

## Handwheels

Steel / Stainless Steel, made of sheet metal

### SPECIFICATION

#### Bore codes

- Version **B**: without keyway
- Version **K**: with keyway
- Version **V**: with square

#### Types

- Type **A**: without handle
- Type **D**: with revolving handle (only for Stainless Steel A4)

#### Steel **ST**

plastic coated  
black, RAL 9005, textured finish **SW**

- Wheel body of sheet steel
- Hub welded

#### Stainless Steel AISI 316 L **A4**

- matte shot-blasted **GS**
- Wheel body of stainless sheet steel
- Hub welded

Revolving handle similar to I.281 (see page 569)

- Plastic, Duroplast black, shiny finish
- Spindle, Stainless Steel AISI 316 L
- O-Ring Rubber NBR (Perbunan)

### INFORMATION

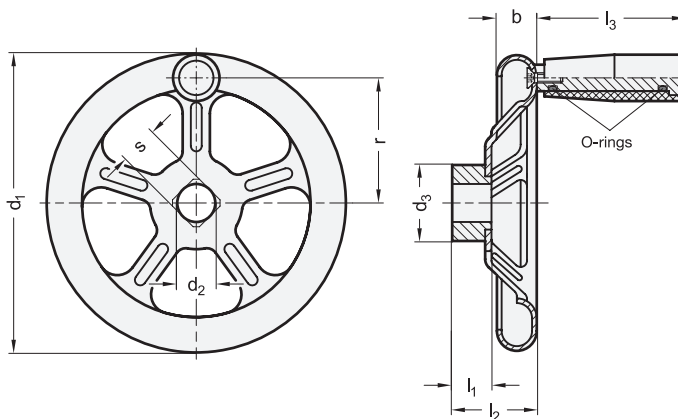
Handwheels GN 228 of sheet steel or stainless sheet steel are robust and unaffected by shocks and knocks. The hub lengths  $l_1$  and the diameter  $d_3$  correspond to DIN 950 (see page 140).

The Stainless Steel design is suitable for applications in highly corrosive environments thanks to the A4 materials used.

On the revolving handles of type D, the O-rings minimize the radial play, protect the handle bearing from penetrating dirt and prevent noises resulting from vibration.

### TECHNICAL INFORMATION

- Keyway P9 DIN 6885 (see page A16)
- Squares DIN 79 (see page A16)
- Cross holes GN 110 (see page A17)
- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)



GN 228-A

STAINLESS STEEL

Description	d1	d2 H9	s H11	b	d3	l1	l2 ≈	No. of spokes	Thickness of sheet metal	⚖
GN 228-ST-125-B11-A-SW	125	11	-	18	30	18	29	3	1.5	286
GN 228-A4-125-B11-A-GS	125	11	-	30	30	18	29	3	1.5	287
GN 228-ST-125-K11-A-SW	125	11	-	18	30	18	29	3	1.5	275
GN 228-A4-125-K11-A-GS	125	11	-	30	30	18	29	3	1.5	286
GN 228-ST-125-V11-A-SW	125	-	V 11	18	30	18	29	3	1.5	273
GN 228-A4-125-V11-A-GS	125	-	V 11	30	30	18	29	3	1.5	284
GN 228-ST-160-B12-A-SW	160	12	-	22	30	20	37	4	1.5	417
GN 228-A4-160-B12-A-GS	160	12	-	30	30	20	37	4	1.5	433
GN 228-ST-160-K12-A-SW	160	12	-	22	30	20	37	4	1.5	416
GN 228-A4-160-K12-A-GS	160	12	-	30	30	20	37	4	1.5	432
GN 228-ST-160-V12-A-SW	160	-	V 12	22	30	20	37	4	1.5	412
GN 228-A4-160-V12-A-GS	160	-	V 12	30	30	20	37	4	1.5	428
GN 228-ST-200-B14-A-SW	200	14	-	22	40	24	46	4	2.5	770
GN 228-A4-200-B14-A-GS	200	14	-	40	40	24	46	4	2.5	799
GN 228-ST-200-K14-A-SW	200	14	-	22	40	24	46	4	2.5	768
GN 228-A4-200-K14-A-GS	200	14	-	40	40	24	46	4	2.5	797
GN 228-ST-200-V14-A-SW	200	-	V 14	22	40	24	46	4	2.5	763
GN 228-A4-200-V14-A-GS	200	-	V 14	40	40	24	46	4	2.5	792
GN 228-ST-250-B17-A-SW	250	17	-	30	45	28	52	5	2.5	1480
GN 228-A4-250-B17-A-GS	250	17	-	45	45	28	52	5	2.5	1536
GN 228-ST-250-K17-A-SW	250	17	-	30	45	28	52	5	2.5	1487
GN 228-A4-250-K17-A-GS	250	17	-	45	45	28	52	5	2.5	1533
GN 228-ST-250-V17-A-SW	250	-	V 17	30	45	28	52	5	2.5	1478
GN 228-A4-250-V17-A-GS	250	-	V 17	45	45	28	52	5	2.5	1524
GN 228-ST-315-B19-A-SW	315	19	-	35	55	33	64	5	2.5	2335
GN 228-A4-315-B19-A-GS	315	19	-	55	55	33	64	5	2.5	2426
GN 228-ST-315-K19-A-SW	315	19	-	35	55	33	64	5	2.5	2331
GN 228-A4-315-K19-A-GS	315	19	-	55	55	33	64	5	2.5	2422
GN 228-ST-315-V19-A-SW	315	-	V 19	35	55	33	64	5	2.5	2317
GN 228-A4-315-V19-A-GS	315	-	V 19	55	55	33	64	5	2.5	2407
GN 228-ST-400-B24-A-SW	400	24	-	40	65	38	82	5	3	4072
GN 228-A4-400-B24-A-GS	400	24	-	65	65	38	82	5	3	4231
GN 228-ST-400-K24-A-SW	400	24	-	40	65	38	82	5	3	4065
GN 228-A4-400-K24-A-GS	400	24	-	65	65	38	82	5	3	4223
GN 228-ST-400-V24-A-SW	400	-	V 24	40	65	38	82	5	3	4039
GN 228-A4-400-V24-A-GS	400	-	V 24	65	65	38	82	5	3	4196

GN 228-D

STAINLESS STEEL

Description	d1	d2 H9	s H11	b	d3	l1	l2 ≈	l3	r	∅ Handle	No. of spokes	Thickness of sheet metal	⚖
GN 228-A4-160-B12-D-GS	160	12	-	30	30	20	37	80	68	26	4	1.5	558
GN 228-A4-160-K12-D-GS	160	12	-	30	30	20	37	80	68	26	4	1.5	558
GN 228-A4-160-V12-D-GS	160	-	V 12	30	30	20	37	80	68	26	4	1.5	558
GN 228-A4-200-B14-D-GS	200	14	-	40	40	24	46	80	88	26	4	2.5	924
GN 228-A4-200-K14-D-GS	200	14	-	40	40	24	46	80	88	26	4	2.5	924
GN 228-A4-200-V14-D-GS	200	-	V 14	40	40	24	46	80	88	26	4	2.5	924
GN 228-A4-250-B17-D-GS	250	17	-	45	45	28	52	90	108	28	5	2.5	1702
GN 228-A4-250-K17-D-GS	250	17	-	45	45	28	52	90	108	28	5	2.5	1702
GN 228-A4-250-V17-D-GS	250	-	V 17	45	45	28	52	90	108	28	5	2.5	1702
GN 228-A4-315-B19-D-GS	315	19	-	55	55	33	64	90	138	28	5	2.5	2592
GN 228-A4-315-K19-D-GS	315	19	-	55	55	33	64	90	138	28	5	2.5	2592
GN 228-A4-315-V19-D-GS	315	-	V 19	55	55	33	64	90	138	28	5	2.5	2592
GN 228-A4-400-B24-D-GS	400	24	-	65	65	38	82	90	179	28	5	3	4397
GN 228-A4-400-K24-D-GS	400	24	-	65	65	38	82	90	179	28	5	3	4397
GN 228-A4-400-V24-D-GS	400	-	V 24	65	65	38	82	90	179	28	5	3	4397



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Operating elements