

PILLOW BLOCKS, BEARINGS, SHOCK ABSORBERS AND SENSORS PACKAGE

DESCRIPTION

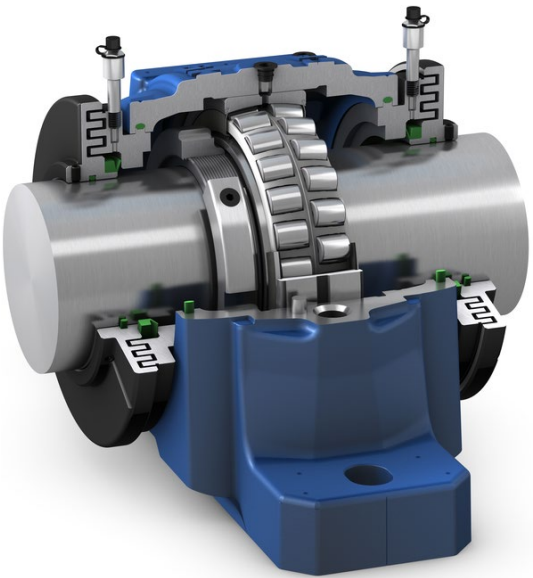
NEVER USED, NEVER ASSEMBLED – This is a package of pillow blocks, spherical roller bearings, adaptor sleeves, seals, shock absorbers, various sensors and other conveyor related miscellaneous components.

SEE FULL EQUIPMENT LIST INCLUDING QUANTITIES
ON THE FOLLOWING PAGES

OEM Summary for Items included in this Package

- **SKF**
Pillow blocks, spherical roller bearings, adaptor sleeves, end covers, locator rings and seals
- **Trelleborg**
Noibra SAW 300 60° shock absorbers
- **ITECA SOCADEI**
DDR30 Under Speed Sensors
- **Schneider**
XCKMR54-D1H29 Limit Switches
- **Kiepe Elektrik**
VG133/6 Misalignment Switches
- **VEGA**
VEGA VIB 61 Vibrating Level Switch

I.D.	
YOM	2013
Location	Indoor Warehouse Dunkirk, France
Condition	NEVER USED
Packaging	Original Packaging



YOU MINE. WE SELL.

+1 (530) 534-7965
info@amking.com

PILLOW BLOCKS, BEARINGS, SHOCK ABSORBERS AND SENSORS PACKAGE

SKF EQUIPMENT LIST

SEE APPENDIX "A" FOR SKF DATA SHEETS

SKF EQUIPMENT ACCORDING TO ORIGINAL PACKING LIST #PL3087

TAG No.	QTY	DESCRIPTION	TAG No.	QTY	DESCRIPTION
A20007-00-183	10	Adaptator sleeve - H 3036 / H3036	A2007-00-189	2	Pillow block - SNL 528
A20007-00-187	8	Adaptator sleeve - H 311 / H311	A2007-00-189	4	Pillow block - SNL 528
A20007-00-190	12	Adaptator sleeve - H 3128 / H3128	A2007-00-189	6	Pillow block - SNL 528
A20007-00-193	8	Adaptator sleeve - H 3185 / H315	A2007-00-191	30	Pillow block - SNL 528
A20007-00-198	4	Adaptator sleeve - H 322 / H322	A2007-00-191	37	Pillow block - SNL 528
A20007-00-199	4	Adaptator sleeve - OH 3048 H / H3048-HG	A2007-00-191	24	Pillow block - SNL 528
A2007-00-181	8	End cover - ASNH 511-609 / DKV100	A2007-00-191	42	Pillow Block
A2007-00-181	4	End cover - ASNH 515-612 / DKV130	A2007-00-191	8	Pillow Block
A2007-00-181	8	End cover - ASNH 518-615 / DKV160	A2007-00-191	38	Pillow Block
A2007-00-181	8	End cover - ASNH 522-619 / DKV200	A2007-00-191	38	adaptator sleeve
A2007-00-181	4	End cover - ASNH 528 / DKV250	A2007-00-192	2	end cover
A2007-00-181	4	End cover - ETS 48 / pas d'équivalence	A2007-00-192	2	end cover
A2007-00-181	4	Locating ring - FRB 12,5/130 / FRM130/12,5	A2007-00-195	6	end cover
A2007-00-182	28	Locating ring - FRB 12,5/160 / FRM160/12,5	A2007-00-195	2	end cover
A2007-00-182	10	Locating ring - FRB 12/360 / FRM360/14	A2007-00-195	6	end cover
A2007-00-182	2	Locating ring - FRB 13,5/200 / FRM200/13,5	A2007-00-195	4	end cover
A2007-00-182	10	Locating ring - FRB 15/250 / FRM250/15	A2007-00-197	24	end cover
A2007-00-182	10	Locating ring - FRB 17/280 / FRM280/10	A2007-00-197	24	locating ring
A2007-00-182	10	Locating ring - FRB 9,5/100 / FRM100/9,5	A2007-00-197	30	locating ring
A2007-00-183	42	Seal - TSN 511 G / DH511	A2007-00-197	24	locating ring
A2007-00-183	10	Seal - TSN 515 G / DH515	A2007-00-197	24	plummer
A2007-00-183	38	Seal - TSN 518 S / DH518	A2007-00-197	14	seal
A2007-00-183	50	Seal - TSN 522 G / DH522	A2007-00-199	19	seal
A2007-00-183	46	Spherical roller bearing - 22211 EK / 22211-E1-K	A2007-00-199	27	seal
A2007-00-184	2	Adaptator sleeve - H 3036 / H3036	A2007-00-201	8	seal
A2007-00-184	2	Adaptator sleeve - H 3128 / H3128	A2007-00-202	2	seal
A2007-00-184	2	Adaptator sleeve - H 318 / H318	A2007-00-203	14	seal
A2007-00-184b	2	Adaptator sleeve - H 322 / H322	A2007-00-203	14	seal
A2007-00-184b	2	Adaptator sleeve - OH 3044 H / H3044X-HG	A2007-00-203	14	seal
A2007-00-184b	2	Locating ring - FRB 15/250 / FRM250/15	A2007-00-203	14	seal
A2007-00-185	4	Pillow block - SNL 511-609 / SNV100-F-L	A2007-00-203	14	spherical roller bearing
A2007-00-185	4	Pillow block - SNL 515-612 / SNV130-F-L	A2007-00-203	14	spherical roller bearing
A2007-00-186	10	Pillow block - SNL 518-615 / SNV160-F-L	A2007-00-205	16	spherical roller bearing
A2007-00-186	10	Pillow block - SNL 522-619 / SNV200-F-L	A2007-00-205	16	spherical roller bearing
A2007-00-186	10	Seal - TSN 528 G / DH528	A2007-00-205	32	spherical roller bearing
A2007-00-186	10	Spherical roller bearing - 22215 EK / 22215-E1-K	A2007-00-205	16	spherical roller bearing
A2007-00-188	2	Spherical roller bearing - 22222 EK / 22222-E1-K	A2007-00-205	16	spherical roller bearing
A2007-00-188	2	Spherical r bearing - 22228 CCK/W33 / 22228-E1-K	A2007-00-205	16	Pillow Block
A2007-00-189	8	Spherical r bearing - 23044 CCK/W33 / 23044-E1-K	A2007-00-206	24	Pillow Block
A2007-00-189	4	Spherical r bearing - 23048 CCK/W33 / 23048-E1-K	A2007-00-206	4	Pillow Block

PILLOW BLOCKS, BEARINGS, SHOCK ABSORBERS AND SENSORS PACKAGE

SENSORS AND SHOCK ABSORBERS EQUIPMENT LIST

SENSORS AND SHOCK ABSORBERS LIST ACCORDING TO ORIGINAL PACKING LIST #PL3087

QTY	MANUFACTURER	MODEL	DESCRIPTION	EQUIP. DATA SHEETS
15	ITECA SOCADEI	DDR-30	Conveyor Belt Speed Sensor and Alarm	APPENDIX "B"
59	SCHNEIDER	XCKMR54-D1H29	Limit Switches	APPENDIX "C"
23	KIEPE ELEKTRIK	VG133/6	Misalignment Sensor and Alarm	APPENDIX "D"
13	VEGA	VEGAVIB 61	Vibratory Level Sensor and Alarm	APPENDIX "E"
60	TRELLEBORG	NOVIBRA SAW 300 60°	Shock Absorbers	APPENDIX "F"



YOU MINE. WE SELL.

+1 (530) 534-7965
info@amking.com

Pre-Owned Mining, Processing & Construction Equipment Since 1979

APPENDIX A

SKF PILLOW BLOCKS, BEARINGS, ETC

DATA SHEETS



YOU MINE. WE SELL.

+1 (530) 534-7965
info@amking.com



22211 EK

Popular item
SKF Explorer

Spherical roller bearings

Bearing data

[Tolerances,](#)

Normal, P6, P5, tapered bore 1:12,
tapered bore 1:30,

[Radial internal clearance,](#)

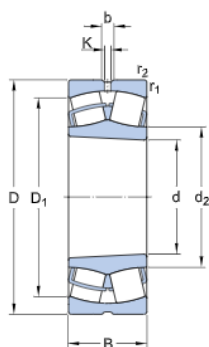
cylindrical bore, tapered bore

Bearing interfaces

[Seat tolerances for standard conditions,](#)

[Tolerances and resultant fit](#)

Technical specification

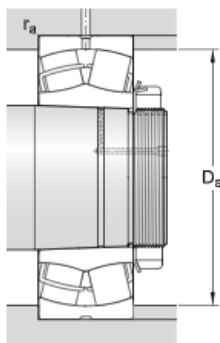


DIMENSIONS

d	55 mm
D	100 mm
B	25 mm
d ₂	≈ 65.3 mm
D ₁	≈ 88 mm
b	6 mm
K	3 mm
r _{1,2}	min. 1.5 mm
Tapered bore, taper 1:12	

ABUTMENT DIMENSIONS

D _a	max. 91 mm
r _a	max. 1.5 mm



CALCULATION DATA

Basic dynamic load rating	C	129 kN
Basic static load rating	C ₀	127 kN
Fatigue load limit	P _u	13.7 kN
Reference speed		6300 r/min
Limiting speed		8500 r/min
Calculation factor	e	0.24
Calculation factor	Y ₁	2.8
Calculation factor	Y ₂	4.2
Calculation factor	Y ₀	2.8

MASS

Mass bearing	0.81 kg
--------------	---------

MOUNTING INFORMATION

Recommended lock nut tightening angle	α	115 °
---------------------------------------	---	-------



22215 EK

Popular item
SKF Explorer

Spherical roller bearings

Bearing data

[Tolerances,](#)

Normal, P6, P5, tapered bore 1:12,
tapered bore 1:30,

[Radial internal clearance,](#)

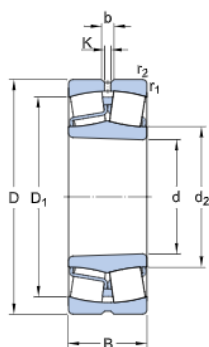
cylindrical bore, tapered bore

Bearing interfaces

[Seat tolerances for standard conditions,](#)

[Tolerances and resultant fit](#)

Technical specification

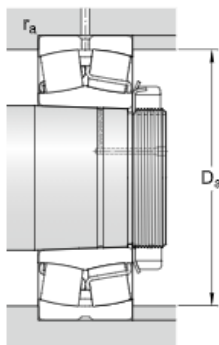


DIMENSIONS

d	75 mm
D	130 mm
B	31 mm
d ₂	≈ 87.8 mm
D ₁	≈ 115 mm
b	6 mm
K	3 mm
r _{1,2}	min. 1.5 mm
Tapered bore, taper 1:12	

ABUTMENT DIMENSIONS

D _a	max. 121 mm
r _a	max. 1.5 mm



CALCULATION DATA

Basic dynamic load rating	C	217 kN
Basic static load rating	C ₀	240 kN
Fatigue load limit	P _u	26.5 kN
Reference speed		4800 r/min
Limiting speed		6300 r/min
Calculation factor	e	0.22
Calculation factor	Y ₁	3
Calculation factor	Y ₂	4.6
Calculation factor	Y ₀	2.8

MASS

Mass bearing	1.65 kg
--------------	---------

MOUNTING INFORMATION

Recommended lock nut tightening angle	α	130 °
---------------------------------------	---	-------



22222 EK

Popular item
SKF Explorer

Spherical roller bearings

Bearing data

[Tolerances,](#)

Normal, P6, P5, tapered bore 1:12,
tapered bore 1:30,

[Radial internal clearance,](#)

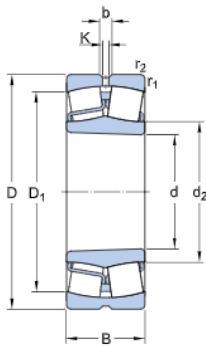
cylindrical bore, tapered bore

Bearing interfaces

[Seat tolerances for standard conditions,](#)

[Tolerances and resultant fit](#)

Technical specification

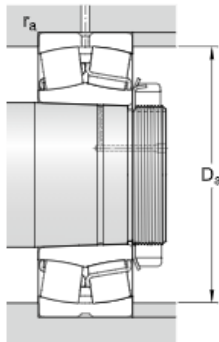


DIMENSIONS

d	110 mm
D	200 mm
B	53 mm
d ₂	≈ 130 mm
D ₁	≈ 178 mm
b	8.3 mm
K	4.5 mm
r _{1,2}	min. 2.1 mm
Tapered bore, taper 1:12	

ABUTMENT DIMENSIONS

D _a	max. 188 mm
r _a	max. 2 mm



CALCULATION DATA

Basic dynamic load rating	C	572 kN
Basic static load rating	C ₀	640 kN
Fatigue load limit	P _u	63 kN
Reference speed		3000 r/min
Limiting speed		4000 r/min
Calculation factor	e	0.25
Calculation factor	Y ₁	2.7
Calculation factor	Y ₂	4
Calculation factor	Y ₀	2.5

MASS

Mass bearing	6.9 kg
--------------	--------



22228 CCK/W33

Popular item
SKF Explorer

Spherical roller bearings

Bearing data

[Tolerances,](#)

Normal, P6, P5, tapered bore 1:12,
tapered bore 1:30,

[Radial internal clearance,](#)

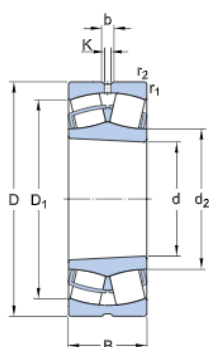
cylindrical bore, tapered bore

Bearing interfaces

[Seat tolerances for standard conditions,](#)

[Tolerances and resultant fit](#)

Technical specification

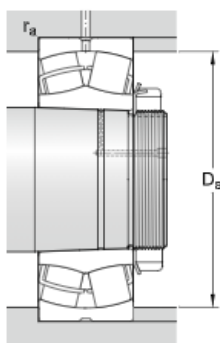


DIMENSIONS

d	140 mm
D	250 mm
B	68 mm
d ₂	≈ 166 mm
D ₁	≈ 216 mm
b	11.1 mm
K	6 mm
r _{1,2}	min. 3 mm
Tapered bore, taper 1:12	

ABUTMENT DIMENSIONS

D _a	max. 236 mm
r _a	max. 2.5 mm



CALCULATION DATA

Basic dynamic load rating	C	743 kN
Basic static load rating	C ₀	900 kN
Fatigue load limit	P _u	86.5 kN
Reference speed		2400 r/min
Limiting speed		3200 r/min
Calculation factor	e	0.26
Calculation factor	Y ₁	2.6
Calculation factor	Y ₂	3.9
Calculation factor	Y ₀	2.5

MASS

Mass bearing	14 kg
--------------	-------



23044 CCK/W33

Popular item
SKF Explorer

Spherical roller bearings

Bearing data

[Tolerances,](#)

Normal, P6, P5, tapered bore 1:12,
tapered bore 1:30,

[Radial internal clearance,](#)

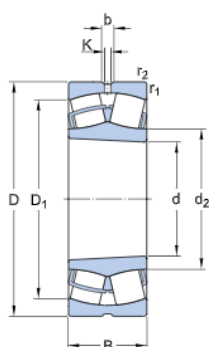
cylindrical bore, tapered bore

Bearing interfaces

[Seat tolerances for standard conditions,](#)

[Tolerances and resultant fit](#)

Technical specification

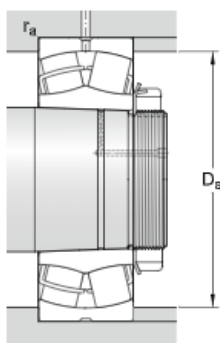


DIMENSIONS

d	220 mm
D	340 mm
B	90 mm
d ₂	≈ 250 mm
D ₁	≈ 306 mm
b	13.9 mm
K	7.5 mm
r _{1,2}	min. 3 mm
Tapered bore, taper 1:12	

ABUTMENT DIMENSIONS

D _a	max. 327 mm
r _a	max. 2.5 mm



CALCULATION DATA

Basic dynamic load rating	C	1261 kN
Basic static load rating	C ₀	1860 kN
Fatigue load limit	P _u	163 kN
Reference speed		1600 r/min
Limiting speed		2000 r/min
Calculation factor	e	0.24
Calculation factor	Y ₁	2.8
Calculation factor	Y ₂	4.2
Calculation factor	Y ₀	2.8

MASS

Mass bearing	28.5 kg
--------------	---------



23048 CCK/W33

Popular item
SKF Explorer

Spherical roller bearings

Bearing data

[Tolerances,](#)

Normal, P6, P5, tapered bore 1:12,
tapered bore 1:30,

[Radial internal clearance,](#)

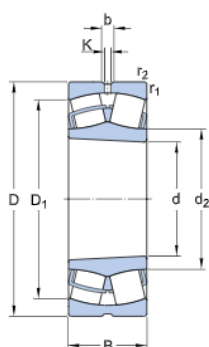
cylindrical bore, tapered bore

Bearing interfaces

[Seat tolerances for standard conditions,](#)

[Tolerances and resultant fit](#)

Technical specification

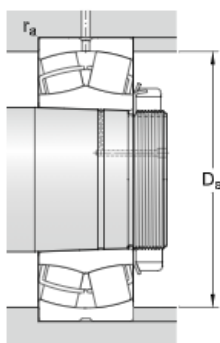


DIMENSIONS

d	240 mm
D	360 mm
B	92 mm
d ₂	≈ 271 mm
D ₁	≈ 326 mm
b	13.9 mm
K	7.5 mm
r _{1,2}	min. 3 mm
Tapered bore, taper 1:12	

ABUTMENT DIMENSIONS

D _a	max. 347 mm
r _a	max. 2.5 mm

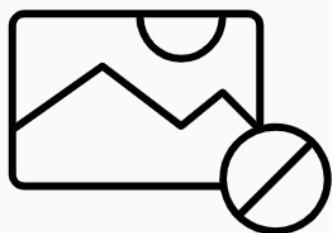


CALCULATION DATA

Basic dynamic load rating	C	1340 kN
Basic static load rating	C ₀	2080 kN
Fatigue load limit	P _u	176 kN
Reference speed		1500 r/min
Limiting speed		1900 r/min
Calculation factor	e	0.23
Calculation factor	Y ₁	2.9
Calculation factor	Y ₂	4.4
Calculation factor	Y ₀	2.8

MASS

Mass bearing	31.5 kg
--------------	---------



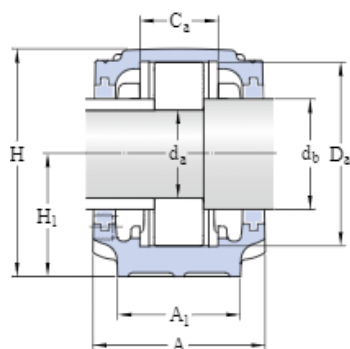
SNL 511-609 + 2211

SE and SNL plummer block housings for bearings with a cylindrical bore, with standard seals

Technical specification

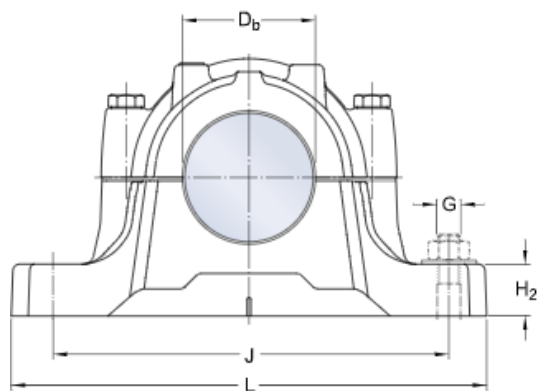
APPROPRIATE PRODUCTS

Bearing (basic designation)	2211
Lock nut	KM 11
Lock washer	MB 11
Locating ring	2 x FRB 9.5/100



DIMENSIONS

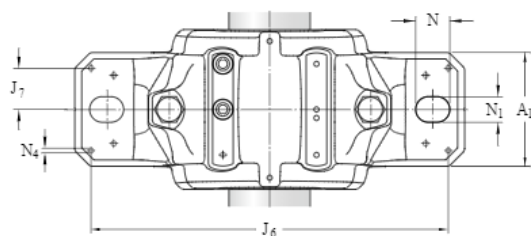
d_a	55 mm
d_b	65 mm
C_a	44 mm
D_a	100 mm
D_b	67 mm
A	95 mm
A_1	70 mm
H	127 mm
H_1	70 mm
H_2	28 mm
J	210 mm
L	255 mm
N	24 mm



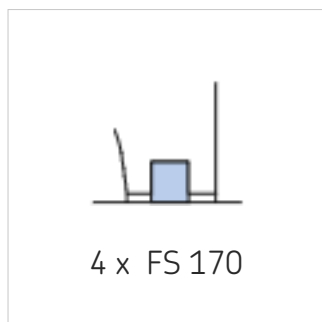
N_1 18 mm

DOWEL PINS

J_6	234 mm
J_7	24.5 mm
N_4	max. 8 mm

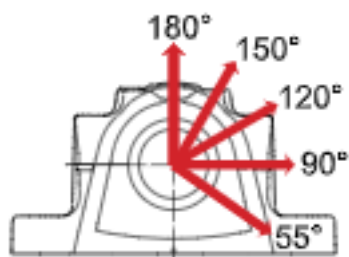


APPROPRIATE SEALS AND END COVER

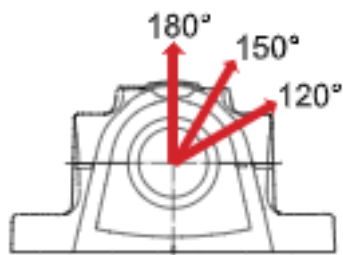


BREAKING LOADS, HOUSING

P_{0°	190 kN
P_{55°	275 kN
P_{90°	170 kN



P_{120°	125 kN
P_{150°	115 kN
P_{180°	140 kN
P_a	90 kN



YIELD POINT, CAP BOLTS

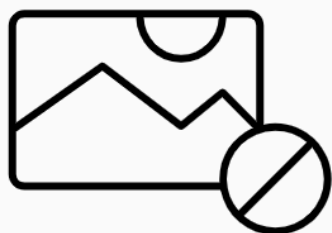
Q_{120°	220 kN
Q_{150°	125 kN
Q_{180°	110 kN

MASS

Mass housing	5.46 kg
--------------	---------

MOUNTING INFORMATION

Cap bolt, size	M 12x60
Cap bolt, rec. tightening torque	80 N·m
Appropriate attachment bolt, size	G 16 mm
Appropriate attachment bolt, rec. tightening torque	200 N·m
Initial grease fill, 20%	55 g
Initial grease fill, 40%	90 g



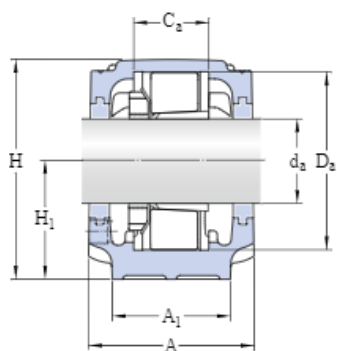
SNL 515-612 + 22215 K + H 315

SE and SNL plummer block housings for bearings on an adapter sleeve, with standard seals

Technical specification

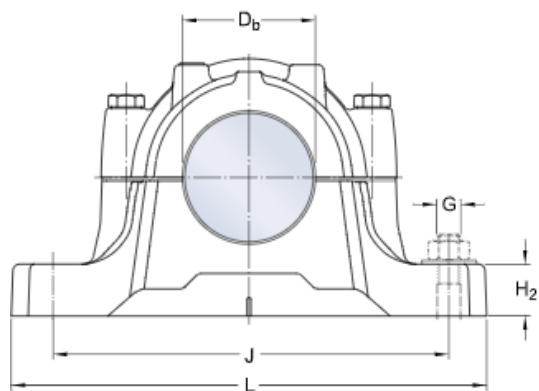
APPROPRIATE PRODUCTS

Bearing (basic designation)	22215 K
Adapter sleeve	H 315
Locating ring	2 x FRB 12.5/130



DIMENSIONS

d_a	65 mm
C_a	56 mm
D_a	130 mm
D_b	87 mm
A	115 mm
A_1	80 mm
H	155 mm
H_1	80 mm
H_2	30 mm
J	230 mm
L	280 mm
N	24 mm
N_1	18 mm

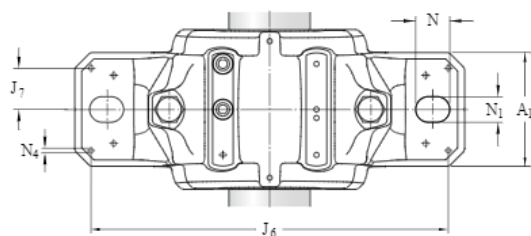


DOWEL PINS

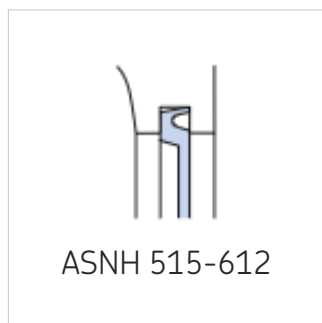
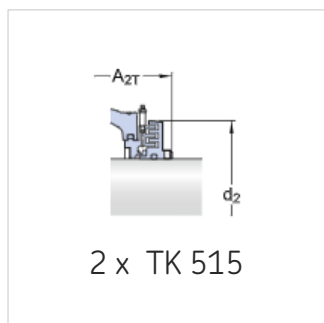
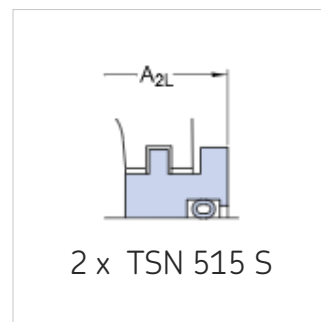
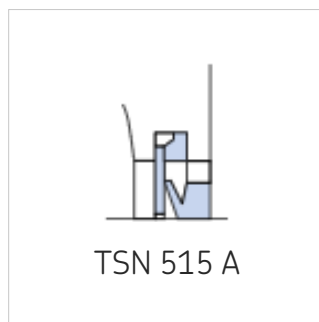
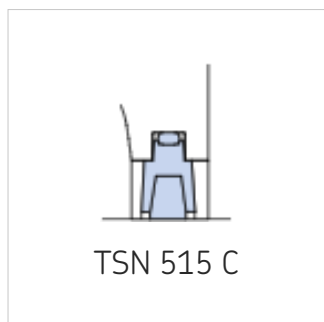
J_6	257 mm
J_7	29 mm
N_4	max. 8 mm

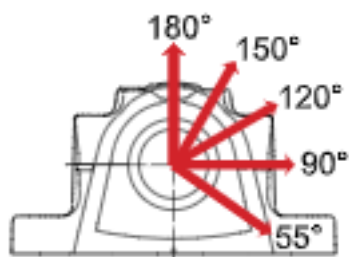
SEAL DIMENSIONS

A_{2L}	127 mm
A_{2T}	177 mm
d_2	138 mm



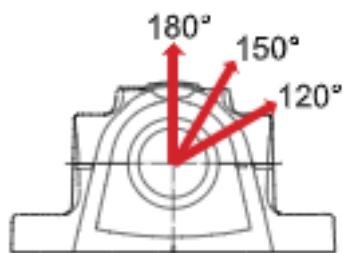
APPROPRIATE SEALS AND END COVER





BREAKING LOADS, HOUSING

P_{0°	290 kN
P_{55°	410 kN
P_{90°	250 kN
P_{120°	185 kN
P_{150°	160 kN
P_{180°	205 kN
P_a	135 kN



YIELD POINT, CAP BOLTS

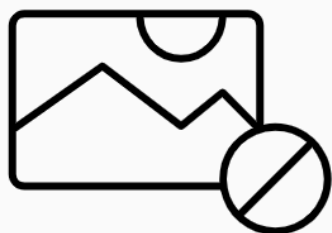
Q_{120°	220 kN
Q_{150°	125 kN
Q_{180°	110 kN

MASS

Mass housing	8.57 kg
--------------	---------

MOUNTING INFORMATION

Cap bolt, size	M 12x65
Cap bolt, rec. tightening torque	80 N·m
Appropriate attachment bolt, size	G 16 mm
Appropriate attachment bolt, rec. tightening torque	200 N·m
Initial grease fill, 20%	125 g
Initial grease fill, 40%	210 g



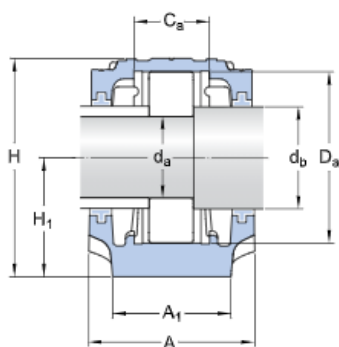
SNL 518-615 + 2218

SE and SNL plummer block housings for bearings with a cylindrical bore, with standard seals

Technical specification

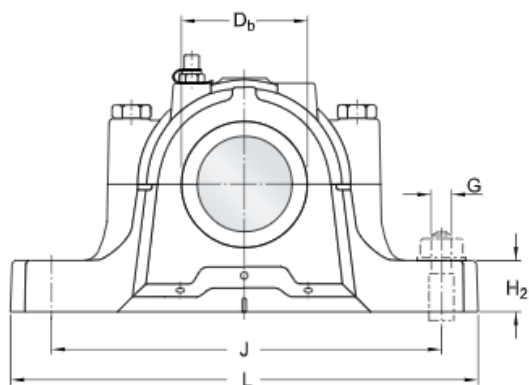
APPROPRIATE PRODUCTS

Bearing (basic designation)	2218
Lock nut	KM 18
Lock washer	MB 18
Locating ring	2 x FRB 12.5/160



DIMENSIONS

d_a	90 mm
d_b	100 mm
C_a	65 mm
D_a	160 mm
D_b	102.5 mm
A	140 mm
A_1	100 mm
H	194 mm
H_1	100 mm
H_2	35 mm
J	290 mm
L	345 mm
N	28 mm



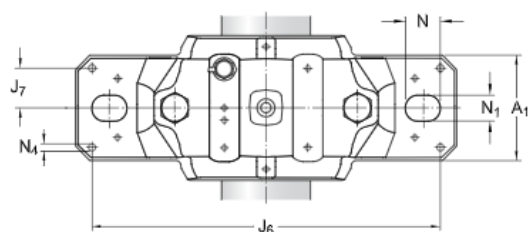
N_1 22 mm

DOWEL PINS

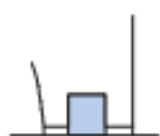
J_6 317 mm

J_7 35 mm

N_4 max. 8 mm



APPROPRIATE SEALS AND END COVER



4 x FS 170



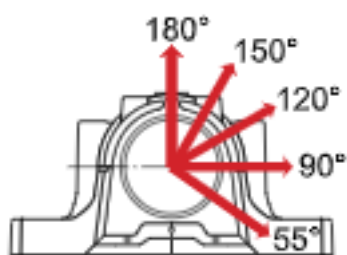
ASNH 518-615

BREAKING LOADS, HOUSING

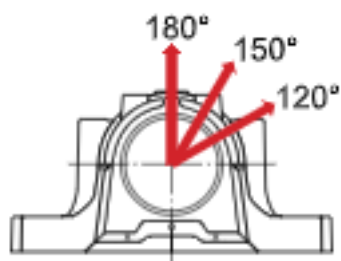
P_{0° 430 kN

P_{55° 550 kN

P_{90° 340 kN



P_{120°	250 kN
P_{150°	215 kN
P_{180°	275 kN
P_a	180 kN



YIELD POINT, CAP BOLTS

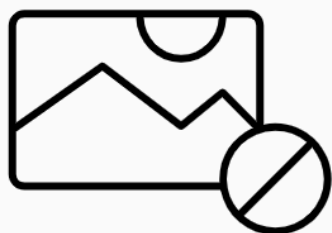
Q_{120°	400 kN
Q_{150°	230 kN
Q_{180°	200 kN

MASS

Mass housing	12.5 kg
--------------	---------

MOUNTING INFORMATION

Cap bolt, size	M 16x90
Cap bolt, rec. tightening torque	150 N·m
Appropriate attachment bolt, size	G 20 mm
Appropriate attachment bolt, rec. tightening torque	385 N·m
Initial grease fill, 20%	260 g
Initial grease fill, 40%	430 g



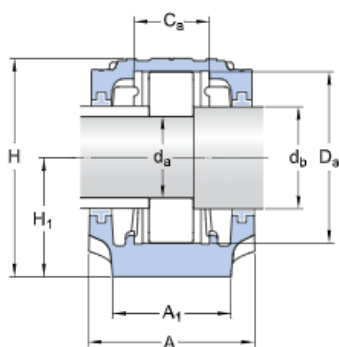
SNL 522-619 + 1222

SE and SNL plummer block housings for bearings with a cylindrical bore, with standard seals

Technical specification

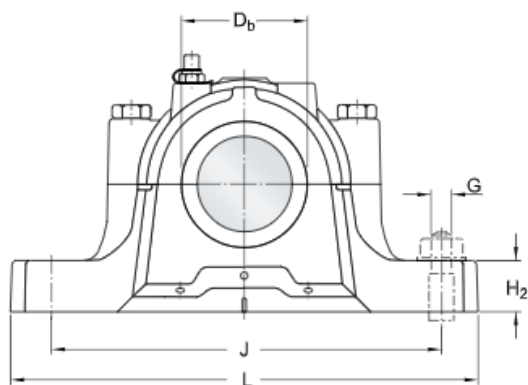
APPROPRIATE PRODUCTS

Bearing (basic designation)	1222
Lock nut	KM 22
Lock washer	MB 22
Locating ring	2 x FRB 21/200



DIMENSIONS

d_a	110 mm
d_b	125 mm
C_a	80 mm
D_a	200 mm
D_b	147.5 mm
A	175 mm
A_1	120 mm
H	242 mm
H_1	125 mm
H_2	45 mm
J	350 mm
L	410 mm
N	32 mm

 N_1

26 mm

DOWEL PINS

 J_6

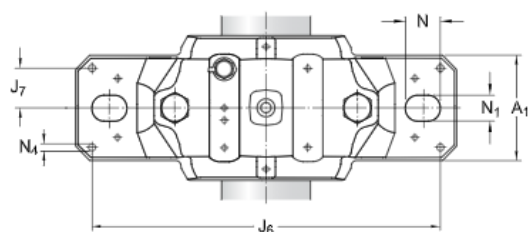
378 mm

 J_7

44 mm

 N_4

max. 8 mm



SEAL DIMENSIONS

 A_{2L}

191 mm

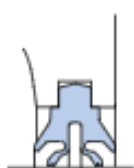
 A_{2T}

263 mm

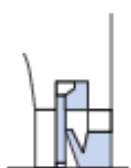
 d_2

224 mm

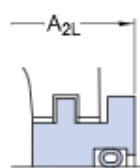
APPROPRIATE SEALS AND END COVER



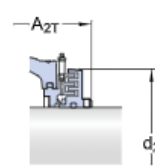
TSN 222 L



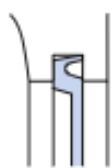
TSN 222 A



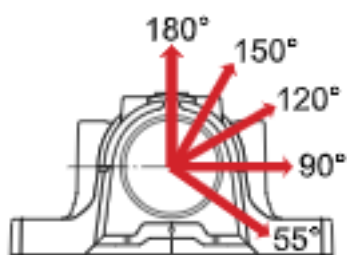
2 x TSN 222 S



2 x TK 222

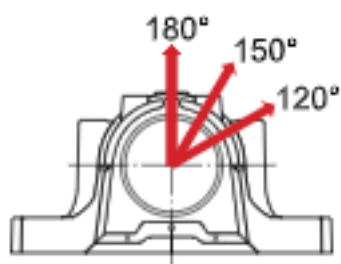


ASNH 522-619



BREAKING LOADS, HOUSING

P_{0°	600 kN
P_{55°	680 kN
P_{90°	410 kN
P_{120°	310 kN
P_{150°	275 kN
P_{180°	340 kN
P_a	220 kN



YIELD POINT, CAP BOLTS

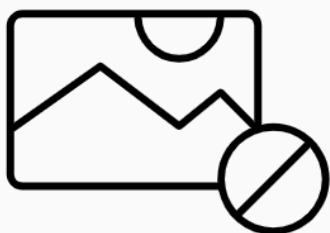
Q_{120°	620 kN
Q_{150°	360 kN
Q_{180°	310 kN

MASS

Mass housing	22 kg
--------------	-------

MOUNTING INFORMATION

Cap bolt, size	M 20x100
Cap bolt, rec. tightening torque	200 N·m
Appropriate attachment bolt, size	G 24 mm
Appropriate attachment bolt, rec. tightening torque	665 N·m
Initial grease fill, 20%	530 g
Initial grease fill, 40%	850 g



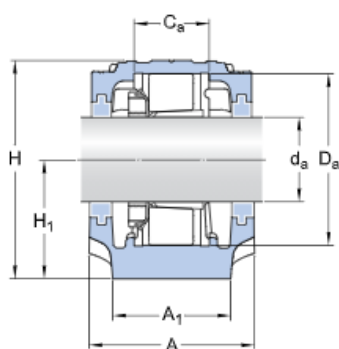
SNL 528 + 23228 K + HE 2328

SE and SNL plummer block housings for bearings on an adapter sleeve, with standard seals

Technical specification

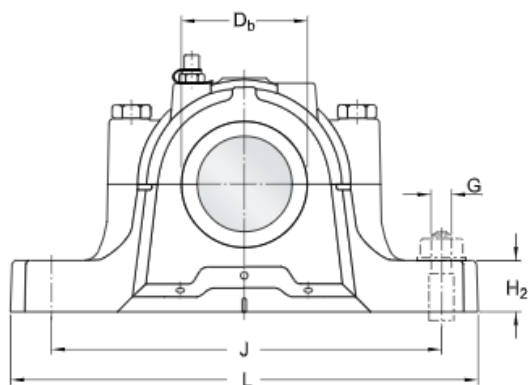
APPROPRIATE PRODUCTS

Bearing (basic designation)	23228 K
Adapter sleeve	HE 2328
Locating ring	2 x FRB 5/250



DIMENSIONS

d_a	127 mm
C_a	98 mm
D_a	250 mm
D_b	177.5 mm
A	205 mm
A_1	150 mm
H	302 mm
H_1	150 mm
H_2	50 mm
J	420 mm
L	500 mm
N	42 mm
N_1	35 mm

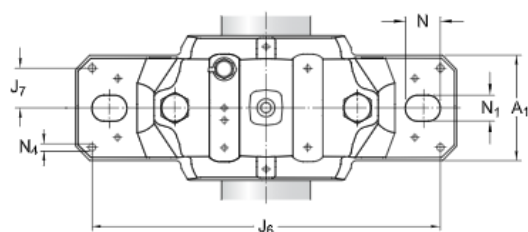


DOWEL PINS

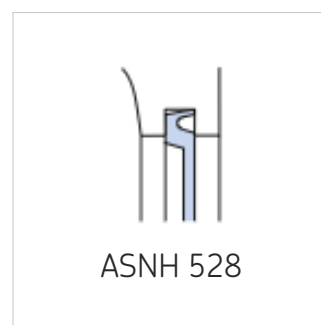
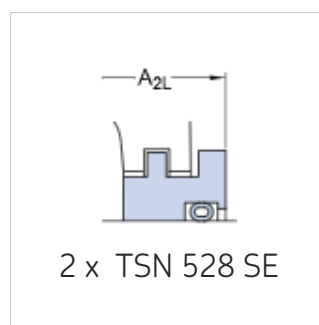
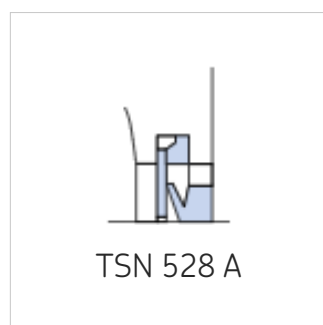
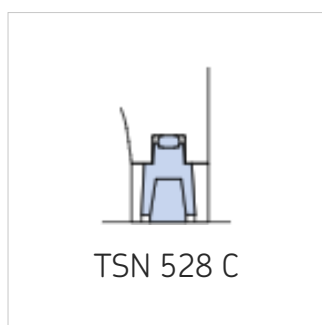
J_6	458 mm
J_7	54 mm
N_4	max. 12 mm

SEAL DIMENSIONS

A_{2L}	223 mm
----------	--------

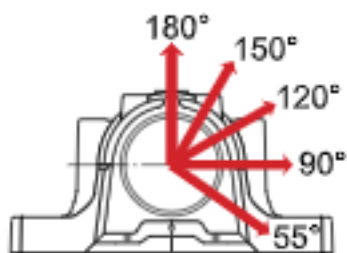


APPROPRIATE SEALS AND END COVER

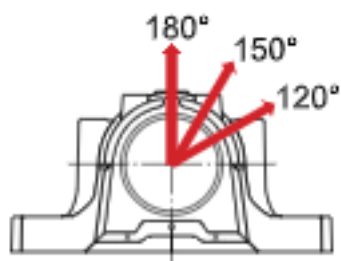


BREAKING LOADS, HOUSING

P_{0°	1000 kN
P_{55°	1050 kN
P_{90°	630 kN



P_{120°	470 kN
P_{150°	430 kN
P_{180°	530 kN
P_a	345 kN



YIELD POINT, CAP BOLTS

Q_{120°	900 kN
Q_{150°	520 kN
Q_{180°	450 kN

MASS

Mass housing	40 kg
--------------	-------

MOUNTING INFORMATION

Cap bolt, size	M 24x130
Cap bolt, rec. tightening torque	350 N·m
Appropriate attachment bolt, size	G 30 mm
Appropriate attachment bolt, rec. tightening torque	1310 N·m
Initial grease fill, 20%	900 g
Initial grease fill, 40%	1400 g
Eye bolt, size	M 12

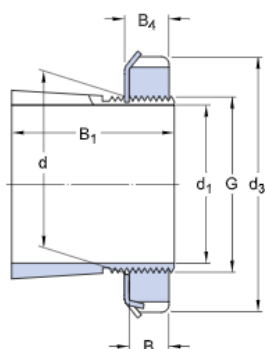


H 311

Popular item

Adapter sleeves for metric shafts

Technical specification



DIMENSIONS

d_1	50 mm
d	55 mm
d_3	75 mm
B_1	45 mm
B	11 mm
B_4	12.5 mm
G	M 55x2

MASS

Mass adapter sleeve assembly	0.37 kg
------------------------------	---------

INCLUDED PRODUCTS

Lock nut	KM 11
Locking device	MB 11

ASSOCIATED PRODUCTS

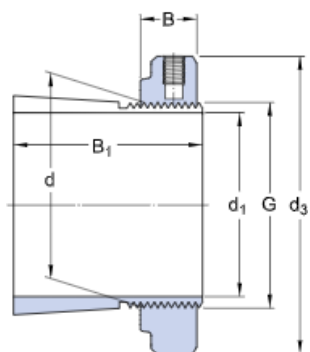


H 318 E

Popular item

Adapter sleeves for metric shafts

Technical specification



DIMENSIONS

d ₁	80 mm
d	90 mm
d ₃	120 mm
B ₁	65 mm
B	19 mm
G	M90x2

MASS

Mass adapter sleeve assembly	1.42 kg
------------------------------	---------

INCLUDED PRODUCTS

Lock nut	KMFE 18
----------	---------

ASSOCIATED PRODUCTS

Hydraulic nut	HMV 18 E
---------------	----------

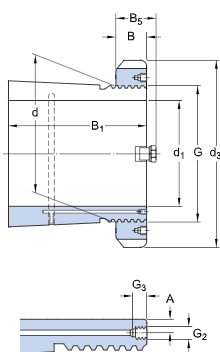


OH 3048 H

Popular item

Adapter sleeves for metric shafts

Technical specification



DIMENSIONS

d_1	220 mm
d	240 mm
d_3	290 mm
B_1	133 mm
B	34 mm
B_5	46 mm
G	Tr 240x4
G_2	M 6
G_3	9 mm
A	4.2 mm

MASS

Mass adapter sleeve assembly

12 kg

INCLUDED PRODUCTS

Lock nut

HM 3048

Locking device

MS 3052-48

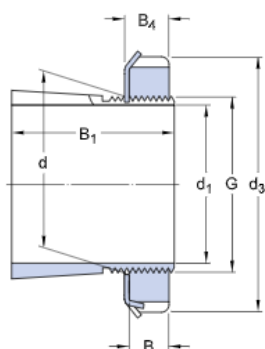


H 318

Popular item

Adapter sleeves for metric shafts

Technical specification



DIMENSIONS

d_1	80 mm
d	90 mm
d_3	120 mm
B_1	65 mm
B	16 mm
B_4	18 mm
G	M 90x2

MASS

Mass adapter sleeve assembly	1.43 kg
------------------------------	---------

INCLUDED PRODUCTS

Lock nut	KM 18
Locking device	MB 18

ASSOCIATED PRODUCTS

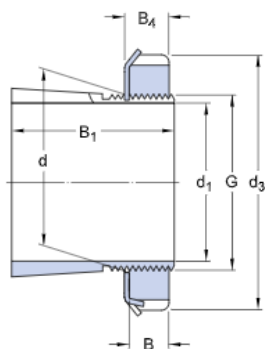


H 322

Popular item

Adapter sleeves for metric shafts

Technical specification



DIMENSIONS

d_1	100 mm
d	110 mm
d_3	145 mm
B_1	77 mm
B	19 mm
B_4	21 mm
G	M 110x2

MASS

Mass adapter sleeve assembly	2.26 kg
------------------------------	---------

INCLUDED PRODUCTS

Lock nut	KM 22
Locking device	MB 22

ASSOCIATED PRODUCTS

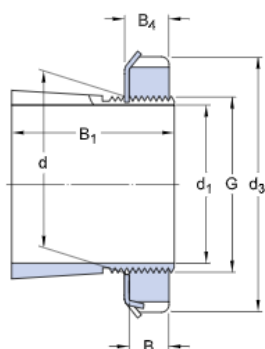


H 3036

Popular item

Adapter sleeves for metric shafts

Technical specification



DIMENSIONS

d_1	160 mm
d	180 mm
d_3	210 mm
B_1	109 mm
B	27 mm
B_4	29.5 mm
G	M 180x3

MASS

Mass adapter sleeve assembly	6.7 kg
------------------------------	--------

INCLUDED PRODUCTS

Lock nut	KML 36
Locking device	MBL 36

ASSOCIATED PRODUCTS

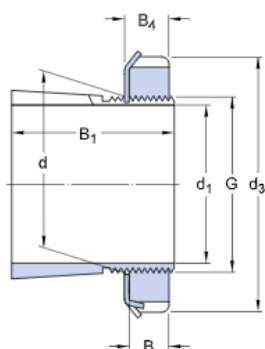


H 3128

Popular item

Adapter sleeves for metric shafts

Technical specification



DIMENSIONS

d_1	125 mm
d	140 mm
d_3	180 mm
B_1	97 mm
B	22 mm
B_4	24 mm
G	M 140x2

MASS

Mass adapter sleeve assembly	4.5 kg
------------------------------	--------

INCLUDED PRODUCTS

Lock nut	KM 28
Locking device	MB 28

ASSOCIATED PRODUCTS

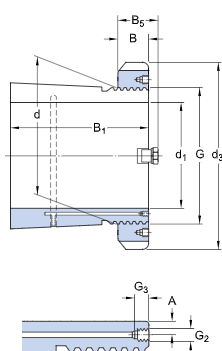


OH 3044 H

Popular item

Adapter sleeves for metric shafts

Technical specification



DIMENSIONS

d_1	200 mm
d	220 mm
d_3	260 mm
B_1	126 mm
B	30 mm
B_5	41 mm
G	Tr 220x4
G_2	M 6
G_3	9 mm
A	6.5 mm

MASS

Mass adapter sleeve assembly

9.9 kg

INCLUDED PRODUCTS

Lock nut

HM 3044

Locking device

MS 3044

APPENDIX B

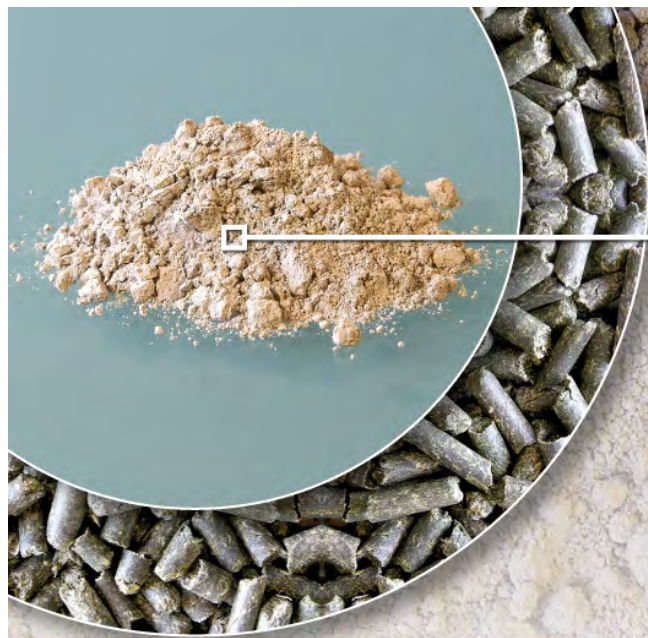
ITECA BELT SPEED SENSOR

DATA SHEETS

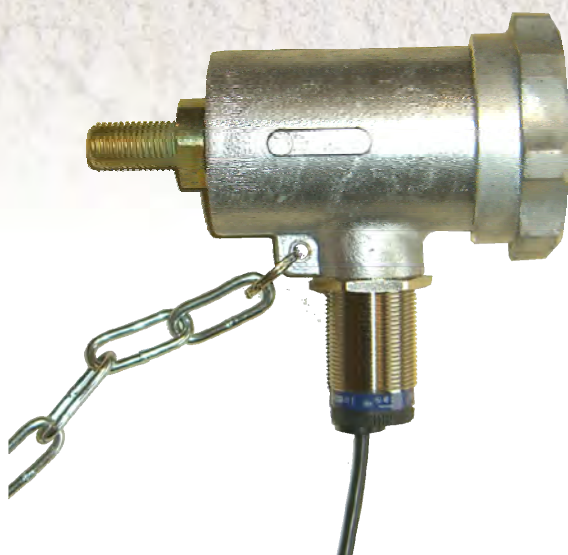


YOU MINE. WE SELL.

+1 (530) 534-7965
info@amking.com



ROTATION SENSOR



DDR

**UNDERSPEED OR OVERSPEED DETECTOR
FOR ANY ROTATING DEVICE (Conveyor Belt,
Bucket Elevator, Screw Conveyor, etc...)**

Complete dust proof solution

DESCRIPTION



The Rotation Sensor « DDR » from Iteca Socadei is a heavy duty and dustproof solution. It controls the rotation of any rotating device such as conveyor belt, screw conveyor, bucket elevator.

This solution is the best alternative to the existing solutions composed of a rotating steel target turning in front of a proximity switch. These solutions have several drawbacks: they can be dangerous for operators, proximity switches can be damaged and broken by the rotating steel target, dust can build up onto the proximity switch that becomes blind and gives consequently false information that stops the conveyor.

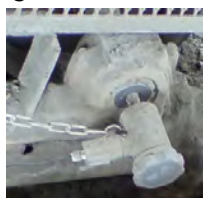
The Rotation Sensor « DDR » from Iteca Socadei is Human Safe, Dustproof and heavy duty.

The Rotation Sensor « DDR » is mounted on the shaft so that its speed can be controlled (or underneath the belt by using the option « BT »). The shaft of the Rotation Sensor where a spacer ring is mounted is driven by the machine shaft.. This spacer ring has one or several openings turning in front of a proximity switch. The whole system (shaft, spacer ring and proximity switch) is mounted inside a heavy duty dustproof casing. A chain protects proximity switch's cable during start-up of the conveyor.

Two versions available: DDR 12 for proximity switches Ø 12 and DDR 30 for proximity switches Ø 30.

An Atex version is available for zones 21 and 22 : **DDR ATEX**   II 2Dc T6

Two possible mountings:



Standard version directly
on the main shaft.



Option « BT » for mounting
underneath the conveyor

TECHNICAL DATA

The Rotation Sensor « DDR » is available in two versions:

DDR Ø 12:

Suitable for proximity switch with a 12 mm diameter that gives pulses. Information can be given to a PLC or to a module « ULSA » supplied as an option (see below).



DESCRIPTION	DATA
Body	Cast aluminium
Protection	IP 55
Mounting	M16 screw and M10 on request
Anti-torque arm	Flexible chain
Rotor assembly	By 2 ball bearings
Connection	1 stuff box CM8
Cable	2 m (standard)
Sensor	Proximity swith
Power supply	Standard: 12 – 48 Vcc Upon request: 24 – 240 Vac ou Vcc
Voltage variation	+ 10 to – 20 %
Operating temperature	-25°C to + 60°C
Max. speed of the shaft	500 rpm

Subject to changes without prior notice.

version : 09.02.2016

Tél.: +33 (0)4 42 97 77 00 / Fax : +33 (0)4 42 97 77 33 / www.iteca-socadei.com / info@iteca.fr

445, Rue Denis Papin - Lotissement du Tourillon - CS 30478 - 13592 AIX EN PROVENCE CEDEX 3 - FRANCE

ITECA
SOCADÉI

The module « ULSA » is proposed as an option for the « DDR 12 ». It converts pulses coming from the DDR into adjustable dry contacts for underspeed or overspeed detection.



DESCRIPTION	DATA
Power supply	110 – 240 Vac and 24-48 Vac \pm 10 % / 50 Hz – 60 Hz
Percentage duty cycle	100 %
Output	1 SPDT
Cut-off capacity	250 V / 8 A
Operating temperature	- 20° to + 60°C
Detection range	5 à 5 000 pulses/min. or 10 to 10 000 pulses/min/250 Hz
Casing protection	IP 40
Terminals	IP 20
Conformity to standards	DIN 46121

DDR Ø 30:

Suitable for proximity switch with a 30 mm diameter that gives an adjustable dry contact (or pulse for a special proximity switch). It is supplied with or without proximity switch.



DESCRIPTION	DATA
Body	Cast aluminium
Protection	IP 55
Mounting	M16 screw and M10 on request
Anti-torque arm	Flexible chain
Rotor assembly	By 2 ball bearings
Connection	1 stuff box CM8
Cable	2 m (standard)
Power supply	24 to 240 Vac / Vcc (2 wires)
Operating temperature	-25°C to + 75°C
Max. speed of the shaft	500 rpm

Type of proximity switch and number of openings are chosen according to the speed of the shaft. Speed ranges are as follow:

- from 1,5 to 6 rpm.
- from 6 to 150 rpm
- from 150 to 500 rpm

Proximity switch characteristics:

Power supply	24 to 240 Vac / Vcc (2 wires)
Protection	IP 67
Operating temperature	-25°C à + 70°C
Cable	2 x 0,5 mm ²

Subject to changes without prior notice.

version : 09.02.2016

MOUNTING UNDERNEATH THE CONVEYOR

The option « BT » makes possible installation of the Rotation Sensor « DDR » underneath the belt.

A wheel turns by contact with the belt, a strong spring keeps contact between the wheel and the belt.

This solutions has been used in severe conditions (mining industry, mineral industry, etc.)

This option is available for any version of the Rotation Sensor « DDR » from Iteca Socadei.



APPLICATIONS & REFERENCES

- Applications: conveyor belt, bucket elevator, screw conveyor, lump breakers, rotary valve, etc...
- Mineral Industry: cement, clinker, lime, plaster, calcium carbonate, fly ash, bentonite, sand, quarry, glass...
- Food industry: cereals, pet food, sugar, salt, flour, chocolate...
- Chemical industry: plastic...
- Environment Industry: fly ash, dry mud...
- Wood and paper industry

Subject to changes without prior notice.

version : 09.02.2016

APPENDIX C

SCHNEIDER LIMIT SWITCHES

DATA SHEETS



YOU MINE. WE SELL.

+1 (530) 534-7965
info@amking.com

XCKMR54D1H29

limit switch XCKMR - stay put crossed rods
lever 6mm - 2x(2 NC) - slow - M20



Main

Range of product	OsiSense XC
Series name	Special format
Product or component type	Limit switch
Product specific application	For hoisting and mechanical handling applications
Device short name	XCKMR
Body type	Fixed
Head type	Rotary head
Material	Metal
Body material	Zamak
Head material	Zamak
Fixing mode	By the body
Movement of operating head	Rotary
Type of operator	Stay put crossed rods lever metal (square rod 6 mm, L = 200 mm)
Type of approach	Lateral approach 2 directions
Cable entry	3 entries tapped for M20 x 1.5 cable gland, cable outer diameter: 7...13 mm
Number of poles	4
Contacts type and composition	2 x (2 NC)
Contacts operation	Slow-break, staggered

Complementary

Switch actuation	By any moving part
Electrical connection	Screw-clamp terminals, clamping capacity: 1 x 0.5...2 x 2.5 mm ²
Contacts insulation form	Zb
Number of steps	5 electrical positions
Contact block per direction (control circuit)	1 per direction
Positive opening	With
Positive opening minimum torque	0.75 N.m
Minimum torque for tripping	0.5 N.m
Minimum actuation speed	6 m/min
Maximum actuation speed	1.5 m/s actuation point on the rod between 65 and 95 mm
Maximum displacement angle	180 ° -180 °
Contact code designation	Q150, DC-13 (Ue = 125 V, Ie = 0.55 A) conforming to EN/IEC 60947-5-1 appendix A A300, AC-15 (Ue = 240 V, Ie = 3 A), Ithe = 10 A conforming to EN/IEC 60947-5-1 appendix A
[Ui] rated insulation voltage	300 V conforming to CSA C22.2 No 14 500 V degree of pollution 3 conforming to EN/IEC 60947-1 300 V conforming to UL 508
Resistance across terminals	<= 25 MOhm conforming to IEC 60255-7 category 3
[Uimp] rated impulse withstand voltage	6 kV conforming to EN/IEC 60947-1 6 kV conforming to IEC 60664
Short circuit protection	10 A by gG cartridge fuse

Mechanical durability	2000000 cycles
Width	200 mm
Height	118 mm
Depth	59 mm
Product weight	0.55 kg
Terminals description ISO n°1	(11-12)NC (21-22)NC

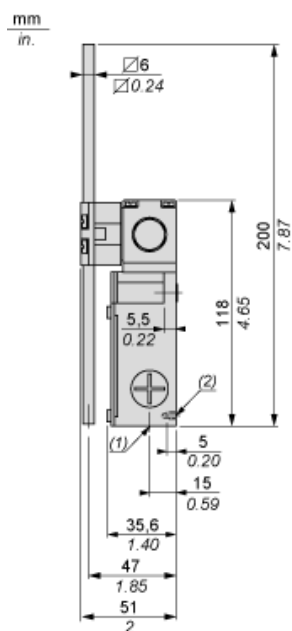
Environment

Shock resistance	50 gn conforming to EN/IEC 60068-2-27
Vibration resistance	25 gn (f = 10...500 Hz) conforming to EN/IEC 60068-2-6
IP degree of protection	IP66 conforming to EN/IEC 60529
IK degree of protection	IK07 conforming to EN 50102
Class of protection against electric shock	Class I conforming to IEC 60536
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...85 °C
Protective treatment	TC
Product certifications	CCC CE CSA UL
Standards	EN/IEC 60947-5-1 UL 508 CSA C22.2 No 14

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0936 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental
Product end of life instructions	Need no specific recycling operations

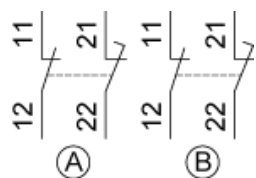
Dimensions



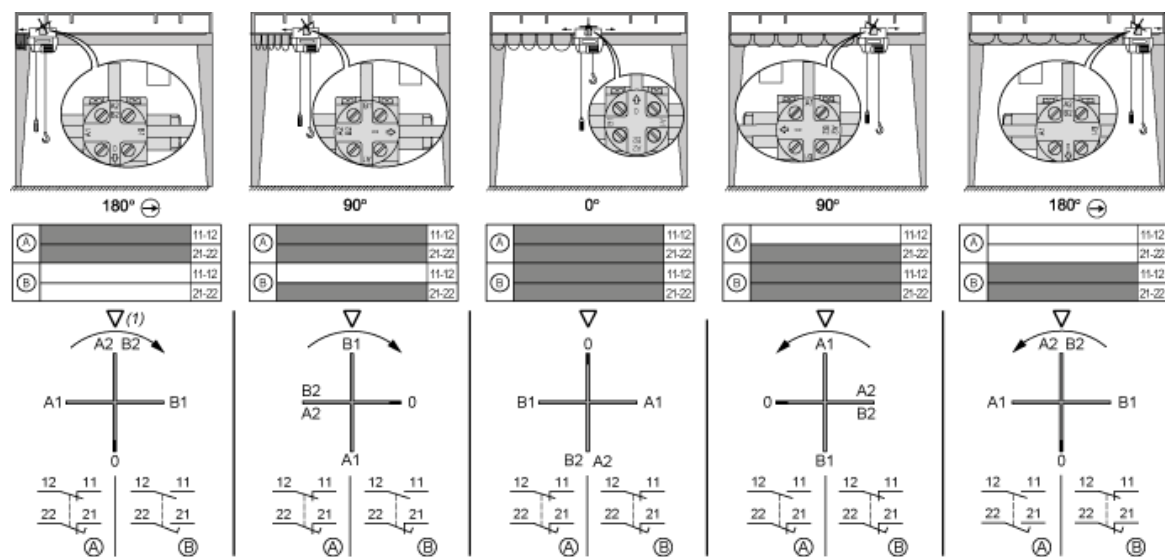
- (1) 3 tapped entries ISO M20x1.5
(2) 2 centring holes $\varnothing 3.9 \pm 0.2$, for cover fixing holes alignment.

Wiring Diagram

2 x 2-pole NC+NC Break Before Make, Slow Break (Non Interchangeable Contacts)



Functionnal Diagram



(1) Triangle symbol marked on top of head.

APPENDIX D

KIEPE MISALIGNMENT SENSORS

DATA SHEETS



YOU MINE. WE SELL.

+1 (530) 534-7965
info@amking.com

Conveyor Belt Misalignment Switch

VG



APPLICATION

Kiepe Belt Misalignment Switches are used in conveyor installations for monitoring the true running of conveyor belts. The switches, when mounted at the running edges of a conveyor belt, will be operated if the belt deviates from its designed running line by more than a permissible distance.

The switches will then stop the conveyor drive, avoiding spillage of material or damage to the plant. The Belt Misalignment Switches can be optionally supplied with a pre-alarm position for an alert signal at slight deviation and a final cut-out and lock.

PRODUCT DESCRIPTION

The switch enclosure consists of corrosion-resistant aluminium alloy. All external parts are either of stainless steel or have been especially plated. The actuating roller is of polyamide. All VG-types are fitted with snap acting switches. The actuating head is removable from the main switch body and may be re-fitted in any of four positions. This, together with re-positioning of the switch trip bar allows the actuating roller to operate in any of four directions giving greater mounting versatility. All this will insure extremely safe operation, permitting to use the switch for severe operation and in outdoor installations.

No maintenance will be required. For the Models VG.../5 and 6 the switching point has been set at the manufacturer's plant to approx. 12° from vertical and can be continuously readjusted in the field. The Model VG.../6 switch will latch as the admissible amount of out-of-line running is exceeded. It is unlatched locally by resetting the actuating roller. The VG 133/6 switch is equipped with two snap acting switches. An alert signal will be provided at approx. 12°, the final cut-out and latch will occur at 45°. For unlatching, the actuating roller is reset by hand.

SELECTION TABLE

Type Ref.	Pre-Alarm not included/included	Latching not included/included	No. of Contacts Switching Point at				Order number	Weight kg/each	
			15°		45°				
			NC	NO	NC	NO			
VG 03/5	X	X	1	1			92.038 143.501	0,75	
VG 033/5	X	X	2	2			92.038 143.511	0,75	
VG 03/6	X		X	1	1		92.038 143.601	0,75	
VG 033/6	X		X	2	2		92.038 143.611	0,75	
VG 133/6		X	X	1	1	1	1	92.038 143.615	0,75

Spares and Options

Actuating roller for type VG Ø 25 mm	94.037 860.001
Switch element for type VG	215.15.14.10.00
Ventilation duct	580.00.16.01.01

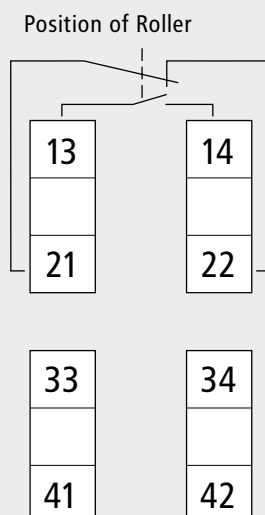
TECHNICAL DATA

Device complies with	EN 60947-5-1
Enclosure	Aluminium alloy GK-ALSi 12
Finish	2 - Component DD - tile enamel, yellow
Fastening	By means 2 oblong holes for M6 bolts
Cable Entry	3 x M20 x 1,5
Protection	IP 65 according to EN 60529
Rated Insulation Voltage U_i	AC 380 V / DC 440 V
Earthing	Within Enclosure M5
Admissible Ambient Temperatures ¹⁾	- 25 °C ... + 70 °C
Switching Elements	Snap acting Switches
Number of Contacts	1 NC + 1 NO or 2 NC + 2 NO
Conventional Thermal Current I_{th}	10 A
Breaking Capacity I_e/U_e	5 A / AC 250 V
Operation per Hour	1500
Connections	Screw clamp terminals for a wire gauge of 2,5 mm ²
Mechanical Life	3 x 10 ⁶ Switching Cycles
Type of Operation	Actuating Roller; with or without latch
Actuating Roller	Polyamid 25 mm diameter
Switching Point	At approx. 12° from vertical. With devices designed for pre-alarm, this alarm will be tripped at approx. 12° without latching action, whereas cut-out will occur at 45°, with the device then being latched
Excursion	90° max.
Mounting Position	vertical
Maintenance free Options	Ventilation duct to avoid condensation

¹⁾ Deviating ambient temperature upon request

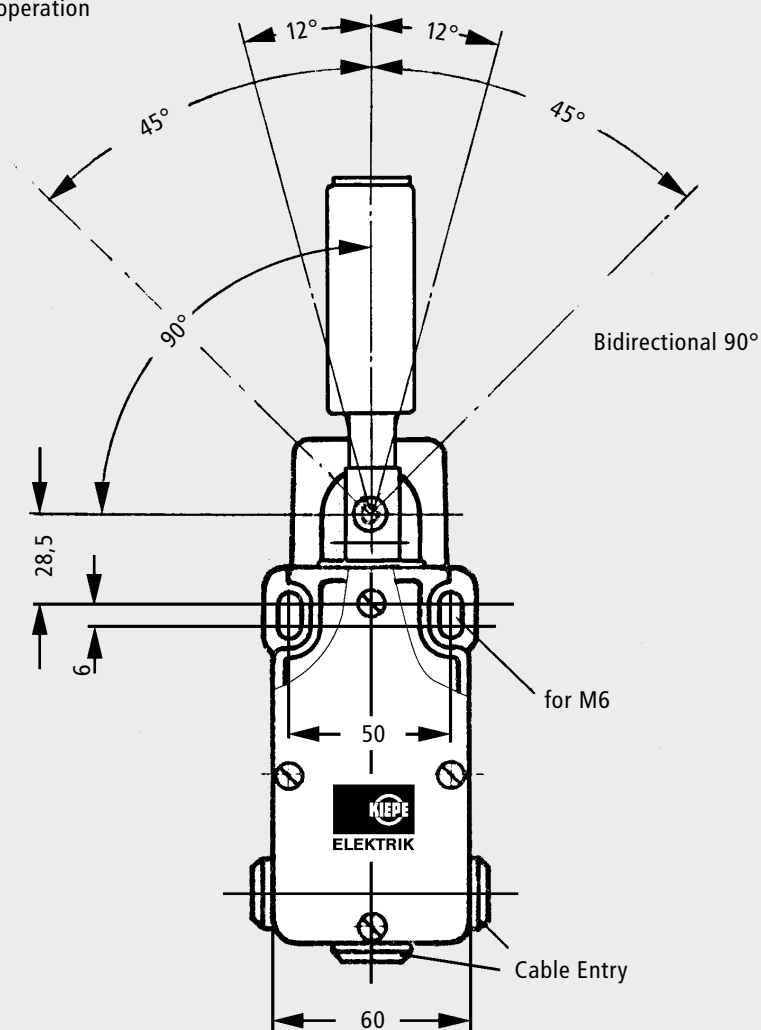
TECHNICAL DATA

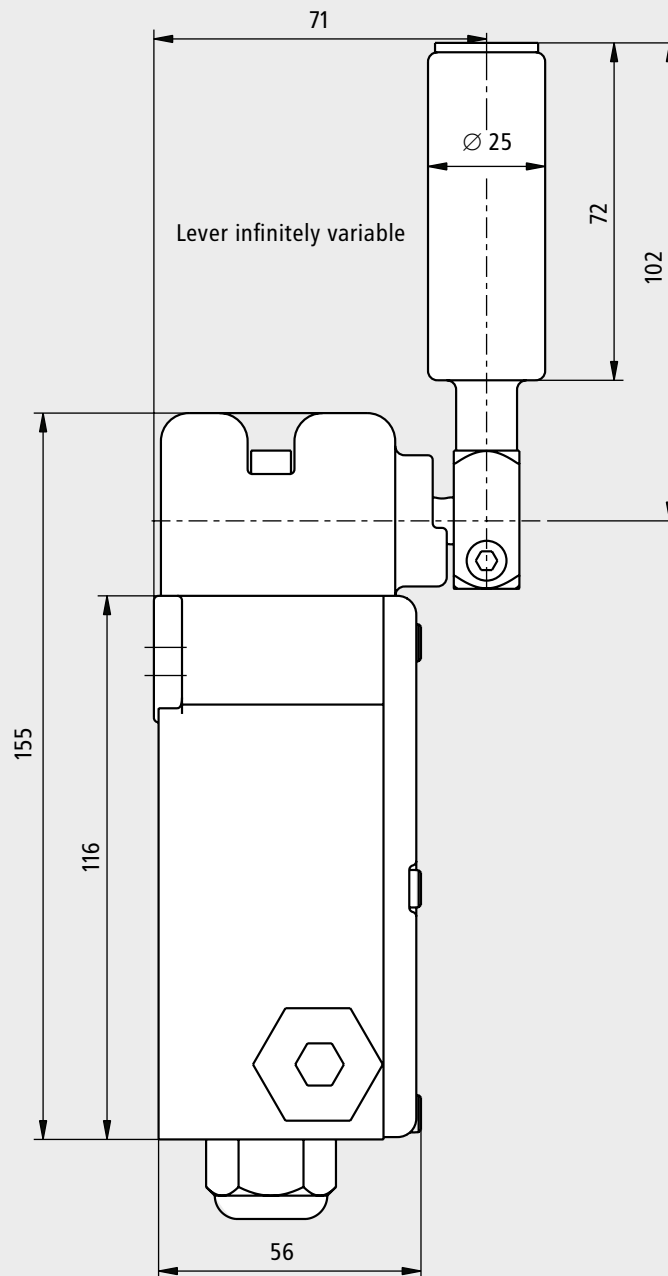
Terminal Markings (maximum configuration)



DIMENSIONS

maximum range of operation





Subject to change without notice.

APPENDIX E

VIBRATORY LEVEL SENSORS

DATA SHEETS



YOU MINE. WE SELL.

+1 (530) 534-7965
info@amking.com

VEGAVIB 61

Relay (DPDT)

Vibrating level switch for granulated bulk solids



Application area

VEGA VIB 61 is used as a level switch in granular and coarse-grained bulk solids. The VEGA VIB 61 detects reliably and accurately when the min. or max. level is reached. The smooth surface of the vibrating rod, without corners and edges, avoids jamming of the bulk solid and is easy to clean.

Your benefit

- Minimum time and cost expenditure due to simple setup without medium
- Reliable function due to product-independent switching point
- Low maintenance costs

Function

The vibrating rod of VEGA VIB 61 is energized by a piezo drive to vibrate at its resonance frequency. If the medium covers the vibrating rod, the amplitude is damped. The electronics detects this change and converts it into a switching command. A reliable function in granulated bulk solids is ensured by the ideal rod design.

Technical data

Process pressure	-1 ... +16 bar/-100 ... +1600 kPa (-14.5 ... +232 psig)
Process temperature	-50 ... +250 °C (-58 ... +482 °F)
Density	> 0.02 g/cm ³ (0.0007 lbs/in ³)
Ambient temperature on the housing	-40 ... +80 °C (-40 ... +176 °F)
Storage and transport temperature	-40 ... +80 °C (-40 ... +176 °F)
Hysteresis	approx. 2 mm (0.08 in) with vertical installation
Process fitting	Threads from G1, 1 NPT, flanges from DN 32, 1½", hygienic fittings
Operating voltage	20 ... 253 V AC, 50/60 Hz; 20 ... 72 V DC
Power consumption	1 ... 8 VA (AC), approximately 1.5 W (DC)
Switching delay	When being covered: 0.5 s, when being uncovered 1 s
SIL qualification	Optionally up to SIL2

Materials

The wetted parts of the instrument are made of stainless steel 316L. The supplied process seal is made of Klingsil C-4400. You will find a complete overview of the available materials and seals in the "configurator" on our homepage at www.vega.com/configurator.

Housing versions

The housings are available in plastic, stainless steel or Aluminium. They are available with protection ratings up to IP 67.

Electronics versions

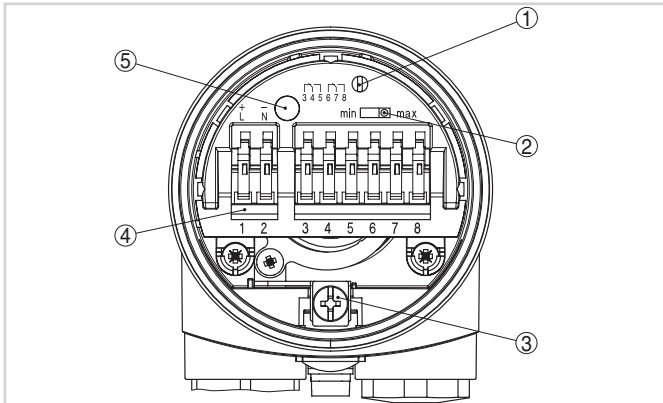
The instruments are available in different electronics versions. Apart from the versions with transistor output, contactless electronic switch and relay output, a two-wire version for connection to a signal conditioning instrument and a NAMUR version are also available.

Approvals

The instruments are suitable for use in hazardous areas and are approved, for example, according to ATEX, FM, CSA and IEC. You can find detailed information on the existing approvals in the "configurator" on our homepage at www.vega.com/configurator.

Operation

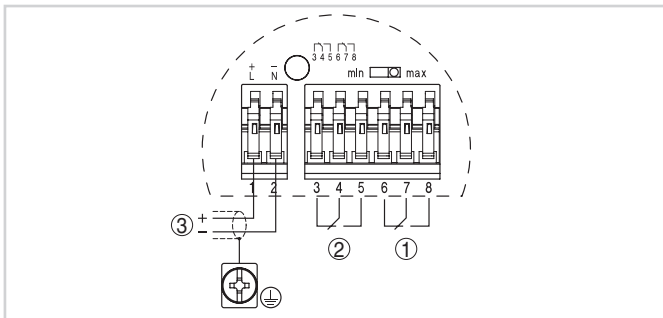
The mode and sensitivity of the level switch can be adjusted on the electronics module. A signal lamp shows the switching status of the instrument.



Electronics and connection compartment - relay output

- 1 Potentiometer for switching point adaptation
- 2 DIL switch for mode adjustment
- 3 Ground terminal
- 4 Connection terminals
- 5 Control lamp

Electrical connection

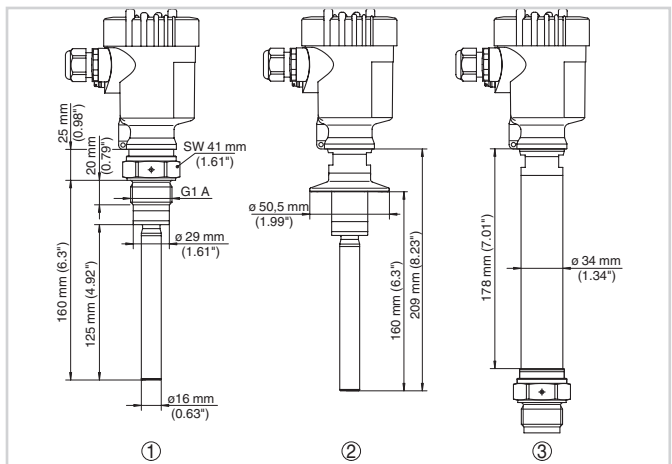


Wiring plan

- 1 Relay output
2 Relay output
3 Voltage supply

You can find details on electrical connection in the instrument operating instructions on our homepage at www.vega.com/downloads.

Dimensions



- 1 Threaded version G1
- 2 Clamp version
- 3 Temperature adapter

Information

You can find further information on the VEGA product line on our homepage www.vega.com.

In the download section under www.vega.com/downloads you'll find free operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

Instrument selection

With the "Finder" at www.vega.com/finder and "VEGA Tools" you can select the most suitable measuring principle for your application. You can find detailed information on the instrument versions in the "Configurator" at www.vega.com/configurator and "VEGA Tools".

Contact

You can find the VEGA agency serving your area on our homepage www.vega.com.

APPENDIX E

TRELLEBORG SHOCK ABSORBERS

DATA SHEETS



YOU MINE. WE SELL.

+1 (530) 534-7965
info@amking.com



SAW Mountings



SAW Mountings

Novibra® elements type SAW are heavy duty mountings for static and shock loads in compression. The mounts provide high isolation in the horizontal shear direction.

Novibra® type SAW® mountings consist of a cylindrical shaped rubber section with integrally bonded interleaf metal plates, bonded between two square heavy duty outer metal fixing plates. Designed for large compressive forces with minimum deformation, while providing low shear stiffness rates.

The combination of a stable low installation height, high compressive strength and low shear stiffness makes Novibra® type SAW® a versatile high performance anti-vibration mounting. The 4 clearance holes in each fixing plate allow easy installation.

By connecting 2 SAW®- elements in a series, i.e. one on top of the other, an increased isolation efficiency is achieved in both shear and compression planes. Where larger deflections are required in the vertical plane, Novibra® type SAW® mountings are mounted at a calculated angle configuration to provide the optimum spring rate.

Typical applications include:

- Crushers
- Edge Runners
- Mills
- Hoppers and feeders
- Grinders
- Vibratory rollers
- Screens

About Trelleborg Industrial AVS

Over 100 years of experience as Metalastik and Novibra, today Trelleborg Industrial AVS make improvements people can physically feel. From smoother travel to quieter, more efficient machines, we make life feel better. With quality, testing and compliance built in, we're in it for the long haul, ensuring your solution still works, over an extended and often arduous life-cycle.

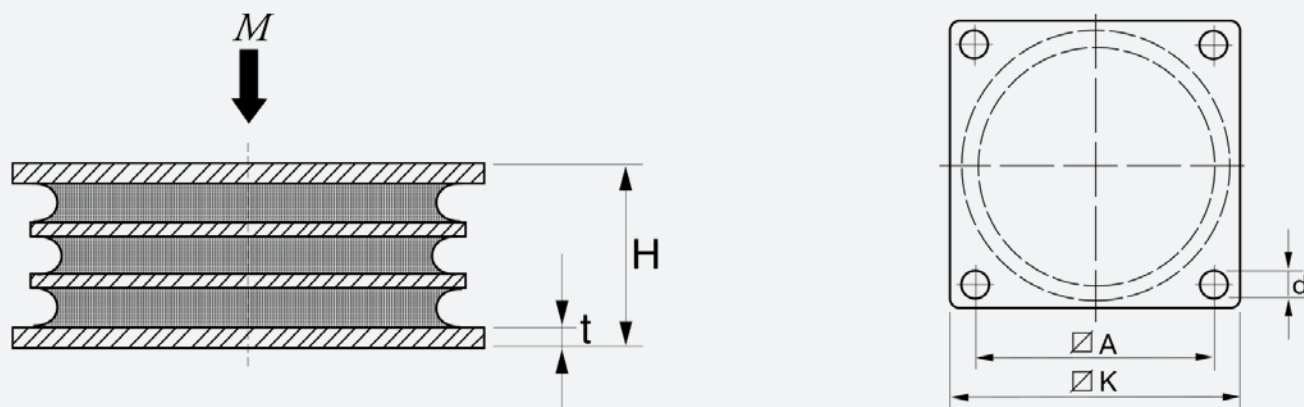
With three state-of-the-art manufacturing plants across the globe, our experience in rubber to metal bonding enhances several industries, including off-highway vehicles, rail and mass transit, marine and energy and general industry.

We offer an end-to-end service, to take you from concept through design, manufacturing and testing to delivery. This reduces the complexity of supply, helping you cut costs, mitigate risk and receive on time, on budget delivery.

Trelleborg IAVS is part of Trelleborg Group, which employs 15,000 people in over 40 countries. Whatever your challenge, whatever your role and wherever you are, we are nearby to offer expert knowledge and quality solutions.

SAW Mountings

Technical Drawing



Product Data

DRAWING No.	PART No.	TYPE	DIMENSIONS (mm)					MAX LOAD M (kg)	WEIGHT (kg)
			k	H	d	t			
17-4058	10-00141-01	SAW 125 40 IRH	118	148	52	13.5	5	2250	2.6
17-4058	10-00142-01	SAW 125 60 IRH	118	148	52	13.5	5	4500	2.6
17-4059	10-00143-01	SAW 150 40 IRH	136	166	63	13.5	6	3750	4.1
17-4059	10-00144-01	SAW 150 60 IRH	136	166	63	13.5	6	7500	4.1
17-4060	10-00075-01	SAW 200 40 IRH	184	220	82	17	8	6000	9.2
17-4060	10-00076-01	SAW 200 60 IRH	184	220	82	17	8	12000	9.2
17-4061	10-00077-01	SAW 300 40 IRH	270	310	120	22	10	15000	27
17-4061	10-00078-01	SAW 300 60 IRH	270	310	120	22	10	30000	27