

## Hinges M233, Plastic, with Adjustable Friction

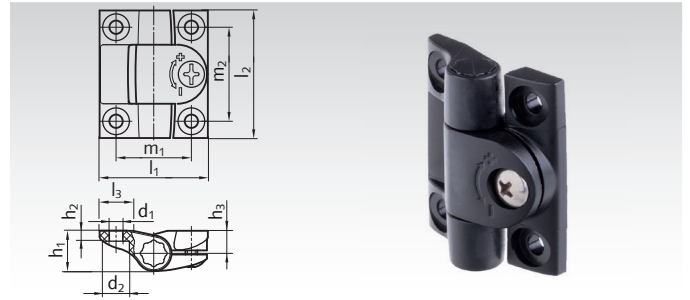
**Material:** Body: Polyacetal (POM), RAL 9005, semi-matt.  
Pin: Polycarbonate (PC).  
Adjusting screw and nut: Stainless steel 1.4305.

At these non-detachable hinges, the friction can be varied by an adjusting screw.

Endurance tests have shown that the torque has almost not changed even after 60.000 opening / closing cycles (0.8 Nm tightening torque of the set screw).

Temperature resistant up to +65°C.  
Flammability category UL 94-HB.

Ordering Details: e.g. Product No. 677 002 81, Hinge M233, 37mm.



Product No.	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>1</sub> mm	M <sub>A</sub> <sup>1)</sup> Nm	d <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	h <sub>3</sub> mm	l <sub>3</sub> mm	m <sub>1</sub> <sup>±0,25</sup> mm	m <sub>2</sub> <sup>±0,25</sup> mm	max. friction torque Nm	F <sub>A</sub> <sup>2)</sup> N	F <sub>R</sub> <sup>3)</sup> N	Weight g
677 002 81	37	43	4,5	1	9	14	3,5	7,5	11,5	25,5	31,7	1,4	700	500	15
677 002 82	57	64	6,5	3	12,5	21	6,5	11,5	17,5	38	47,5	4	1500	1500	49

<sup>1)</sup> Fastening torque for fitting screw in d<sub>1</sub>.

<sup>2)</sup> Max. axial force. <sup>3)</sup> Max. radial force at opening angle 90°. These are non-binding guide values without any liability.

## Hinges M237, Zinc Die Cast / Aluminium / Stainless Steel

**Material:** Zinc die cast (ZD), plastic coated black RAL 9005, textured finish.  
Aluminium, anodized in natural colour.  
Stainless steel 1.4308 (A2) matt blasted or  
Stainless steel 1.4408 (A4) matt blasted.  
Pin: Stainless steel 1.4571 (ZD: 1.4305.)

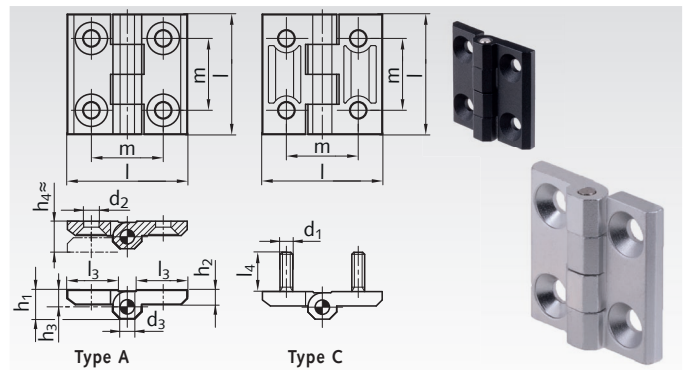


Non-detachable hinges. The swivel range depends on the pivoting direction; 180° or 90° (type C 180° or 70°).

**Type A:** with bores for countersunk screws DIN 7991.

**Type C:** with threaded bolts.

Ordering Details: e.g.: Product No. 677 003 01, Hinge M237, Zinc, Type A, 30mm



Product No. Zinc- die casting	Product No. Aluminium anodized	Type	l mm	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	h <sub>3</sub> mm	h <sub>4</sub> <sup>+0,5</sup> mm	l <sub>3</sub> mm	l <sub>4</sub> mm	m mm	F <sub>A</sub> <sup>1)</sup> N	F <sub>R</sub> <sup>2)</sup> N	Weight Zinc g	Weight Alu g
677 003 01	677 003 21	A	30	-	4,3	3	7,5	4	4,5	8,5	10,7	-	18	500	750	19	11
677 003 02	677 003 22	A	40	-	5,3	4	9	5	5,5	11	14	-	25	1060	2000	46	24
677 003 03	677 003 23	A	50	-	6,4	6	11,5	6	6,5	13	18,5	-	30	2100	2450	89	48
677 003 04	677 003 24	A	60	-	8,3	8	15	8	8,5	17	21,5	-	36	3200	4400	163	90
677 003 05	-	C	40	M5	-	4	9	5	5,5	11	14	12	25	900	1850	59	-
677 003 06	-	C	50	M6	-	6	11,5	6	6,5	13	18,5	12	30	2050	2000	102	-
677 003 07	-	C	60	M8	-	8	15	8	8,5	17	21,5	14	36	3050	2550	194	-

<sup>1)</sup> Max. axial force. <sup>2)</sup> Max. radial force at opening angle 90°. These are non-binding guide values without any liability.



Product No. Stainless 1.4308 (A2)	Product No. Stainless 1.4408 (A4)	Type	l mm	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	h <sub>3</sub> mm	h <sub>4</sub> <sup>+0,5</sup> mm	l <sub>3</sub> mm	l <sub>4</sub> mm	m mm	F <sub>A</sub> <sup>1)</sup> N	F <sub>R</sub> <sup>2)</sup> N	Weight g
677 003 31	677 003 41	A	30	-	4,3	3	7,5	4	4,5	8,5	10,7	-	18	750	750	23
677 003 32	677 003 42	A	40	-	5,3	4	9	5	5,5	11	16	-	25	2100	1650	57
677 003 33	677 003 43	A	50	-	6,4	6	11,5	6	6,5	13	21	-	30	2550	2250	110
677 003 34	677 003 44	A	60	-	8,3	8	15	8	8,5	17	26	-	36	5000	5000	211
677 003 35	-	C	40	M5	-	4	9	5	5,5	11	16	11	25	?	?	69
677 003 36	-	C	50	M6	-	6	11,5	6	6,5	13	21	13	30	?	?	128
677 003 37	-	C	60	M8	-	8	15	8	8,5	17	26	17	36	?	?	200

<sup>1)</sup> Max. axial force. <sup>2)</sup> Max. radial force at opening angle 90°. These are non-binding guide values without any liability.