



# **Bike Lighting**

Range of Products 2018

# **SON Hub Dynamos**

SON hub dynamos are front hubs of excellent mechanical quality. The built-in 6Volt/3Watt generator is made to power either headlight and rear light or a charging device.

All SON hub dynamos have SKF maintenance-free highgrade grooved ball bearings sealed on both sides. A pressure compensation system prevents water ingress.

There are two types of generators: SON 28 and SONdelux.

SON 28 may be used in wheels of any size up to 700c/29" and conforms with German legal regulation StVZO. This generator type is especially recommended when at low riding speeds a lot of light or charging power is required.

The SONdelux generator is optimized for light weight and smooth running. It is designed especially for highly efficient LED-lights like Edelux II.

There are many types of SON hubs for different use and various fork builds. SON hubs are available in a choice of finishes and drillings as well.



#### for Standard Forks (100 mm / 9 mm QR)

Standard dimensions for bicycle forks have been 100 mm width, 9 mm axle diameter for many years. Quick releases and skewers were 5 mm. This is why there is the largest choice of SON hub dynamos for this type of fork.

SON models for rim brakes (non-disc) are symmetric and are of different flange spacing:

SONdelux: narrow (50 mm), SON 28: medium (62 mm), SON delux wide body: wide (68 mm).

For disc brakes (disc) there are center lock mount hubs and 6-bolt mount hubs. The disc hub dynamo housings are narrower and slightly asymmetric.

Delivery includes: hex skewer (75200 / 75202)



**SON 28** 440 g | 62 mm flange spacing VSF. .all-ride 2015-2018 HÖCHSTE EFFIZIENZ Zertifiziert für 2015-2018 Im Test: 6 Nabendynamos, davon 2 ausgezeichnet

polished	32 hole	303202
polisileu	32 11016	303202
	36 hole	303602
silver anodized	32 hole	303292
	36 hole	303692
black anodized	32 hole	303212
	36 hole	303612

RRP in D **209,00 €** 

32 hole	303222
36 hole	303622
36 hole	303642
36 hole	303662
36 hole	303672
	36 hole 36 hole 36 hole

RRP in D 219,00 €



		Zertifiziert für 2015 – 2018
		Im Test: 6 Nabendynamos, davon 2 ausgezeichnet
polished	20 hole	262002
	24 hole	262402
	28 hole	262802
	32 hole	263202
	36 hole	263602
silver anodized	32 hole	263292
	36 hole	263692
black anodized	20 hole	262012
	24 hole	262412
	28 hole	262812
	32 hole	263212
	36 hole	263612
	F	RRP in D <b>209,00 €</b>
red anodized	32 hole	263222
	36 hole	263622

RRP in D **219,00 €** 

all-ride

VSF

BESTER



### SONdelux wide body

410 g | 68 mm flange spacing

**SONdelux** 

390 g | 50 mm flange spacing

polished	28 hole	262808
	32 hole	263208
	36 hole	263608
black anodized	32 hole	263218

RRP in D **219,00 €** 



### SON 28 Tandem

490 g | 62 mm flange spacing 69 mm pitch circle diameter

48 hole	304812
40 hole	304092
48 hole	304892
	40 hole

RRP in D **229,00 €** 



### SON 28 disc 6-bolt

460 g

	36 hole	313612
	32 hole	313212
black anodized	28 hole	312812
	36 hole	313692
	32 hole	313292
silver anodized	28 hole	312892
	36 hole	313602
polished	32 hole	313202

#### RRP in D 239,00€

red anodized	28 hole	312822
	32 hole	313222
	36 hole	313622
blue anodized	36 hole	313642
orange anodized	36 hole	313662
light green anodized	36 hole	313672

RRP in D **249,00 €** 



### **SON 28** disc center lock\*

		RRP in D <b>249,00 €</b>
blue anodized	36 hole	323642
	36 hole	323622
red anodized	32 hole	323222
		RRP in D <b>239,00 €</b>
	36 hole	323612
	32 hole	323212
black anodized	28 hole	322812
	36 hole	323692
silver anodized	32 hole	323292
	36 hole	323602
polished	32 hole	323202
430 g		

### **SONdelux** disc center lock\*

		RRP in D	249,00€
red anodized	32 hole		273222
		RRP in D	239,00€
black anodized	32 hole		273212
polished	32 hole		273202
400 g			

\*center lock: center lock rotor mounting standard licensed by Shimano



#### for Thru Axles

Originally developed for mountain bikes thru axle hubs become a pioneering technology in touring bikes, fatbikes and gravel bikes as well. With a thru axle hub the front wheel fits precisely and in addition it stiffens the fork.

There are SON hub dynamos for 15 mm thru axle in 100 mm standard width and in 110 mm Boost Standard as well as for 12 mm thru axle.





#### SONdelux 12 disc center lock\*

400 g | for 12 mm thru axle

black anodized	24 hole	392410
	28 hole	392810
	32 hole	393210
silver anodized	32 hole	393290

RRP in D **279,00 €** 



#### SON 28 12 disc 6-bolt

440 g | for 12 mm thru axle

black anodized	28 hole	412810
	32 hole	413210
	36 hole	413610
	36 hole	413610

RRP in D 279,00€



### SON 28 12 disc center lock\*

420 g | for 12 mm thru axle

black anodized	28 hole	402810
	32 hole	403210
	36 hole	403610
silver anodized	32 hole	403290

RRP in D 279,00€

\*center lock: center lock rotor mounting standard licensed by Shimano



### SON 28 15

disc 6-bolt | 460 g | for 15 mm thru axle

polished	32 hole	333202
silver anodized	32 hole	333292
	36 hole	333692
black anodized	28 hole	332812
	32 hole	333212
	36 hole	333612
	R	RRP in D <b>279,00 €</b>
red anodized	32 hole	333222
	36 hole	333622
blue anodized	32 hole	333242

RRP in D **289,00 €** 



### SON 28 15 110

disc 6-bolt | 480 g | Boost Standard

black anodized	32 hole 36 hole		383210 383610
silver anodized	32 hole		383290
		RRP in D	299,00€
red anodized	32 hole		383220
	36 hole		383620
blue anodized	32 hole		383240
		RRP in D	309,00€

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### for Fatbikes

Fat bikes need electricity, too! Their extra wide forks need 135 mm hubs. For those we build SON 28 135. Flange spacing is 68 mm, symmetric. The rotor is positioned at 10.4 mm (standard for front disc brakes) or 15.3 mm away from the dropout for rear disc brakes. The version for 15 mm thru axle is 150 mm width.





### SON 28 135 VR

black anodized	32 hole	313219
disc 6-bolt   530 g	10.4 mm	

RRP in D **279,00 €** 

#### SON 28 135

black anodized	32 hole	313218
silver anodized	32 hole	313298

RRP in D **279,00 €** 

#### SON 28 15 150

		RRP in D	339,00€
black anodized	32 hole		373210
disc 6-bolt   530 g			



### for Trikes

Most trikes have stub axles and disc brakes. As there are various types of axle mounts and many different disc rotor positions there is a wide range of SON XS-M.



#### SON XS-M

520 up to 570 g

#### for HP Velotechnik

		RRP in D	319,00€
polished	36 hole		228601
<i>for Aidoo Trailer</i> axle end Ø 12 x 13.6 mm			
for Christiania Care axle end Ø 12 x 69 mm polished	<b>go Bike</b> 36 hole		227601
black anodized	32 hole		226210
for KMX axle end Ø ½"			
black anodized black anodized	32 hole 28 hole		223211 222811
<b>for Catrike</b> axle end Ø 20 mm Set of adapters required (	(see below	()	
for Steintrike axle end Ø 12 x 54 mm black anodized	32 hole		224211
<b>for Anthrotech</b> axle end Ø 12 x 40 mm <b>black anodized</b>	32 hole		221211
for ICE Trike axle end Ø 12 x 46 mm polished	36 hole		223601
for slotted axle mount axle end Ø 12 x 42 mm black anodized	36 hole		220611

#### Set of Adapters (not shown)

for SON XS-M Catrike

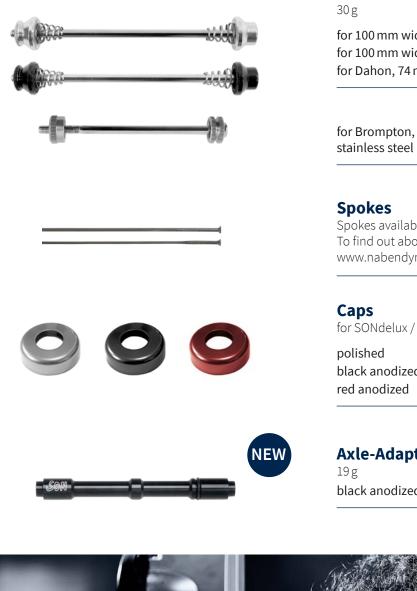
75219

RRP in D **20,00 €** 

More SON XS-M versions on request

#### Accessories for Hub Dynamos

Hex skewers make a good compromise between quick releases and locking skewers. Our skewers for 100 mm width have steel bolts of 12.9 hardness category at SW 5 mm.



#### **Front hex skewer**

	RRP in D	8,00€
for Brompton, 74 mm width, stainless steel nut and bushing	silver	75204
	RRP in D	5,00€
for Dahon, 74 mm width	silver	75205
for 100 mm width	black	75202
for 100 mm width	silver	75200
30 g		

Spokes available on request, To find out about spoke length see: www.nabendynamo.de - Service - Spoke Length

for SONdelux / SON 28 disc center lock

polished	75850
black anodized	75851
red anodized	75852

RRP in D **10,00 €** 

#### Axle-Adapter 12/9 mm QR

19 g	
black anodized	75230

RRP in D **16,00 €** 



#### for Folding Bikes

There are SONXS hubs for folding bikes with 74 mm fork width. For Brompton axle diameter is 8 mm, for brands such as Tern and Dahon axle ends are 9 mm. Other types of axles are available on request.

Since 2013 SONXS have smaller housings for straight pull spokes. Spoke pattern is radial, on semi radial hubs spokes will bend slightly during wheel build.

Three standard finishes are available (polished, silver anodized, black anodized) as well as various à la carte finishes.





#### **SON XS** for Brompton

semi radial | 350 g | axle end Ø 8 mm

		DDD in D 239 00 £
à la carte	28 slots	342882
		RRP in D <b>199,00 €</b>
	28 slots	342862
black anodized	20 slots	342062
	28 slots	342892
silver anodized	20 slots	342092
	28 slots	342872
polished	20 slots	342072

RRP in D 239,00€

### SON XS for Tern, Dahon (not shown)

semi radial | 350 g | axle end Ø 9 mm

polished	20 slots		352072
	28 slots		352872
silver anodized	20 slots		352092
	28 slots		352892
black anodized	20 slots		352062
	28 slots		352862
		RRP in D	199,00€
à la carte	28 slots		352882
		RRP in D	239,00€

#### **Wheels for Brompton**

Our new Brompton wheels with 20 spokes are lighter and even more elegant than the wheels with original Brompton rims. They come with specially bored rims from Ryde. As wheel build with semi radial hubs requires some experience we preferably offer ready-made wheels with silver and black rims.



### Brompton Wheel 20 spokes

Rim: Ryde Snyper DB spokes, colour same as on rim Nipples: silver Weight: 730 g

silver	SON XS polished	43170
silver	SON XS silver anodized	43172
silver	SON XS black anodized	43171
	RRP in D	249,00€
black	SON XS polished	43180
black	SON XS silver anodized	43182
black	SON XS black anodized	43181

RRP in D 289,00€

### Brompton Wheel 28 spokes

Rim: Brompton Original DB spokes, colour same as on rim Nipples: silver Weight: 770 g

silver	SON XS polished		43140
silver	SON XS silver anodized		43110
silver	SON XS black anodized		43141
	RRP	in D	249,00€
silver	SON XS à la carte		43113
	RRP	in D	289,00€
black	SON XS polished		43150
black	SON XS silver anodized		43152
black	SON XS black anodized		43151
	RRP	in D	289,00€
black	SON XS à la carte		43116
			200.00.0

RRP in D **309,00 €** 

# SON Headlights Edelux II

Edelux II has quite a bright LED and distributes light perfectly well on the road surface using the Busch & Müller Premium mirror.

The light beam is very wide, focusses well in the distance and distributes evenly in the area near to the bicycle. This kind of light distribution is ideal on dark roads as well as in road traffic (German mark of conformity StVZO).

The perfect cooling of the LED and the non-reflecting lens increase brightness up to 100 lux. The Edelux II has a very bright capacitor standlight and an automatic switch-on (sensor).

A special feature on the EdeluxII is its extraordinary robust construction. Its housing is turned and milled of aluminium. The magnetic switching ring is easy to use, the coaxial cable is elegant and extremely robust.

Weight: 85 g



#### for Hub Dynamos

Delivery includes: Edelux bracket (75520), white reflex reflector (75760)

Cable length 140 cm: connections separate Cable length 60 cm: for fork mount, connections fitted Cable length 36 cm: for Brompton, connections fitted, headlight bracket Brompton original (75509)







### Edelux II

polished	140 cm	681406
	60 cm	680605
	36 cm	680305
silver anodized	140 cm	681496
	60 cm	680695
	36 cm	680395
black anodized	140 cm	681416
	60 cm	680615
	36 cm	680315

RRP in D **139,00 €** 



red anodized	140 cm	681426
	60 cm	680625
	36 cm	680325
blue anodized	140 cm	681446
	60 cm	680645
	36 cm	680345
orange anodized	140 cm	681466
	36 cm	680365
dark green anodized	140 cm	681456
	36 cm	680355
gold anodized	140 cm	681436
	36 cm	680335
pink anodized	140 cm	681486
	36 cm	680385
light green anodized	140 cm	681476

RRP in D **149,00**€



Edelux II	NEW			
With SON coaxial connector fitted. SON Coaxial Adapter included.				
polished	100 cm	681009		
	60 cm	680609		
silver anodized	100 cm	681099		
	60 cm	680699		

100 cm

60 cm

RRP in D **159,00 €** 

681019 680619

### Edelux II upside down

black anodized

Switched. For use on hub dynamo. Rear light connection on threaded bushing.

polished	140 cm	680000
black anodized	140 cm	680010

RRP in D **159,00 €** 

w/o switch.

For use on hub dynamo with separate switch.

polished w/o cable 680001

RRP in D **149,00 €** 



#### for Pedelecs

Delivery includes: Edelux bracket (75520), white reflex reflector (75760)

- For Edelux II DC selection see www.nabendynamo.de
- Products Headlights for Pedelecs



### Edelux II DC for 6 Volts

For 6 Volts DC. For connection to systems with switched 6 Volts output (Bosch, Shimano Steps ect.) with their special cable.

w/o switch, w/o rear light output, w/o cable

polished	w/o cable	680002
silver anodized	w/o cable	680092
black anodized	w/o cable	680012

RRP in D 139,00€

For 6 Volts DC. For connection to systems with switched 6-Volts output with SON coaxial cable. w/o switch, w/o rear light output, 140 cm cable

polished	140 cm	681402
silver anodized	140 cm	681492
black anodized	140 cm	681412

RRP in D **139,00 €** 

### Edelux II DC for 6 to 75 Volts

For 6 to 75 Volts DC. With coaxial connection cable, switch and 6 Volts output for rear light. 140 cm cable

polished	140 cm	681403
silver anodized	140 cm	681493
black anodized	140 cm	681413

RRP in D 149,00€

#### Accessories for Headlights and Rear Lights



White Reflex Reflector

for Edelux and Edelux II

75760

RRP in D 6,00€



Switching Ring for Edelux and Edelux II

75611

RRP in D **2,00 €** 



Reflector

Busch & Müller 313 / 3Z

69190

RRP in D 4,90 €

#### Adapter

stepped	69192
flat	69191
for reflector 313 / 3Z	
for rack mount	

RRP in D 3,90€



#### www.nabendynamo.de | info@nabendynamo.de

# **SON Rear Lights**

SON Rear Light (vvv K920) is of minimal dimensions. This way it fits where common rear lights with integrated reflectors are too big.

Its housing is made of anodized aluminium. Lens and electronics are potted. The coaxial cable for headlight connection is firmly fixed inside the housing. Standlight capacitor integrated.





### **SON Rear Light**

raci	k	m	0	u	n	t
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50 mm screw spacing 20 g (w/o cable)

RRP in D	49,00€
silver / red	69182
silver / clear	69172
black / red	69162
black / clear	69152

seat post mount Ø 26 up to 31.8 mm 35 g (w/o cable) black / clear 69

black / red

silver / red

silver / clear



red / clear	69132
blue / clear	69142
orange / clear	69102
light green / clear	69112

RRP in D 59,00€



red / clear	69232
blue / clear	69242
orange / clear	69202
light green / clear	69212

RRP in D 65,00 €

69252

69262

69272

69282

#### mudguard mount

high mounting position (25 degree) 40 g (w/o cable)

polished / red polished / red black / clear black / clear black / red black / red



	C021C
narrow profile	69316
wide profile	69326
narrow profile	69335
wide profile	69345
narrow profile	69355
wide profile	69365

RRP in D **75,00 €** 

RRP in D **75,00 €** 

# **SON Headlight Brackets**



Schmidt delux Bracket

RRP in D	23,50€
black anodized	75532
polished	75531
for handlebars up to 3	1.8 mm
Aluminium milled,	

75500

75507

75504

RRP in D 2,40 €

RRP in D **3,00 €** 

**Bracket stainless** 

39 x 62 mm (L x H)

short, 47 x 40 mm



# Schmidt delux Bracket long

Aluminium milled, for handlebars up to 31.8 mm polished 75533 black anodized 75534

RRP in D 23,50€



#### Bracket stainless Canti

56 x 46 mm		75501
	RRP in D	2,50€



#### Bracket Brompton Original

stainless, 59 x 7 mm	75509
,	

RRP in D 6,00€



### Bracket for Edelux

**Bracket Brompton** 

stainless, 53 x 18 mm

36 x 50 mm

stainless	75520
black	75521

RRP in D **3,50 €** 



#### Bracket handlebar mount

synthetic, for handlebars up to Ø 26 mm, riese und müller

RRP in D **11,90 €** 

75505



#### **Bracket milled**

black

Aluminium 6061 T6, black, incl. bolts, 33 x 37 mm, mass contact with ring terminal not possible

black anodized	75530
RRP in D	21,00€



### Bracket for Edelux long

58 x 49 mm

black

stainless	75522
black	75523

RRP in D **4,00 €** 



# Bracket for suspension fork

Aluminium, star nut 11%", riese und müller

75508

RRP in D **11,90 €** 

# **SON Wiring**

SON Coaxial Cable is PVC-free and specially made for our headlights. It is extremely tear-resistant and highly elastic. Additional cable conduit is unnecessary.

Wiring with coaxial cable is easy if you have practised it a bit. For your support we offer cables sold by the meter as well as prefabricated cables ready for connection.



### **Coaxial Cable**

2 x 0.5 mm<sup>2</sup> outer Ø 3 mm, black



### **Crimp Connectors**

brass tin-plated, uninsulated



 Spade female 2.8 x 0.5 mm

 Pack of 100 pcs
 72121

 Pack of 500 pcs
 72125

Spade male 2.8 x 0.5 mm	
Pack of 50 pcs	72135
Pack of 100 pcs	72131

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RRP in D	8,50€	
rear light separate	72091	5 m
connections for		10 m
SON connections fitted	72090	100 n

Roll		
100 m		72011
10 m		72010
5 m		72005
	RRP in D	1,60 € / m



Spade female 4.8 x 0.8 mm			
Pack of 100 pcs	72141		
Piggy-back spade 4.8 x 0.8 mm			
Pack of 20 pcs	72142		

**Spade male 4.8 x 0.8 mm** Pack of 20 pcs 72152

72801



Ring terminal 3 mmPack of 50 pcs72235Ring terminal 5 mmPack of 50 pcs72255Pack of 100 pcs72251Ring terminal 6 mmPack of 50 pcs72265Pack of 100 pcs72261

#### Terminal adapter

2.0 X U.J IIIII	
for M6, stainless	
Pack of 20 pcs	72272

#### Heat shrink tubing

Heat shrink tubing 3:1 polyolefine black



3.2 x 24 mm	Pack of 100 pcs	72331
3.2 x 32 mm	Pack of 100 pcs	72334
3.2 x 500 mm	Pack of 10 pcs	72332
4.8 x 24 mm	Pack of 100 pcs	72341
4.8 x 500 mm	Pack of 10 pcs	72342

#### Connections

for 10 SON hub dynamos



#### **Box with Connections**

spade connectors, heat shrink tubing and ring terminals

72800

RRP in D 43,00 €

Cable Ties		
2.5 x 200 mm	Pack of 100 pcs	72425
3.5 x 200 mm	Pack of 100 pcs	72436

### for SON XS-M



RRP in D **6,00 €** 



#### Tools



**Crimping Tool** for spade connectors and ring terminals 72900



**Crimping Tool** for spade connectors and ring terminals, Knipex No. 97 52 14 72904



#### Automatic Wire Stripper special for coaxial cable, Knipex No. 12 21 180 72903



#### Side Cutters Super-Knips

125 mm, Knipex No. 78 61 125 **72905** 



#### **SON Coaxial Connectors**

We designed robust 2-pole coaxial connectors of minimal dimensions. They are cable splitters for our coaxial cable, but may be used for twin cables just as well. Soldering and heat shrink tubing is required (see www.nabendy-namo.de). Small outer diameter (6.6 mm), length ca. 25/30 mm.

You may use coaxial connectors male and female for various applications, for instance on separable bicycles or for dismountable components.

With a SON Coaxial Adapter that suits with most current types of hub dynamos plugging and unplugging head-light cables is comfortable and easy now.

For connection of charging devices SON Coaxial Junction Box is available.





### **SON Hub Dynamo Connections**

There are up to 3 options to connect headlights to a SON hub dynamo depending on the dynamo type:



#### **Spade Connectors**

4.8 mm spade crimp connectors conform to the common technique for connections on high-end bike lighting systems. 4.8 mm connectors are more solid and easier to use compared to standard 2.8 mm connectors. They will make the best contact when well-crimped and a little grease is added. They are proven in rough everyday use since SON began.





#### **SON Coaxial Connectors**

We developed a 2-pole coaxial connection for users who need to take out their front wheel frequently. The SON Coaxial Adapter is compatible with most current SON types. It has a socket for a SON Coaxial Connector with which you can insert and unplug easily. You can almost do it without looking at it. According to available space you may lead the cable in front of the fork blade or behind it.

#### SON Self-Connecting System

The most convenient and elegant connector is no connector at all! With the SON SL Self-Connecting System, the contact areas are integrated in the hub and fork dropouts so that the electric circuit will be made as soon as you install the wheel. The most demanding bicycle manufacturers gladly use this system in series and this way, offer the aesthetically and technically perfect solution.

#### Wilfried Schmidt Maschinenbau

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