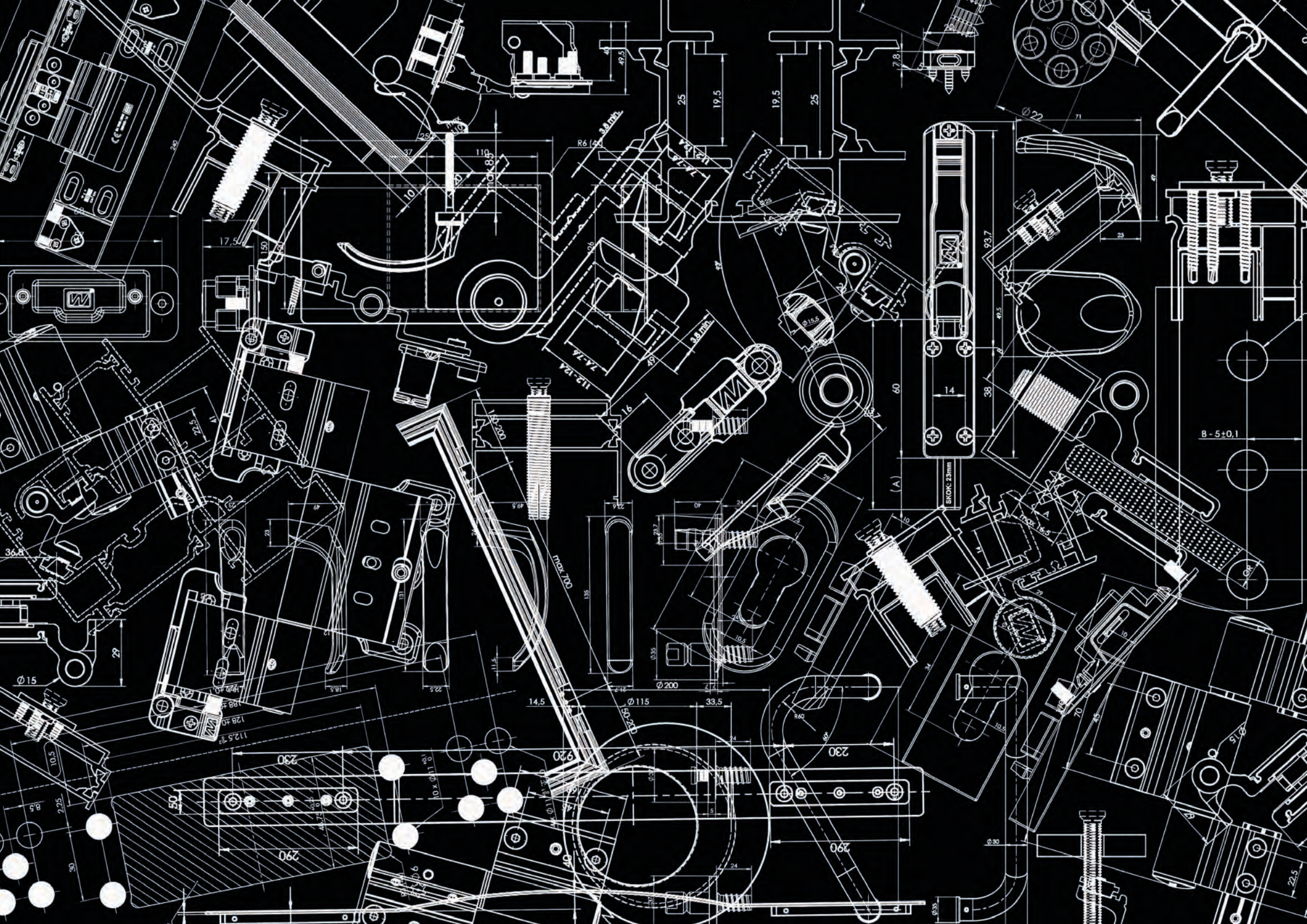




HINGES
WALA





NOTIFIED BODY No. 1488
INSTYTUT TECHNIKI BUDOWLANEJ
CERTIFICATION DEPARTMENT

ul. FILTROWA 1, 00-611 WARSZAWA
tel.: +48 (22) 57 96 167, +48 (22) 57 96 168
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the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.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

7024

8077

8017

9001

9010

7035

SILVER

INOX COATING

GOLD W3

RAL
- 7021

9005

8019

8003

1036W

9016

9006

ANODE NATURAL

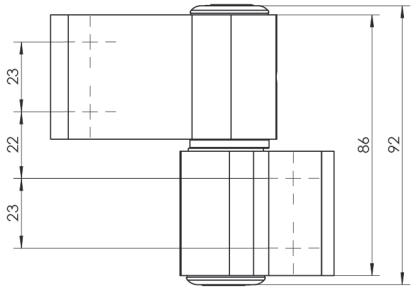
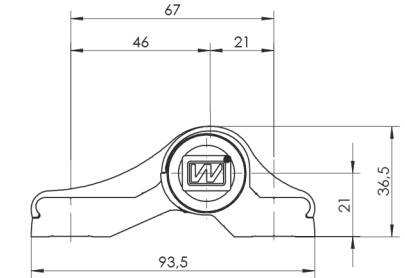
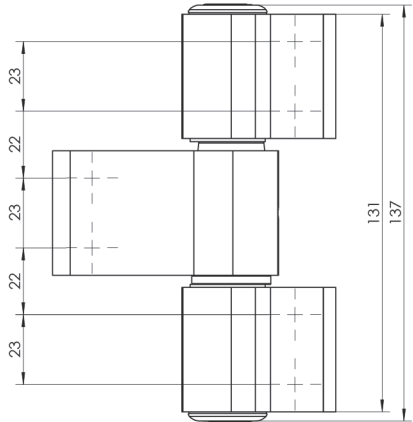
GOLDEN ELECTROPOLAR

GOLD W4

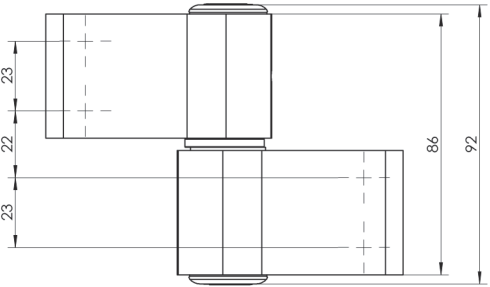
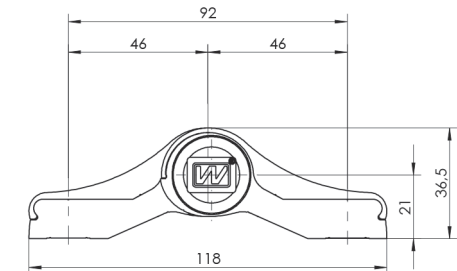
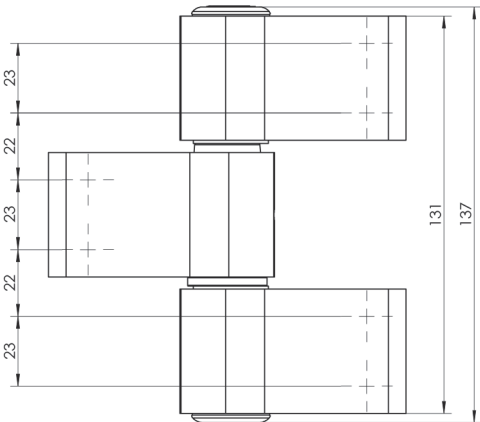
- SUBLIMATION

GOLDEN OAK
- WALNUT

- BLACK PLASTIC
- WHITE PLASTIC



SYMMETRICAL

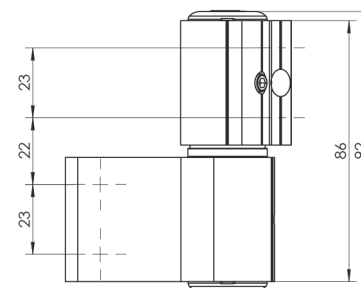
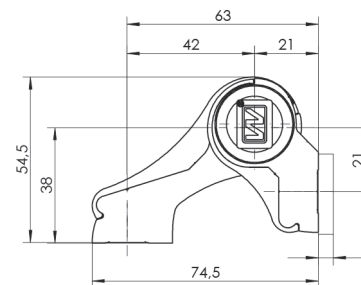
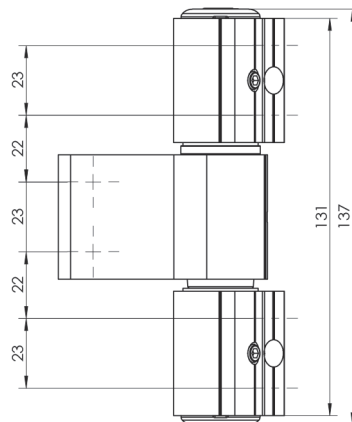




WX

SURFACE HINGES / HINGES

ANGULAR



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

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





Private building



Public building



Door closer



2-wing hinge



3-wing hinge

= 	W	S	800	900	1000	1100	1200	1300	1400
	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			130	124	115	106	99	
	2600				130	121	112	103	
	2700					127	117	109	
	2800					130	123	114	
	2900						129	120	
	3000						130	126	

= 	W	S	800	900	1000	1100	1200	1300	1400
	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				167	154	143	132	
	2500					175	162	150	139
	2600					180	170	157	146
	2700						179	165	153
	2800						180	174	161
	2900							180	169
	3000								177

= 	W	S	800	900	1000	1100	1200	1300	1400
	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			220	208	193	179	165	
	2500				219	202	187	174	
	2600				220	213	197	182	
	2700					220	207	191	
	2800						217	201	
	2900						220	211	
	3000							220	

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

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
 2x 	2000		140	140	130	120	111	103	96
	2100				137	126	117	108	100
	2200					133	123	114	105
	2300					139	129	119	111
	2400				140	140	135	125	116
	2500							132	122
	2600							138	128
	2700						140		134
	2800								140
	2900								
	3000								

	W	S	800	900	1000	1100	1200	1300	1400
 3x 2x 	2000		198	184	170	157	146	135	125
	2100		200	200	193	179	165	153	142
	2200					187	174	161	149
	2300					197	182	169	156
	2400				200	200	191	177	164
	2500							186	172
	2600							195	167
	2700						200		190
	2800								185
	2900						200		194
	3000								200

	W	S	800	900	1000	1100	1200	1300	1400
 3x 	2000		230	216	200	185	171	159	147
	2100			227	210	194	180	167	154
	2200			230	221	204	189	175	162
	2300					214	198	184	170
	2400					225	208	193	179
	2500				230	230	219	203	188
	2600							213	197
	2700							223	207
	2800						230		217
	2900								228
	3000								230

	W	S	800	900	1000	1100	1200	1300	1400
 4x 	2000		280	259	240	222	206	191	176
	2100			272	252	233	216	200	185
	2200				265	245	227	210	194
	2300				278	257	238	221	204
	2400			280	280	280	270	250	232
	2500							263	243
	2600							276	255
	2700						280		268
	2800								261
	2900						280		274
	3000								280

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

 2x	W	S	800	900	1000	1100	1200	1300	1400
2000	98	91	84	78	72	67	62		
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									
3000									

 3x 2x	W	S	800	900	1000	1100	1200	1300	1400
2000	131	121	112	104	96	89	82		
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	170	158	146	135	125	116		
2800		179	165	153	142	131	122		
2900	180	174	161	149	138	128	118		
3000		180	169	156	145	134	124		

  3x   	W	S	800	900	1000	1100	1200	1300	1400
	2000		169	157	145	134	124	115	107
	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		210	194	180	167	154	143
	220			204	189	175	162	150	
			214	198	184	170	157		
			220	208	193	179	165		
				219	202	187	174		

  4x   	W	S	800	900	1000	1100	1200	1300	1400
	2000		219	203	188	174	161	149	138
	2100		230	213	197	183	169	157	145
	2200		242	224	207	192	178	165	152
	2300	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.

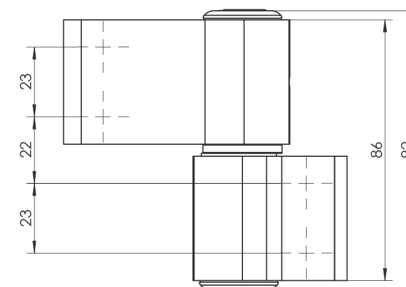
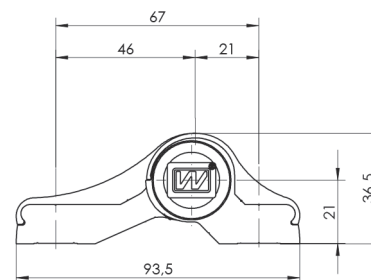
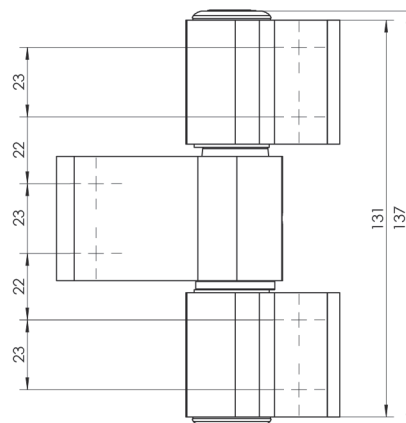


MX

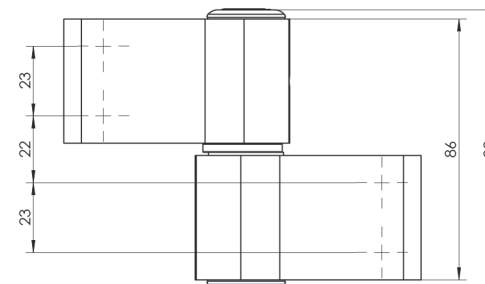
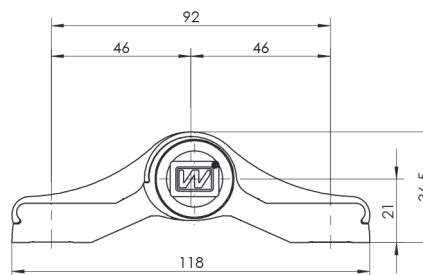
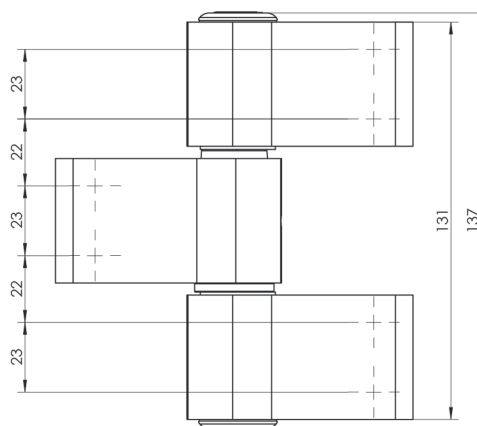
SURFACE HINGES / HINGES



ASYMMETRICAL



SYMMETRICAL

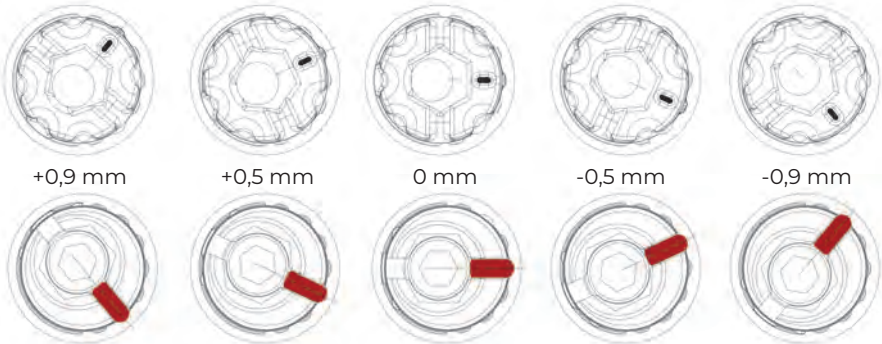




MX HINGE ADJUSTMENT



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

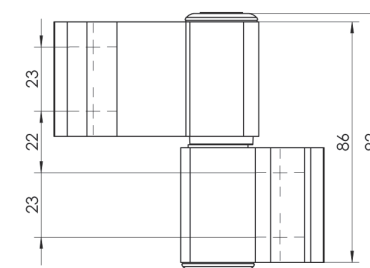
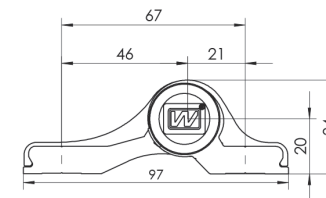
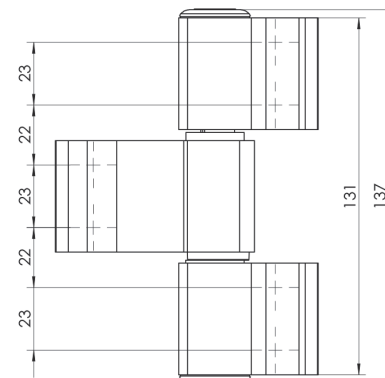




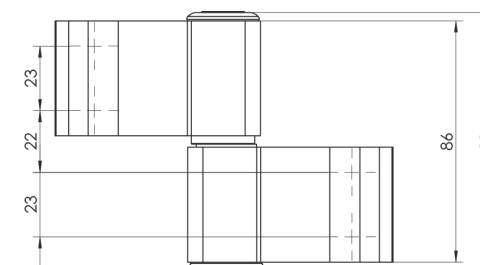
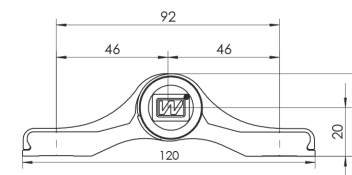
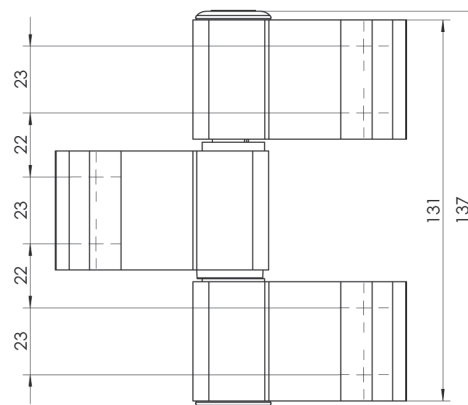
WEX

SURFACE HINGES / HINGES

ASYMMETRICAL

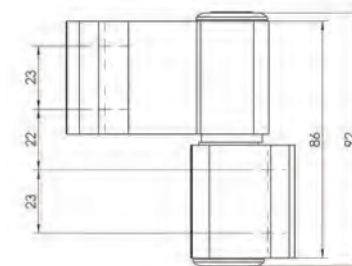
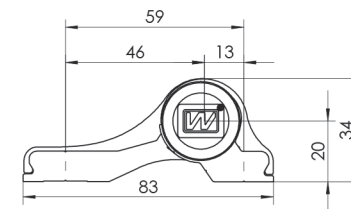
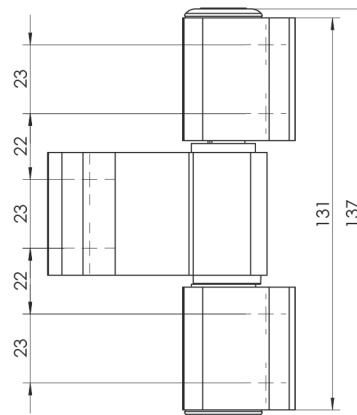


SYMMETRICAL

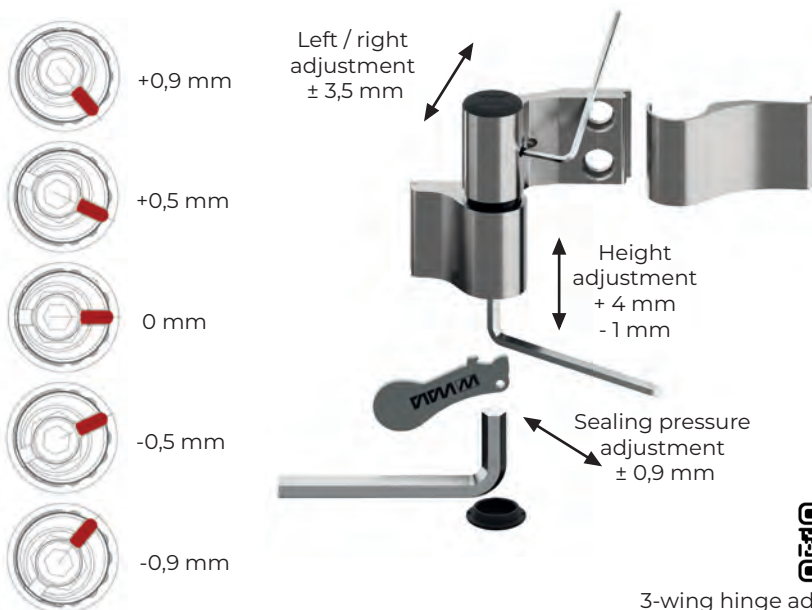




NARROW FRAME

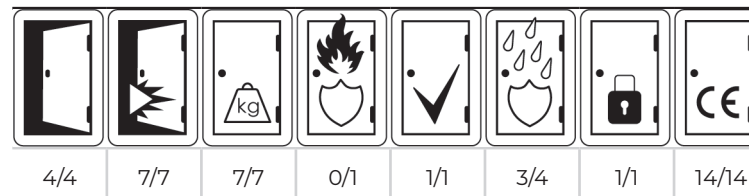


WEX HINGE ADJUSTMENT

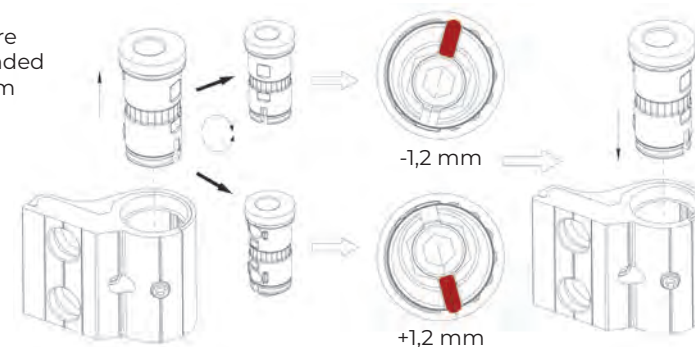


WEX HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors



Sealing pressure adjustment extended position $\pm 1,2$ mm



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

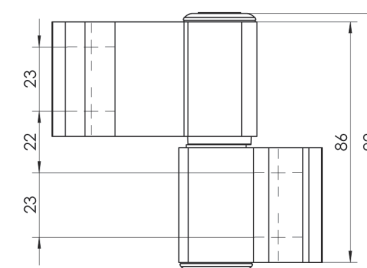
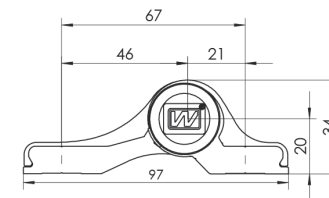
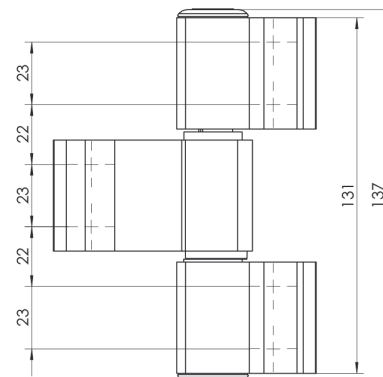




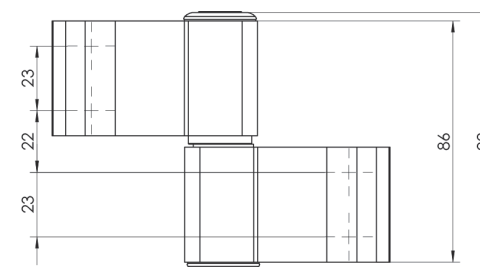
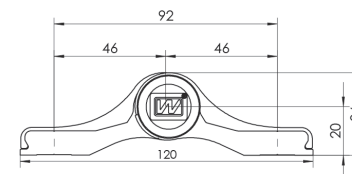
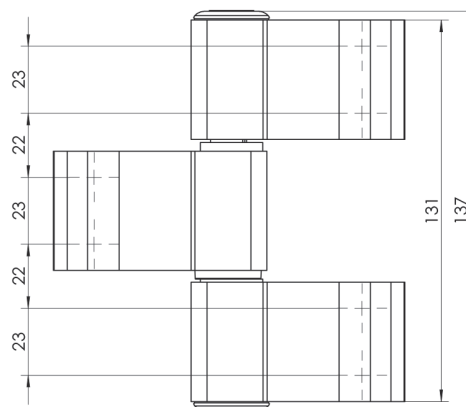
MEX

SURFACE HINGES / HINGES

ASYMMETRICAL

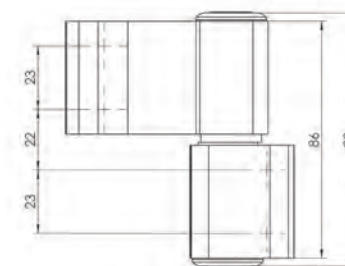
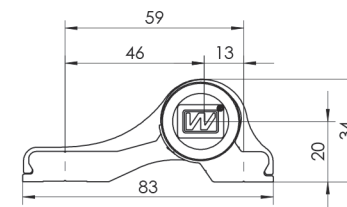
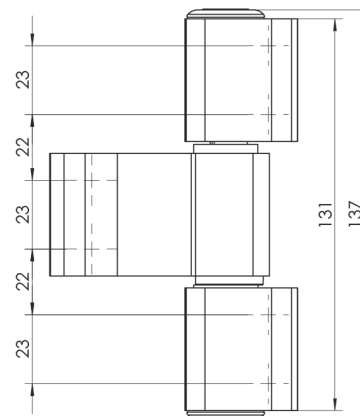


SYMMETRICAL

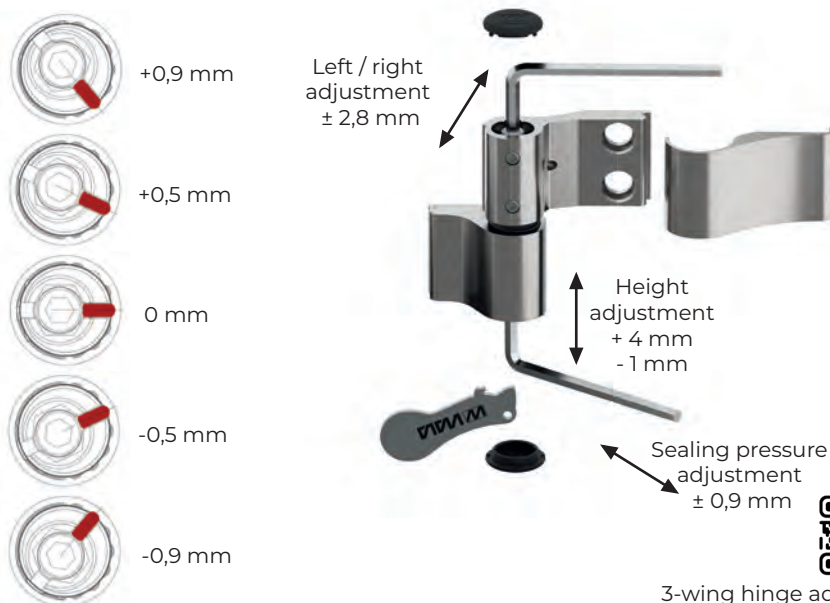




NARROW FRAME

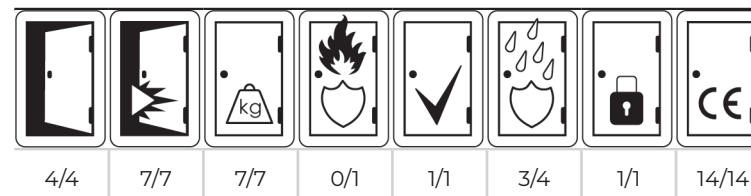


MEX HINGE ADJUSTMENT

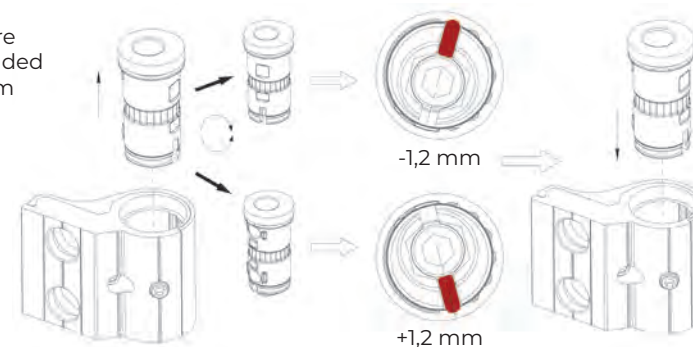


MEX HINGE CLASSIFICATION EN 1935:2002 + EN 1935:2002/AC:2003

for use in emergency exit doors



Sealing pressure adjustment extended position $\pm 1,2$ mm



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





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		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				102	94	87	81	75
	2500			104	104	99	92	85	79
	2600					104	97	90	82
	2700						102	94	87
	2800						104	98	91
	2900							103	96
	3000							104	101

	W	S	800	900	1000	1100	1200	1300	1400
 3x 2x	2000		138	128	118	110	102	94	87
	2100		144	134	124	115	106	98	91
	2200			141	130	121	112	104	96
	2300			144	137	127	118	109	101
	2400				144	134	123	114	106
	2500					140	130	120	111
	2600			144	144	144	136	126	117
	2700						143	132	122
	2800						144	139	129
	2900							144	135
	3000								142

	W	S	800	900	1000	1100	1200	1300	1400
 3x	2000		173	160	148	137	127	118	109
	2100		176	168	155	144	134	123	114
	2200			176	163	151	140	130	120
	2300				171	158	147	136	126
	2400			176	176	166	154	143	132
	2500					175	162	150	139
	2600					176	170	158	146
	2700						176	166	153
	2800							174	161
	2900							176	169
	3000								176

	W	S	800	900	1000	1100	1200	1300	1400
 4x	2000		200	190	176	163	151	140	130
	2100			199	185	171	158	146	136
	2200			200	194	180	166	154	142
	2300				200	189	174	162	150
	2400					198	183	170	158
	2500			200	200	200	193	178	165
	2600						200	187	174
	2700							197	182
	2800							200	191
	2900								200
	3000								

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 	2000		112		104	96	89	82	77
	2100				110	101	94	86	80
	2200				112	106	98	91	84
	2300					111	103	95	89
	2400					112	108	100	93
	2500							106	98
	2600							110	102
	2700					112	112		107
	2800							112	112
	2900								
	3000								

	W	S	800	900	1000	1100	1200	1300	1400
 3x 2x 	2000		158	147	136	126	117	108	100
	2100		160	154	143	132	122	114	105
	2200			160	150	139	129	119	110
	2300				158	146	135	125	116
	2400				160	153	142	131	122
	2500					160	149	138	127
	2600						156	145	134
	2700						160	152	141
	2800							159	148
	2900							160	155
	3000								160

	W	S	800	900	1000	1100	1200	1300	1400
 3x 	2000		184	173	160	148	137	127	118
	2100			182	168	155	144	134	123
	2200		184	184	177	163	151	140	130
	2300				184	171	158	147	136
	2400					180	166	154	143
	2500				184	184	175	162	150
	2600							170	158
	2700							178	166
	2800					184		174	
	2900							182	
	3000							184	

	W	S	800	900	1000	1100	1200	1300	1400
 4x 	2000		224	207	192	178	165	153	141
	2100			218	202	186	173	160	148
	2200		224	224	212	196	182	168	155
	2300				222	206	190	177	163
	2400				224	216	200	186	171
	2500					224	210	194	180
	2600						221	204	189
	2700						224	214	198
	2800							224	209
	2900								219
	3000								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	99	92	85	79	73
	2900				104	97	90	82	77
	3000					102	94	87	81

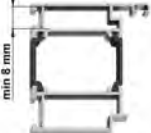
	W	S	800	900	1000	1100	1200	1300	1400
  3x 2x 	2000		105	97	90	83	77	71	66
	2100		110	102	94	87	81	74	69
	2200		115	106	98	91	85	78	73
	2300		121	112	104	96	89	82	76
	2400		127	118	109	101	94	86	80
	2500		134	123	114	106	98	90	84
	2600		140	130	120	111	103	95	88
	2700		144	136	126	117	108	100	93
	2800			143	132	122	114	105	98
	2900			144	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				171	158	147	136	126
	2900				176	166	154	143	132
	3000					175	162	150	139

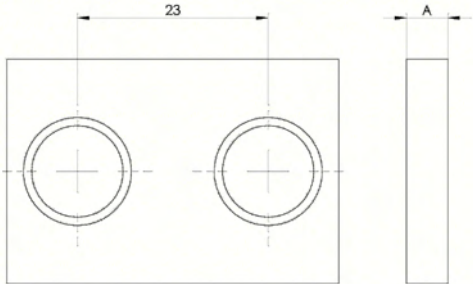
  4x 	W	S	800	900	1000	1100	1200	1300	1400
	2000		175	162	150	139	129	119	110
	2100		184	170	158	146	135	126	116
	2200		194	179	166	154	142	132	122
	2300	200		188	174	162	150	138	128
	2400			198	183	170	157	145	134
	2500		200		192	178	165	152	141
	2600	200			186	173	160	148	
	2700				196	182	168	155	
	2800			200		190	176	163	
	2900				200		186	171	
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.



 PROFILE WITHOUT THERMAL BARRIER (COLD)				 FOR PROFILES WITHOUT A THERMAL BREAK OR WITH A THERMAL BREAK THAT HAVE A CHAMBER ON THE HINGE SIDE MORE THAN 8 MM DEEP			
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 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

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





- 7016

7024

8077

8017

9001

9010

7035

SILVER

INOX COATING

GOLD W4
- 7021

9005

8019

8003

1036W

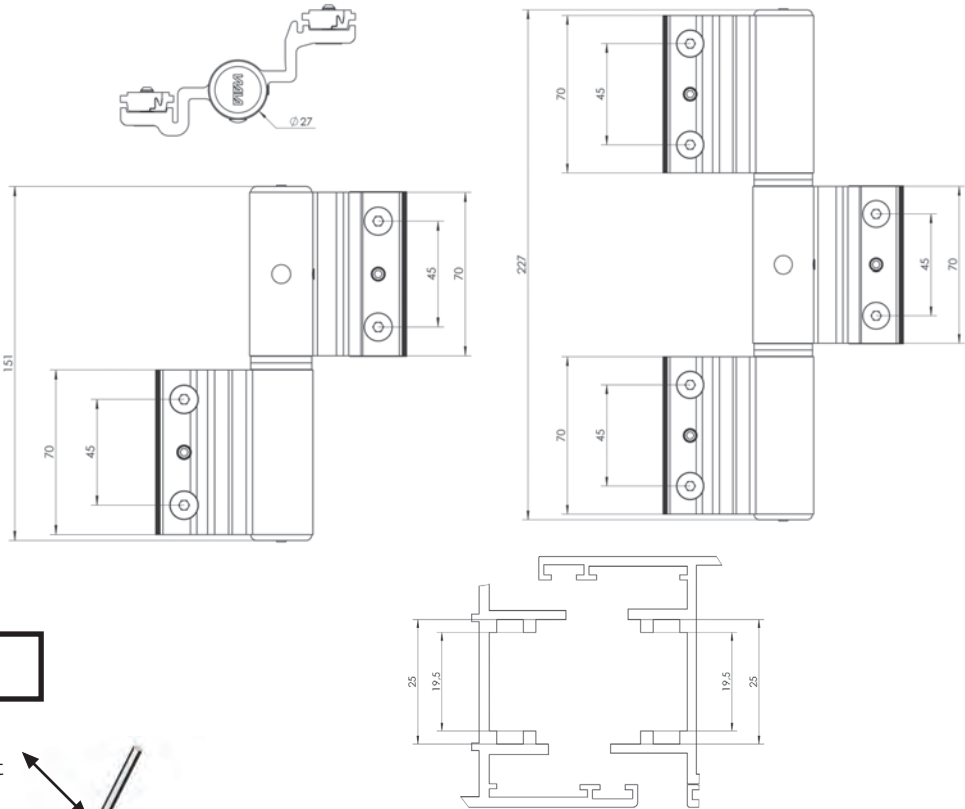
9016

9006

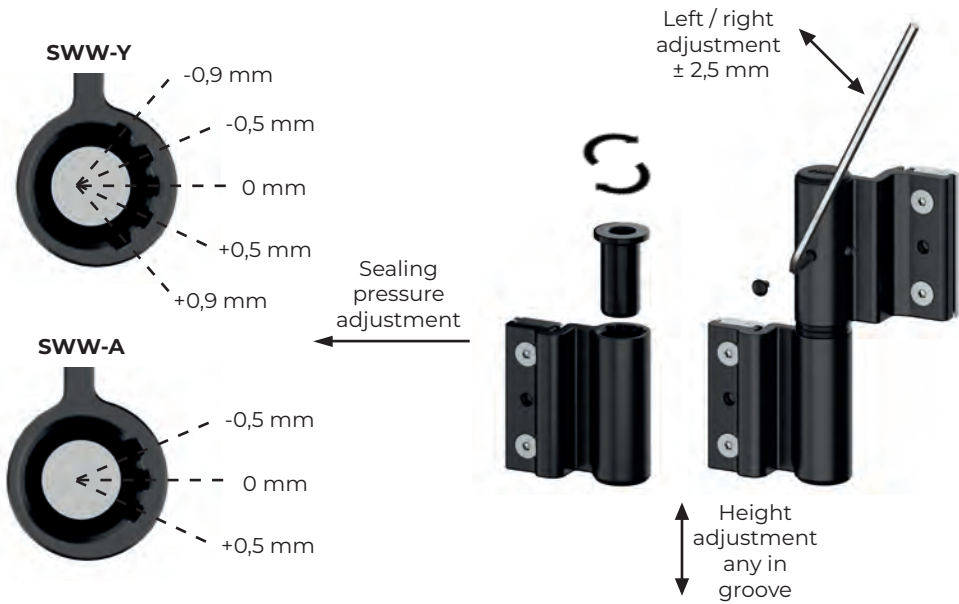
ANODE NATURAL

GOLD W3

RAL



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

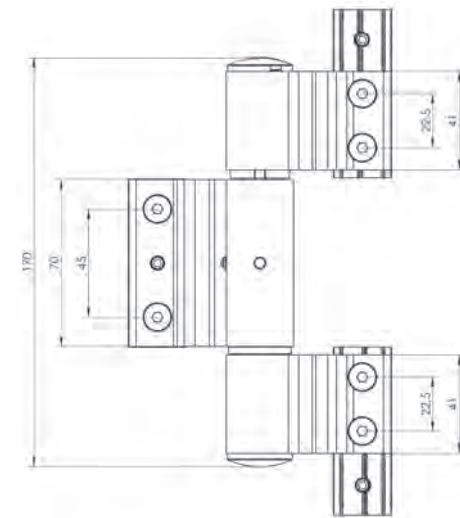
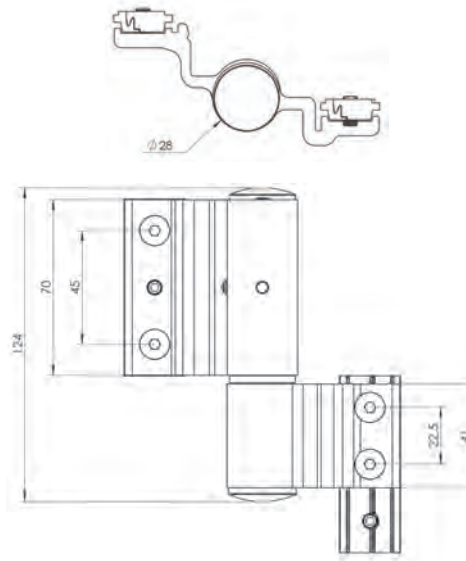
4/4	7/7	6/7	0/1	1/1	3/4	1/1	13/14



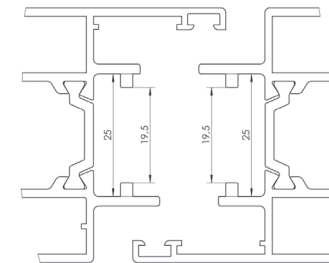
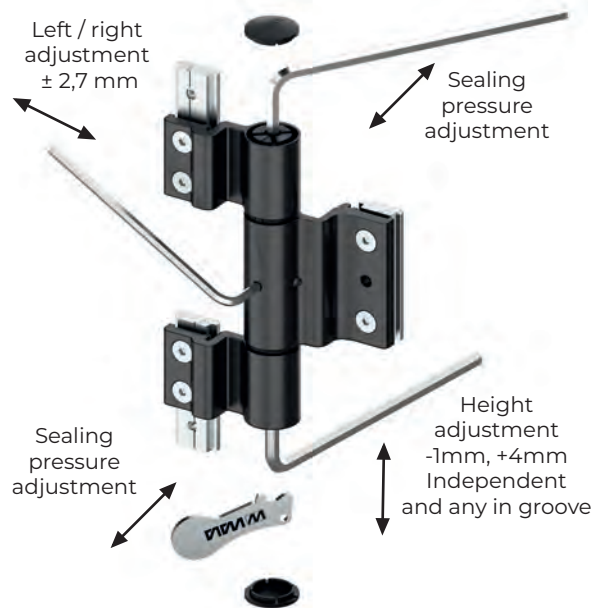
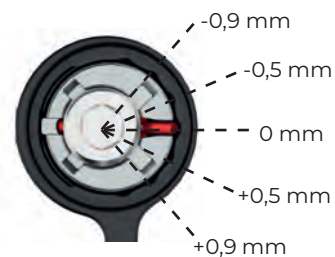
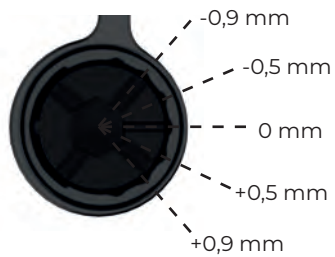


XWW

GROOVE HINGES / HINGES



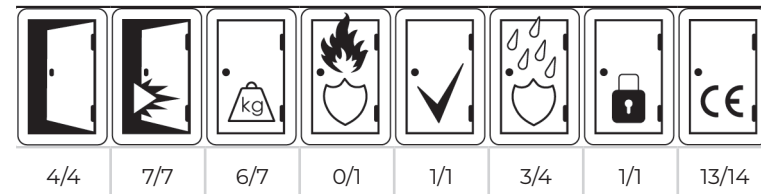
XWW HINGE ADJUSTMENT



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

 2x	W	S	800	900	1000	1100	1200
	2000		58	54	50	46	43
	2100		60	57	53	49	45
	2200			60	55	51	47
	2300				58	54	50
	2400				60	56	52
	2500					59	55

 3x 2x	W	S	800	900	1000	1100	1200
	2000		76	70	65	60	56
	2100		80	74	68	63	59
	2200		84	77	72	66	61
	2300		85	81	75	70	65
	2400			85	79	73	68
	2500				83	77	71

 3x	W	S	800	900	1000	1100	1200
	2000		99	92	85	79	73
	2100		104	96	89	83	77
	2200		105	101	94	87	80
	2300			105	98	91	84
	2400				103	96	89
	2500				105	100	93

 4x	W	S	800	900	1000	1100	1200
	2000		117	108	100	93	86
	2100		120	113	105	97	90
	2200			119	110	102	95
	2300			120	116	107	99
	2400				120	113	104
	2500					118	109

 2x	W	S	800	900	1000	1100	1200
	2000		64	59	55	51	47
	2100		67	62	58	53	50
	2200		71	65	61	56	52
	2300		74	69	64	59	55
	2400		75	72	67	62	57
	2500			75	70	65	60

 3x 2x	W	S	800	900	1000	1100	1200
	2000		87	81	75	69	64
	2100		92	85	79	73	68
	2200		95	89	83	77	71
	2300			94	87	80	74
	2400			95	91	84	78
	2500				95	89	82

 3x	W	S	800	900	1000	1100	1200
	2000		105	97	90	83	77
	2100		110	102	95	88	81
	2200			107	99	92	85
	2300			110	104	96	89
	2400				109	101	94
	2500				110	106	98

 4x	W	S	800	900	1000	1100	1200
	2000		128	119	110	102	94
	2100		130	125	116	107	99
	2200			130	121	112	104
	2300				127	118	109
	2400			130	124	115	
	2500				130	120	

 2x	W	S	800	900	1000	1100	1200
	2000		70	65	60	56	51
	2100		73	68	63	58	54
	2200		77	71	66	61	57
	2300		81	75	69	64	60
	2400		85	79	73	68	63
	2500		89	83	77	71	66

 3x 2x	W	S	800	900	1000	1100	1200
	2000		93	86	80	74	69
	2100		98	91	84	78	72
	2200		103	95	88	82	76
	2300		108	100	93	86	79
	2400		113	105	97	90	83
	2500		115	110	102	95	88

 3x	W	S	800	900	1000	1100	1200
	2000		117	108	100	93	86
	2100		122	113	105	97	90
	2200		129	119	110	102	95
	2300		135	125	116	107	99
	2400			131	122	113	104
	2500			135	128	118	109

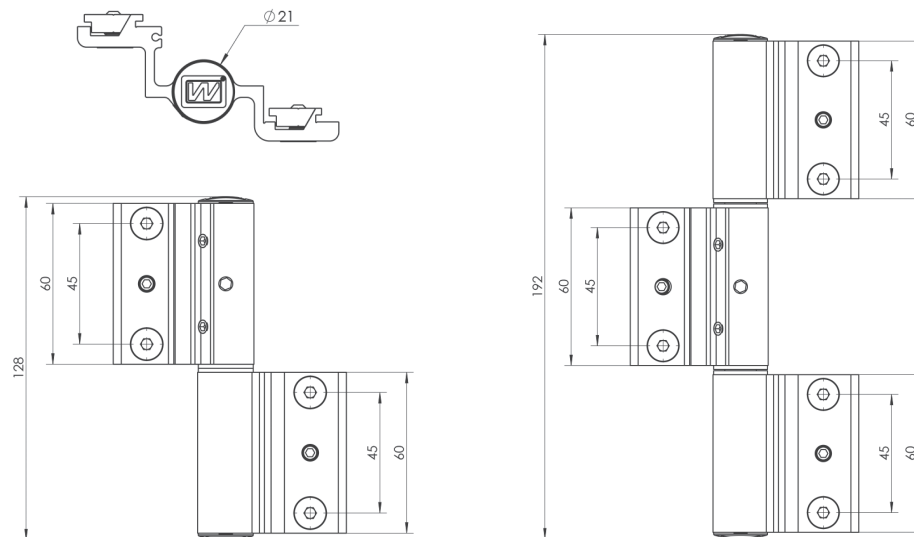
 4x	W	S	800	900	1000	1100	1200
	2000		134	124	115	106	99
	2100		141	130	121	112	104
	2200		148	137	127	117	109
	2300		150	144	133	123	114
	2400			150	140	129	120
	2500				147	136	126

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



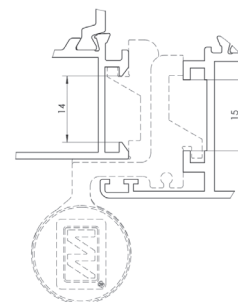
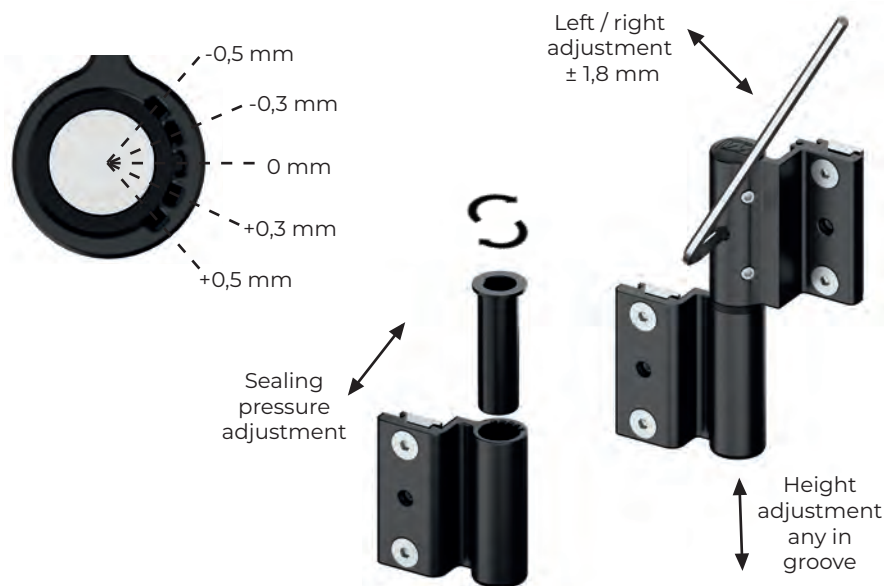
RWE

GROOVE HINGES / HINGES

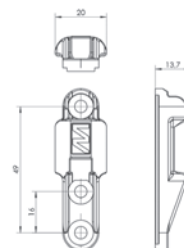


RWE Hinge is suitable for aluminium euro groove systems with the door frame of the width 14mm and the door leaf of the width 15mm

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.





Private building



Public building



Door closer



2-wing hinge



3-wing hinge

	W	S	800	900	1000	1100	1200
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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.

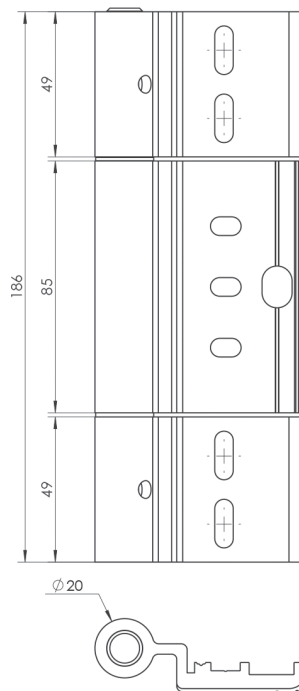


WR

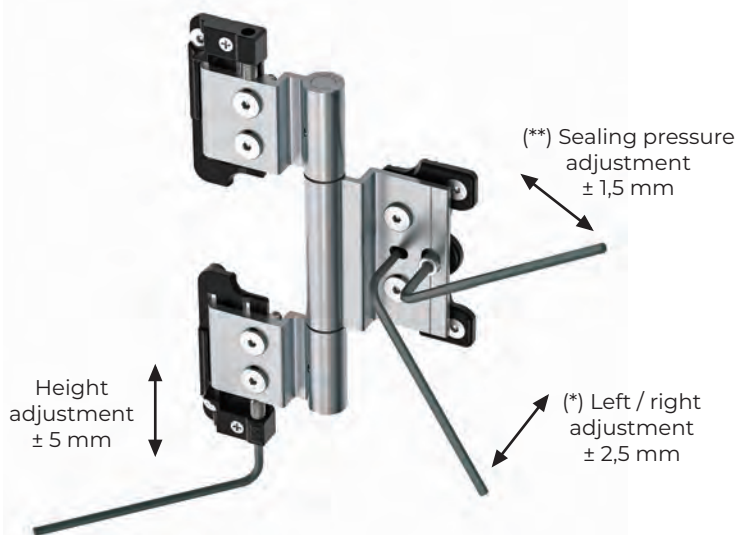
ROLLER HINGES / HINGES



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



WR HINGE ADJUSTMENT



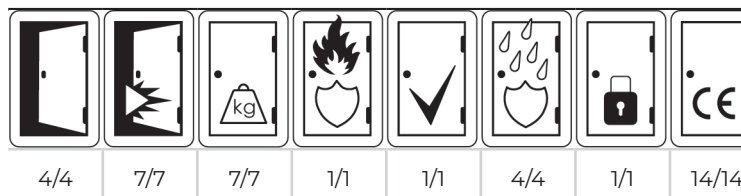
(*) For aluminium systems with a gap of least 6mm, for systems with the gap 5mm, adjustment range is -1,5mm to +2,5mm (because of the wing's thickness 3,5mm)
 (**) Actual range of adjustment may be smaller depending on the aluminum system and its limitation

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





Private
building



Door closer



Public
building



3x



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



3x

4x



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



2x



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



2x



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



4x



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

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



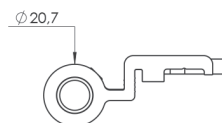
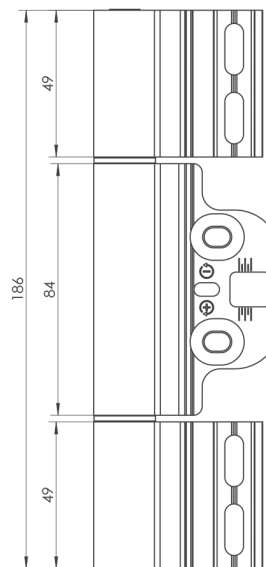


WR-1R

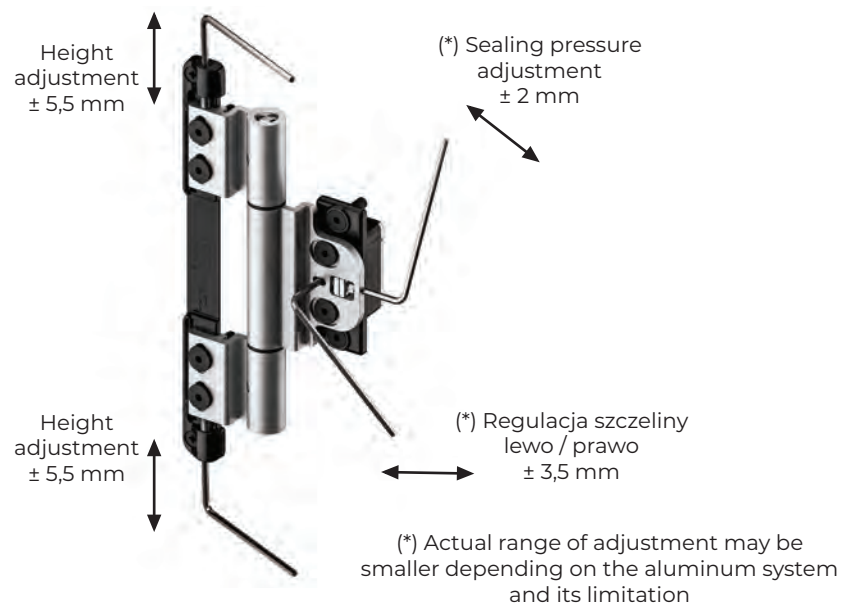
ROLLER HINGES / HINGES



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



WR-1R HINGE ADJUSTMENT

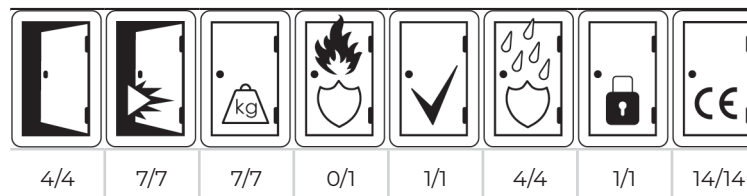


Full adjustment range of the gap (left/right) in negative direction for most aluminium systems can be achieved by milling the door profile and covering it with the mask.



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
2000	100				90	85	75	70
2100					95	90	85	75
2200					100	95	90	80
2300						100	95	90
2400							95	90
2500						100	95	90
2600							100	100
2700								100
2800								
2900								
3000								

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							125	120
2500							130	130
2600								130
2700								
2800								
2900								
3000								

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							106	101
2500						110	110	106
2600								110
2700								
2800								
2900								
3000								

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							76	71
2500						80	80	76
2600								80
do								
3000								

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							155	150
2500						160	160	155
2600								160
do								
3000								

If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulk 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
2000	80			70	65	55	50
2100				75	70	65	55
2200				80	75	70	60
2300					80	75	70
2400						75	70
2500						80	75
2600							80
2700							
2800							
2900							
3000							

W S	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						95	90
2500						100	95
2600							100
2700							
2800							
2900							
3000							



2x



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



2x



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



4x



W S	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						125	120
2500						130	125
2600							130
do							
3000							

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



- 7016

7024

8077

8017

9001

9010

7035

SILVER

INOX COATING

GOLD W4

SUBLIMATION

GOLDEN OAK
- 7021

9005

8019

8003

1036W

9016

9006

ANODE NATURAL

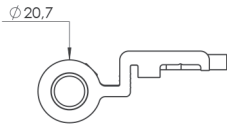
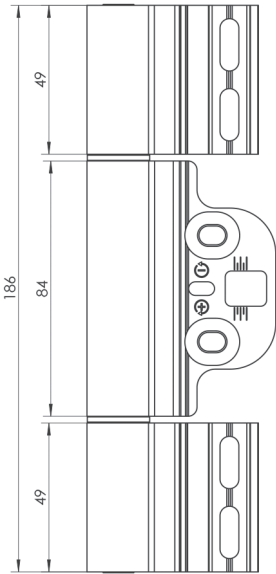
GOLD W3

RAL

WALNUT



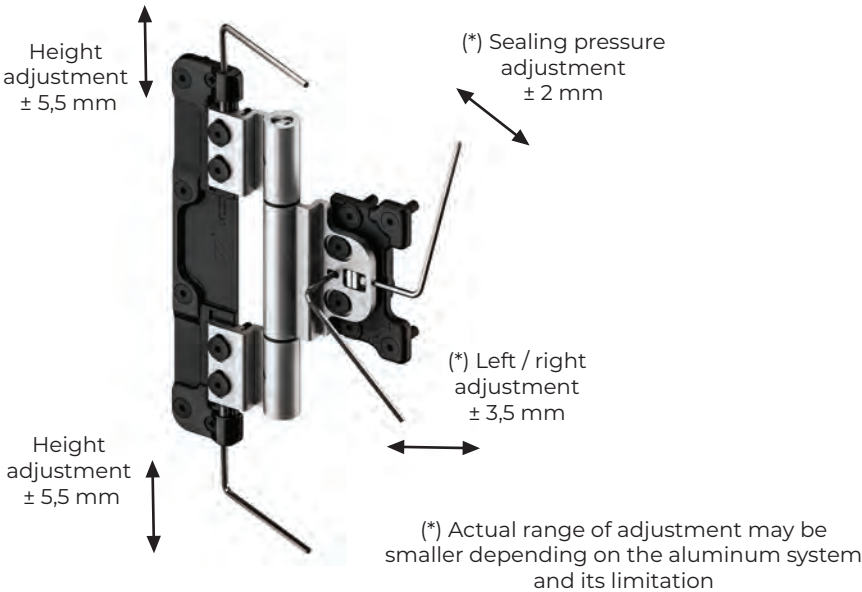
The Hinge is also available with the covers made of 304 stainless steel.
External dimension of the cover: Ø22,5mm.



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 ADJUSTMENT



WR-2R 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



WR-2R LOAD SELECTION

ROLLER HINGES / HINGES



Private
building



Door closer



Public
building



3x



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



3x

4x



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



2x



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



2x



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



4x

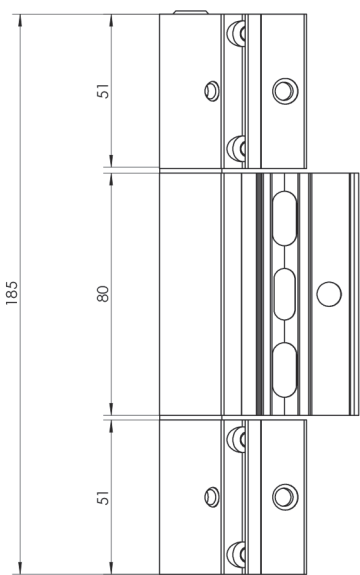


W	S	700	800	900	1000	1100	1200	1300	1400
2000		180				170	165	155	150
2100						175	170	165	155
2200						180	175	170	160
2300								175	170
2400								175	170
2500						180	180		175
2600									
do									
3000								180	180

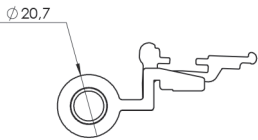
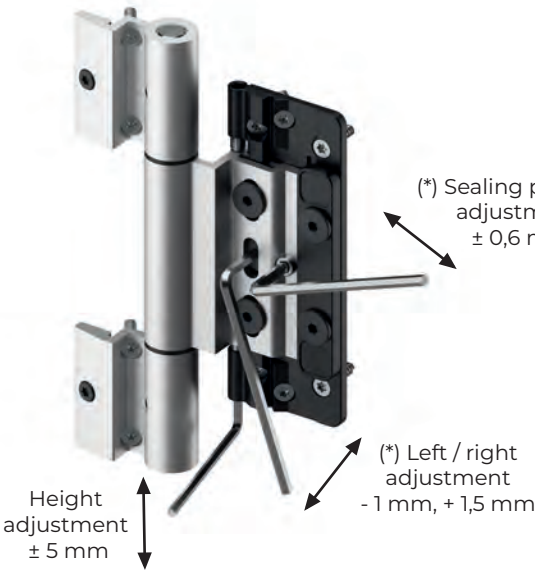
If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulk the door.



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



WRP HINGE ADJUSTMENT



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



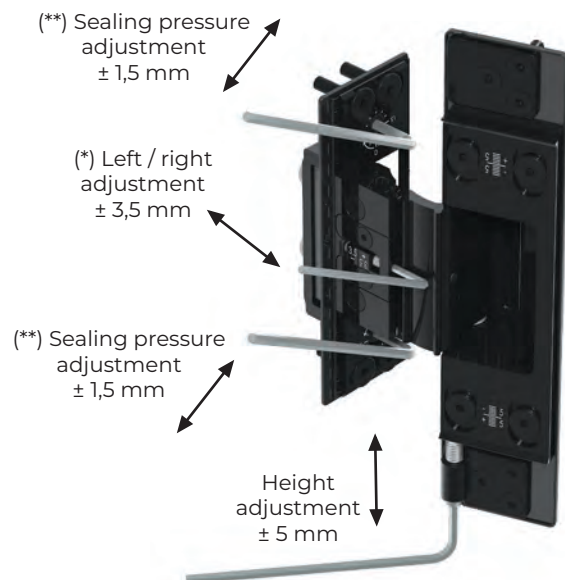


WU

CONCEALED / HINGES

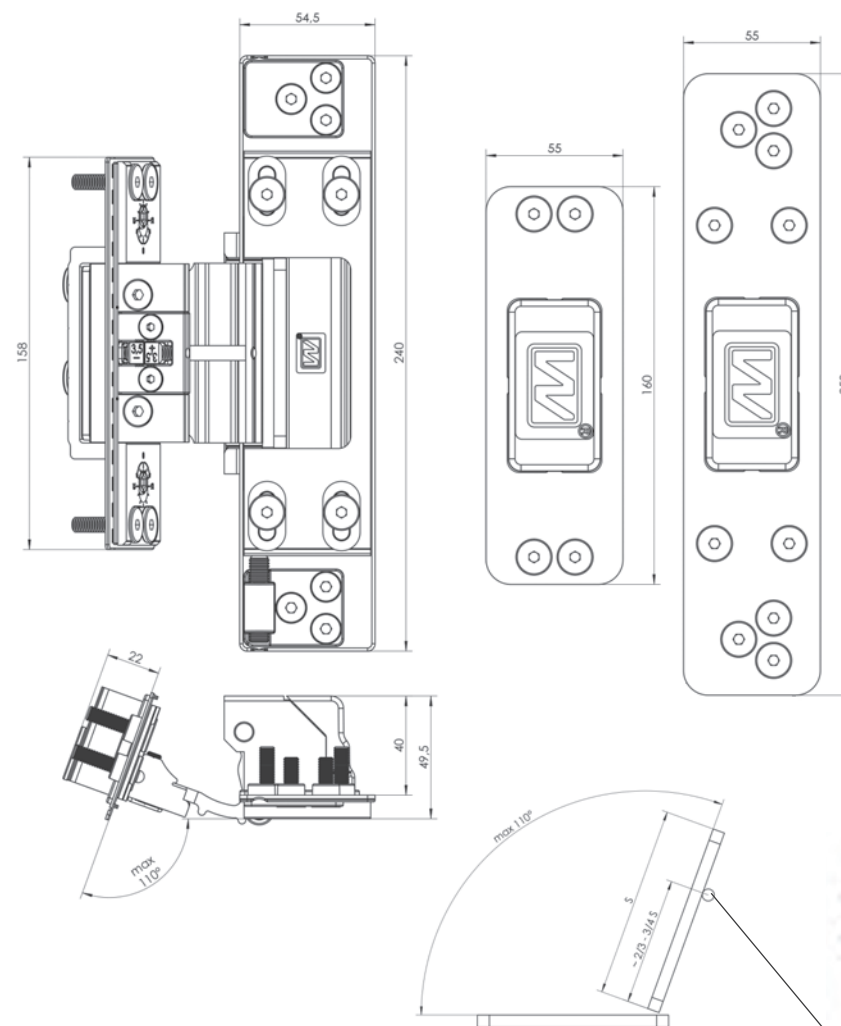


WU HINGE ADJUSTMENT



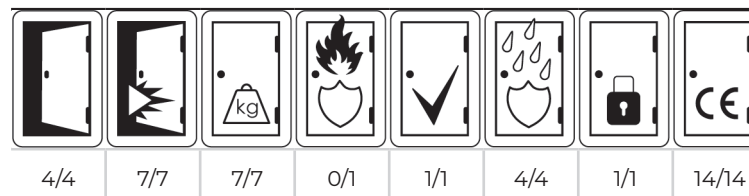
(*) – adjustment in the negative direction can be very limited depending on aluminium system

(**) – 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





Private
building



Door closer



Public
building

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

	W	S	700	800	900	1000	1100	1200	1300	1400
 3x 4x 	2000		180			170	160	150	140	130
	2100					180	170	160	150	140
	2200						180	170	160	150
	2300							170	160	150
	2400						180	170	160	
	2500							170		
	2600							180	180	180
	2700									
	2800									
	2900									
	3000									

	W	S	700	800	900	1000	1100	1200	1300	1400
 2x 	2000		150			140	130	120	110	100
	2100					150	140	130	120	110
	2200						150	140	130	120
	2300							140	130	120
	2400						150	140	130	
	2500							150	150	150
	2600									
	2700									
	2800									
	2900									
	3000									

	W	S	700	800	900	1000	1100	1200	1300	1400
 2x 	2000		130			120	110	100	90	80
	2100					130	120	110	100	90
	2200						130	120	110	100
	2300							120	110	100
	2400						130	120	110	
	2500							130	130	130
	2600									
	do									
	3000									

	W	S	700	800	900	1000	1100	1200	1300	1400
 4x 	2000		210			200	190	180	170	160
	2100					210	200	190	180	170
	2200						210	200	190	180
	2300							200	190	190
	2400						210	200	190	
	2500							210	210	210
	2600									
	do									
	3000									

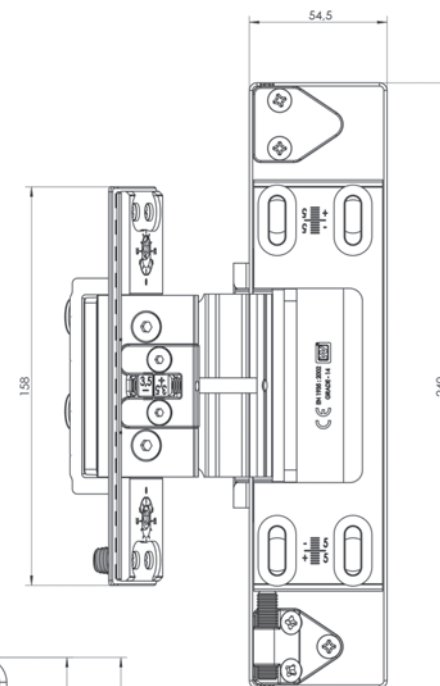
If the distance between hinges in the middle of a door exceeds 1500mm, we suggest using additional hinge which caulks the door.





WUT

CONCEALED / HINGES



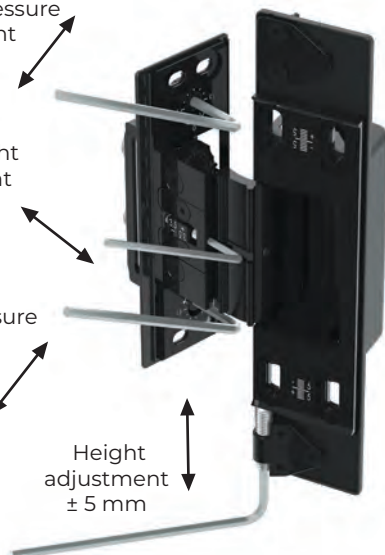
WUT HINGE ADJUSTMENT

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

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

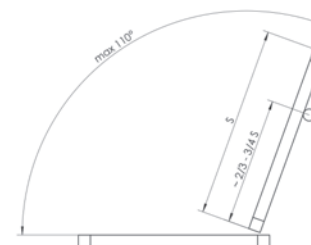
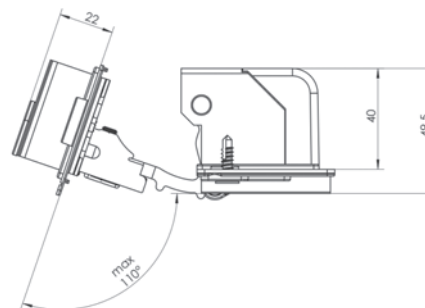
(**) Sealing pressure adjustment $\pm 1,5$ mm

Height adjustment ± 5 mm



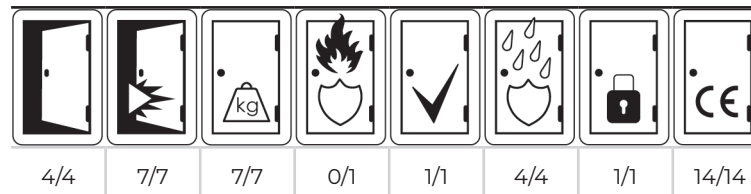
(*) – adjustment in the negative direction can be very limited depending on aluminium system

(**) – 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





Private
building



Door closer



Public
building



3x

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



4x

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



2x

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



2x

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



3x

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

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





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



**Variant available:
WU-1R ELECTRO**

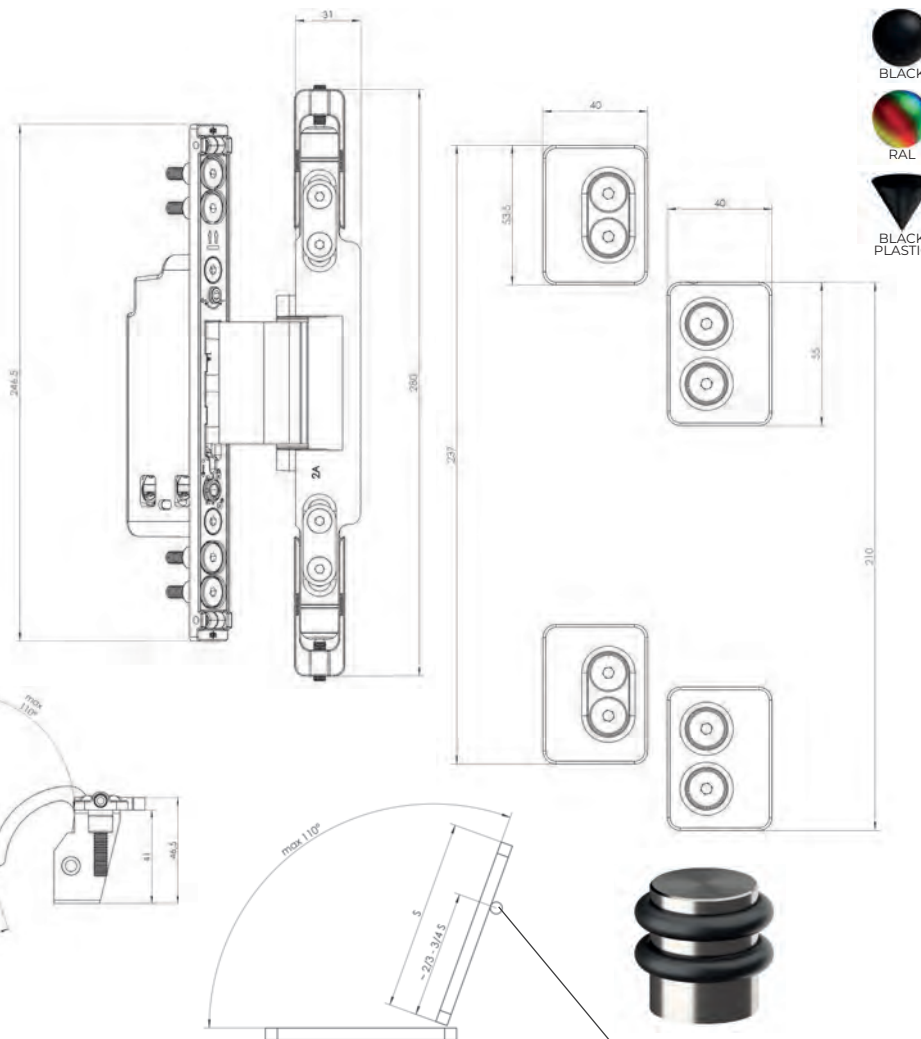
INFORMATION:

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



WU-1R HINGE ADJUSTMENT

(**) Regulacja docisku
uszczelki
 $\pm 1,75 \text{ mm}$

Height
adjustment
 $\pm 5 \text{ mm}$

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

(*) Left / right
adjustment
± 4,5 mm

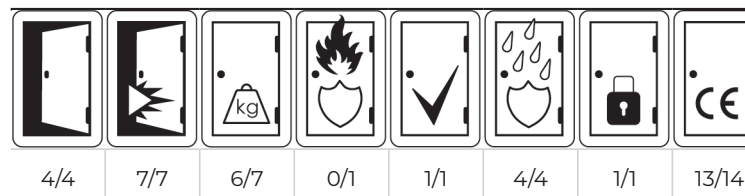
(**) – actual range can differ due to the gap value at the seal, depending on aluminium system

(**) Sealing pressure
adjustment
 $\pm 1,75 \text{ mm}$

Height
adjustment
 ± 5 mm

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
 3x	2000		100				90	85	75	70
	2100						95	90	85	75
	2200						100	95	90	80
	2300							95	90	
	2400								90	
	2500								95	
	2600						100	100	100	100
	2700									
	2800									
	2900									
	3000									

	W	S	700	800	900	1000	1100	1200	1300	1400
 3x 4x	2000		130				120	115	105	100
	2100						125	120	115	105
	2200						130	125	120	110
	2300							125	120	
	2400								120	
	2500								125	
	2600						130	130	130	130
	2700									
	2800									
	2900									
	3000									

	W	S	700	800	900	1000	1100	1200	1300	1400
 2x	2000		110				101	97	93	89
	2100						106	101	97	93
	2200						110	106	101	97
	2300							106	101	
	2400								101	
	2500								106	
	2600						110	110	110	110
	2700									
	2800									
	2900									
	3000									

	W	S	700	800	900	1000	1100	1200	1300	1400
 2x	2000		80				71	67	63	59
	2100						76	71	67	63
	2200						80	76	71	67
	2300							76	71	
	2400								71	
	2500								76	
	2600						80	80	80	80
	do									
	3000									

	W	S	700	800	900	1000	1100	1200	1300	1400
 4x	2000		160				150	145	135	130
	2100						155	150	145	135
	2200						160	155	150	140
	2300							155	150	
	2400								150	
	2500								155	
	2600						160	160	160	160
	do									
	3000									

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

  2x	W S	800	900	1000	1100	1200	1300	1400
		70			61	57	53	49
2000					66	61	57	53
2100					70	66	61	57
2200						70	66	61
2300							66	61
2400							66	61
2500								
2600							70	70
2700								
2800								
2900								
3000								

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

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

 3x	W S	800	900	1000	1100	1200	1300	1400
		110			100	95	85	80
2000					105	100	95	85
2100					110	105	100	90
2200						110	105	100
2300							105	100
2400							105	100
2500								105
2600							110	110
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.



BLACK

Frame top part



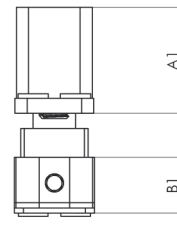
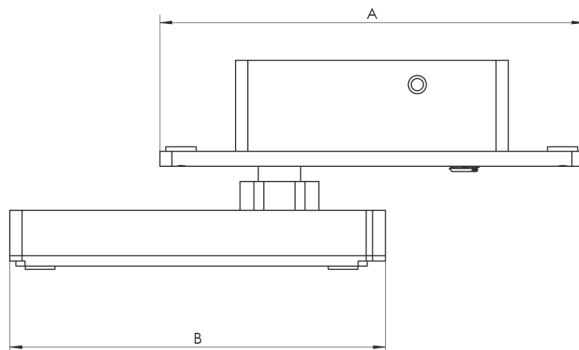
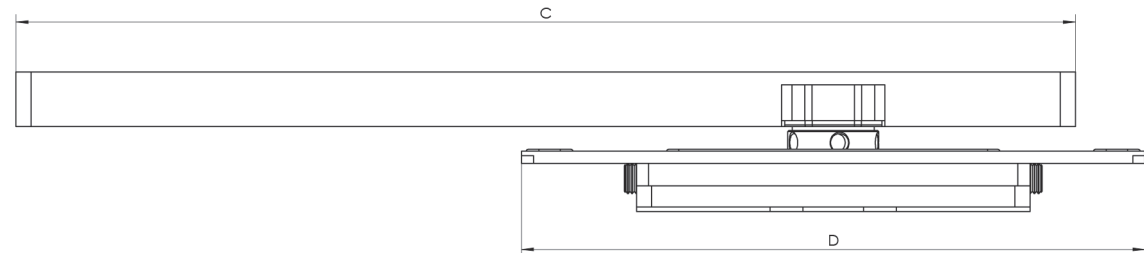
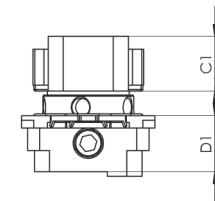
Leaf bottom part



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	500	500	500	500	476	446	420	397	376	357
2100					491	469	441	417	395	375
2200						462	437	414	393	373
2300					483	456	432	411	390	370
2400						476	451	429	408	388
2500					500	496	470	446	425	405
2600						489	464	443	422	402
2700							482	461	440	420
2800						500	482	461	440	420
2900							482	461	440	420
3000	500	500	500	500	500	500	500	500	500	500
3100										
3200										
3300										
3400										

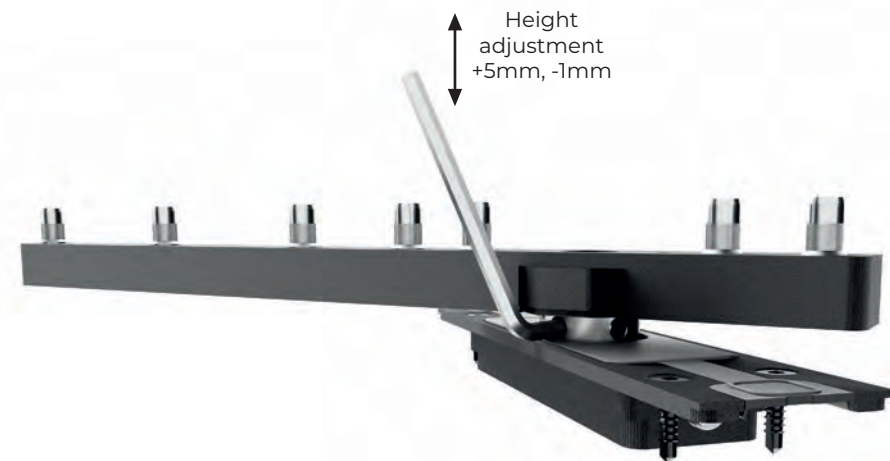
Left / right adjustment - top hinge



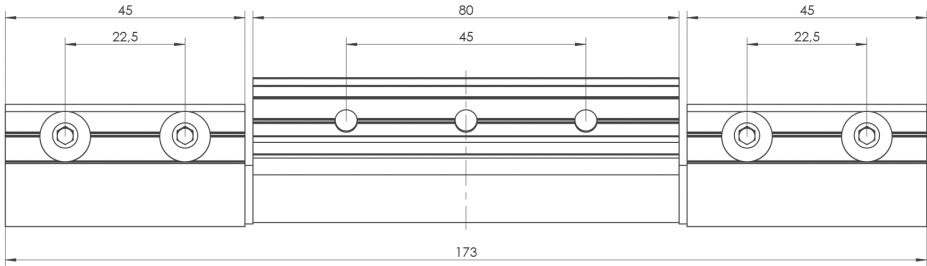
Left/right adjustment - bottom hinge



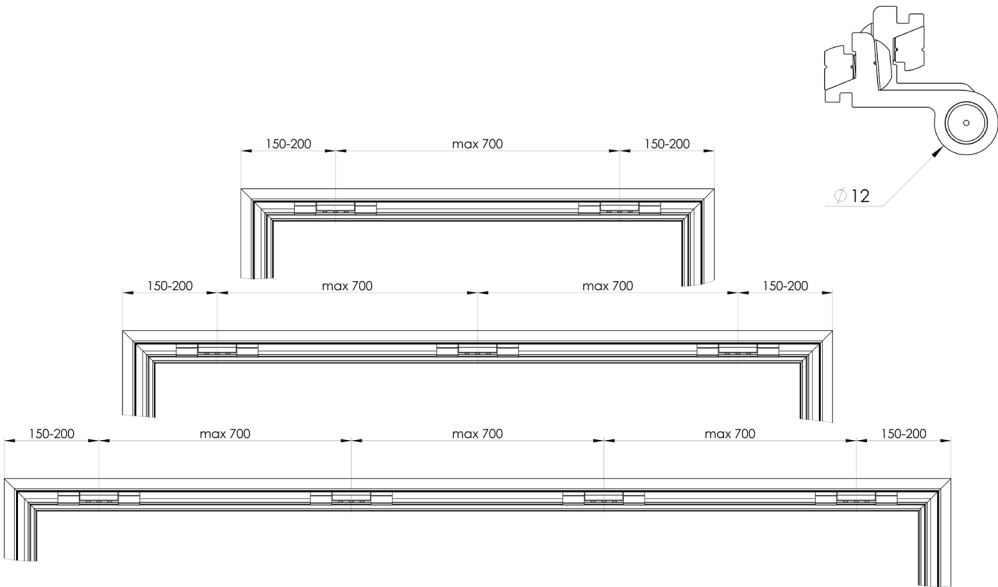
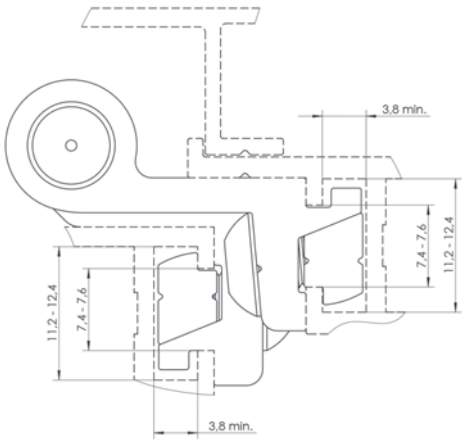
Height adjustment - bottom hinge



Adjustment should be made on a door open at 90°



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



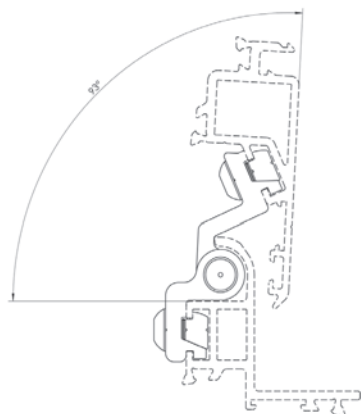
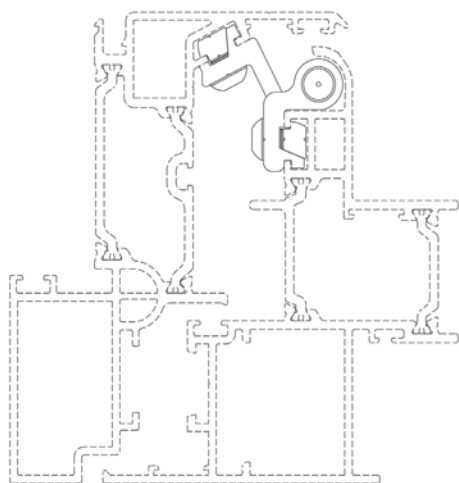
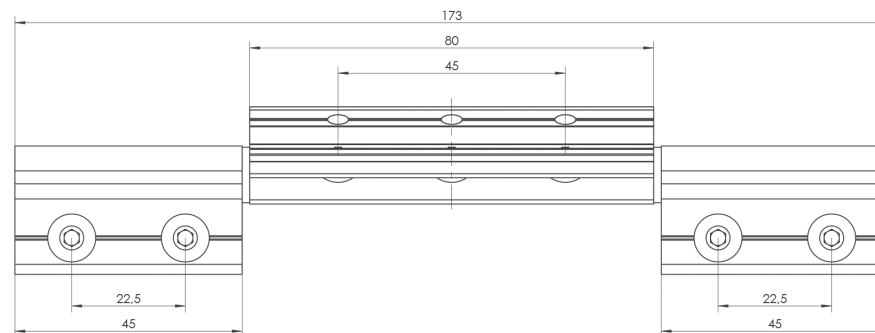
QTY. OF HINGES	MAX LOAD (WITH SNOW)
2	140 KG
3	210 KG
4	260 KG



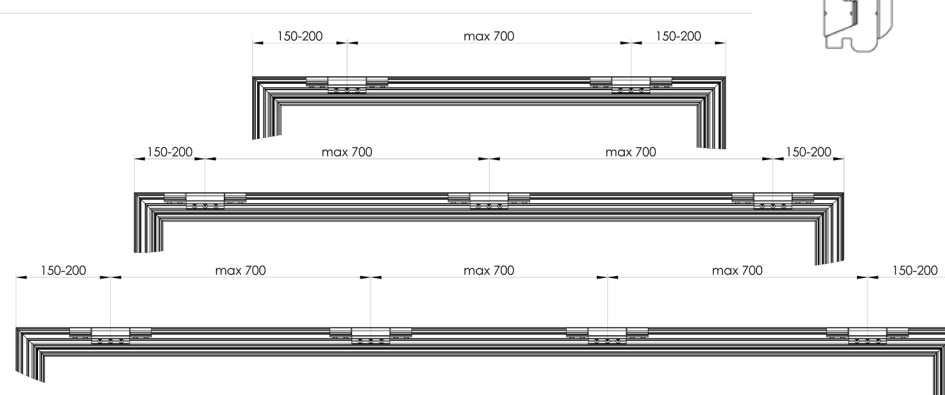
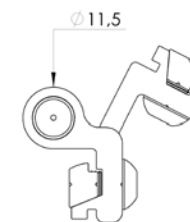


WP2 ROOF WINDOW HINGE

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
- 7021

9005

8019

8003

1036W

9016

9006

TITAN W9

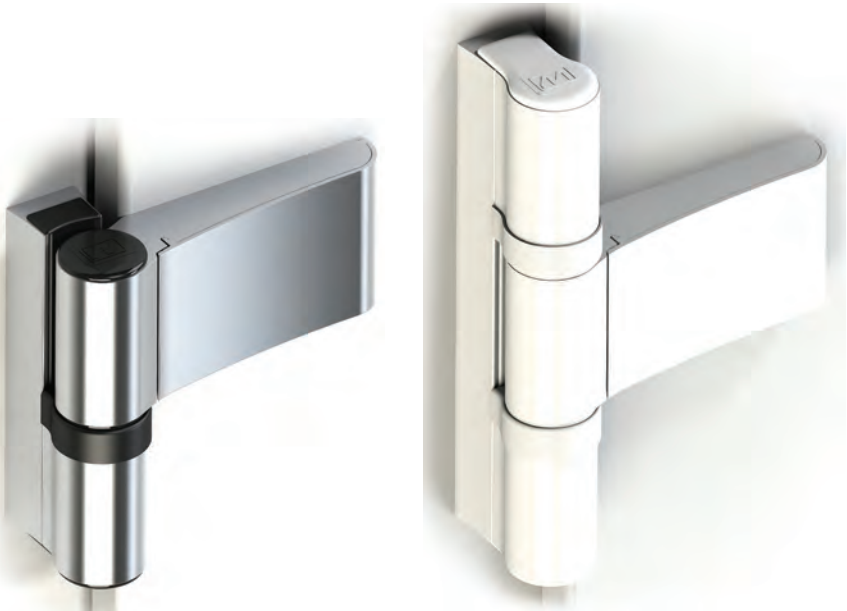
INOX COATING

GOLD W3

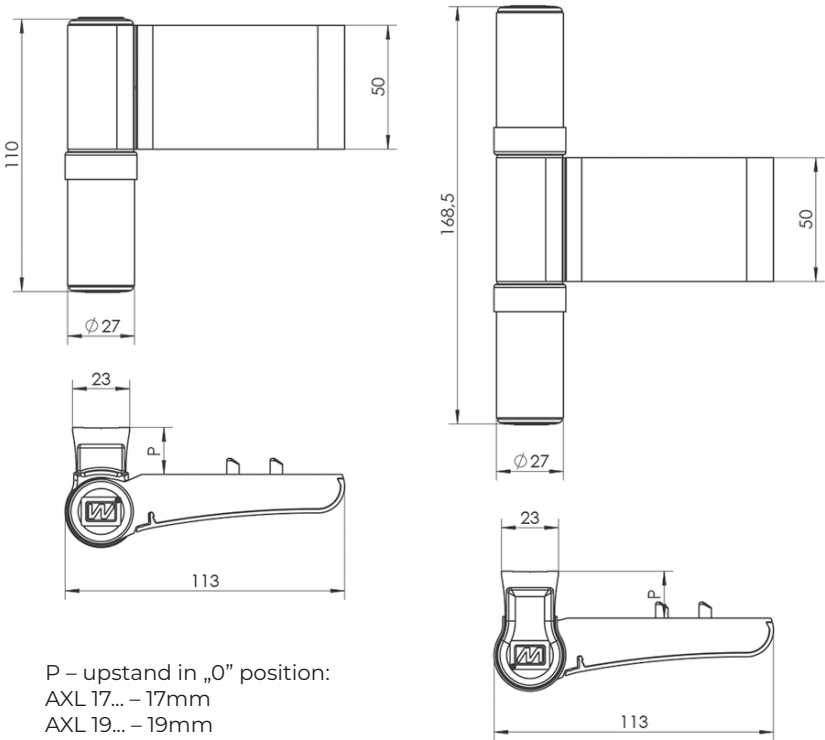
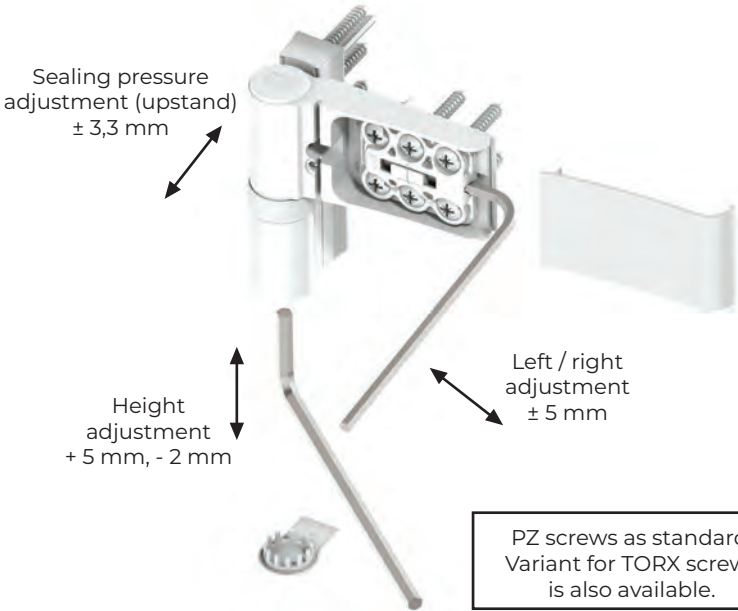
RAL
- SUBLIMATION

GOLDEN OAK

WALNUT



AXL HINGE ADJUSTMENT



P – upstand in „0” position:
AXL 17... – 17mm
AXL 19... – 19mm
AXL 22... – 22mm
AXL 24... – 24mm



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

for use in emergency exit doors

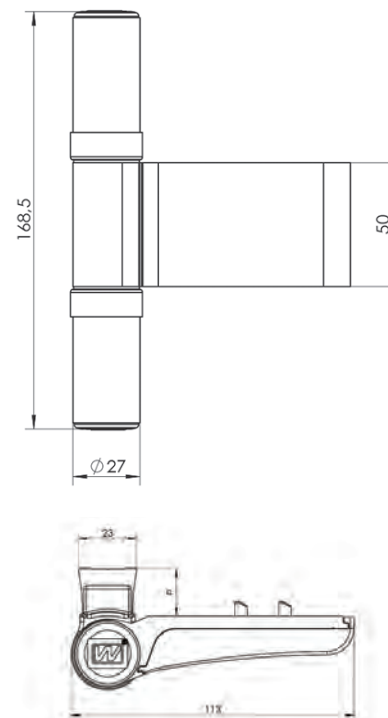
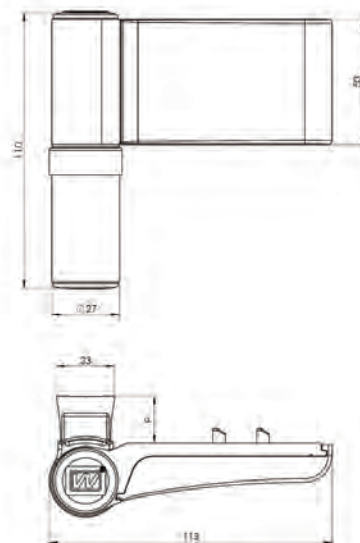
4/4	7/7	7/7	0/1	1/1	4/4	1/1	14/14



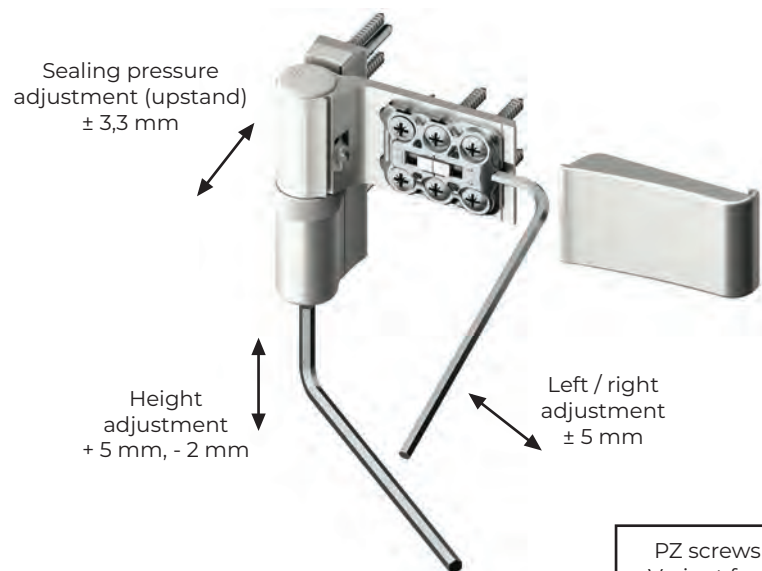


EXL

PVC / HINGES



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

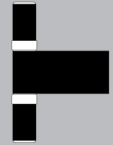


2-wing hinge

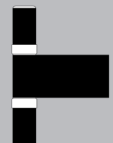


3-wing hinge

 3x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			170	155	145	140	130	125
	2100			175	165	150	145	135	130
	2200				175	160	150	140	135
	2300					170	160	150	140
	2400					175	165	155	145
	2500	180					170	160	150
	2600		180				175	165	155
	2700				180			175	165
	2800								170
	2900								175
	3000								180

 3x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			195	180	170	155	140	130
	2100			200	190	175	160	150	135
	2200				200	185	170	155	140
	2300					195	180	165	150
	2400					205	190	175	160
	2500	210					200	185	170
	2600		210					195	180
	2700			210				205	190
	2800				210				200
	2900					210			205
	3000								210

  3x 4x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			130	115	105	110	100	95
	2100	140		135	125	110	115	105	100
	2200			140	135	120	120	110	105
	2300					140	130	120	110
	2400					145	135	125	115
	2500						140	130	120
	2600						145	135	125
	2700							145	135
	2800								140
	2900								145
	3000								150

  3x 4x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			155	140	130	125	110	100
	2100	170		160	150	135	130	120	105
	2200			170	160	145	140	125	110
	2300					165	150	135	120
	2400					175	160	145	130
	2500						170	155	140
	2600							165	150
	2700							175	160
	2800								170
	2900								175
	3000								180

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

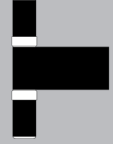


2-wing hinge

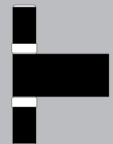


3-wing hinge

 3x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			140	125	115	110	100	95
	2100			145	135	120	115	105	100
	2200				145	130	120	110	105
	2300					140	130	120	110
	2400					145	135	125	115
	2500	150					140	130	120
	2600		150				145	135	125
	2700				150			145	135
	2800					150			140
	2900						150		145
	3000							150	150

 3x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			165	150	140	125	110	100
	2100			170	160	145	130	120	105
	2200				170	155	140	125	110
	2300					165	150	135	120
	2400					175	160	145	130
	2500	180					170	155	140
	2600		180					165	150
	2700			180				175	160
	2800					180			170
	2900						180		175
	3000							180	180

  3x 4x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			120	105	95	90	80	75
	2100	130		125	115	100	95	85	80
	2200			130	125	110	100	90	85
	2300					120	110	100	90
	2400					125	115	105	95
	2500						120	110	100
	2600						125	115	105
	2700		130					125	115
	2800				130				120
	2900					130			125
	3000						130		130

  3x 4x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			145	130	120	105	90	80
	2100	160		150	140	125	110	100	85
	2200			160	150	135	120	105	90
	2300					145	130	115	100
	2400					155	140	125	110
	2500						150	135	120
	2600		160					145	130
	2700					160		155	140
	2800						160		150
	2900							160	155
	3000								160

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



- 7016

7024

8077

8017

9001

9010

7035

SILVER

ANODE NATURAL

GOLDEN ELECTROPOLER

GOLD W4
- 7021

9005

8019

8003

1036W

9016

9006

TITAN W9

INOX COATING

GOLD W3

RAL

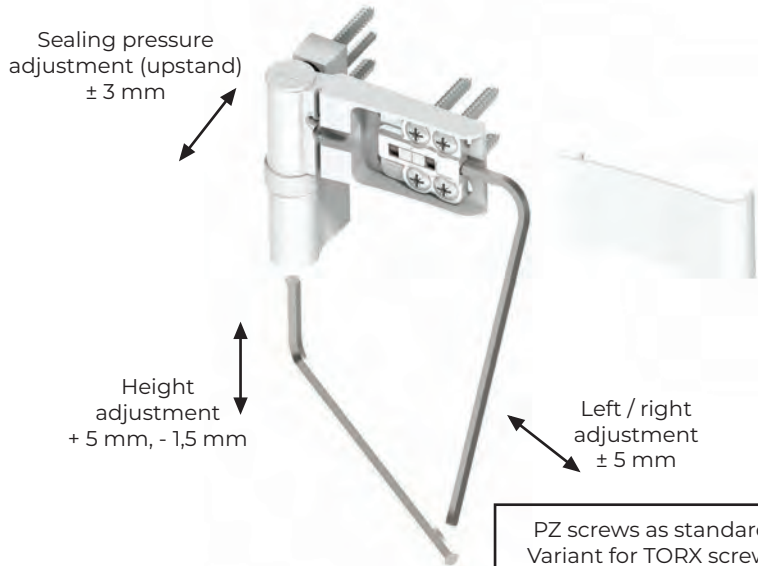
- SUBLIMATION

GOLDEN OAK
- WALNUT

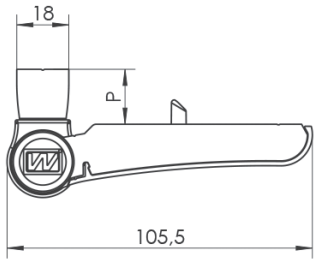
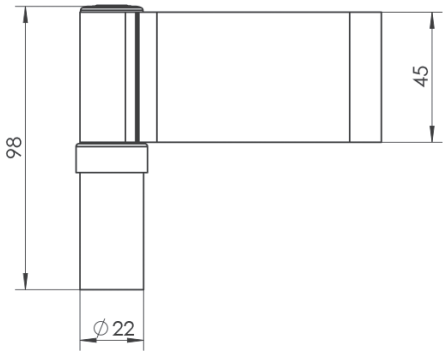
- BLACK PLASTIC
- WHITE PLASTIC



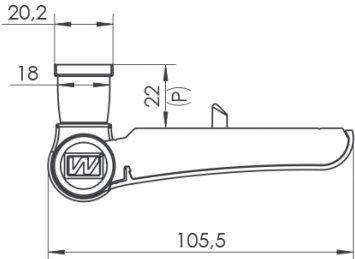
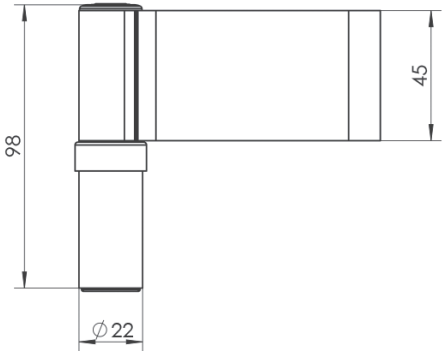
AXM HINGE ADJUSTMENT



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

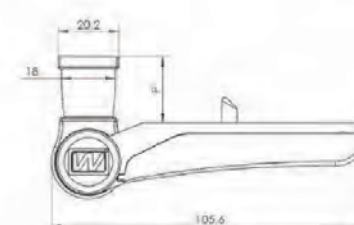
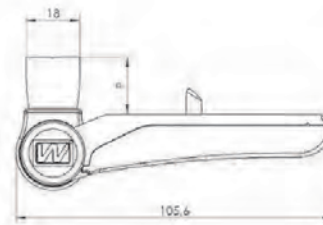
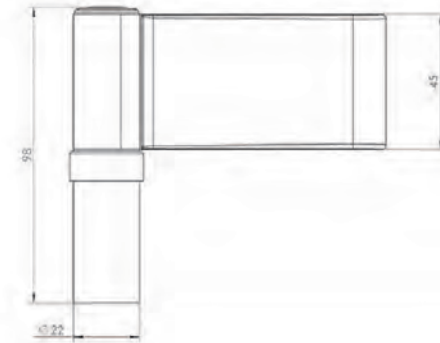
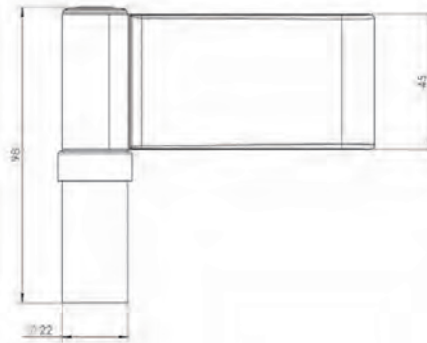
for use in emergency exit doors

4/4	7/7	6/7	0/1	1/1	4/4	1/1	13/14

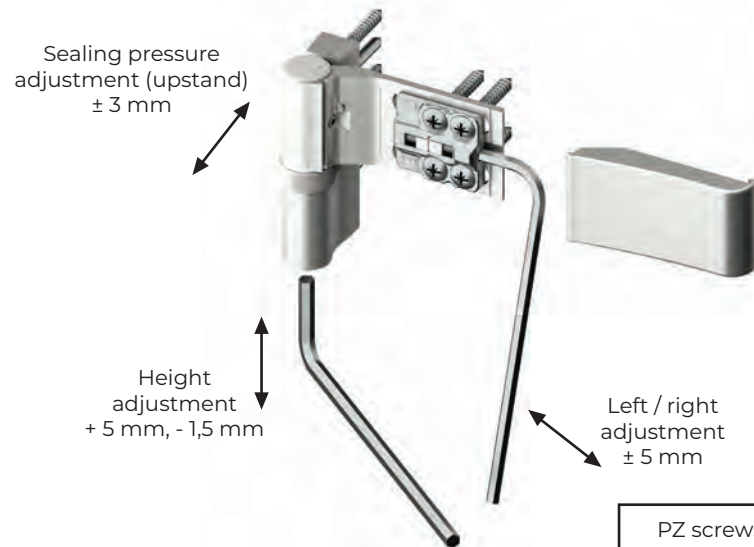


EXM

PVC / HINGES



EXM HINGE ADJUSTMENT

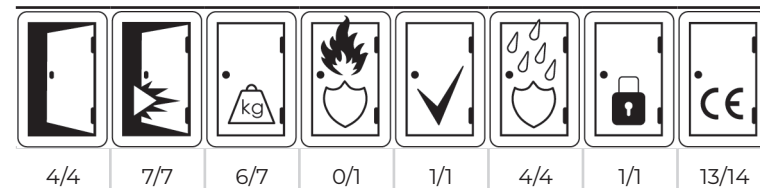


P – upstand in „0” position:
EXM 17... – 17mm (14 - 20mm)
EXM 19... – 19mm (16 - 22mm)
EXM 21... – 21mm (18 - 24mm)

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

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

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

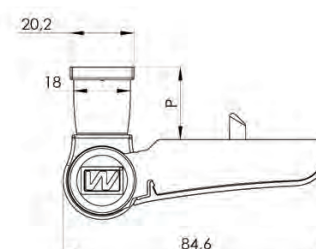
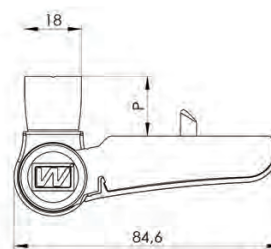
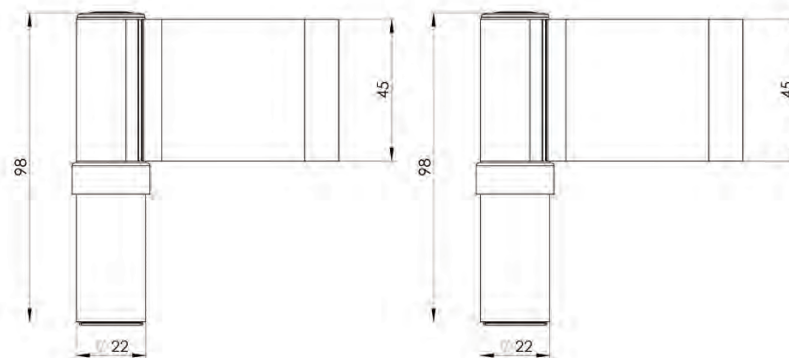
  3x 4x 	W	S	800	900	1000	1100	1200	1300	1400
	2000			90	75	65	70	60	55
	2100	100		95	85	70	75	65	60
	2200			100	95	80	80	70	65
	2300					100	90	80	70
	2400					105	100	85	75
	2500						105	90	80
	2600							95	85
	2700							105	95
	2800					110	110		100
	2900							110	105
	3000								110

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

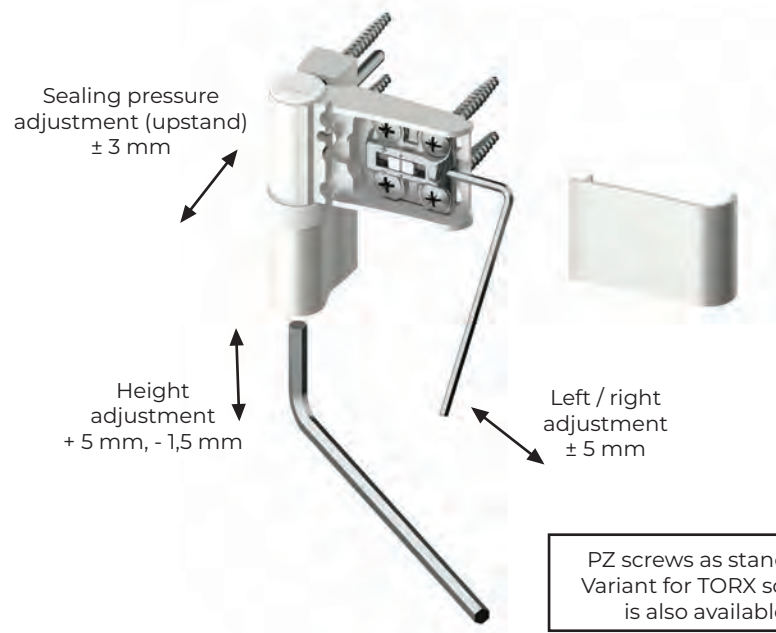


AXS

PVC / HINGES



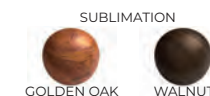
AXS HINGE ADJUSTMENT



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



3x



W	S	800	900	1000	1100	1200
2000		100	90	80	70	60
2100		110	100	90	80	70
2200		120	110	100	90	80
2300		130	120	110	100	90
2400		130	120			
2500	120	110				
2600						
2700						
2800						
2900						
3000						



4x



W	S	800	900	1000	1100	1200
2000		135	125	110	100	95
2100		135	130	120	105	100
2200		135	135	130	115	105
2300		135	135	135	125	115
2400		135	135	125		110
2500	125					
2600						
2700						
2800						
2900						
3000						



4x



W	S	800	900	1000	1100	1200
2000		100	90	80	70	60
2100		110	100	90	80	70
2200		120	110	100	90	80
2300		130	120	110	100	90
2400		130	120			
2500	120	110				
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

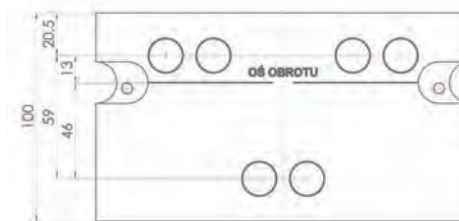
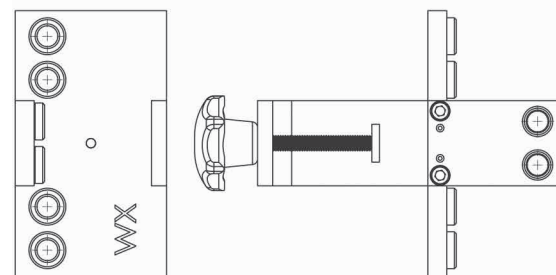
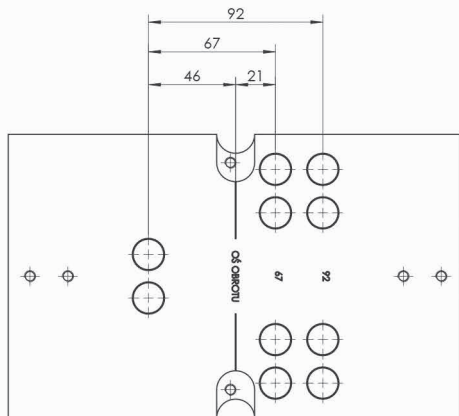
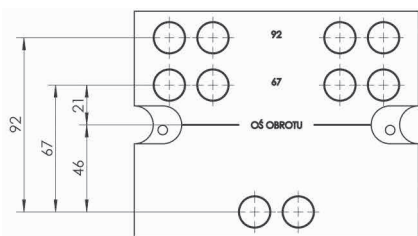
PATTERNS FOR DRILLING / HINGES

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



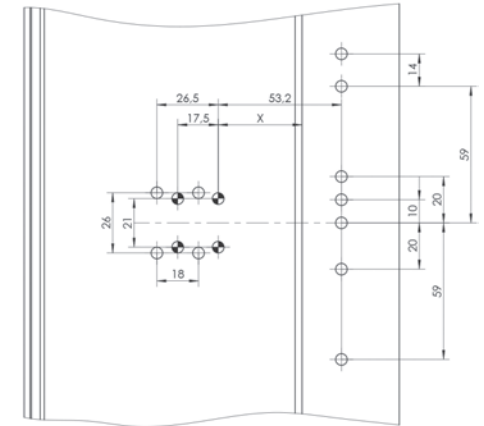
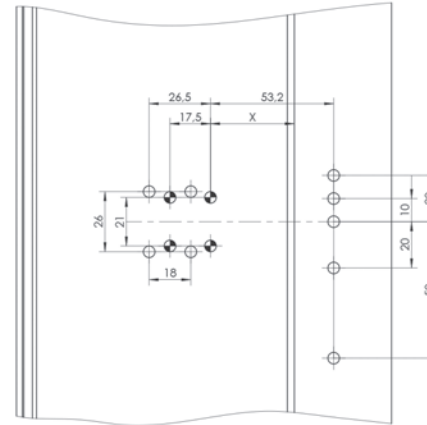


AXL / EXL

AXL / EXL

TOOLING IN PROFILE AXL / EXL 2-wing hinge

TOOLING IN PROFILE AXL / EXL 3-wing hinge



DISTANCE THICKNESS A

VALUE X

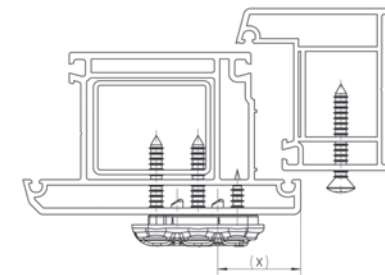
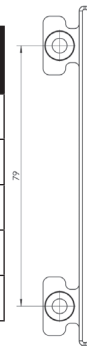
2 mm	40 mm
4 mm	38 mm
6 mm	36 mm
8 mm	34 mm



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





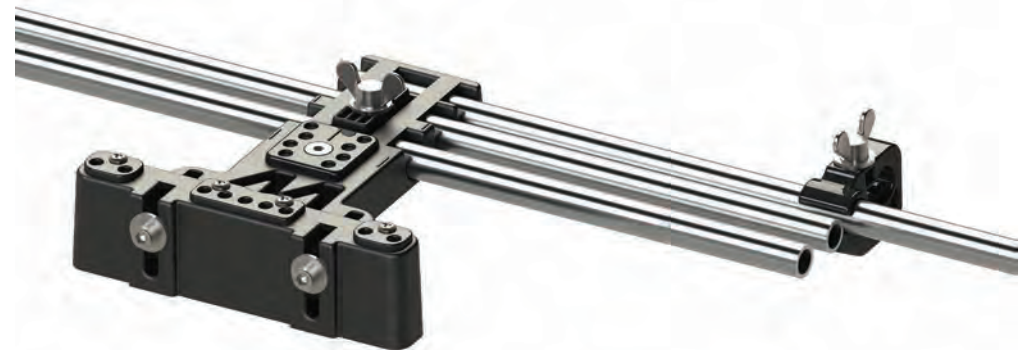
AXM / EXM	AXS	TOOLING IN PROFILE AXM / EXM	TOOLING IN PROFILE AXS										
<table><tr><th>DISTANCE THICKNESS A</th><th>VALUE X</th></tr><tr><td>2 mm</td><td>34 mm</td></tr><tr><td>4 mm</td><td>32 mm</td></tr><tr><td>6 mm</td><td>30 mm</td></tr><tr><td>8 mm</td><td>28 mm</td></tr></table>		DISTANCE THICKNESS A	VALUE X	2 mm	34 mm	4 mm	32 mm	6 mm	30 mm	8 mm	28 mm		
DISTANCE THICKNESS A	VALUE X												
2 mm	34 mm												
4 mm	32 mm												
6 mm	30 mm												
8 mm	28 mm												

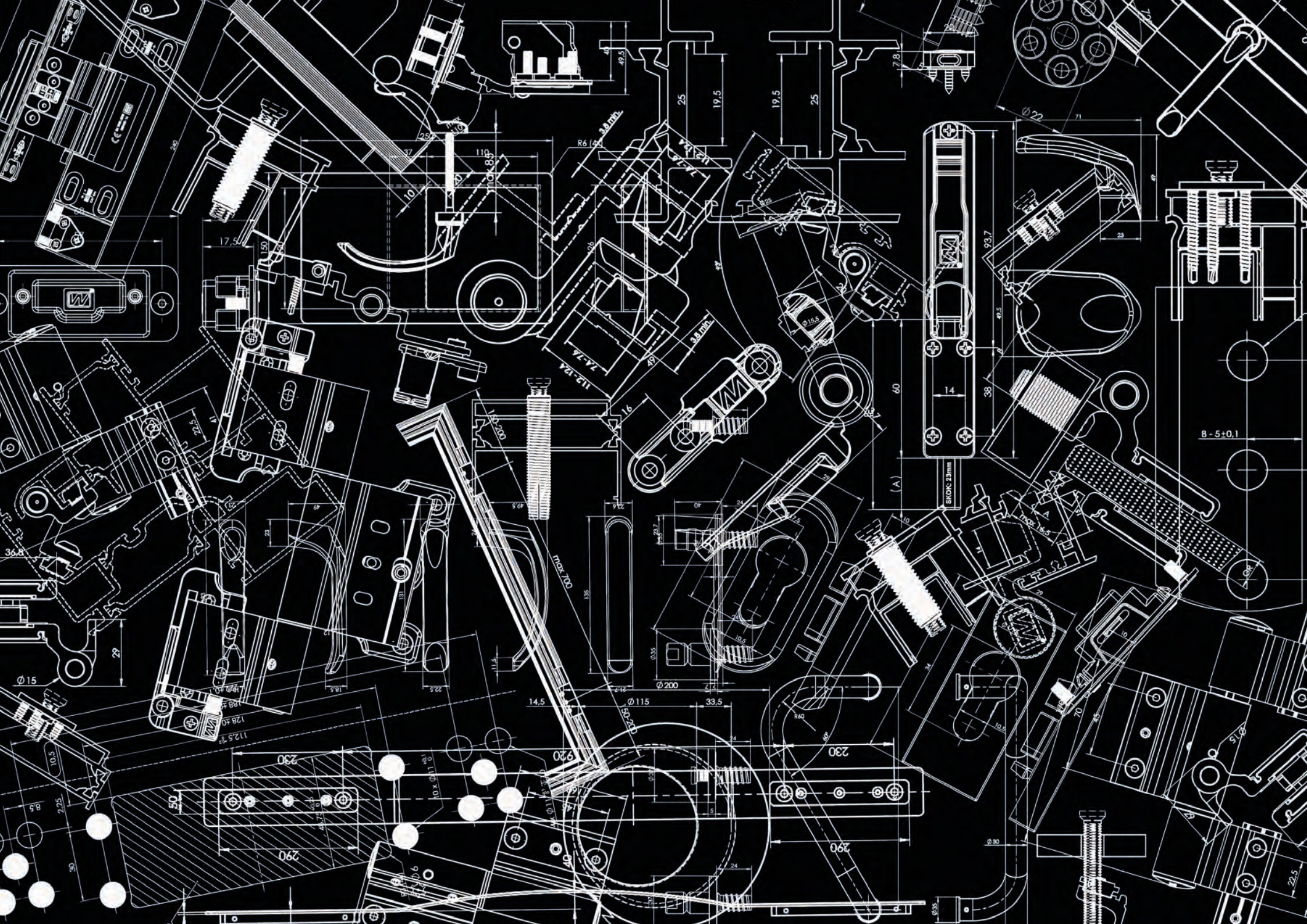


TRIPLE TEMPLATE



AXL TRIPLE TEMPLATE







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