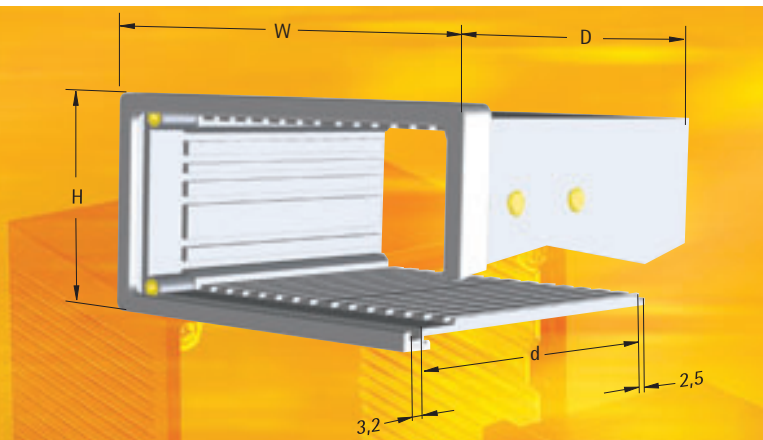


W mm	H mm	D (approx.) mm	d (approx.) mm	Case IEC 61554		Mounting (p. 14) 2	"Panel Clip" Case (p. 14)		Cover plate aluminium 1.5mm 4
				Standard Case 1a	with corner webs (p. 15) 1b		Standard Case 3a	Front with corner webs 3b	
48 x 24									
		60.0	53.0	445-440	-	440-001	441-440	-	-
		82.5	75.5	445-441	-	440-005	441-441	-	-
		107.0	100.0	445-444	-	440-009	441-444	-	-
48 x 48									
		60.5	53.5	445-120	-	440-001	441-120	-	445-130
		82.5	75.5	445-121	-		441-121	-	445-130
		116.5	109.5	445-122	-	440-005	441-122	-	445-130
		138.5	131.5	445-123	-		441-123	-	445-130
		107.0	100.0	445-124	-	440-009	441-124	-	445-130
		163.0	156.0	445-125	-		441-125	-	445-130
72 x 24									
		60.0	53.0	445-420	-	440-001	441-420	-	-
		82.5	75.5	445-421	-	440-005	441-421	-	-
		107.0	100.0	445-424	-	440-009	441-424	-	-
72 x 36									
		60.5	53.5	445-040	-	440-001	441-040	-	445-050
		82.5	75.5	445-041	-	440-005	441-041	-	445-050
		116.5	109.5	445-042	-	440-009	441-042	-	445-505
		107.0	100.0	445-044	-		441-044	-	445-505

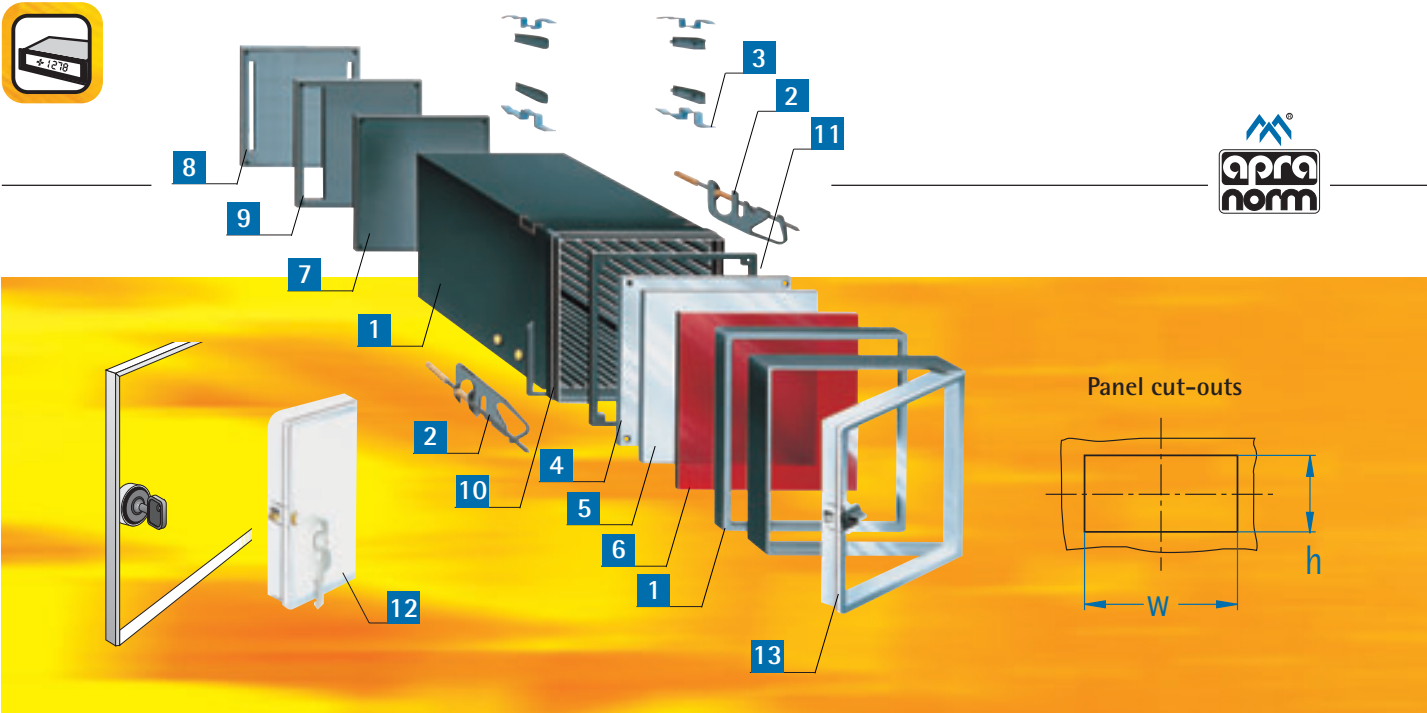


Panel instrument case in compliance with IEC 61554 • 445/441

Case size		Panel cut-out			
W	H	w	perm. dev.	h	perm. dev.
mm	mm	mm	mm	mm	mm
48	24	45	+ 0.6	22.2	+ 0.3
48	48	45	+ 0.6	45	+ 0.6
72	24	68	+ 0.7	22.2	+ 0.3
72	36	68	+ 0.7	33	+ 0.6

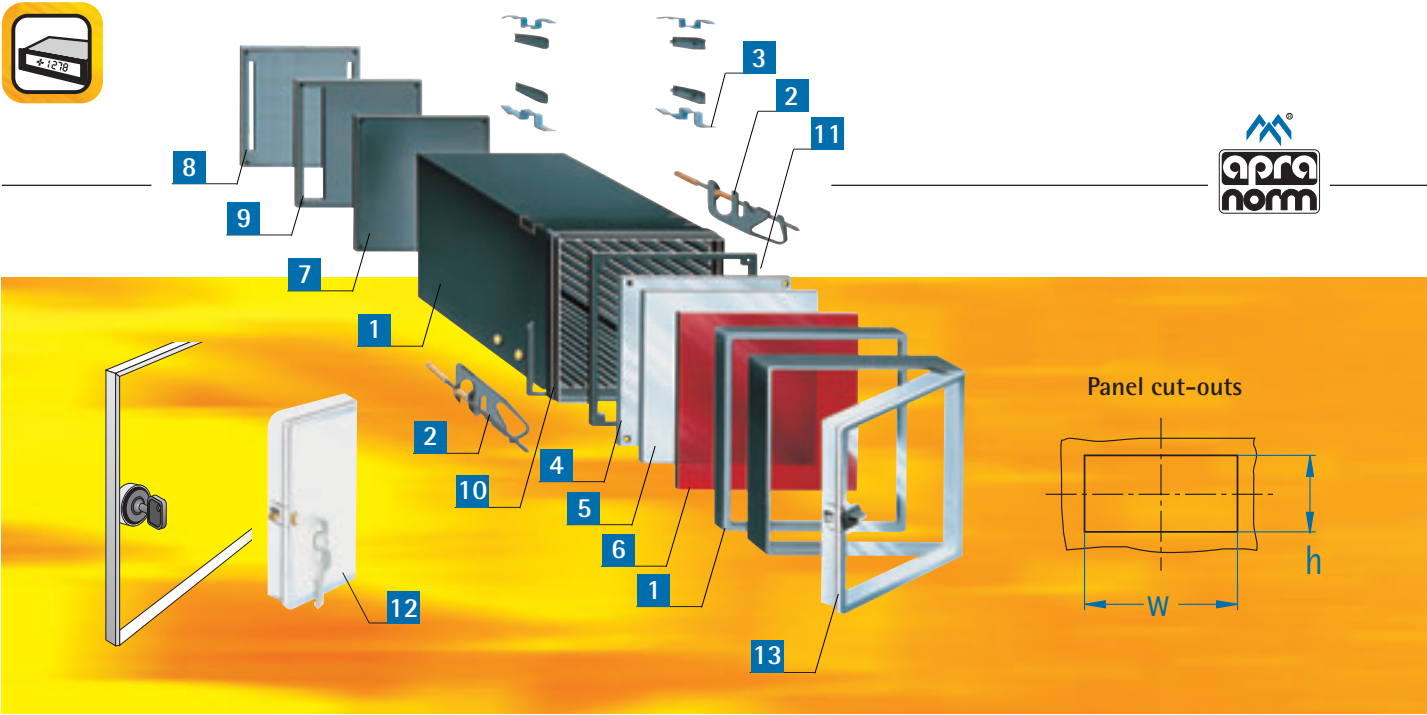


Panel aluminium 1.5mm 5	Filter screen Plexiglass, red: -09 Makrolon, trans- parent: -05 6	Rear panel			Sealing		Transparent door	
		closed 7	with slots 8	for terminals 9	between case and panel 10	behind front panel 11	with lock 12	with sash fastener 13
445-451	44-5452-xx	44-5453-01	44-5453-02	-	44-8445-01	-	-	-
445-451	44-5452-xx	44-5453-01	44-5453-02	-	44-8445-01	-	-	-
445-451	44-5452-xx	44-5453-01	44-5453-02	-	44-8445-01	-	-	-
445-131	44-5132-xx	44-5133-01	44-5133-02	44-5133-03	44-5135-01	44-5135-02	-	-
445-131	44-5132-xx	44-5133-01	44-5133-02	44-5133-03	44-5135-01	44-5135-02	-	-
445-131	44-5132-xx	44-5133-01	44-5133-02	44-5133-03	44-5135-01	44-5135-02	-	-
445-131	44-5132-xx	44-5133-01	44-5133-02	44-5133-03	44-5135-01	44-5135-02	-	-
445-131	44-5132-xx	44-5133-01	44-5133-02	44-5133-03	44-5135-01	44-5135-02	-	-
445-431	44-5432-xx	44-5433-01	44-5433-02	-	44-8425-01	-	-	-
445-431	44-5432-xx	44-5433-01	44-5433-02	-	44-8425-01	-	-	-
445-431	44-5432-xx	44-5433-01	44-5433-02	-	44-8425-01	-	-	-
445-051	44-5052-xx	44-5053-01	44-5053-02	44-5053-03	44-5055-01	-	-	-
445-051	44-5052-xx	44-5053-01	44-5053-02	44-5053-03	44-5055-01	-	-	-
445-051	44-5052-xx	44-5053-01	44-5053-02	44-5053-03	44-5055-01	-	-	-
445-051	44-5052-xx	44-5053-01	44-5053-02	44-5053-03	44-5055-01	-	-	-



W mm	H mm	D (approx.) mm	d (approx.) mm	Case IEC 61554		Mounting (p. 14) 2	"Panel Clip" Case (p. 14)		Cover plate aluminium 1.5mm 4	
				Standard Case 1a	with corner webs (p. 15) 1b		Standard Case 3a	Front with corner webs 3b		
72 x 48										
	60.5	53.5	445-140	-	440-001 440-005 440-009	-	-	445-150		
	82.5	75.5	445-141	-		-	445-150			
	116.5	109.5	445-142	-		-	445-150			
	107.0	100.0	445-144	-		-	445-150			
72 x 72										
	60.5	53.5	445-220	44-5220-30	440-001 440-005 440-009	441-220	44-1220-30	445-230		
	82.5	75.5	445-221	44-5221-30		441-221	44-1221-30	445-230		
	116.5	109.5	445-222	44-5222-30		441-222	44-1222-30	445-230		
	138.5	131.5	445-223	44-5223-30		441-223	44-1223-30	445-230		
	107.0	100.0	445-224	44-5224-30		441-224	44-1224-30	445-230		
	163.0	156.0	445-225	44-5225-30		441-225	44-1225-30	445-230		
	209.0	201.0	445-226	44-5226-30		441-226	44-1226-30	445-230		
96 x 24										
	60.5	53.5	445-100	-	440-001 440-005 440-009	441-100	-	-		
	82.5	75.5	445-101	-		441-101	-	-		
	116.5	109.5	445-102	-		441-102	-	-		
	107.0	100.0	445-104	-		441-104	-	-		
96 x 48										
	60.5	53.5	445-160	44-5160-30	440-001 440-005 440-009	441-160	44-1160-30	445-170		
	82.5	75.5	445-161	44-5161-30		441-161	44-1161-30	445-170		
	116.5	109.5	445-162	44-5162-30		441-162	44-1162-30	445-170		
	138.5	131.5	445-163	44-5163-30		441-163	44-1163-30	445-170		
	107.0	100.0	445-164	44-5164-30		441-164	44-1164-30	445-170		
	163.0	156.0	445-165	44-5165-30		441-165	44-1165-30	445-170		

guide grooves on each side

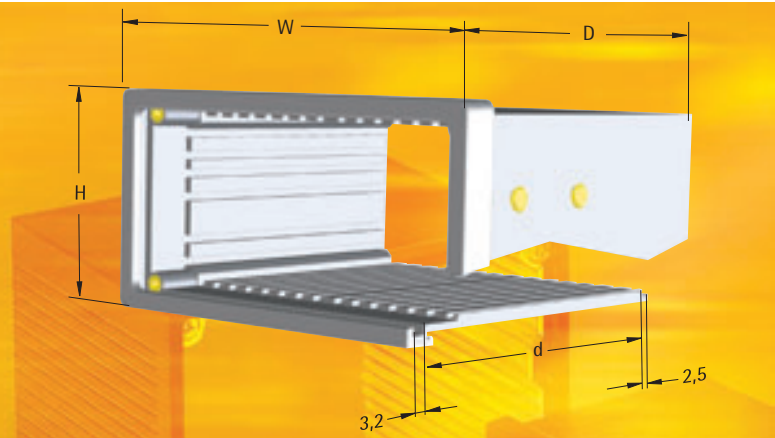


W mm	H mm	D (approx.) mm	d (approx.) mm	Case IEC 61554		Mounting (p. 14) 2	"Panel Clip" Case (p. 14)		Cover plate aluminium 1.5mm 4	
				Standard Case 1a	with corner webs (p. 15) 1b		Standard Case 3a	Front with corner webs 3b		
96 x 48										
<p>guide grooves only on the narrow sides</p>		60.5	53.5	445-760	44-5760-30	440-001	441-760	44-1760-30	445-170	
		82.5	75.5	445-761	44-5761-30		441-761	44-1761-30	445-170	
		116.5	109.5	445-762	44-5762-30		440-005	441-762	44-1762-30	445-170
		138.5	131.5	445-763	44-5763-30			441-763	44-1763-30	445-170
		107.0	100.0	445-764	44-5764-30		440-009	441-764	44-1764-30	445-170
		163.0	156.0	445-765	44-5765-30			441-765	44-1765-30	445-170
96 x 72										
		60.5	53.5	445-240	44-5240-30	440-001	-	-	445-250	
		82.5	75.5	445-241	44-5241-30		-	-	445-250	
		116.5	109.5	445-242	44-5242-30		440-005	-	-	445-250
		138.5	131.5	445-243	44-5243-30			-	-	445-250
		107.0	100.0	445-244	44-5244-30		440-009	-	-	445-250
		163.0	156.0	445-245	44-5245-30			-	-	445-250
		209.0	201.0	445-246	44-5246-30			-	-	445-250
96 x 96										
		60.5	53.5	445-300	44-5301-30	440-001	441-300	44-1300-30	445-310	
		82.5	75.5	445-301	44-5302-30		441-301	44-1301-30	445-310	
		116.5	109.5	445-302	44-5303-30		440-005	441-302	44-1302-30	445-310
		138.5	131.5	445-303	44-5304-30			441-303	44-1303-30	445-310
		107.0	100.0	445-304	44-5305-30		443-001	441-304	44-1304-30	445-310
		163.0	156.0	445-305	44-5306-30			441-305	44-1305-30	445-310
		209.0	201.0	445-306				441-306	44-1306-30	445-310
		144 x 48								
		60.5	53.5	445-180	44-5181-30	440-001	441-180	44-1180-30	445-190	
		82.5	75.5	445-181	44-5182-30		441-181	44-1181-30	445-190	
		116.5	109.5	445-182	44-5183-30		440-005	441-182	44-1182-30	445-190
		138.5	131.5	445-183	44-5184-30			441-183	44-1183-30	445-190
		107.0	100.0	445-184	44-5185-30		443-001	441-184	44-1184-30	445-190
		163.0	156.0	445-185	44-5186-30			441-185	44-1185-30	445-190
		209.0	201.0	445-186				441-186	44-1186-30	445-190

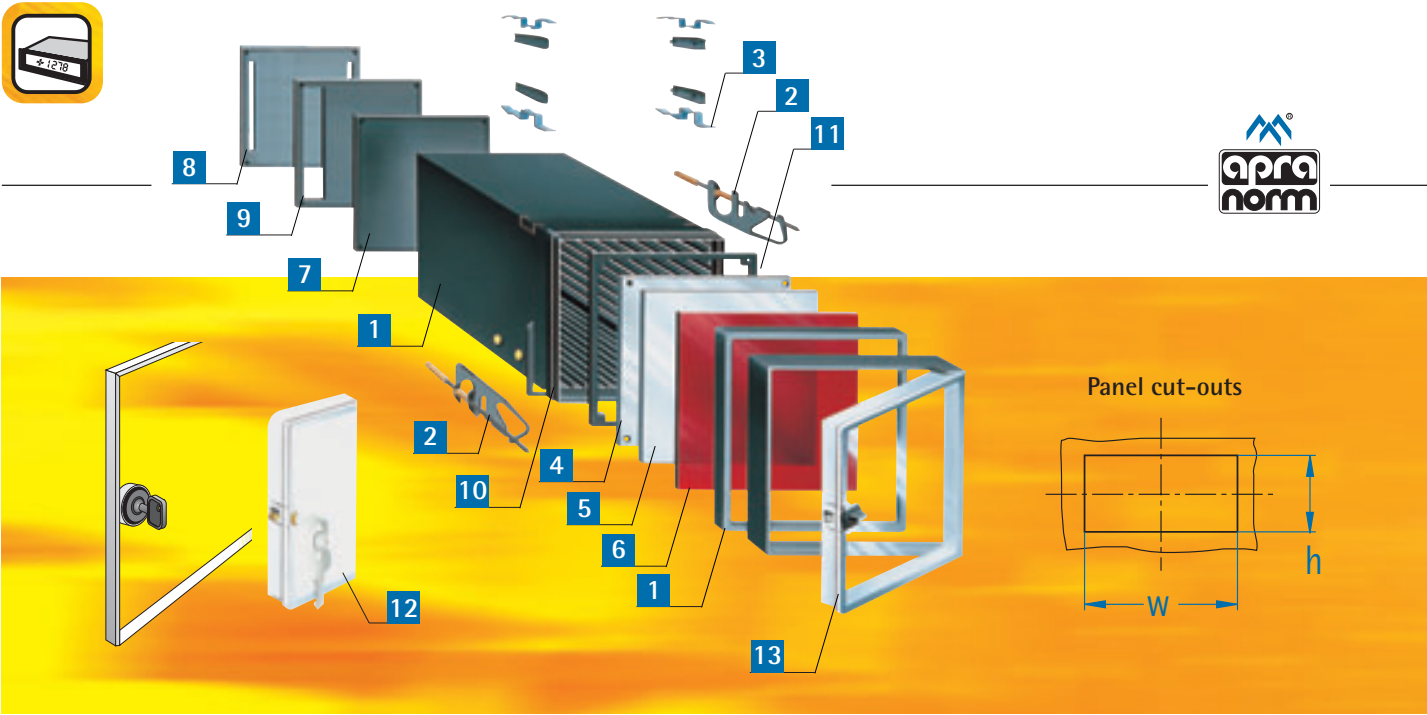


Panel instrument case in compliance with IEC 61554 • 445/441

Case size		Panel cut-out			
W	H	w	perm. dev.	h	perm. dev.
mm	mm	mm	mm	mm	mm
96	48	92	+ 0.8	45	+ 0.6
96	72	92	+ 0.8	68	+ 0.7
96	96	92	+ 0.8	92	+ 0.8
144	48	138	+ 1.0	45	+ 0.6



Panel aluminium 1.5mm 5	Filter screen Plexiglass, red: -09 Makrolon, trans- parent: -05 6	closed 7	with slots 8	for terminals 9	between case and panel 10	behind front panel 11	with lock 12	with sash fastener 13
445-171	44-5172-xx	44-5173-01	44-5173-02	44-5173-03	44-5175-01	44-5175-02	44-6090-01	44-6090-02
445-171	44-5172-xx	44-5173-01	44-5173-02	44-5173-03	44-5175-01	44-5175-02	44-6090-01	44-6090-02
445-171	44-5172-xx	44-5173-01	44-5173-02	44-5173-03	44-5175-01	44-5175-02	44-6090-01	44-6090-02
445-171	44-5172-xx	44-5173-01	44-5173-02	44-5173-03	44-5175-01	44-5175-02	44-6090-01	44-6090-02
445-171	44-5172-xx	44-5173-01	44-5173-02	44-5173-03	44-5175-01	44-5175-02	44-6090-01	44-6090-02
445-171	44-5172-xx	44-5173-01	44-5173-02	44-5173-03	44-5175-01	44-5175-02	44-6090-01	44-6090-02
445-251	44-5252-xx	44-5253-01	44-5253-02	44-5253-03	44-5255-01	44-5255-02	-	-
445-251	44-5252-xx	44-5253-01	44-5253-02	44-5253-03	44-5255-01	44-5255-02	-	-
445-251	44-5252-xx	44-5253-01	44-5253-02	44-5253-03	44-5255-01	44-5255-02	-	-
445-251	44-5252-xx	44-5253-01	44-5253-02	44-5253-03	44-5255-01	44-5255-02	-	-
445-251	44-5252-xx	44-5253-01	44-5253-02	44-5253-03	44-5255-01	44-5255-02	-	-
445-251	44-5252-xx	44-5253-01	44-5253-02	44-5253-03	44-5255-01	44-5255-02	-	-
445-311	44-5312-xx	44-5313-01	44-5313-02	44-5313-03	44-5315-01	44-5315-02	44-6040-01	44-6040-02
445-311	44-5312-xx	44-5313-01	44-5313-02	44-5313-03	44-5315-01	44-5315-02	44-6040-01	44-6040-02
445-311	44-5312-xx	44-5313-01	44-5313-02	44-5313-03	44-5315-01	44-5315-02	44-6040-01	44-6040-02
445-311	44-5312-xx	44-5313-01	44-5313-02	44-5313-03	44-5315-01	44-5315-02	44-6040-01	44-6040-02
445-311	44-5312-xx	44-5313-01	44-5313-02	44-5313-03	44-5315-01	44-5315-02	44-6040-01	44-6040-02
445-311	44-5312-xx	44-5313-01	44-5313-02	44-5313-03	44-5315-01	44-5315-02	44-6040-01	44-6040-02
445-191	44-5192-xx	44-5193-01	44-5193-02	44-5193-03	44-5195-01	44-5195-02	-	-
445-191	44-5192-xx	44-5193-01	44-5193-02	44-5193-03	44-5195-01	44-5195-02	-	-
445-191	44-5192-xx	44-5193-01	44-5193-02	44-5193-03	44-5195-01	44-5195-02	-	-
445-191	44-5192-xx	44-5193-01	44-5193-02	44-5193-03	44-5195-01	44-5195-02	-	-
445-191	44-5192-xx	44-5193-01	44-5193-02	44-5193-03	44-5195-01	44-5195-02	-	-
445-191	44-5192-xx	44-5193-01	44-5193-02	44-5193-03	44-5195-01	44-5195-02	-	-

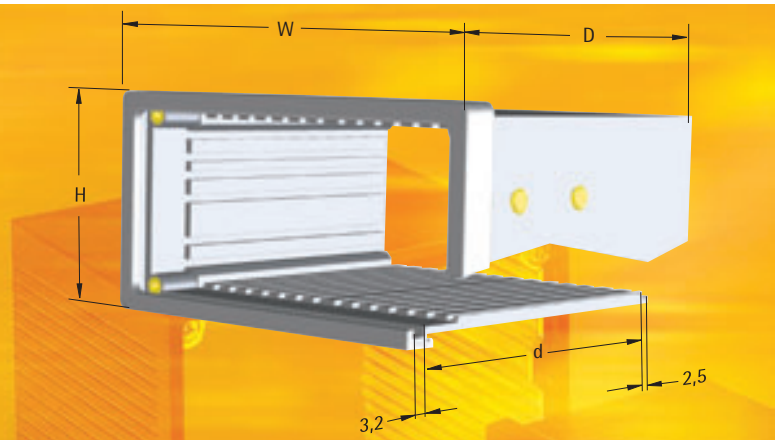


W mm	H mm	D (approx.) mm	d (approx.) mm	Case IEC 61554		Mounting (p. 14) 2	"Panel Clip" Case (p. 14)		Cover plate aluminium 1.5mm 4
				Standard Case 1a	with corner webs (p. 15) 1b		Standard Case 3a	Front with corner webs 3b	
144 x 72									
		60.5	53.5	445-260	44-5260-30	440-001	441-260	44-1260-30	445-270
		82.5	75.5	445-261	44-5261-30		441-261	44-1261-30	445-270
		116.5	109.5	445-262	44-5262-30		441-262	44-1262-30	445-270
		138.5	131.5	445-263	44-5263-30		441-263	44-1263-30	445-270
		107.0	100.0	445-264	44-5264-30		441-264	44-1264-30	445-270
		163.0	156.0	445-265	44-5265-30		441-265	44-1265-30	445-270
		209.0	201.0	445-266	44-5266-30		441-266	44-1266-30	445-270
144 x 96									
		60.5	53.5	445-320	44-5320-30	440-001	441-320	44-1320-30	445-330
		82.5	75.5	445-321	44-5321-30		441-321	44-1321-30	445-330
		116.5	109.5	445-322	44-5322-30		441-322	44-1322-30	445-330
		138.5	131.5	445-323	44-5323-30		441-323	44-1323-30	445-330
		107.0	100.0	445-324	44-5324-30		441-324	44-1324-30	445-330
		163.0	156.0	445-325	44-5325-30		441-325	44-1325-30	445-330
		209.0	201.0	445-326	44-5326-30		441-326	44-1326-30	445-330
144 x 144									
		60.5	53.5	445-360	44-5360-30	440-001	441-360	44-1360-30	445-370
		82.5	75.5	445-361	44-5361-30		441-361	44-1361-30	445-370
		116.5	109.5	445-362	44-5362-30		441-362	44-1362-30	445-370
		138.5	131.5	445-363	44-5363-30		441-363	44-1363-30	445-370
		107.0	100.0	445-364	44-5364-30		441-364	44-1364-30	445-370
		163.0	156.0	445-365	44-5365-30		-	-	445-370
		209.0	201.0	445-366	44-5366-30		-	-	445-370
192 x 72									
		60.5	53.5	445-280	-	440-001	441-280	-	445-290
		82.5	75.5	445-281	-		441-281	-	445-290
		116.5	109.5	445-282	-		441-282	-	445-290
		138.5	131.5	445-283	-		441-283	-	445-290
		107.0	100.0	445-284	-		441-284	-	445-290
		163.0	156.0	445-285	-		441-285	-	445-290
		209.0	201.0	445-286	-		441-286	-	445-290

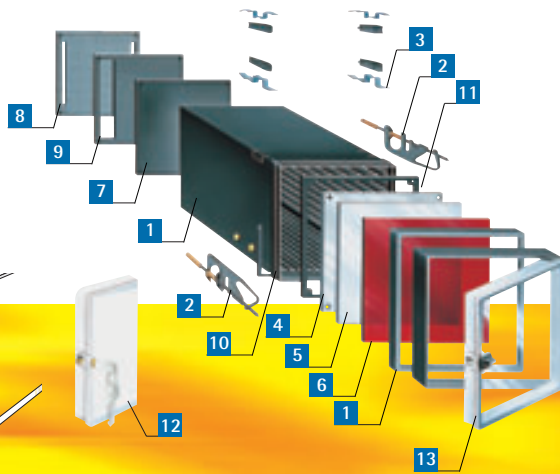


Panel instrument case in compliance with IEC 61554 • 445/441

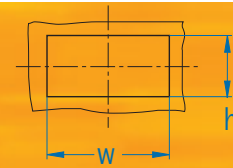
Case size		Panel cut-out			
W	H	w	perm. dev.	h	perm. dev.
mm	mm	mm	mm	mm	mm
96	48	92	+ 0.8	45	+ 0.6
96	72	92	+ 0.8	68	+ 0.7
96	96	92	+ 0.8	92	+ 0.8
144	48	138	+ 1.0	45	+ 0.6



Panel aluminium 1.5mm 5	Filter screen Plexiglass, red: -09 Makrolon, trans- parent: -05 6	closed 7	with slots 8	for terminals 9	between case and panel 10	behind front panel 11	with lock 12	with sash fastener 13
445-271	44-5272-xx	44-5273-01	44-5273-02	44-5273-03	44-5275-01	44-5275-02	44-6100-01	44-6100-02
445-271	44-5272-xx	44-5273-01	44-5273-02	44-5273-03	44-5275-01	44-5275-02	44-6100-01	44-6100-02
445-271	44-5272-xx	44-5273-01	44-5273-02	44-5273-03	44-5275-01	44-5275-02	44-6100-01	44-6100-02
445-271	44-5272-xx	44-5273-01	44-5273-02	44-5273-03	44-5275-01	44-5275-02	44-6100-01	44-6100-02
445-271	44-5272-xx	44-5273-01	44-5273-02	44-5273-03	44-5275-01	44-5275-02	44-6100-01	44-6100-02
445-271	44-5272-xx	44-5273-01	44-5273-02	44-5273-03	44-5275-01	44-5275-02	44-6100-01	44-6100-02
445-271	44-5272-xx	44-5273-01	44-5273-02	44-5273-03	44-5275-01	44-5275-02	44-6100-01	44-6100-02
445-331	44-5332-xx	44-5333-01	44-5333-02	44-5333-03	44-5335-01	44-5335-02	44-6150-01	44-6150-02
445-331	44-5332-xx	44-5333-01	44-5333-02	44-5333-03	44-5335-01	44-5335-02	44-6150-01	44-6150-02
445-331	44-5332-xx	44-5333-01	44-5333-02	44-5333-03	44-5335-01	44-5335-02	44-6150-01	44-6150-02
445-331	44-5332-xx	44-5333-01	44-5333-02	44-5333-03	44-5335-01	44-5335-02	44-6150-01	44-6150-02
445-331	44-5332-xx	44-5333-01	44-5333-02	44-5333-03	44-5335-01	44-5335-02	44-6150-01	44-6150-02
445-331	44-5332-xx	44-5333-01	44-5333-02	44-5333-03	44-5335-01	44-5335-02	44-6150-01	44-6150-02
445-371	44-5372-xx	44-5373-01	44-5373-02	44-5373-03	44-5375-01	44-5375-02	44-6050-01	44-6050-02
445-371	44-5372-xx	44-5373-01	44-5373-02	44-5373-03	44-5375-01	44-5375-02	44-6050-01	44-6050-02
445-371	44-5372-xx	44-5373-01	44-5373-02	44-5373-03	44-5375-01	44-5375-02	44-6050-01	44-6050-02
445-371	44-5372-xx	44-5373-01	44-5373-02	44-5373-03	44-5375-01	44-5375-02	44-6050-01	44-6050-02
445-371	44-5372-xx	44-5373-01	44-5373-02	44-5373-03	44-5375-01	44-5375-02	44-6050-01	44-6050-02
445-371	44-5372-xx	44-5373-01	44-5373-02	44-5373-03	44-5375-01	44-5375-02	44-6050-01	44-6050-02
445-291	44-5292-xx	44-5293-01	44-5293-02	-	44-5295-01	44-5295-02	-	-
445-291	44-5292-xx	44-5293-01	44-5293-02	-	44-5295-01	44-5295-02	-	-
445-291	44-5292-xx	44-5293-01	44-5293-02	-	44-5295-01	44-5295-02	-	-
445-291	44-5292-xx	44-5293-01	44-5293-02	-	44-5295-01	44-5295-02	-	-
445-291	44-5292-xx	44-5293-01	44-5293-02	-	44-5295-01	44-5295-02	-	-
445-291	44-5292-xx	44-5293-01	44-5293-02	-	44-5295-01	44-5295-02	-	-



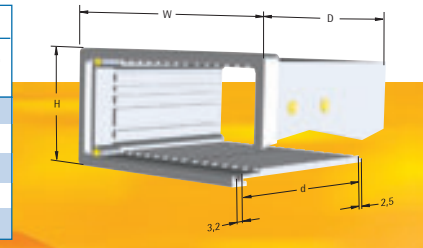
Panel cut-outs



W mm	H mm	D (approx.) mm	d (approx.) mm	Case IEC 61554		Mounting (p. 14) 2	"Panel Clip" Case (p. 14)		Cover plate aluminium 1.5mm 4	
				Standard Case 1a	with corner webs (p. 15) 1b		Standard Case 3a	Front with corner webs 3b		
192 x 96										
		60.5	53.5	445-340	44-5340-30	440-001	-	-	445-350	
		82.5	75.5	445-341	44-5341-30		-	-	445-350	
		116.5	109.5	445-342	44-5342-30	443-001	-	-	445-350	
		138.5	131.5	445-343	44-5343-30		-	-	445-350	
		107.0	100.0	445-344	44-5344-30		443-002	-	-	445-350
		163.0	156.0	445-345	44-5345-30	-		-	445-350	
		209.0	201.0	445-346	44-5346-30	-	-	445-350		
192 x 144										
		60.5	53.5	445-380	44-5380-30	440-001	-	-	445-390	
		82.5	75.5	445-381	44-5381-30		-	-	445-390	
		116.5	109.5	445-382	44-5382-30	443-001	-	-	445-390	
		138.5	131.5	445-383	44-5383-30		-	-	445-390	
		107.0	100.0	445-384	44-5384-30		443-002	-	-	445-390
		163.0	156.0	445-385	44-5385-30	-		-	445-390	
		209.0	201.0	445-386	44-5386-30	-	-	445-390		
288 x 72										
		60.5	53.5	445-460	-	440-001	441-460	-	445-470	
		82.5	75.5	445-461	-		-	441-461	-	445-470
		116.5	109.5	445-462	-	443-001	441-462	-	445-470	
		138.5	131.5	445-463	-		-	441-463	-	445-470
		107.0	100.0	445-464	-		443-002	441-464	-	445-470
		163.0	156.0	445-465	-	-		441-465	-	445-470
		209.0	201.0	445-466	-	-	441-466	-	445-470	
288 x 96										
		60.5	53.5	445-600	44-5600-30	440-001	-	-	445-610	
		82.5	75.5	445-601	44-5601-30	440-005	-	-	445-610	
288 x 144										
		60.5	53.5	445-480	-	440-001	441-480	-	445-490	
		82.5	75.5	445-481	-		-	-	-	445-490
		116.5	109.5	445-482	-	443-001	-	-	445-490	
		138.5	131.5	445-483	-		-	-	445-490	
		107.0	100.0	445-484	-		443-002	-	-	445-490
		163.0	156.0	445-485	-	-		-	445-490	
		209.0	201.0	445-486	-	-	-	-	445-490	



Case size		Panel cut-out			
W mm	H mm	w mm	perm. dev. mm	h mm	perm. dev. mm
192	96	186	+ 1.1	92	+ 0.8
192	144	186	+ 1.1	138	+ 1.0
288	72	282	+ 1.1	68	+ 0.7
288	96	282	+ 1.1	92	+ 0.8
288	144	282	+ 1.1	138	+ 1.0



Panel aluminium 1.5mm 5	Filter screen Plexiglass, red: -09 Makrolon, trans- parent: -05 6	Rear panel			Sealing		Transparent door	
		closed 7	with slots 8	for terminals 9	between case and panel 10	behind front panel 11	with lock 12	with sash fastener 13
445-351	44-5352-xx	44-5353-01	44-5353-02	-	44-5355-01	44-5355-02	44-6110-01	44-6110-02
445-351	44-5352-xx	44-5353-01	44-5353-02	-	44-5355-01	44-5355-02	44-6110-01	44-6110-02
445-351	44-5352-xx	44-5353-01	44-5353-02	-	44-5355-01	44-5355-02	44-6110-01	44-6110-02
445-351	44-5352-xx	44-5353-01	44-5353-02	-	44-5355-01	44-5355-02	44-6110-01	44-6110-02
445-351	44-5352-xx	44-5353-01	44-5353-02	-	44-5355-01	44-5355-02	44-6110-01	44-6110-02
445-351	44-5352-xx	44-5353-01	44-5353-02	-	44-5355-01	44-5355-02	44-6110-01	44-6110-02
445-351	44-5352-xx	44-5353-01	44-5353-02	-	44-5355-01	44-5355-02	44-6110-01	44-6110-02
445-391	44-5392-xx	44-5393-01	44-5393-02	44-5393-03	44-5395-01	44-5395-02	44-6120-01	44-6120-02
445-391	44-5392-xx	44-5393-01	44-5393-02	44-5393-03	44-5395-01	44-5395-02	44-6120-01	44-6120-02
445-391	44-5392-xx	44-5393-01	44-5393-02	44-5393-03	44-5395-01	44-5395-02	44-6120-01	44-6120-02
445-391	44-5392-xx	44-5393-01	44-5393-02	44-5393-03	44-5395-01	44-5395-02	44-6120-01	44-6120-02
445-391	44-5392-xx	44-5393-01	44-5393-02	44-5393-03	44-5395-01	44-5395-02	44-6120-01	44-6120-02
445-391	44-5392-xx	44-5393-01	44-5393-02	44-5393-03	44-5395-01	44-5395-02	44-6120-01	44-6120-02
445-471	44-5472-xx	44-5473-01	-	-	-	-	-	-
445-471	44-5472-xx	44-5473-01	-	-	-	-	-	-
445-471	44-5472-xx	44-5473-01	-	-	-	-	-	-
445-471	44-5472-xx	44-5473-01	-	-	-	-	-	-
445-471	44-5472-xx	44-5473-01	-	-	-	-	-	-
445-471	44-5472-xx	44-5473-01	-	-	-	-	-	-
445-471	44-5472-xx	44-5473-01	-	-	-	-	-	-
445-611	44-5612-xx	44-5613-01	-	-	-	-	-	-
445-611	44-5612-xx	44-5613-01	-	-	-	-	-	-
445-491	44-5492-xx	44-5493-01	-	-	44-5495-01	-	44-6130-01	44-6130-02
445-491	44-5492-xx	44-5493-01	-	-	44-5495-01	-	44-6130-01	44-6130-02
445-491	44-5492-xx	44-5493-01	-	-	44-5495-01	-	44-6130-01	44-6130-02
445-491	44-5492-xx	44-5493-01	-	-	44-5495-01	-	44-6130-01	44-6130-02
445-491	44-5492-xx	44-5493-01	-	-	44-5495-01	-	44-6130-01	44-6130-02
445-491	44-5492-xx	44-5493-01	-	-	44-5495-01	-	44-6130-01	44-6130-02

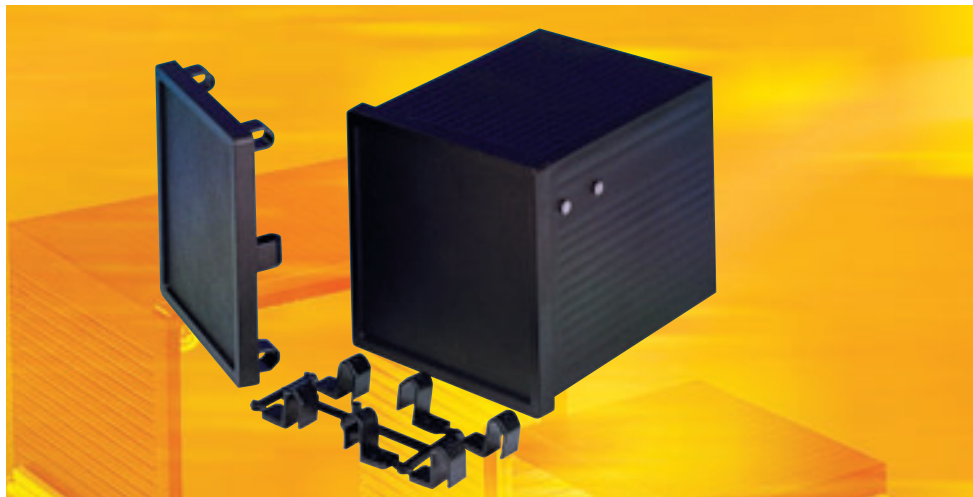


Accessories for panel cut-outs and panel instrument cases

Blind covers are used to cover unused panel cut-outs and can also serve as a solid front frame for DIN enclosures.

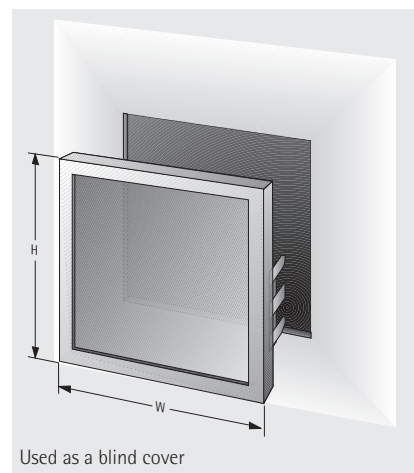
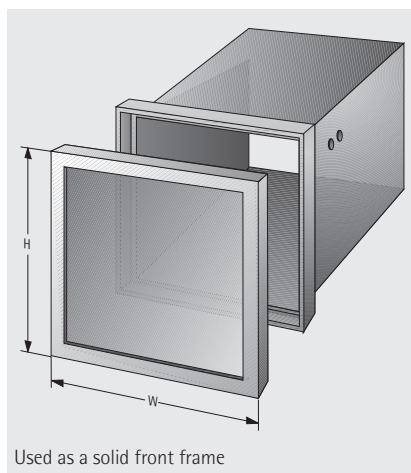
Included in delivery

Item	Pc.	Description
1	1	Cover
2	6	Clamping springs



Order information

H mm	W mm	Part no.
24	48	44-8457-00
24	96	44-8117-00
48	48	445-137
72	36	445-077
72	72	445-237
96	48	445-177
96	96	445-317
144	72	445-277
144	96	44-5337-00
144	144	445-377



Front frame with corner webs

apra-norm has developed a visually pleasing solution to cover the screws on the front panel: the front frame with corner webs not only provides a clear border but also protects from electrostatic discharges through the screws of a shielded enclosure.

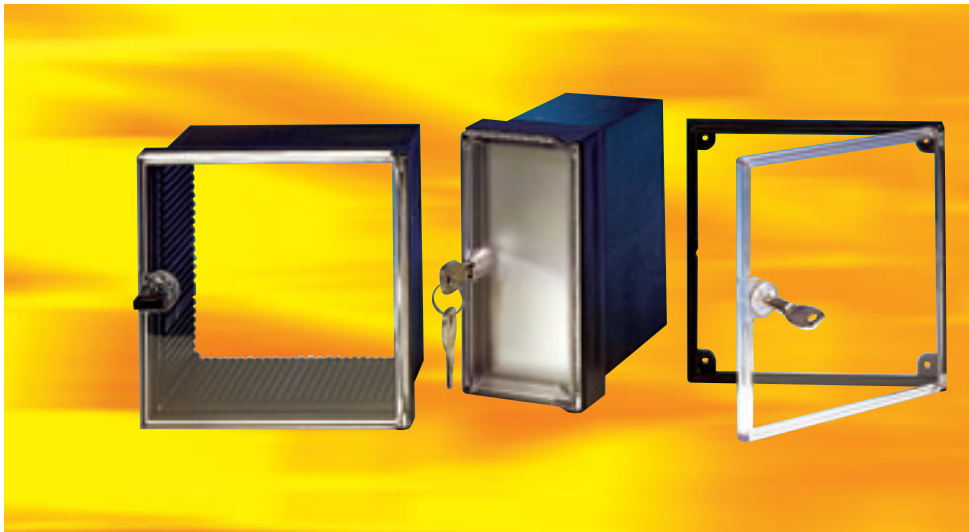
Currently available sizes:
see pages 4 - 12

Additional sizes are planned.
Please ask us.





446/447 • Transparent door



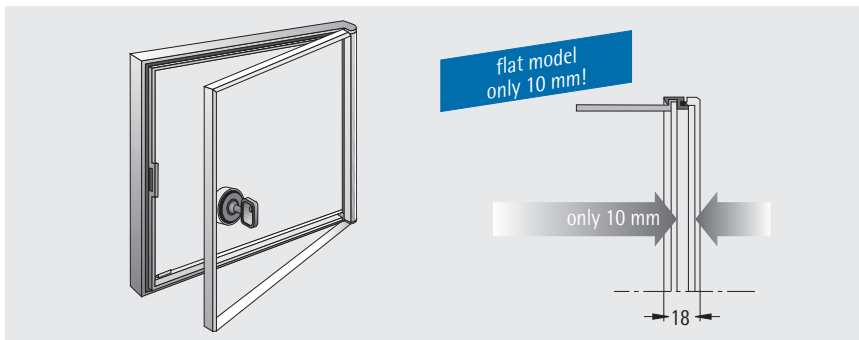
Transparent door with frame for panel instrument case in compliance with IEC 61554

- The clear, high-quality glass and stable frame of this injection moulded door guarantees high fitting accuracy and perfect sealing.
- High-grade materials ensure optimal impact strength and dimensional stability even in extreme temperatures.
- The door can easily be attached to the case in place of the front frame, but once attached it cannot be removed without the use of force.

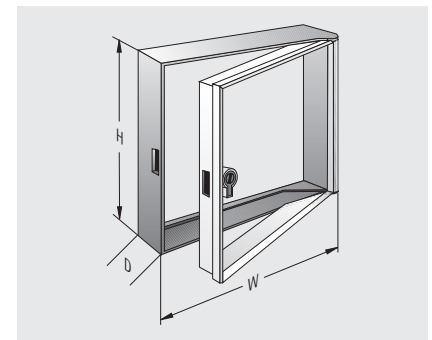
Degree of protection:

IP 42 in compliance with DIN 40050

Flat transparent door

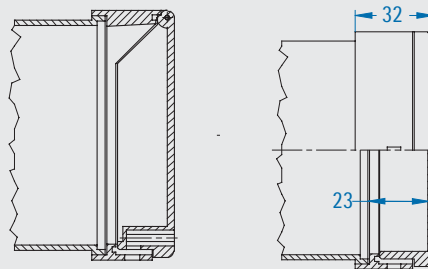


Transparent door



Specifications

- Door and frame on plastic case



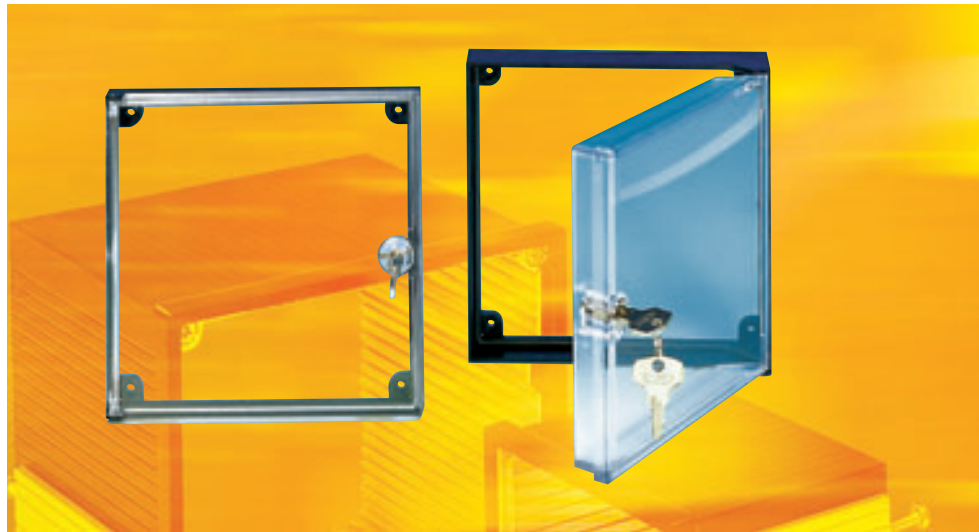
Order information

Dimensions acc. to IEC 61554 W x H mm	Protection acc. to DIN 40050	Transparent door with lock (lockable)	Transparent door with plastic sash fastener	Flat transparent door with lock (lockable)	Flat transparent door with plastic sash fastener
144 x 144	IP 54	44-6050-01	44-6050-02	44-7050-01	44-7050-02
72 x 144	IP 54	44-6100-01	44-6100-02	-	-
96 x 96	IP 54	44-6040-01	44-6040-02	-	-
96 x 144	IP 42	44-6150-01	44-6150-02	-	-
96 x 48	IP 42	44-6090-01	44-6090-02	-	-
192 x 96	IP 42	44-6110-01	44-6110-02	-	-
192 x 144	IP 54	44-6120-01	44-6120-02	-	-
288 x 144	IP 42	44-6130-01	44-6130-02	-	-
72 x 72	IP 42	44-6030-01	44-6030-02	-	-

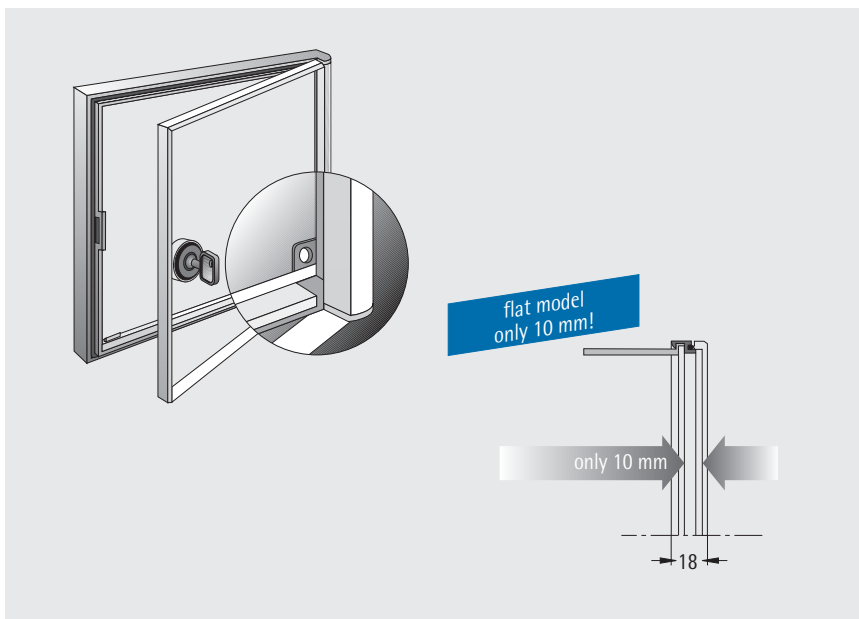


Transparent door with mounting brackets

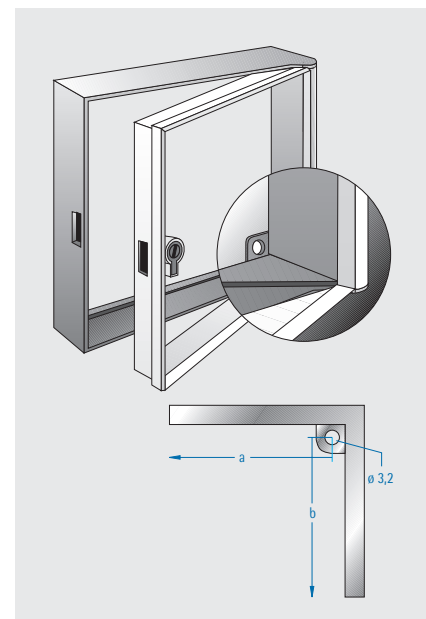
- **High-grade material: polycarbonate**
- high tensile and impact strength, door frame reinforced with glass fibre
- excellent electrical and dielectric properties
- excellent light permeability of transparent doors
- optimum dimensional stability
- heat distortion temperature per DIN 53461: 135°C
- Fire behaviour: self-extinguishing in compliance with UL 94 V-0



Flat transparent door



Transparent door



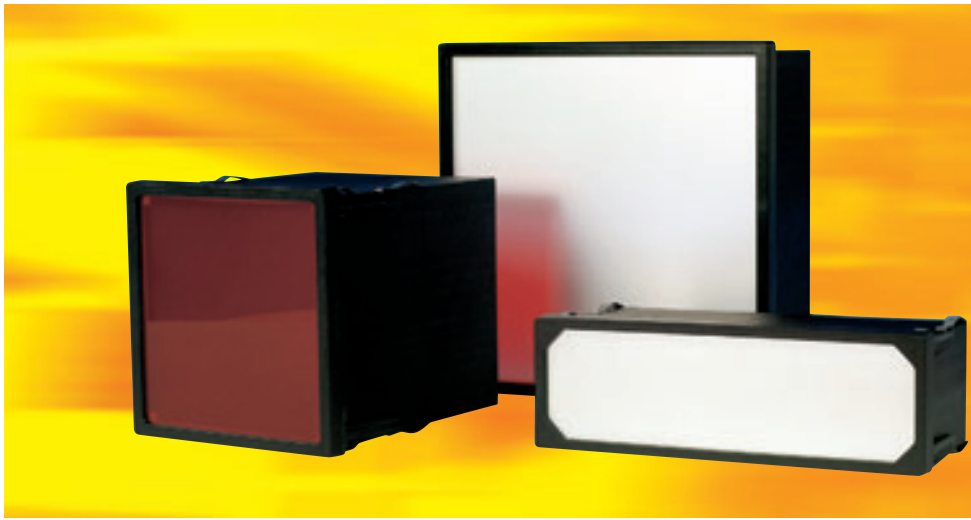
Order information

Dimensions mm	Standard transparent door with mounting brackets			Flat transparent door with mounting brackets			Sealing between frame and case*
	with lock (lockable)	with plastic sash fastener	Hole pattern a x b mm	with lock (lockable)	with plastic sash fastener	Hole pattern a x b mm	
144 x 144	44-6050-04	44-6050-05	125,9 x 125,3	44-7050-04	44-7050-05	125,5 x 125,5	-
72 x 144	44-6100-04	44-6100-05	52,5 x 125,6	-	-	-	-
96 x 96	44-6040-04	44-6040-05	77,2 x 76,8	-	-	-	44-6040-10
96 x 144	44-6150-04	44-6150-05	76,9 x 125,1	-	-	-	-
96 x 48	44-6090-04	44-6090-05	76,9 x 28,8	-	-	-	-
192 x 96	44-6110-04	44-6110-05	173,3 x 76,9	-	-	-	-
192 x 144	44-6120-04	44-6120-05	173,3 x 125,1	-	-	-	44-6120-10
288 x 144	44-6130-04	44-6130-05	269,5 x 125,1	-	-	-	44-6130-10
72 x 72	44-6030-04	44-6030-05	51,6 x 51,3	-	-	-	-

* Other sizes on request. Please ask us!



445 • Filter screens, Front panels/Rear panels



Filter screens		Blanks without holes	Blanks with mounting holes
Material	Thickness mm	End no. (see pages 4 - 13)	End no. (see pages 4 - 13)
Makrolon, transparent	3.0	-05	-15**
Plexiglass, red 502	3.0	-09	-10**

Filter screens

- Plexiglass, red
- Makrolon, transparent

Note:

** minimum order = 100 pieces



Treatment of front panels, rear panels and enclosures

- As a special customer service, we can treat rear panels, front panels and enclosures according to your specifications using modern CNC-controlled processing machines. An outline is all we need!
- Rear panels or enclosures with customer-specified cut-outs, holes or vents can be manufactured at a low cost thanks to our modular tool system.
- Even stand-alone tools built according to the customer's design or 3D data are no problem for us.

Just ask us!



Front foils and keypad technology

- the entire palette of foils, ranging from rear printed decor foils via front foils for the application of short or long range pushbuttons to foil keypads.
- EMC shielding (also for the display area), coloured filters, embossing, push-buttons as well as foils with integrated LED's are available.

Just ask us!





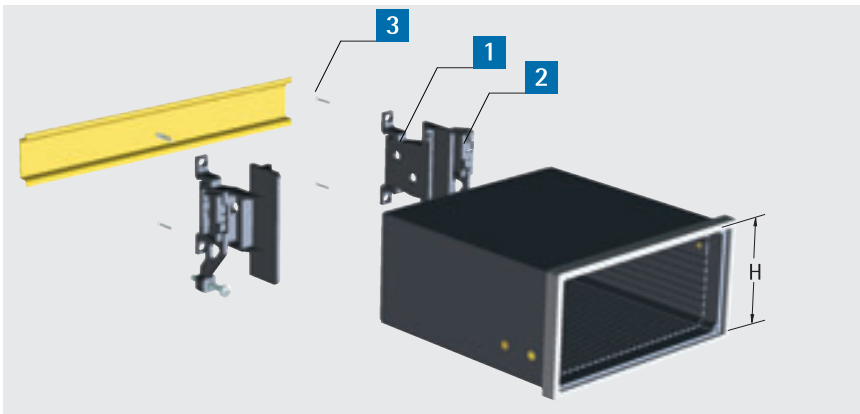
445 • Adapter for DIN rails TS 35 / Terminals



Adapter for DIN rails TS 35

The adapters are for mounting panel instrument cases on DIN rails in compliance with DIN EN 50022. A clearance of 47mm between the rear panel of the case and the DIN rails guarantees that the connecting cable has a sufficient bending radius. The fixing clamps, which can be clipped onto the side of the adapter, ensure that the case is properly fixed in place. The adjusting screw can be used to align the case at a right angle to the mounting plate.

Specifications



Included in delivery

Item	Pc.	Description
1	2	Adapter
2	2	Fixing clamps
3		Assembly material

Order information

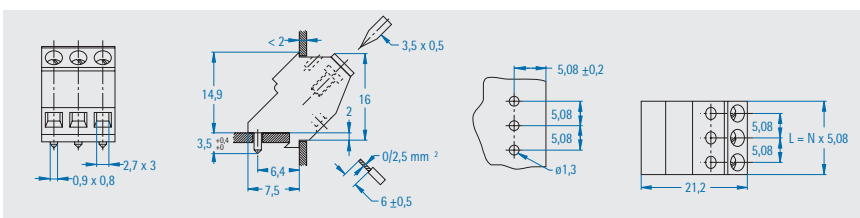
Enclosure height (H) mm	Complete set Part no.	Adapter, individual, Part no.	Fixing clamps for adapter
48	44-5701-00	44-5701-01	44-5710-00
72	44-5702-00	44-5702-01	44-5710-00
96	44-5703-00	44-5703-01	44-5710-00
144	44-5704-00	44-5704-01	44-5710-00



Terminals with screw connections for panel instrument case

- for printed circuit, 1.6mm thickness
 - cable terminal with "plug-in" mechanism and captive screws
 - support on border of printed circuit
- The PCB with terminals rests on the outer guideway by default, but can be positioned elsewhere according to your specifications.

Specifications



Order information

Enclosure type mm	Number of poles	Part no.
48	5	445-565
72	10	445-570
96	15	445-575
144	24	445-584
Adhesive tape marking		445-587