

## Handwheels

Steel Sheet Metal / Stainless Steel Sheet Metal

### SPECIFICATION

#### Bore codes

- Version **B**: Without keyway
- Version **K**: With keyway DIN 6885-1 P9
- Version **V**: With square DIN 79

#### Types

- Type **A**: Without handle
- Type **D**: With revolving handle (only for stainless steel A4)

#### Wheel body

- Steel **ST**
  - Powder coated
  - Black, RAL 9005, textured finish **SW**
  - Hub welded
- Stainless steel AISI 316L **A4**
  - Matte shot-blasted finish **GS**
  - Wheel body of stainless sheet steel
  - Hub welded

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

Plastic, phenolic resin (PF)

- Black, shiny finish
- Spindle
  - Stainless Steel AISI 316 L
- O-ring
  - Acrylonitrile butadiene rubber (NBR)



### ACCESSORY

- GN 184 Countersunk Washers (for Axial Fixing) (see page 971)

### TECHNICAL INFORMATION

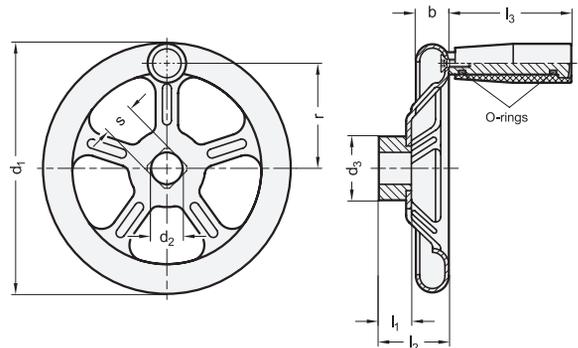
- Keyway P9 DIN 6885-1 (see page A16)
- Squares DIN 79 (see page A16)
- Cross Holes GN 110 (see page A17)
- ISO-Fundamental Tolerances (see page A21)
- Plastic Characteristics (see page A2)
- Stainless Steel Characteristics (see page A26)

### 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.

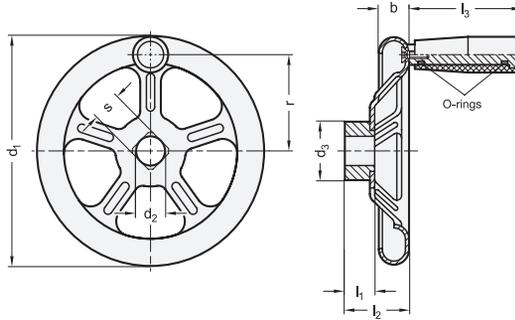


#### GN 228-ST-B

Description	$d_1$	$d_2$ H9 Bore	s H11 Square	b	$d_3$	$l_1$	$l_2 \approx$	No. of spokes	Thickness of sheet metal	⚖️
GN 228-ST-125-B11-A-SW	125	11	V11	18	30	18	29	3	1.5	287
GN 228-ST-160-B12-A-SW	160	12	V12	22	30	20	37	4	1.5	433
GN 228-ST-200-B14-A-SW	200	14	V14	22	40	24	46	4	2	740
GN 228-ST-250-B17-A-SW	250	17	V17	30	45	28	52	5	2.5	1536
GN 228-ST-315-B19-A-SW	315	19	V19	35	55	33	64	5	2.5	2426
GN 228-ST-400-B24-A-SW	400	24	V24	40	65	38	82	5	3	4231

#### GN 228-ST-K

Description	$d_1$	$d_2$ H9 Bore	s H11 Square	b	$d_3$	$l_1$	$l_2 \approx$	No. of spokes	Thickness of sheet metal	⚖️
GN 228-ST-125-K11-A-SW	125	11	V11	18	30	18	29	3	1.5	287
GN 228-ST-160-K12-A-SW	160	12	V12	22	30	20	37	4	1.5	433
GN 228-ST-200-K14-A-SW	200	14	V14	22	40	24	46	4	2	799
GN 228-ST-250-K17-A-SW	250	17	V17	30	45	28	52	5	2.5	1535
GN 228-ST-315-K19-A-SW	315	19	V19	35	55	33	64	5	2.5	2425
GN 228-ST-400-K24-A-SW	400	24	V24	40	65	38	82	5	3	4230



GN 228-ST-V

Description	d1	d2 H9 Bore	s H11 Square	b	d3	l1	l2 ≈	No. of spokes	Thickness of sheet metal	⚖
GN 228-ST-125-V11-A-SW	125	11	V11	18	30	18	29	3	1.5	287
GN 228-ST-160-V12-A-SW	160	12	V12	22	30	20	37	4	1.5	433
GN 228-ST-200-V14-A-SW	200	14	V14	22	40	24	46	4	2	799
GN 228-ST-250-V17-A-SW	250	17	V17	30	45	28	52	5	2.5	1535
GN 228-ST-315-V19-A-SW	315	19	V19	35	55	33	64	5	2.5	2425
GN 228-ST-400-V24-A-SW	400	24	V24	40	65	38	82	5	3	4230

GN 228-A4-B

STAINLESS STEEL

Description	d1	d2 H9 Bore	s H11 Square	b	d3	l1	l2 ≈	l3	r	Ø Handle	No. of spokes	Thickness of sheet metal	⚖
GN 228-A4-125-B11-A-GS	125	11	V11	18	30	18	29	-	-	-	3	1.5	287
GN 228-A4-160-B12-A-GS	160	12	V12	22	30	20	37	-	68	26	4	1.5	433
GN 228-A4-160-B12-D-GS	160	12	V12	22	30	20	37	80	68	26	4	1.5	558
GN 228-A4-200-B14-A-GS	200	14	V14	22	40	24	46	-	88	26	4	2	740
GN 228-A4-200-B14-D-GS	200	14	V14	22	40	24	46	80	88	26	4	2	924
GN 228-A4-250-B17-A-GS	250	17	V17	30	45	28	52	-	108	28	5	2.5	1536
GN 228-A4-250-B17-D-GS	250	17	V17	30	45	28	52	90	108	28	5	2.5	1705
GN 228-A4-315-B19-A-GS	315	19	V19	35	55	33	64	-	138	28	5	2.5	2426
GN 228-A4-315-B19-D-GS	315	19	V19	35	55	33	64	90	138	28	5	2.5	2595
GN 228-A4-400-B24-A-GS	400	24	V24	40	65	38	82	-	179	28	5	3	4231
GN 228-A4-400-B24-D-GS	400	24	V24	40	65	38	82	90	179	28	5	3	4400

GN 228-A4-K

STAINLESS STEEL

Description	d1	d2 H9 Bore	s H11 Square	b	d3	l1	l2 ≈	l3	r	Ø Handle	No. of spokes	Thickness of sheet metal	⚖
GN 228-A4-125-K11-A-GS	125	11	V11	18	30	18	29	-	-	-	3	1.5	287
GN 228-A4-160-K12-A-GS	160	12	V12	22	30	20	37	-	68	26	4	1.5	433
GN 228-A4-160-K12-D-GS	160	12	V12	22	30	20	37	80	68	26	4	1.5	558
GN 228-A4-200-K14-A-GS	200	14	V14	22	40	24	46	-	88	26	4	2	799
GN 228-A4-200-K14-D-GS	200	14	V14	22	40	24	46	80	88	26	4	2	924
GN 228-A4-250-K17-A-GS	250	17	V17	30	45	28	52	-	108	28	5	2.5	1535
GN 228-A4-250-K17-D-GS	250	17	V17	30	45	28	52	90	108	28	5	2.5	1705
GN 228-A4-315-K19-A-GS	315	19	V19	35	55	33	64	-	138	28	5	2.5	2425
GN 228-A4-315-K19-D-GS	315	19	V19	35	55	33	64	90	138	28	5	2.5	2595
GN 228-A4-400-K24-A-GS	400	24	V24	40	65	38	82	-	179	28	5	3	4230
GN 228-A4-400-K24-D-GS	400	24	V24	40	65	38	82	90	179	28	5	3	4400

GN 228-A4-V

STAINLESS STEEL

Description	d1	d2 H9 Bore	s H11 Square	b	d3	l1	l2 ≈	l3	r	Ø Handle	No. of spokes	Thickness of sheet metal	⚖
GN 228-A4-125-V11-A-GS	125	11	V11	18	30	18	29	-	-	-	3	1.5	287
GN 228-A4-160-V12-A-GS	160	12	V12	22	30	20	37	-	68	26	4	1.5	433
GN 228-A4-160-V12-D-GS	160	12	V12	22	30	20	37	80	68	26	4	1.5	558
GN 228-A4-200-V14-A-GS	200	14	V14	22	40	24	46	-	88	26	4	2	799
GN 228-A4-200-V14-D-GS	200	14	V14	22	40	24	46	80	88	26	4	2	924
GN 228-A4-250-V17-A-GS	250	17	V17	30	45	28	52	-	108	28	5	2.5	1535
GN 228-A4-250-V17-D-GS	250	17	V17	30	45	28	52	90	108	28	5	2.5	1705
GN 228-A4-315-V19-A-GS	315	19	V19	35	55	33	64	-	138	28	5	2.5	2425
GN 228-A4-315-V19-D-GS	315	19	V19	35	55	33	64	90	138	28	5	2.5	2595
GN 228-A4-400-V24-A-GS	400	24	V24	40	65	38	82	-	179	28	5	3	4230
GN 228-A4-400-V24-D-GS	400	24	V24	40	65	38	82	90	179	28	5	3	4400

