

# EXPERT SLIP RING ETSR

INDEX | ACCESSORIES | JULY 2021



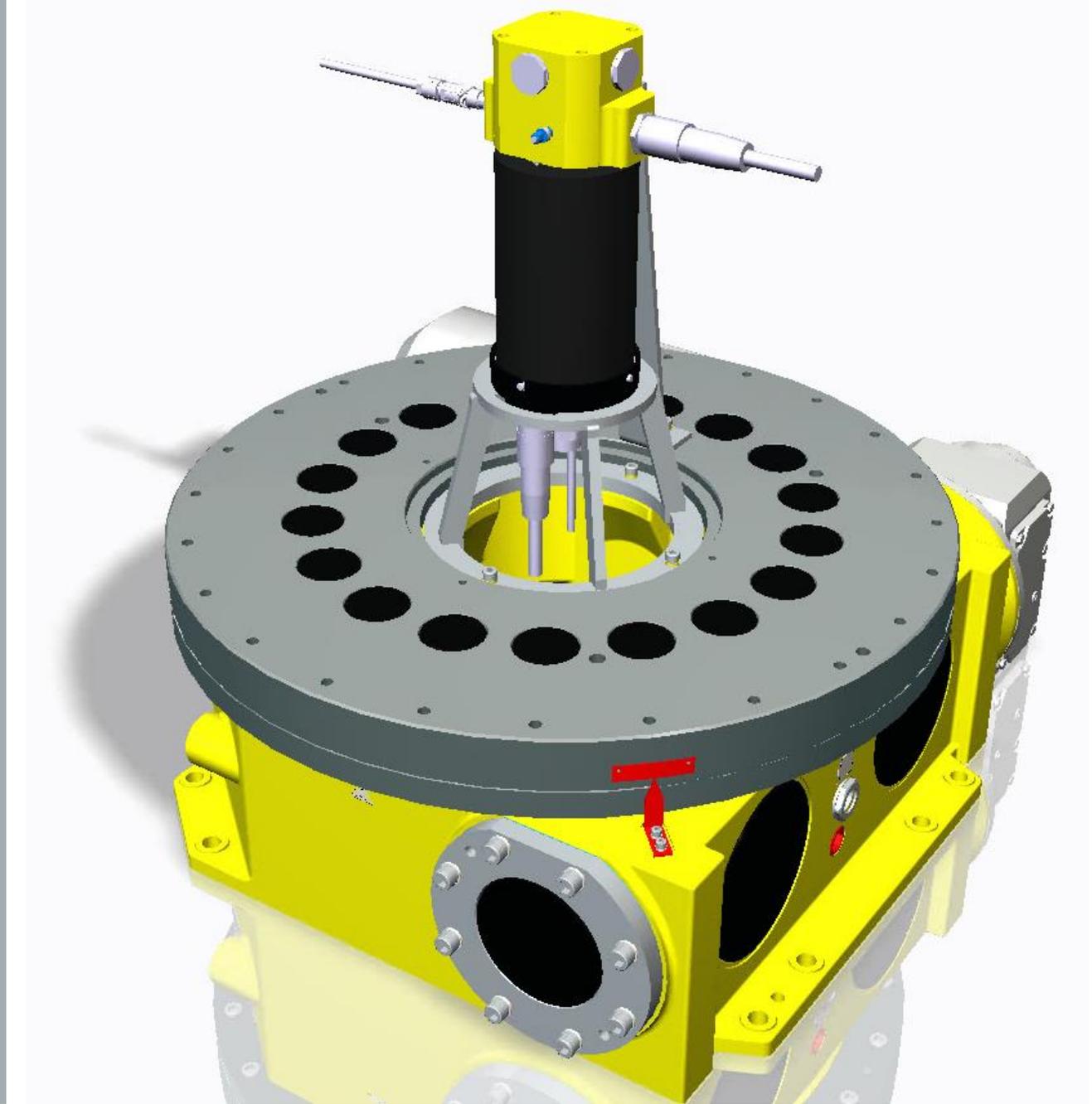
## Rotate. Distribute. Endless Transfer.

The EXPERT-TÜNKERS SLIP RING ETSR.

The perfect media transmission solution for continuous rotating indexers.

Expert-Tuenkers Slip Rings Units mounted to rotary or trunnion indexing drive mechanisms are used to transmit electric current, control signals and/or air from a stationary source to a rotating fixture or vice versa. Advantage of such a slip ring transmitter is that the fixture can be rotated  $> 360^\circ$  clockwise or counter-clockwise without twisting any cables or hoses. Fieldbuses or Ethernet interfaces are being offered for communication.

Individual solution are available beside our standard product range.



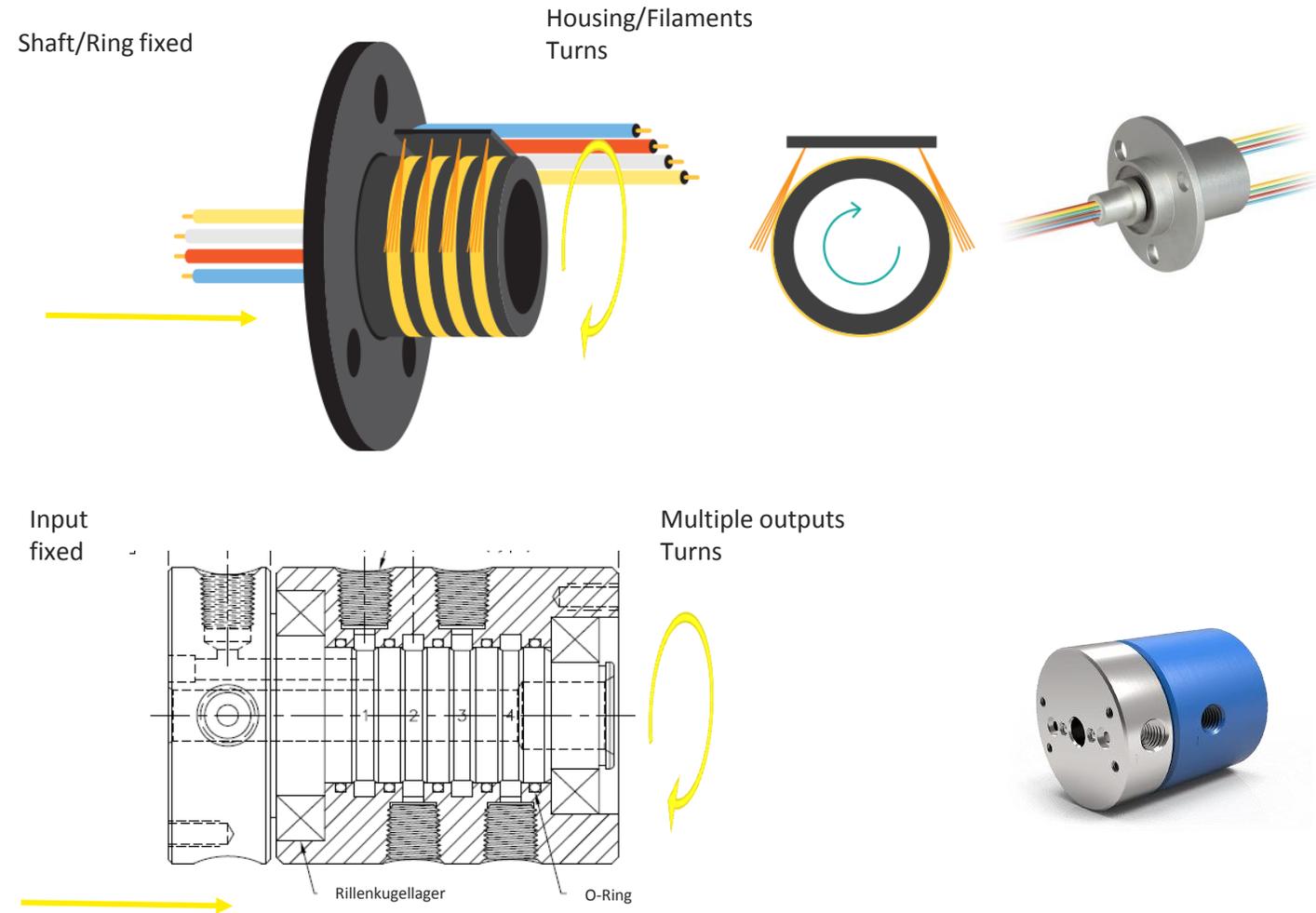
## How does the ETSR slip ring works?

### Electrics (signals, power, field bus)

- Multi-filament brush Service life: approx. 80 million revolutions
- Shaft is supported by 2 bearings
- Brushes and rings are metallic and silver (power or basic signal rings) or gold-plated (fieldbus connections or special request)

### Media (air, water)

- Dynamic seal: different shapes and clamping systems depending on the application (pressure, speed, media).
- For industrial compressed air, low speed mostly O-ring dynamic seal.



## Our standard. Custom-Made.

Our ETSR is 100% compatible with all rotary table series, whether EDH (servo rotary table), EDX (fixed pitch rotary table) or EGD (globoidal rotary table).

We have developed standards to serve the most common customer applications. Whether two, three or four outputs of signals and media, we have a solution.

For more technical details, please see the slides below.

But we can also offer other versions that are specifically required for applications and specifications.

Just contact us.

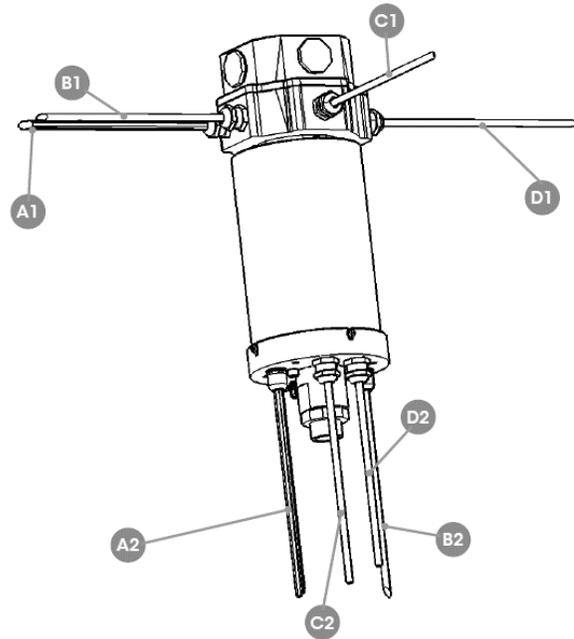


## Advantages

- Standardized on-board Plug & Play solution
- Fully assembled Slipring with adapter and towing arm/dog
- Maintenance-free up to 80 Million revolutions
- Multi-filament brushes for safe redundancy
- Cost-effective
- Short delivery times

# ETSR 2

## 2 Stations / 180° Degrees



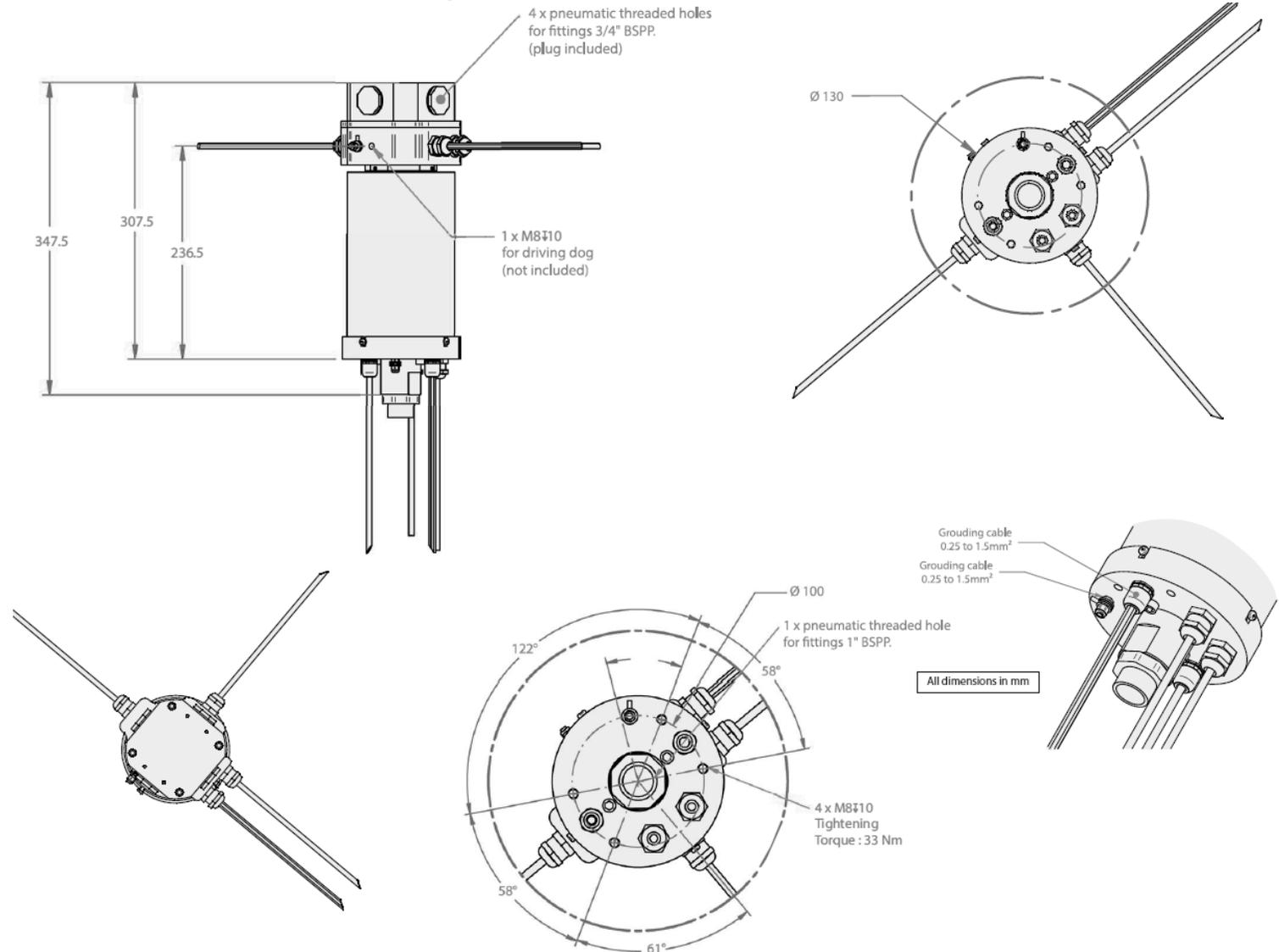
Specification	
Rotation speed	max. 60 rpm
Air connections	Input : 1 x 1" BSPP Outputs : 4 x 3/4" BSPP
Power supply	2 x 4 x 1,5mm <sup>2</sup> 24V/6A 1 x 6mm <sup>2</sup> PE 20A
Fieldbus	1x 2x2x26AWG Cat5e S/UTP
Anti-rotation	M8x10 thread
Lifetime	~80 millions of revolutions
Operating temperature	5 - 60 °C
Weight	6 kg
Dimensions	see drawings (next slide)
Operating pressure	6 (±1) bar

### Wire Allocation

Cable Output	Wire-Nr. Colour	Rated Voltage Rated Current	Function	Cable Input
A1	GNYE	20A	PE	A2
C1 D1	1	24V/6A	24V Supply	C2 D2
	2			
	3			
	4			
B1	WH/OG (TD+)	100BASE-TX	Ethernet Profinet	B2
	OG (TD-)			
	WH/GN (RD+)			
	GN (RD-)			
	SH (Shield)			

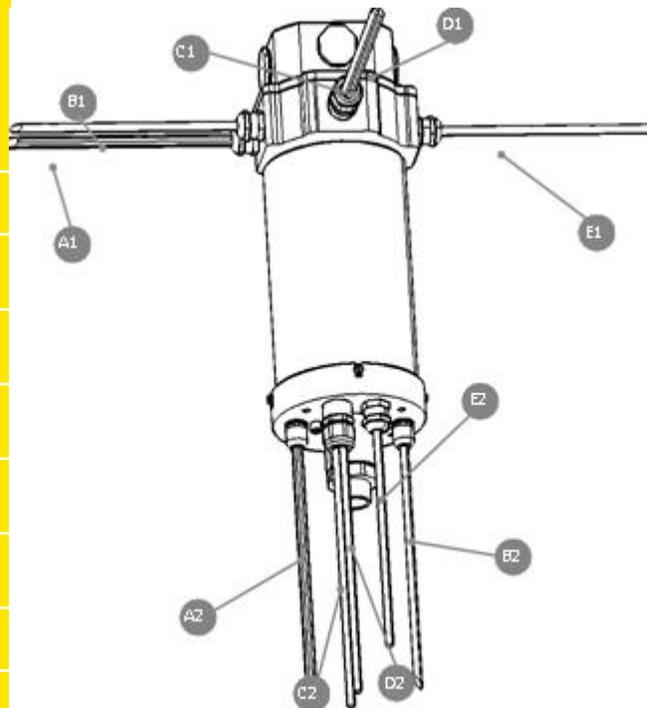
# ETSR 2

## 2 Stations / 180° Degrees



# ETSR 3

## 3 Stations / 120° Degrees



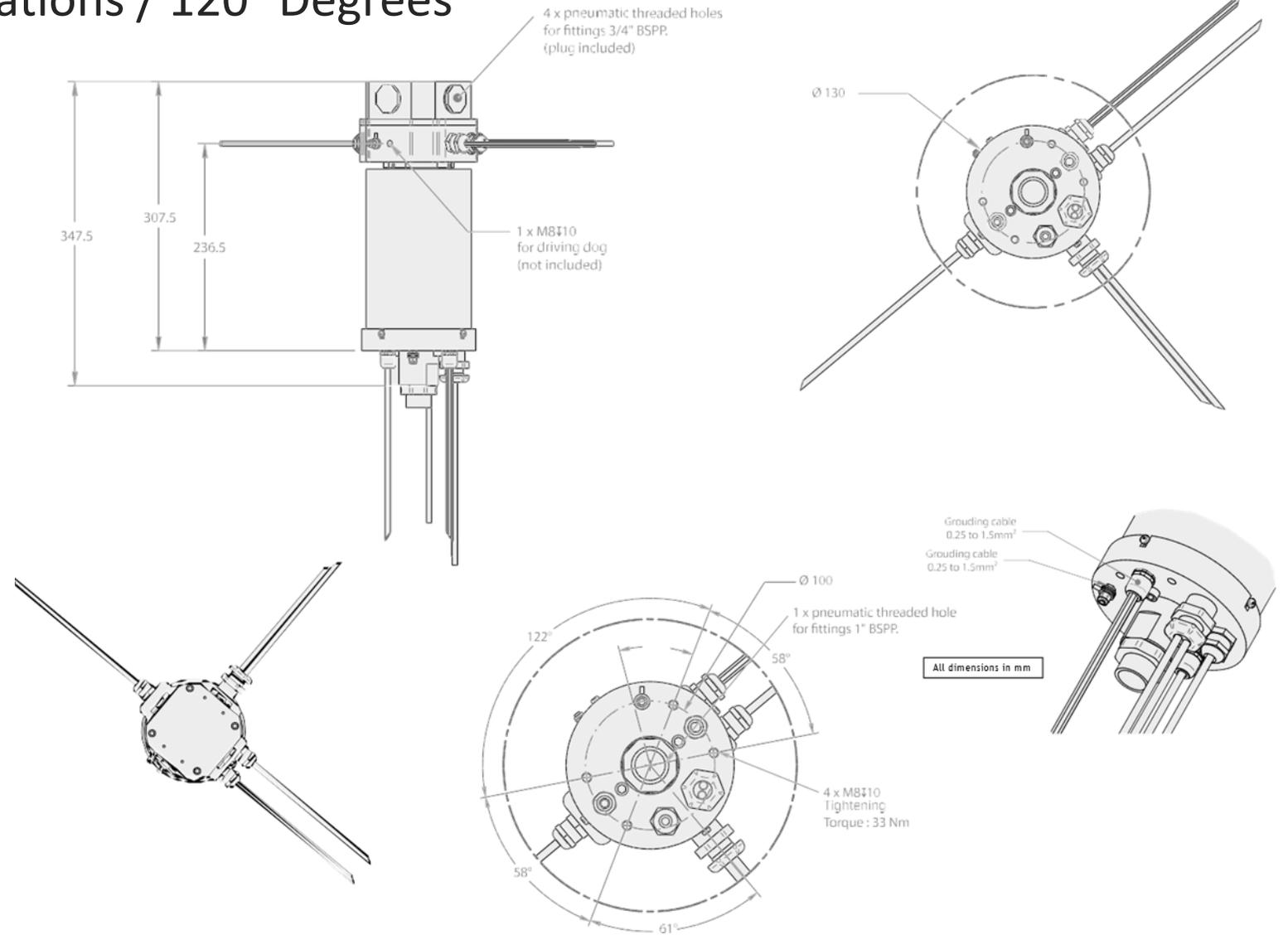
Specification	
Rotation speed	max. 60 rpm
Air connections	Input : 1 x 1" BSPP Outputs : 4 x 3/4" BSPP
Power supply	3 x 4 x 1,5mm <sup>2</sup> 24V/6A 1 x 6mm <sup>2</sup> PE 20A
Fieldbus	1x 2x2x26AWG Cat5e S/UTP
Anti-rotation	M8x10 thread
Lifetime	~80 millions of revolutions
Operating temperature	5 - 60 °C
Weight	6 kg
Dimensions	see drawings (next slide)
Operating pressure	6 (±1) bar

### Wire Allocation

Cable Output	Wire-Nr. Colour	Rated Voltage Rated Current	Function	Cable Input
A1	GNYE	20A	PE	A2
C1	1	24V/6A	24V Versorgung	C2 D2 E2
D1	2			
E1	3			
	4			
B1	WH/OG (TD+)	100BASE-TX	Ethernet Profinet	B2
	OG (TD-)			
	WH/GN (RD+)			
	GN (RD-)			
	SH (Shield)			

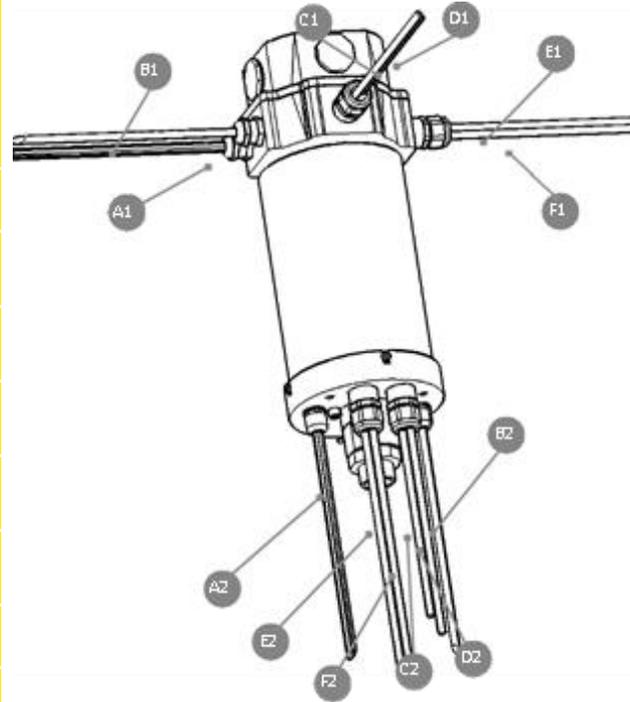
# ETSR 3

## 3 Stations / 120° Degrees



# ETSR 4

## 4 Stations / 90° Degrees



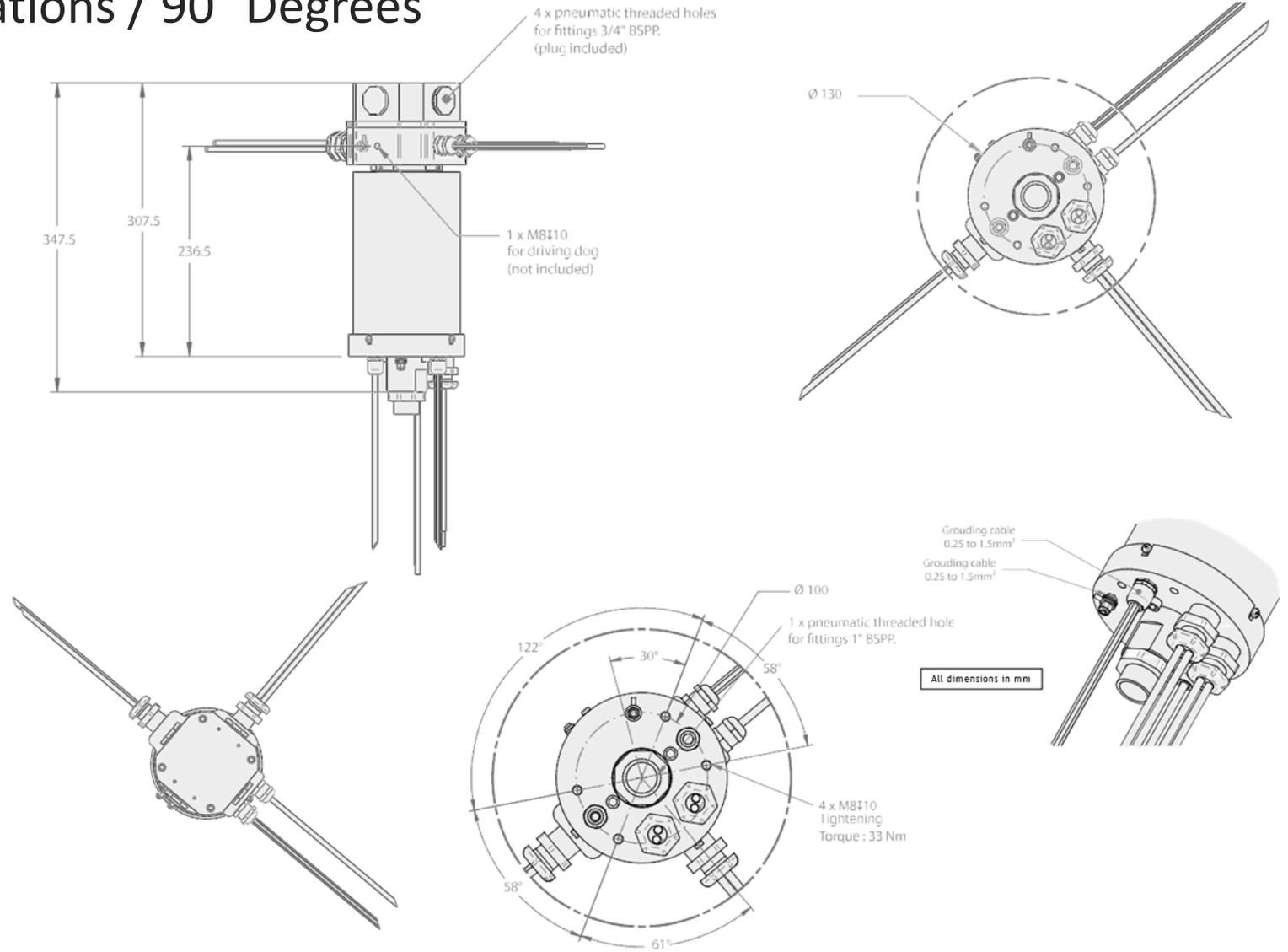
Specification	
Rotation speed	max. 60 rpm
Air connections	Input : 1 x 1" BSPP Outputs : 4 x 3/4" BSPP
Power supply	4 x 4 x 1,5mm <sup>2</sup> 24V/6A 1 x 6mm <sup>2</sup> PE 20A
Fieldbus	1x 2x2x26AWG Cat5e S/UTP
Anti-rotation	M8x10 thread
Lifetime	~80 millions of revolutions
Operating temperature	5 - 60 °C
Weight	6 kg
Dimensions	see drawings (next slide)
Operating pressure	6 (±1) bar

### Wire Allocation

Cable Output	Wire-Nr. Colour	Rated Voltage Rated Current	Function	Cable Input
A1	GNYE	20A	PE	A2
C1	1	24V/6A	24V Supply	C2
D1	2			D2
E1	3			E2
F1	4			F2
B1	WH/OG (TD+)	100BASE-TX	Ethernet Profinet	B2
	OG (TD-)			
	WH/GN (RD+)			
	GN (RD-)			
	SH (Shield)			

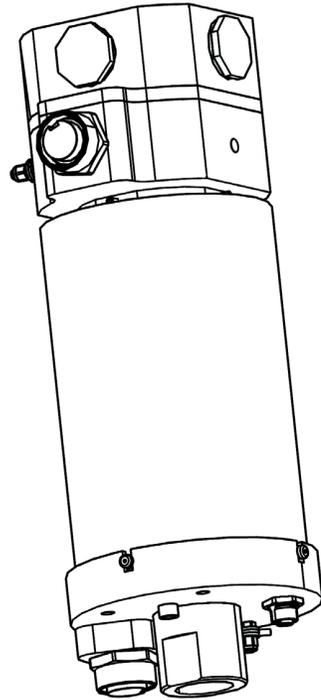
# ETSR 4

## 4 Stations / 90° Degrees



# ETSR KS

## Custom-Made



Specification	
Rotation speed	max. 60 rpm
Air connections	Input: 1 x 1" BSPP Output: 4 x 3/4" BSPP
Power supply	Input: 1 x 7/8" 5 Pins Output: 4 x 7/8" 5 Pins
Fieldbus	Input: 1 x M12 Cod-D Output: 1 x M12 Cod-D
Anti-rotation	ISO7379 (M8) 10 x 90 mm
Lifetime	~80 Millionen revolutions
Operating temperature	5 - 60 °C
Weight	4,84 kg
Dimensions	L: 275 mm ø 130 mm
Operating pressure	6 (±1) bar

Output	Pin-Nr.	Funtion	Nr.	Current	Voltage	Input
RSF 126-0.3M-14.5- PNT 	1	Input Power	1	15A	400 VAC	RKF 126-2M-14.5- PNT 
	2					
	3	Output Power	12	15A		
	4	Output Power	10	10A		
	5	Safe Input Power	13	15A		
	6	Power	16	15A		
	7	Power	11	10A		
	8	Reserve	7	10A		
	9	PE (Grounding)	6	15A		
	10	Output Power	14	15A		
	11	Output Power	9	10A		
	12	Reserve	8	10A		
M12 90° (FEMALE) CODE-D 4 PTS 	1	RD+	1	2A	24V	M12 (FEMALE) CODE-D 4 PTS 
	2	TD+	4			
	3	RD-	2			
	4	TD-	5			
Housing	Shield		3, 6	15A	400V	



Thank you for your  
attention

Further Layouts,  
connections and  
models available upon  
request.

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