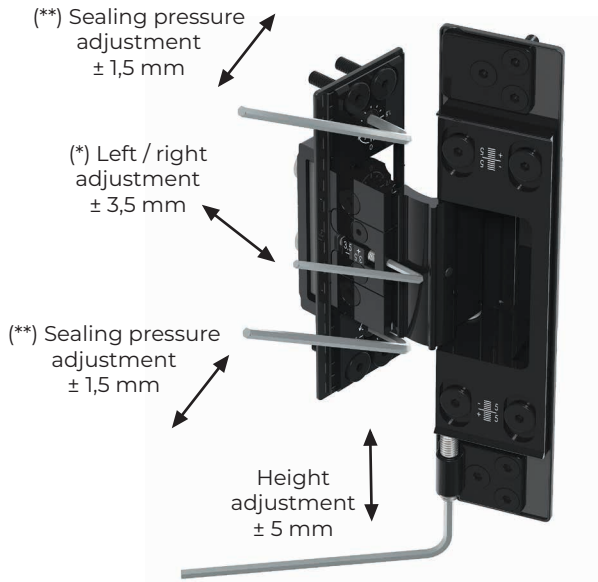
WRP HINGE ADJUSTMENT



(*) Actual range of adjustment may be smaller depending on the aluminum system and its limitation

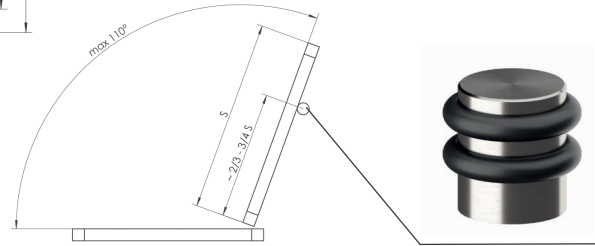
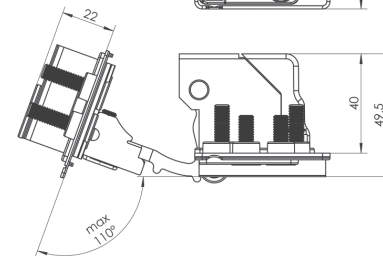
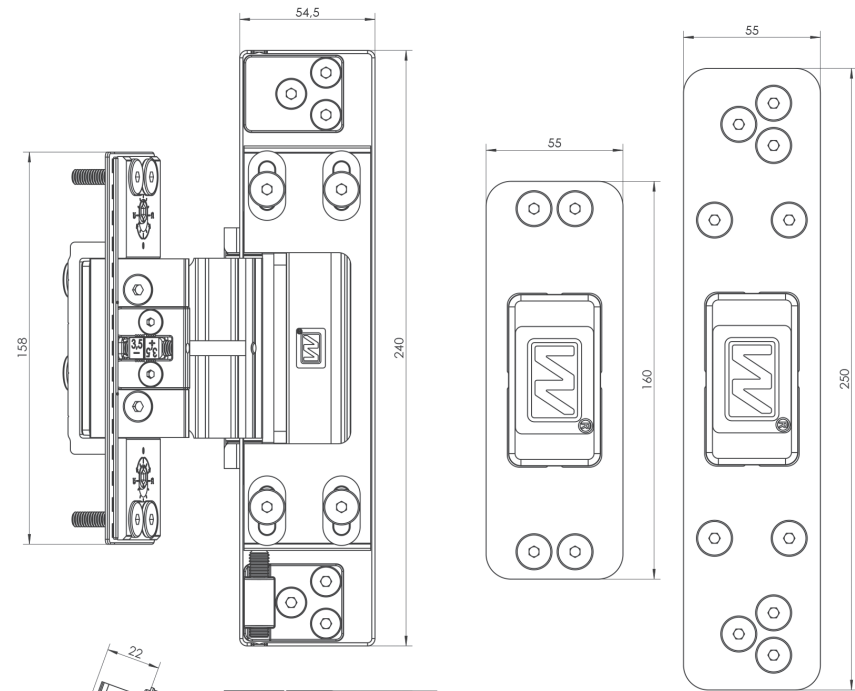


WU HINGE ADJUSTMENT



(*) – adjustment in the negative direction can be very limited depending on aluminium system

(**) – actual range can differ due to the gap value at the seal, depending on aluminium system



WU HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors

4/4	7/7	7/7	0/1	1/1	4/4	1/1	14/14










Private building









Door closer








Public building

W S	700	800	900	1000	1100	1200	1300	1400
	150	150	150	140	130	120	110	100
				140	130	120	110	
3x				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	

W S	700	800	900	1000	1100	1200	1300	1400
	180	180	180	170	160	150	140	130
				170	160	150	140	
				170	160	150	140	
3x				170	160	150	140	
4x				170	160	150	140	
				170	160	150	140	
				170	160	150	140	
				170	160	150	140	
				170	160	150	140	
				170	160	150	140	

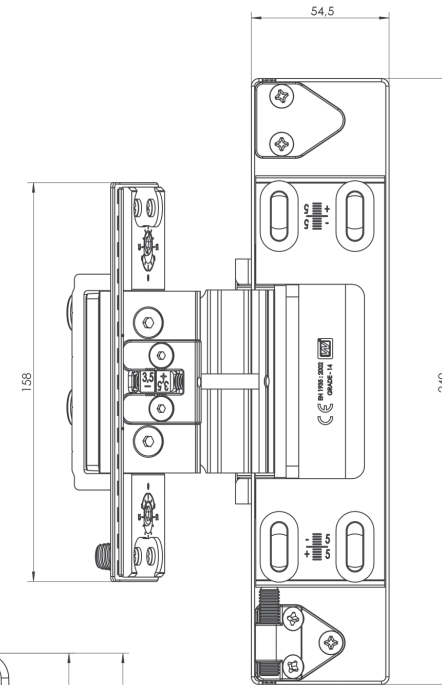
W S	700	800	900	1000	1100	1200	1300	1400
	150	150	150	140	130	120	110	100
2x				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	
				140	130	120	110	

W S	700	800	900	1000	1100	1200	1300	1400
	130	130	130	120	110	100	90	80
				120	110	100	90	
2x				120	110	100	90	
				120	110	100	90	
				120	110	100	90	
				120	110	100	90	
				120	110	100	90	
				120	110	100	90	
				120	110	100	90	
				120	110	100	90	

W S	700	800	900	1000	1100	1200	1300	1400
	210	210	210	200	190	180	170	160
4x				200	190	180	170	
				200	190	180	170	
				200	190	180	170	
				200	190	180	170	
				200	190	180	170	
				200	190	180	170	
				200	190	180	170	
				200	190	180	170	
				200	190	180	170	

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





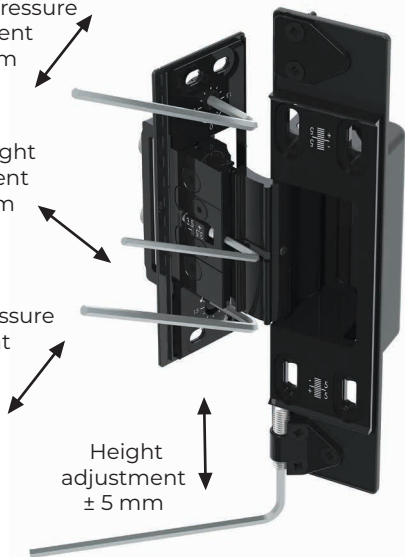
WUT HINGE ADJUSTMENT

(**) Sealing pressure adjustment $\pm 1,5$ mm

(*) Left / right adjustment $\pm 3,5$ mm

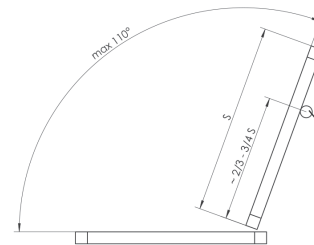
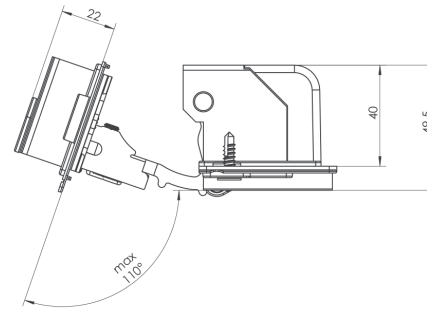
(**) Sealing pressure adjustment $\pm 1,5$ mm

Height adjustment ± 5 mm



(*) - adjustment in the negative direction can be very limited depending on aluminium system

(**) - actual range can differ due to the gap value at the seal, depending on aluminium system



WUT HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors

4/4	7/7	7/7	0/1	1/1	4/4	1/1	14/14










Private building








Door closer








Public building

	W	S	700	800	900	1000	1100	1200	1300	1400
  3x 	2000					140	130	120	110	100
	2100					150	140	130	120	110
	2200						150	140	130	120
	2300					150		140	130	120
	2400						150	140	130	120
	2500					150		140	130	120
	2600						150	140	130	120
	2700					150		140	130	120
	2800						150	140	130	120
	2900					150		140	130	120
3000					150		140	130	120	

	W	S	700	800	900	1000	1100	1200	1300	1400
  4x 	2000						170	160	150	130
	2100						170	160	150	140
	2200						180	170	160	150
	2300					180		170	160	150
	2400						180	170	160	150
	2500					180		170	160	150
	2600						180	170	160	150
	2700					180		170	160	150
	2800						180	170	160	150
	2900					180		170	160	150
3000					180		170	160	150	

	W	S	700	800	900	1000	1100	1200	1300	1400
 2x 	2000					110	100	100	90	80
	2100					120	110	100	100	100
	2200						120	110	100	100
	2300					120		110	100	100
	2400						120	110	100	100
	2500					120		110	100	100
	2600						120	110	100	100
	2700					120		110	100	100
	2800						120	110	100	100
	2900					120		110	100	100
3000					120		110	100	100	

	W	S	700	800	900	1000	1100	1200	1300	1400
  2x 	2000					90	80	80	70	60
	2100					100	100	90	80	80
	2200						100	100	90	80
	2300					100		100	90	80
	2400						100	100	90	80
	2500					100		100	90	80
	2600						100	100	90	80
	do					100		100	90	80
	3000						100	100	90	80

	W	S	700	800	900	1000	1100	1200	1300	1400
 3x 	2000					160	150	140	130	120
	2100					170	170	160	150	140
	2200						170	170	160	150
	2300					180		170	160	150
	2400						180	170	160	150
	2500					180		170	160	150
	2600						180	170	160	150
	do					180		170	160	150
	3000						180	170	160	150

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





WU-1R

CONCEALED / HINGES



The main feature of the hinge is easy and quick assembly of the door sash with the frame.



Variant available: WU-1R ELECTRO

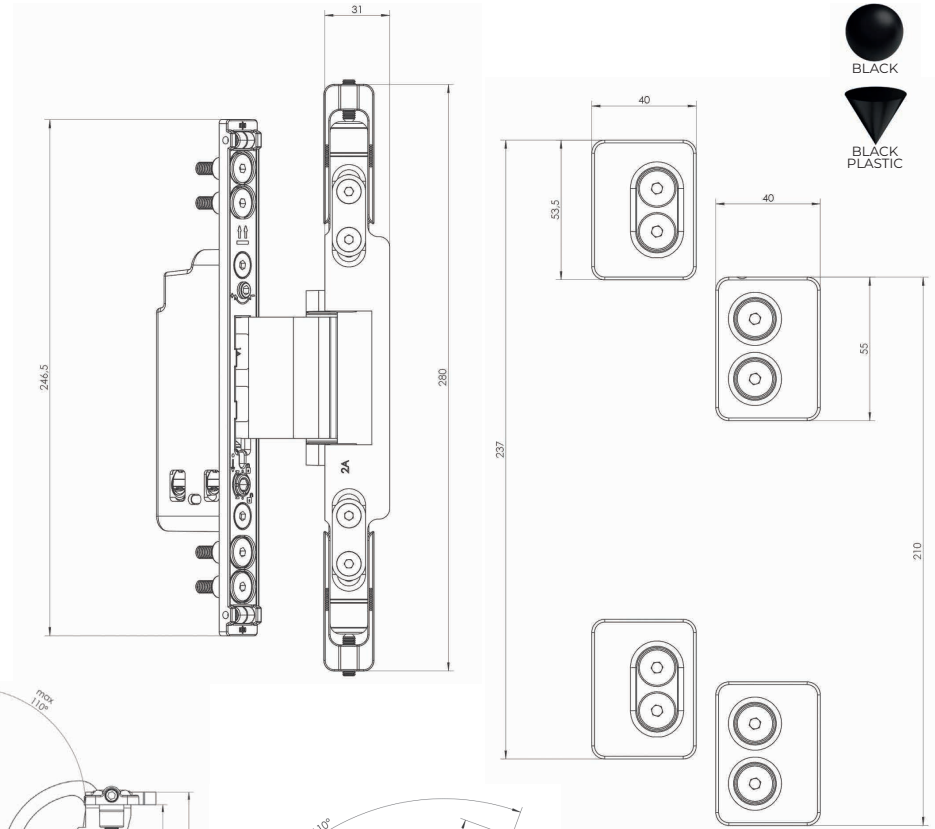
INFORMATION:

- no visible, unsightly cable entry,
- possibility of connecting cables after installing the hinge thanks to inspection holes (so-called revision),
- ensuring continuity of installation connection, elimination of micro-contacts.

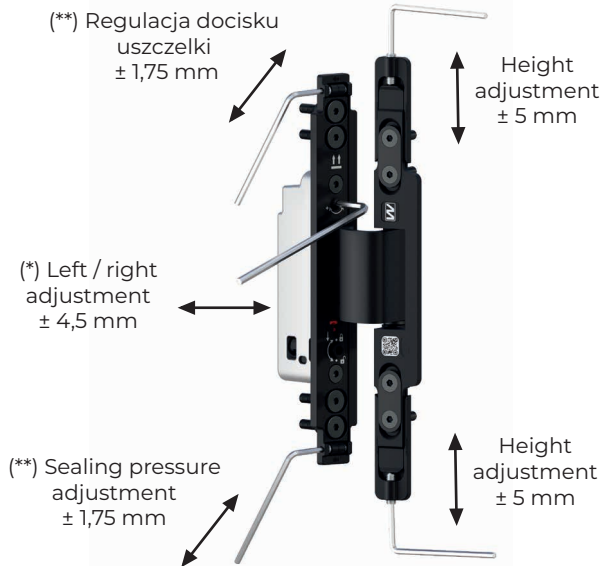
CABLE:

Helukabel 18089 tronic 6x0,5

The WU-1RE hinge with cable entry is not a load-bearing element (not subject to calculation acc. to the weight table).

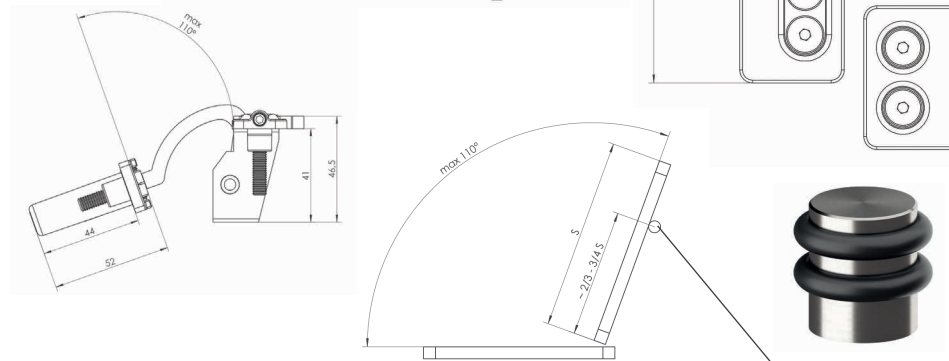


WU-1R HINGE ADJUSTMENT



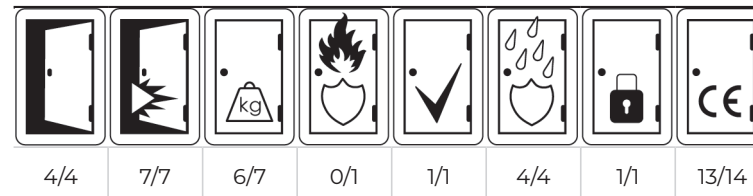
(*) – adjustment in the negative direction can be very limited depending on aluminium system

(**) – actual range can differ due to the gap value at the seal, depending on aluminium system



WU-1R HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors







Private building



Door closer



Public building

W S	700	800	900	1000	1100	1200	1300	1400
2000	100				90	85	75	70
2100					95	90	85	75
2200					100	95	90	80
2300						100	95	90
2400					100		95	90
2500						100	95	90
2600					100		95	90
2700						100	95	90
2800					100		95	90
2900						100	95	90
3000	100	95	90					

W S	700	800	900	1000	1100	1200	1300	1400
2000	130				120	115	105	100
2100					125	120	115	105
2200					130	125	120	110
2300						130	125	120
2400					130		125	120
2500						130	125	120
2600					130		125	120
2700						130	125	120
2800					130		125	120
2900						130	125	120
3000	130	125	120					

W S	700	800	900	1000	1100	1200	1300	1400
2000	110				101	97	93	89
2100					106	101	97	93
2200					110	106	101	97
2300						110	106	101
2400					110		106	101
2500						110	106	101
2600					110		106	101
2700						110	106	101
2800					110		106	101
2900						110	106	101
3000	110	106	101					

W S	700	800	900	1000	1100	1200	1300	1400
2000	80				71	67	63	59
2100					76	71	67	63
2200					80	76	71	67
2300						80	76	71
2400					80		76	71
2500						80	76	71
2600					80		76	71
do						80	76	71
3000					80		76	71

W S	700	800	900	1000	1100	1200	1300	1400
2000	160				150	145	135	130
2100					155	150	145	135
2200					160	155	150	140
2300						160	155	150
2400					160		155	150
2500						160	155	150
2600					160		155	150
do						160	155	150
3000					160		155	150

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulk the door.





WU-1R

LOAD SELECTION (ALTERNATIVE MB45)

CONCEALED / HINGES



Private building



Door closer



Public building

W S	800	900	1000	1100	1200	1300	1400
	2000	70			61	57	53
2100	66				61	57	53
2200	70				66	61	57
2300					70	66	61
2400	66					61	
2500	70				70	70	70
2600							
2700	70				70	70	70
2800							
2900	70				70	70	70
3000		70	70	70			

W S	800	900	1000	1100	1200	1300	1400
	2000	90			81	77	73
2100	86				81	77	73
2200	90				86	81	77
2300					90	86	81
2400	86					81	
2500	90				90	90	90
2600							
2700	90				90	90	90
2800							
2900	90				90	90	90
3000		90	90	90			

W S	800	900	1000	1100	1200	1300	1400
	2000	80			70	65	55
2100	75				70	65	55
2200	80				75	70	60
2300					80	75	70
2400	75					70	
2500	80				80	80	80
2600							
2700	80				80	80	80
2800							
2900	80				80	80	80
3000		80	80	80			

W S	800	900	1000	1100	1200	1300	1400
	2000	110			100	95	85
2100	105				100	95	85
2200	110				105	100	90
2300					110	105	100
2400	105					100	
2500	110				110	110	110
2600							
2700	110				110	110	110
2800							
2900	110				110	110	110
3000		110	110	110			

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulk the door.





Frame top part



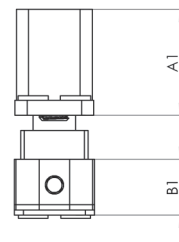
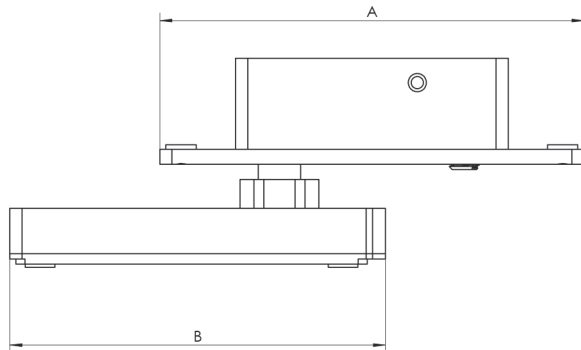
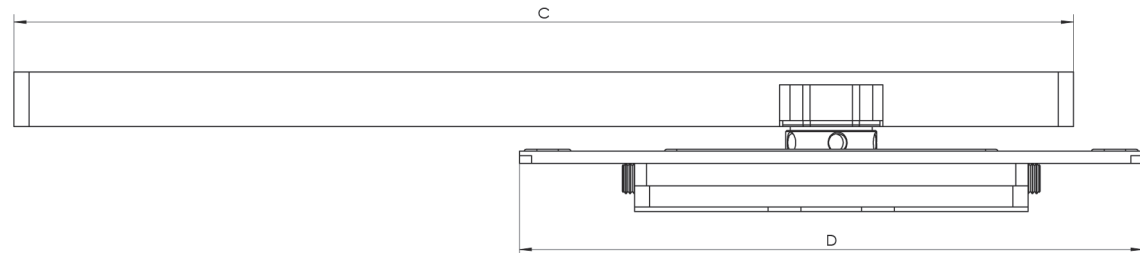
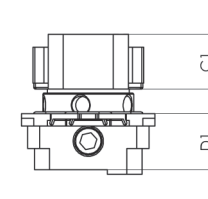
Leaf bottom part



Leaf top part



Frame bottom part



THE PIVOT HINGE ADJUSTMENT CAN BE CARRIED OUT BY **ONE PERSON** WITHOUT DISMANTLING THE DOOR

SMOOTH AND INDEPENDENT LEFT / RIGHT ADJUSTMENT ON TOP AND BOTTOM HINGE

NO LOAD-BEARING PADS REQUIRED (UP TO 300 KG)

IN THE PIVOT HINGE, A CABLE CAN BE PASSED THROUGH THE PIN AXIS AS A STANDARD





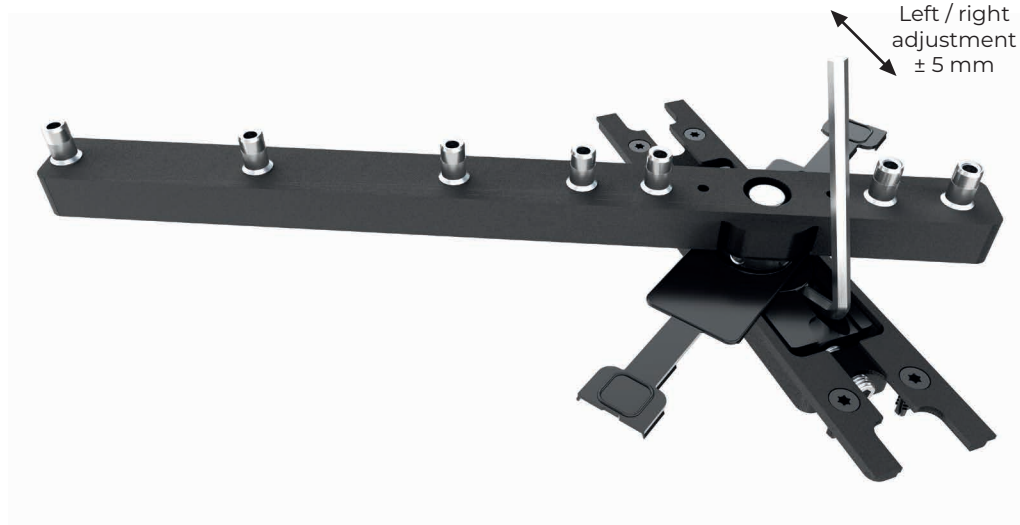
Load selection

W	S	1200	1300	1400	1500	1600	1700	1800	1900	2000
2000					476	446	420	397	376	357
2100						469	441	417	395	375
2200						491	462	437	414	393
2300							483	456	432	411
2400								476	451	429
2500								496	470	446
2600									489	464
2700		500								482
2800			500							
2900				500						
3000					500					
3100						500				
3200							500			
3300								500		
3400									500	

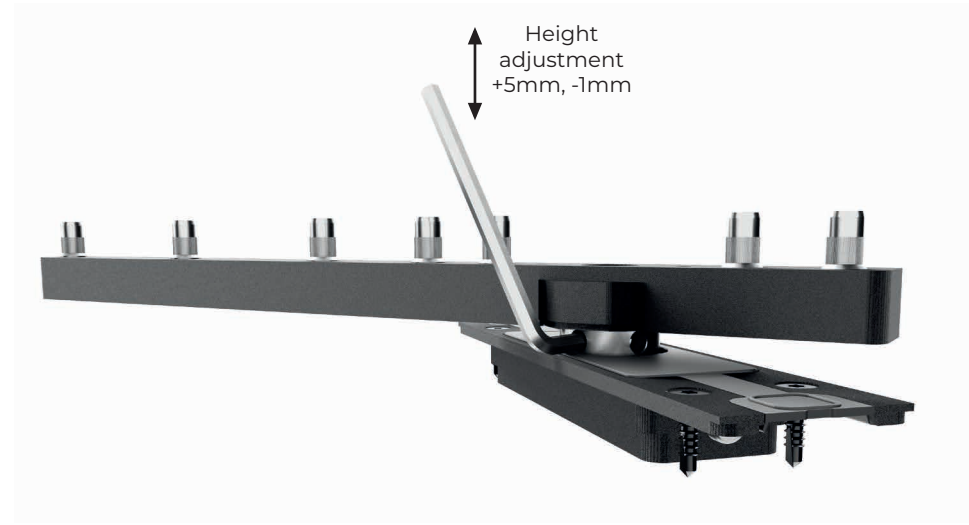
Left / right adjustment - top hinge



Left/right adjustment - bottom hinge

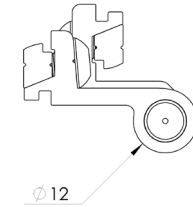
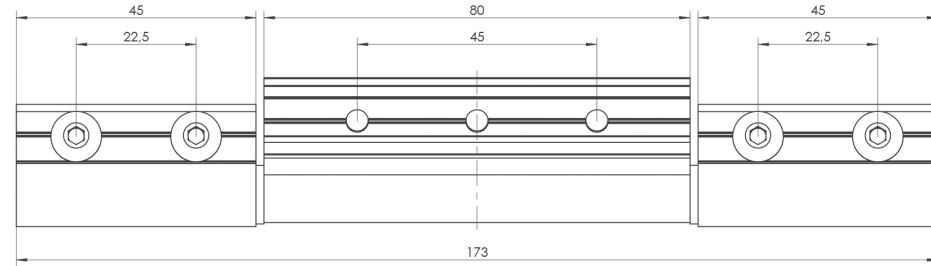


Height adjustment - bottom hinge

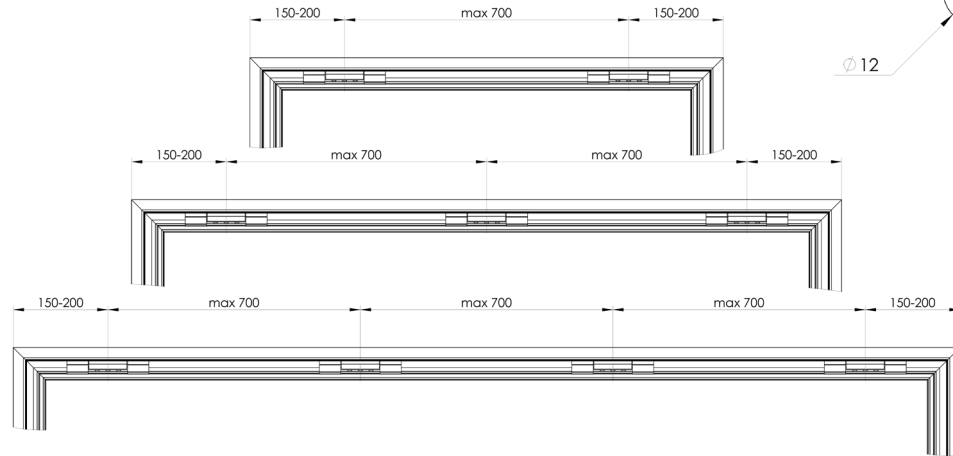
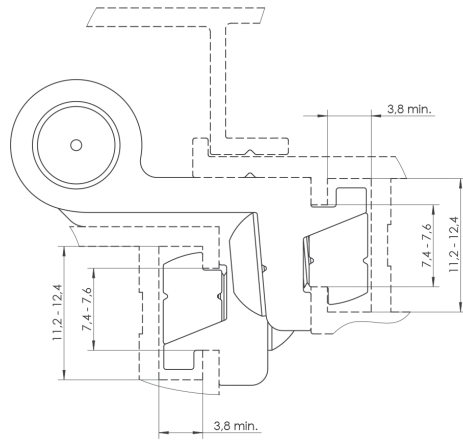


Adjustment should be made on a door open at 90°





WP1 Roof Window Hinge should match to the following groove ranges:



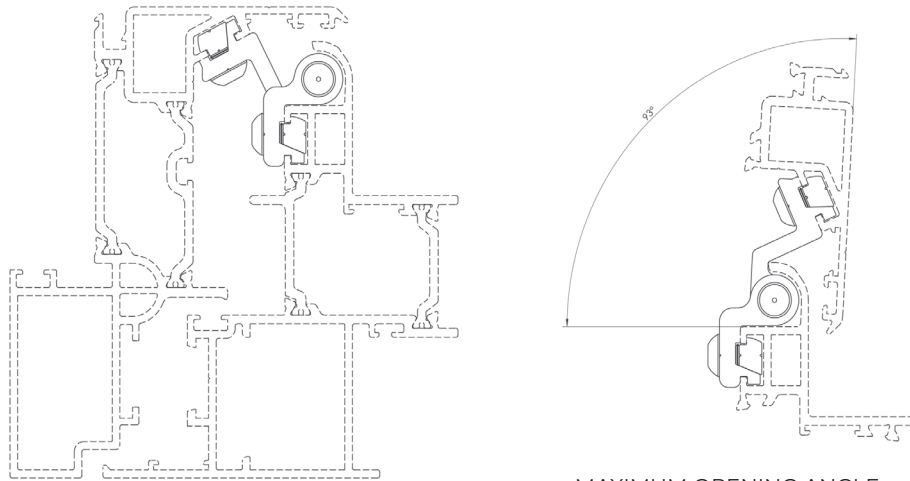
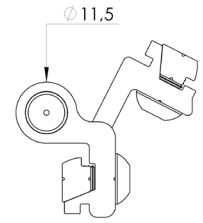
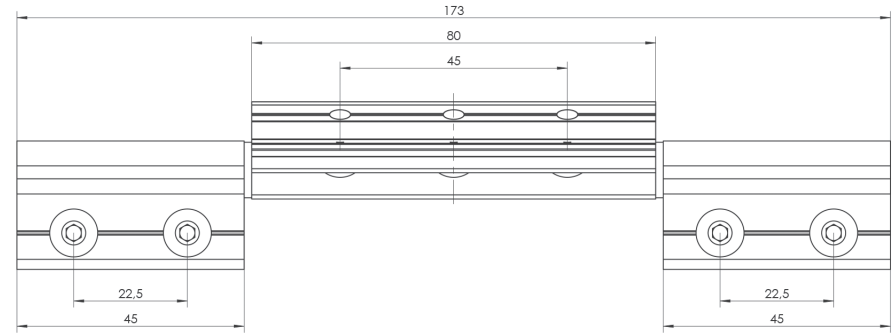
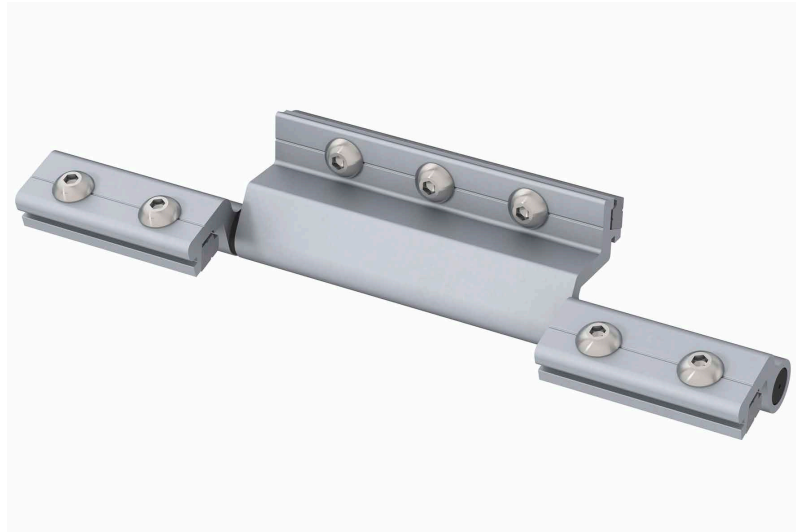
QTY. OF HINGES	MAX LOAD (WITH SNOW)
2	140 KG
3	210 KG
4	260 KG



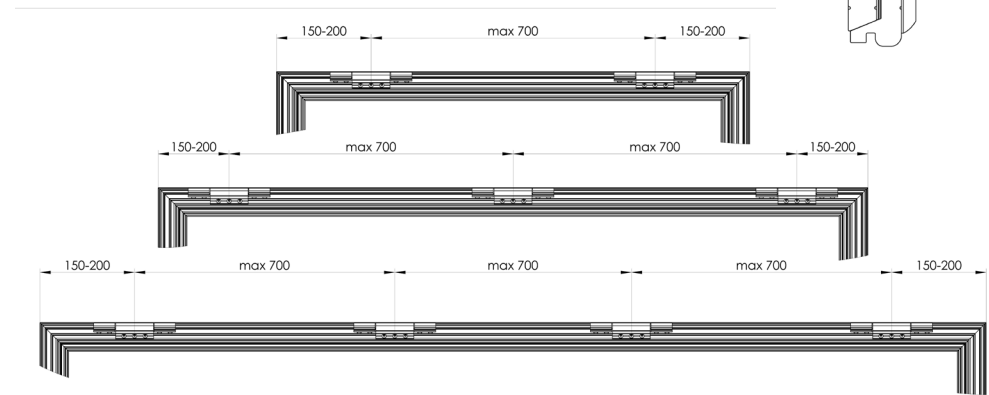


WP2 ROOF WINDOW HINGE

ROOF WINDOW HINGES / HINGES



MAXIMUM OPENING ANGLE

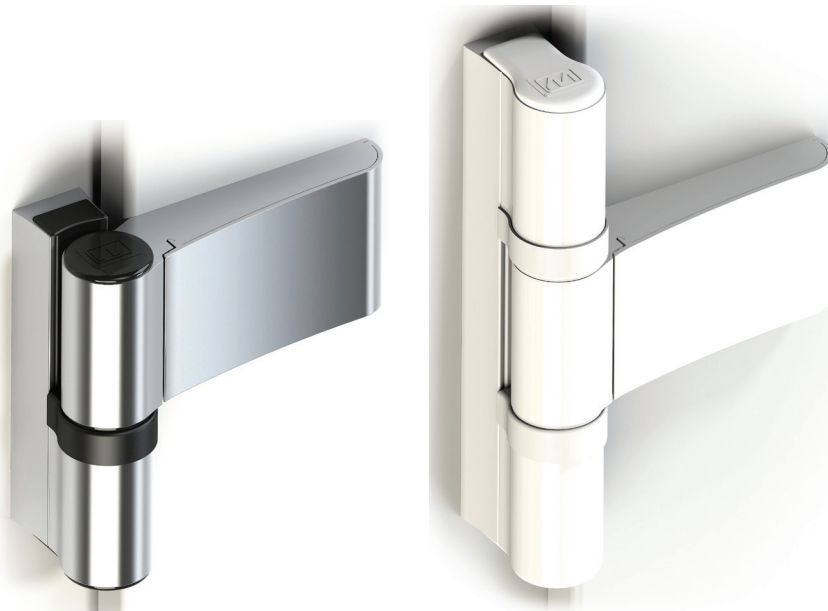


QTY. OF HINGES	MAX LOAD (WITH SNOW)
2	160 KG
3	240 KG
4	300 KG

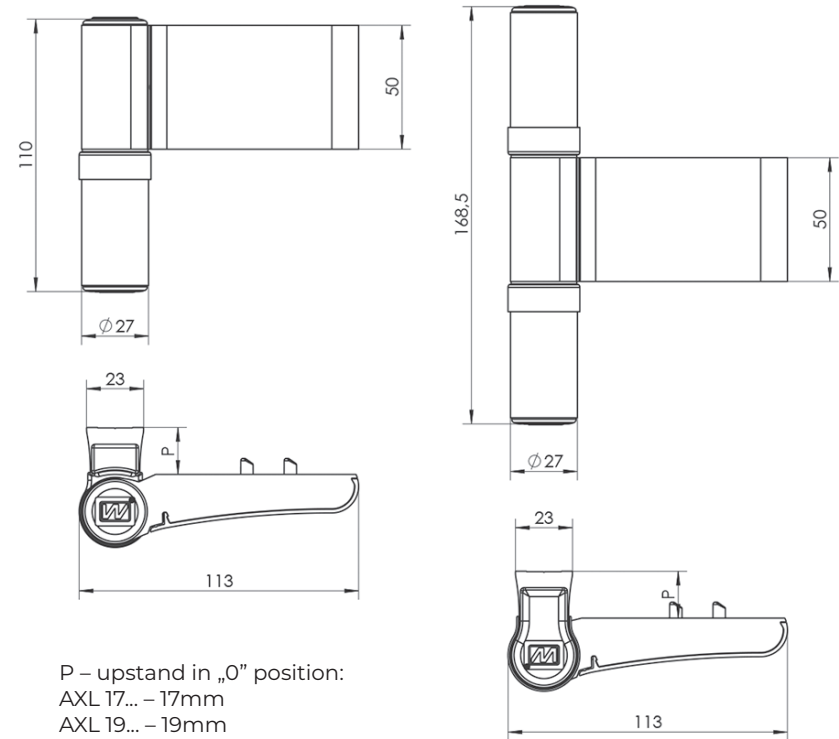
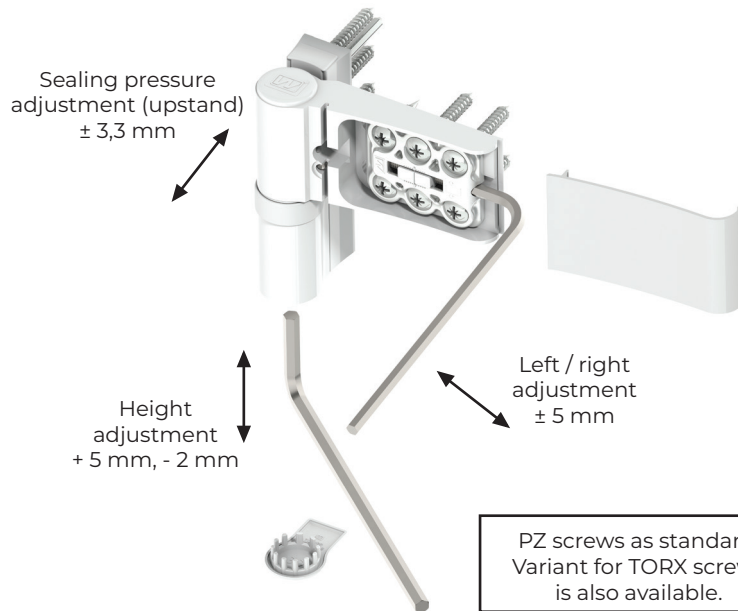




- 7016
- 7024
- 8077
- 8017
- 9001
- 9010
- 7035
- SILVER
- ANODE NATURAL
- GOLDEN ELECTROPOLER
- GOLD W4
- SUBLIMATION
- GOLDEN OAK
- BLACK PLASTIC
- 7021
- 9005
- 8019
- 8003
- 1036W
- 9016
- 9006
- TITAN W9
- INOX COATING
- GOLD W3
- RAL
- WALNUT
- WHITE PLASTIC

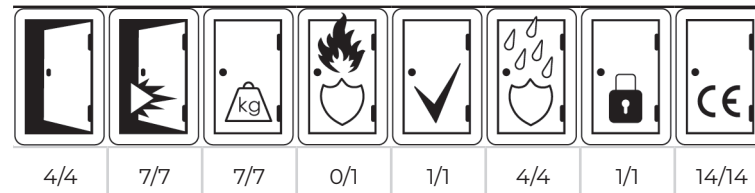


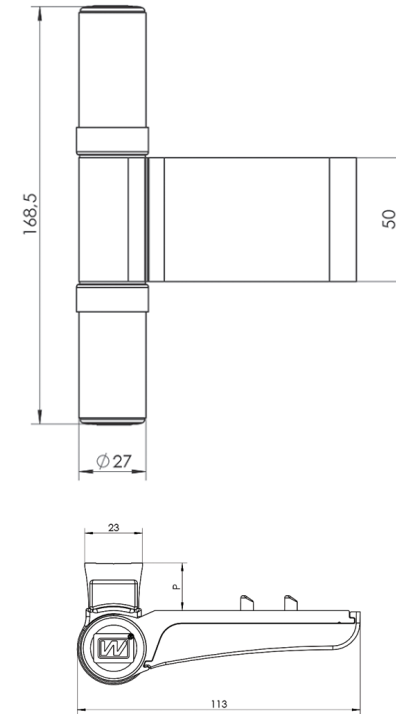
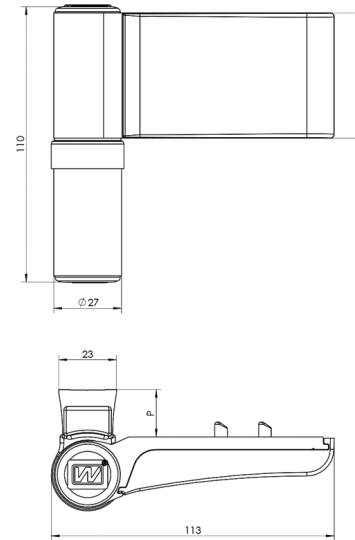
AXL HINGE ADJUSTMENT



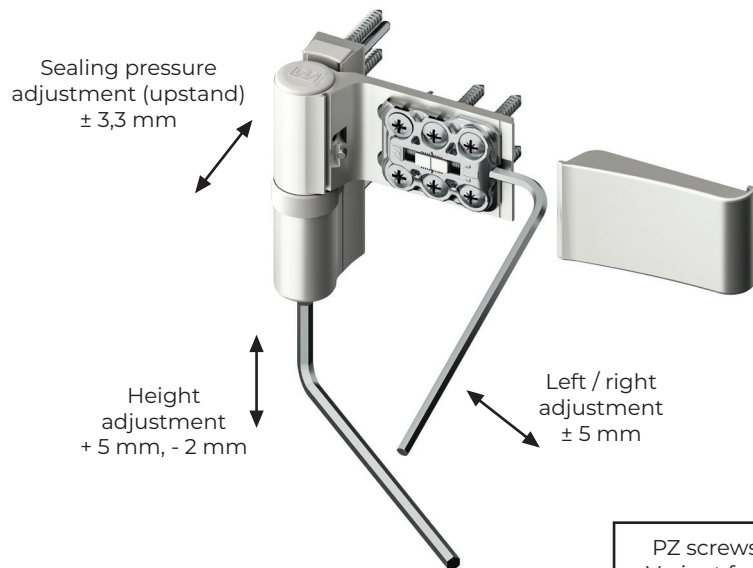
AXL HINGE CLASSIFICATION
 EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors



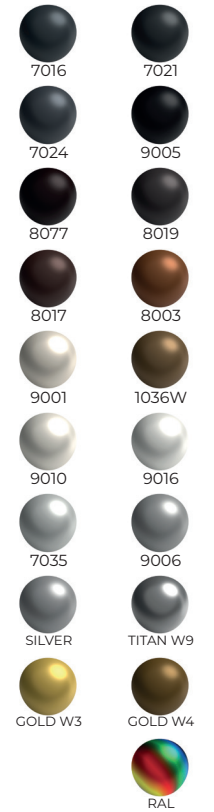


EXL HINGE ADJUSTMENT



P – upstand in „0“ position:
EXL 17... – 17mm
EXL 19... – 19mm
EXL 22... – 22mm
EXL 24... – 24mm

PZ screws as standard.
Variant for TORX screws
is also available.





Private building



Public building



Door closer



2-wing hinge



3-wing hinge

W	S	800	900	1000	1100	1200	1300	1400
		2000	180	170	155	145	140	130
2100	175	165		150	145	135	130	
2200	180	175		160	150	140	135	
2300		180		170	160	150	140	
2400	180			175	165	155	145	
2500		180		180	170	160	150	
2600	175				165	155		
2700	180	180		175	165	155		
2800				170	165	155		
2900	180	180		180	170	165	155	
3000					175	165	155	

W	S	800	900	1000	1100	1200	1300	1400
		2000	210	195	180	170	155	140
2100	200	190		175	160	150	135	
2200	210	200		185	170	155	140	
2300		210		195	180	165	150	
2400	210			205	190	175	160	
2500		210		210	200	185	170	
2600	210				210	195	180	165
2700		210		210		205	190	175
2800	210				210	210	200	185
2900		210		210			210	205
3000	200				185	170		

W	S	800	900	1000	1100	1200	1300	1400
		2000	140	130	115	105	110	100
2100	135	125		110	115	105	100	
2200	140	135		120	120	110	105	
2300	150	150	150	140	130	120	110	
2400				145	135	125	115	
2500				140	130	120		
2600				145	135	125		
2700				145	135	125		
2800				150	150	145	135	
2900						140	130	
3000				150	150	150	145	135
3000							150	140

W	S	800	900	1000	1100	1200	1300	1400	
		2000	170	155	140	130	125	110	100
2100	160	150		135	130	120	105		
2200	170	160		145	140	125	110		
2300	180	180	180	165	150	135	120		
2400				175	160	145	130		
2500				170	155	140			
2600				165	150	135			
2700				175	160	145			
2800				180	180	180	170	155	140
2900							165	150	135
3000				180	180	180	175	160	145
3000							170	155	140

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





AXL / EXL LOAD SELECTION

PVC / HINGES



Private building



Public building



Door closer



2-wing hinge



3-wing hinge

	W	S	800	900	1000	1100	1200	1300	1400
			2000	150	150	140	125	115	110
2100	145	135	120			115	105	100	
2200	145	130	120			110	105		
2300									
2400	145	135	125			115			
2500									
2600	145	135	125						
2700									
2800	145	135	125						
2900									
3000	140	145	150						

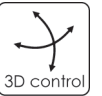
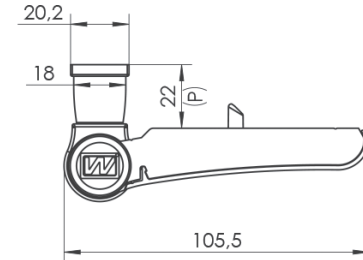
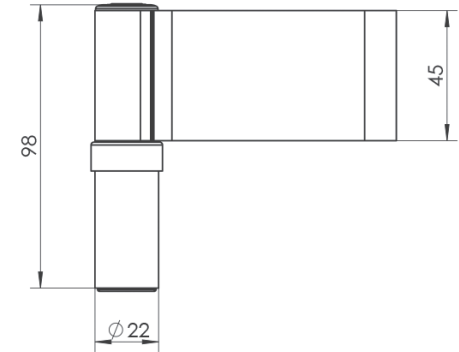
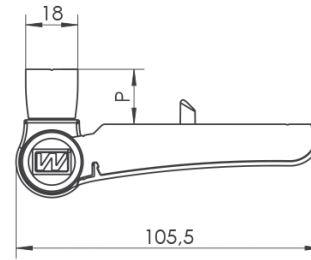
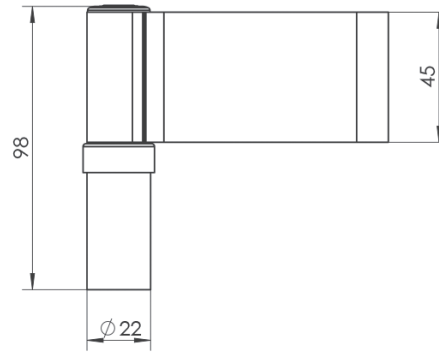
	W	S	800	900	1000	1100	1200	1300	1400
			2000	180	180	165	150	140	125
2100	170	160	145			130	120	105	
2200	170	155	140			125	110		
2300									
2400	175	160	145			130			
2500									
2600	175	160	145			130			
2700									
2800	175	160	145			130			
2900									
3000	165	150	140			125	110	100	

	W	S	800	900	1000	1100	1200	1300	1400
			2000	130	130	120	105	95	90
2100	125	115	100			95	85	80	
2200	130	125	110			100	90	85	
2300	120	110	100	90					
2400									
2500	125	115	105	95					
2600									
2700	125	115	105						
2800									
2900	125	115	105						
3000									

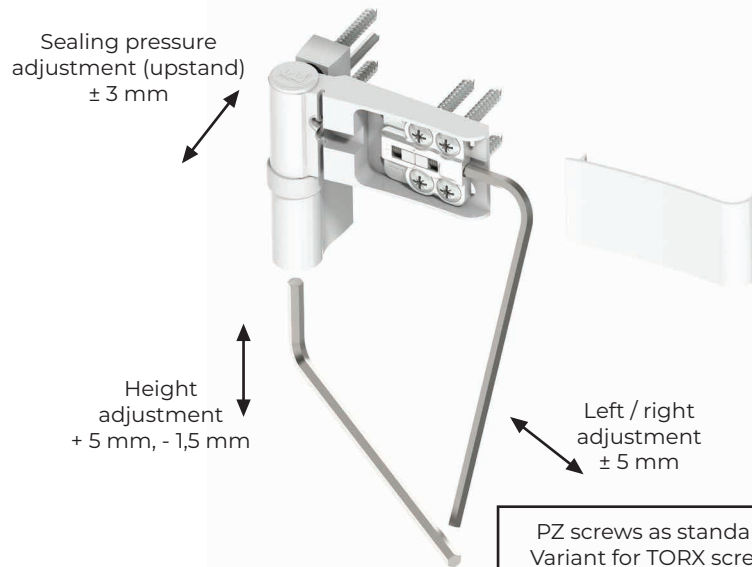
	W	S	800	900	1000	1100	1200	1300	1400
			2000	160	160	145	130	120	105
2100	150	140	125			110	100	85	
2200	160	150	135			120	105	90	
2300	145	130	115	100					
2400									
2500	155	140	125	110					
2600									
2700	155	140	125	110					
2800									
2900	155	140	125	110					
3000									

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





AXM HINGE ADJUSTMENT



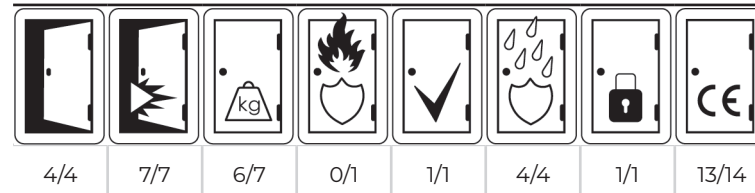
PZ screws as standard. Variant for TORX screws is also available.

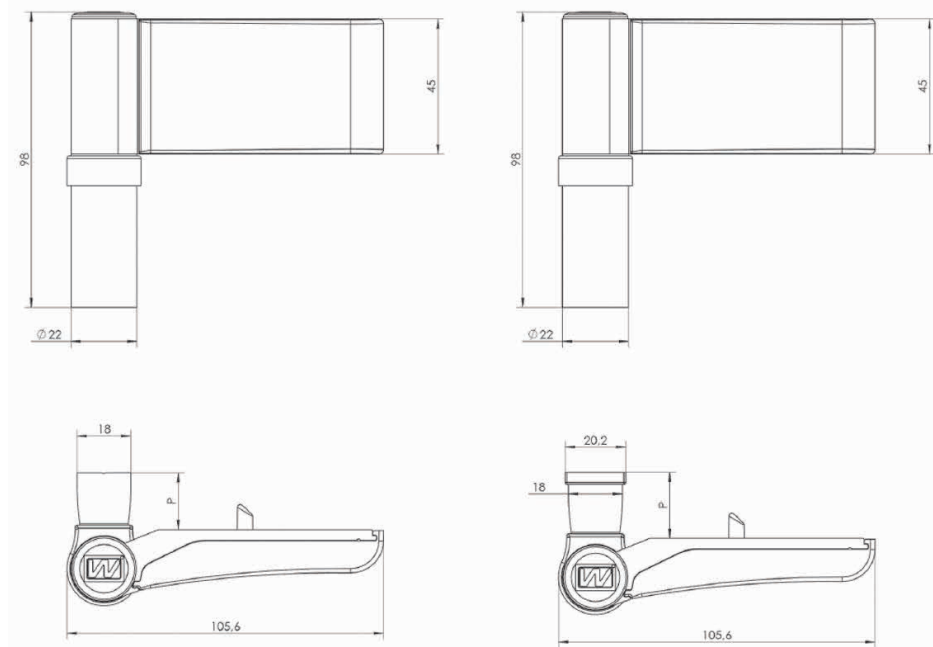
P – upstand in „0“ position:
AXM 17... – 17mm (14 - 20mm)
AXM 19... – 19mm (16 - 22mm)
AXM 21... – 21mm (18 - 24mm)

Due to the application the 3mm distance plate, the upstand 20mm, 22mm and 24mm can be achieved.

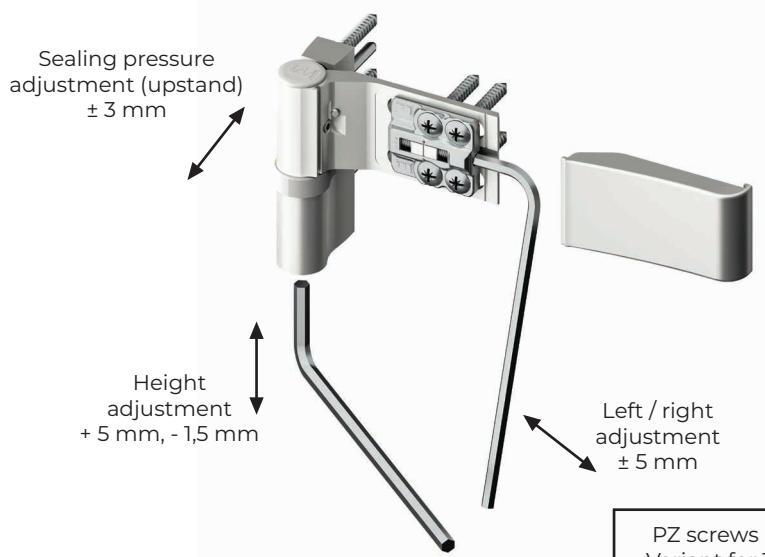
AXM HINGE CLASSIFICATION
EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors





EXM HINGE ADJUSTMENT

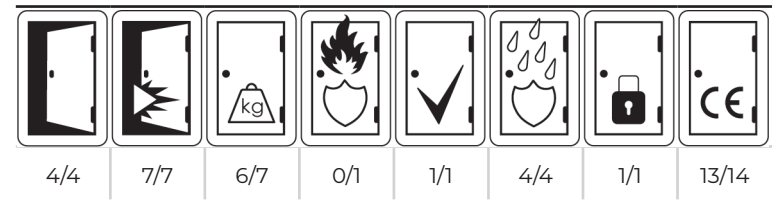


P – upstand in „0” position:
EXM 17... – 17mm (14 - 20mm)
EXM 19... – 19mm (16 - 22mm)
EXM 21... – 21mm (18 - 24mm)

Due to the application the 3mm distance plate, the upstand 20mm, 22mm and 24mm can be achieved.

EXM HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors



PZ screws as standard.
Variant for TORX screws is also available.





Private building



Public building



Door closer



2-wing hinge

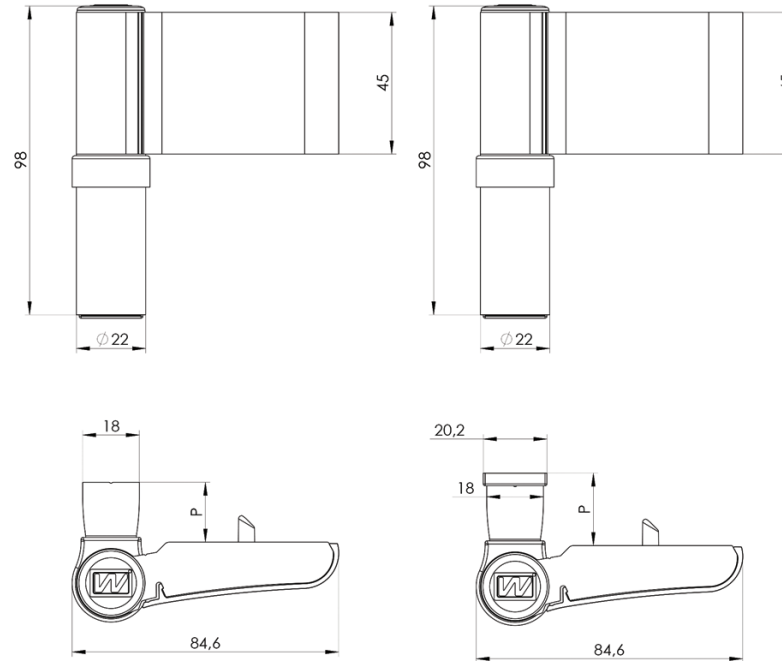
		W	S	800	900	1000	1100	1200	1300	1400					
 3x	2000	135	135	125	110	100	95	85	80						
	2100										130	120	105	100	90
	2200			130	115	105	95	90							
	2300										125	115	105	95	
	2400			125	115	105	100								
	2500										120	110	100		
	2600			120	110	105	100								
	2700											125	115	105	
	2800			130	120	110	105								
	2900												120	110	105
	3000			135	125	110	105								
														130	120
	135	125	110	105	100	95	90			85				80	

		W	S	800	900	1000	1100	1200	1300	1400				
 3x	2000	110	110	100	85	75	70	60	55					
	2100										105	95	80	75
	2200			105	90	80	70							
	2300								100		90	80	70	
	2400			105	90	80	70							
	2500										105	95	85	75
	2600			105	90	80	70							
	2700											105	95	85
	2800			110	95	85	75							
	2900												105	95
	3000			110	100	90	80							
														105
	110	100	90	80	70	60	55							

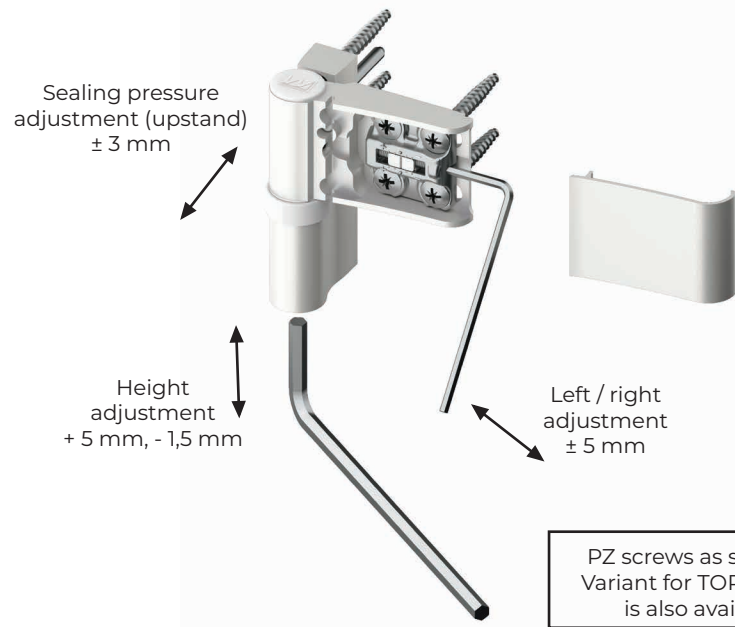
		W	S	800	900	1000	1100	1200	1300	1400						
 3x 4x	2000	110	110	90	75	65	70	60	55							
	2100										95	85	70	75	65	60
	2200										100	95	80	80	70	65
	2300			105	90	80	70									
	2400								100		90	80	70			
	2500			105	90	80	70									
	2600										105	90	80	70		
	2700			105	90	80	70									
	2800											105	95	85	75	
	2900			110	100	90	80									
	3000												105	95	85	75
				110	100	90	80						70	60	55	

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





AXS HINGE ADJUSTMENT



P – upstand in „0” position:
AXS 17... – 17mm (14 - 20mm)
AXS 19... – 19mm (16 - 22mm)
AXS 21... – 21mm (18 - 24mm)

Due to the application the 3mm distance plate, the upstand 20mm, 22mm and 24mm can be achieved.

PZ screws as standard.
Variant for TORX screws is also available.





Private building



Public building



Door closer



2-wing hinge

	W	S	800	900	1000	1100	1200
			3x 	2000	100	90	80
	2100	110	100	90	80	70	
	2200	120	110	100	90	80	
	2300	130	120	110	100	90	
	2400	130	120				
	2500	120	110	110	100	90	
	2600						
	2700						
	2800						
	2900						
	3000						

	W	S	800	900	1000	1100	1200
			4x 	2000	135	125	110
	2100	135	130	120	105	100	
	2200	135	135	130	115	105	
	2300	135	135	135	125	115	
	2400	135	135	125		125	110
	2500	125	125				
	2600						
	2700						
	2800						
	2900						
	3000						

	W	S	800	900	1000	1100	1200
			4x 	2000	100	90	80
	2100	110	100	90	80	70	
	2200	120	110	100	90	80	
	2300	130	120	110	100	90	
	2400	130	120				
	2500	120	110	110	100	90	
	2600						
	2700						
	2800						
	2900						
	3000						

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





SURFACE HINGES

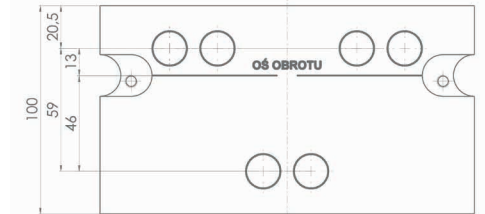
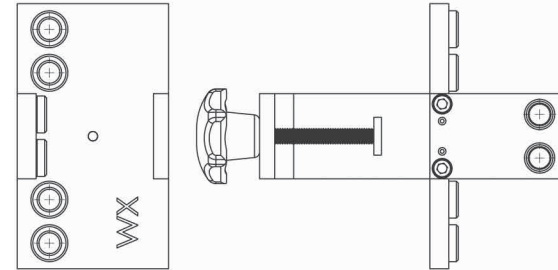
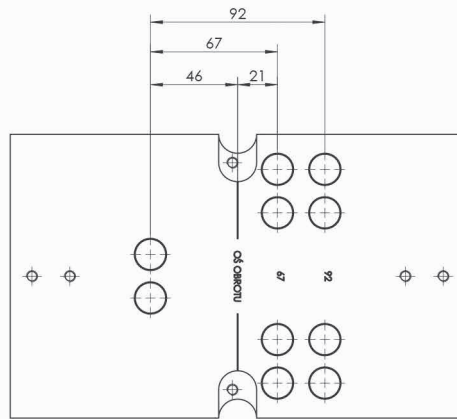
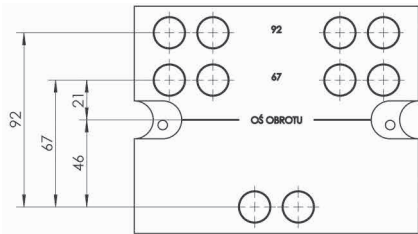
PATTERNS FOR DRILLING / HINGES

S1

S2

S3

NARROW FRAME



S1 Pattern for WX, MX, WEX, MEX Surface Hinge, dimension 67/92

S2 Pattern for WX, MX, WEX, MEX Surface Hinge, dimension 67/92

S3 Pattern for WX Angular Hinge

Pattern for WEX, MEX Narrow Frame Surface Hinge, dimension 59





	LEAF PROFILE	LEAF PROFILE	FRAME PROFILE	FRAME PROFILE	DISTANCES*
WR					
WR-1R					
WR-2R					
WRP					
WU					
WUT					
WU-1R					

*select the distances based on the detailed documentation for the processing of the current aluminium systems



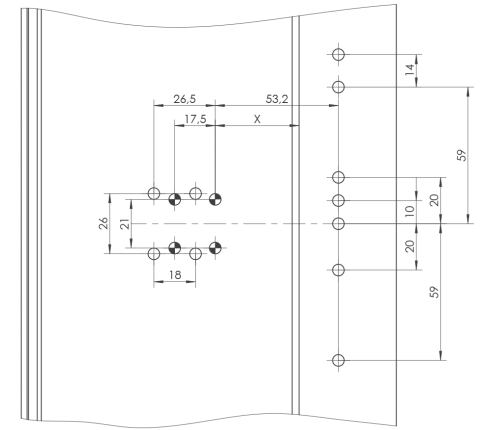
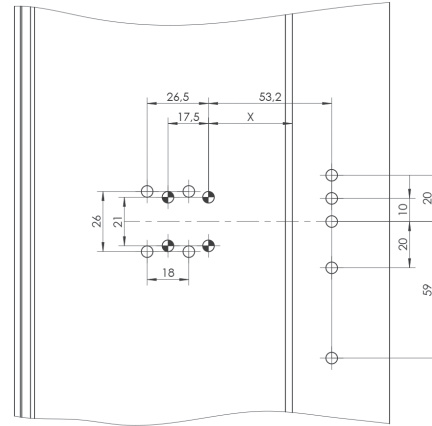


AXL / EXL

AXL / EXL

TOOLING IN PROFILE
AXL / EXL 2-wing hinge

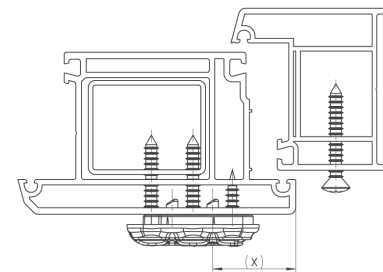
TOOLING IN PROFILE
AXL / EXL 3-wing hinge



DISTANCE THICKNESS A	VALUE X
2 mm	40 mm
4 mm	38 mm
6 mm	36 mm
8 mm	34 mm



DISTANCE THICKNESS A	VALUE X
4 mm	36 mm
5 mm	35 mm
6 mm	34 mm
7 mm	33 mm
8 mm	32 mm



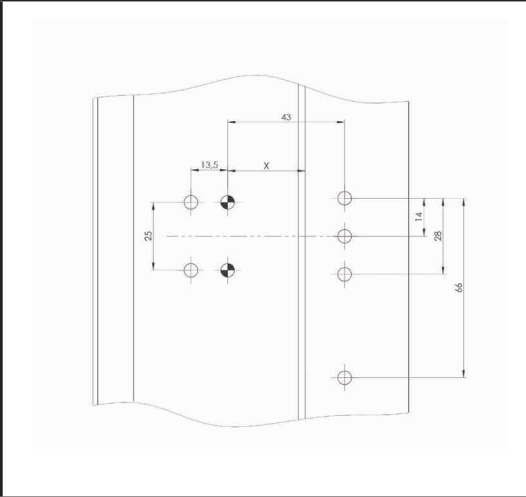
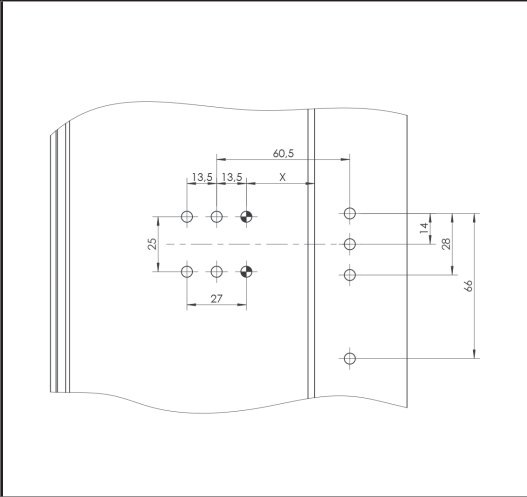
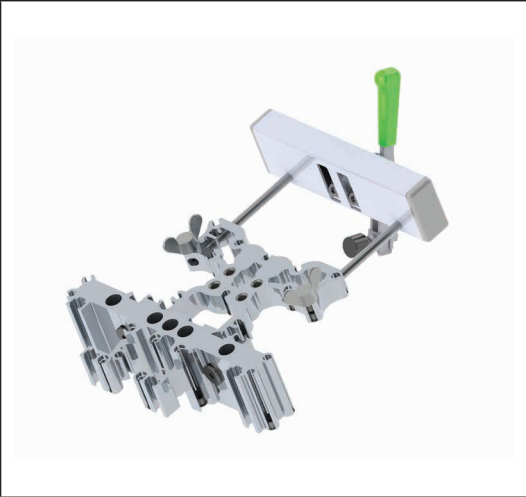
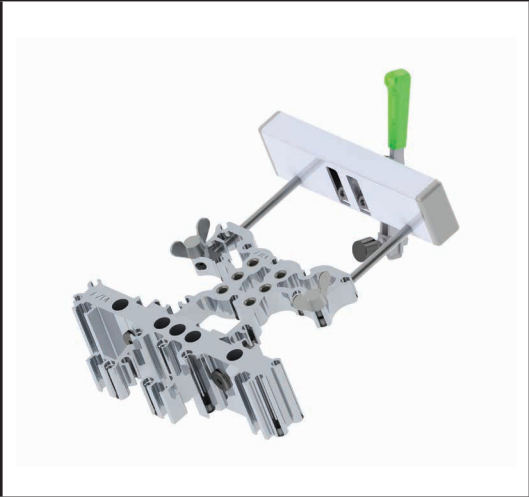


AXM / EXM


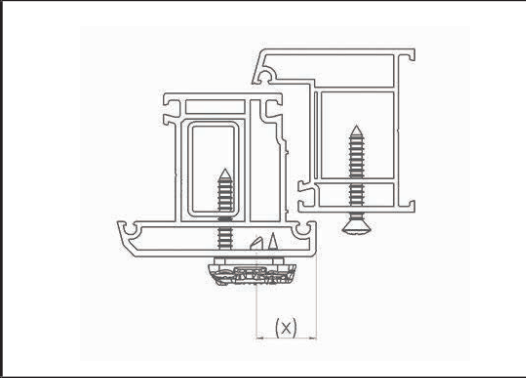
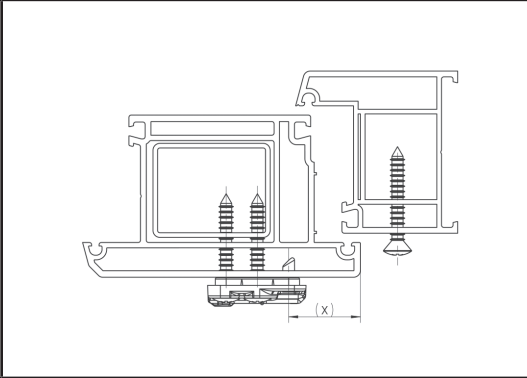
AXS

TOOLING IN PROFILE
AXM / EXM

TOOLING IN PROFILE
AXS



DISTANCE THICKNESS A	VALUE X
2 mm	34 mm
4 mm	32 mm
6 mm	30 mm
8 mm	28 mm

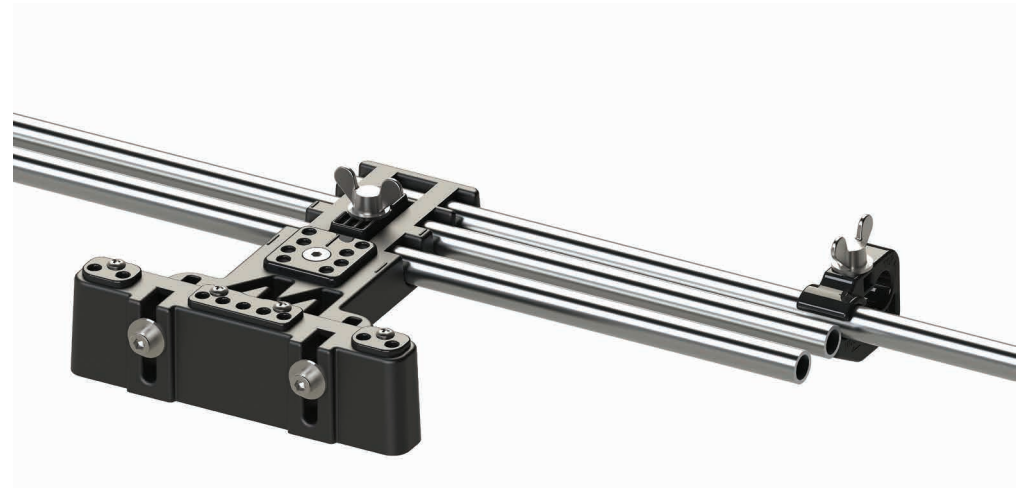





TRIPLE TEMPLATE



AXL TRIPLE TEMPLATE





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