



PA Ventiler AB
EN DEL AV BE/VERTTECH

VRIDSPJÄLLVENTIL Med elektriskt vriddon

PA 204 EI don

**WAFER TYP FÖR INSPÄNNING MED ELEKTRISKT
VRIDDON FÖR VALFRI SPÄNNING**

GO WITH OUR FLOW

APPLIKATION

PA 204-spjällventiler är avsedda för ON/OFF eller reglering i rörsystem för vätska eller tex. tryckluft
- Användningsområde: VVS, Industri etc.



-Media: kallt vatten, varmt vatten, avloppsvatten, syror etc.
«Inte lämplig för ånga»

GENERELA EGENSKAPER

STORLEK : Från DN40 till DN300.

- Design enligt NF EN 593.
- Fastvulkaniserat gummifoder i NBR
- Typ med släta öron
- Tätning i båda cirkulationsriktningarna för rören.
- Bearbetad skiva som garanterar en perfekt täthet.
- Förlängd hals som är kompatibel med rörisolering
- Reducerat manövreringsmoment.
- Spjällaxel monterad på skiva med konisk stift.
- Minskade tryckförluster
- Elektriskt vriddon för valfri spänning Borstlöst elektriskt 90 graders ställdon med justerbara gränslägesbrytare och antikondensvärmare som standard, IP67-kapsling. Visuell lägesindikering samt möjlighet till manuell manövrering
- ISO 5211 monteringsplatta.



Design	Tillverkning enligt kraven i det europeiska direktivet 2014/68/UE «Utrustning under tryck»: modul H.
Bygglängd	Bygglängd enligt standarderna NF EN 558-1 serie 20, ISO 5272 serie 20, DIN 3202.
Anslutning	Montering mellan flänsar ISO PN10/16 enligt EN1092-2, BS450, AISI B16.1-5. Justerbar mellan flänsar ASME B16.5 Classe 150 och JIS 10K. GOST PN10/16.
Prestanda	Trycktest enligt standarderna EN12266-1, DIN 3230, BS 5154 och ISO 5208: -Hus : 24 bar -Säte :17.6 bar

PRODUKT GODKÄNNANDE



På Förfrågan

PA VENTILER AB • Sagbäcksvägen 3B, 437 31
Lindome • Tel 031-99 25 00 • Fax 031-99 25 03 •
info@paventiler.se • paventiler.se



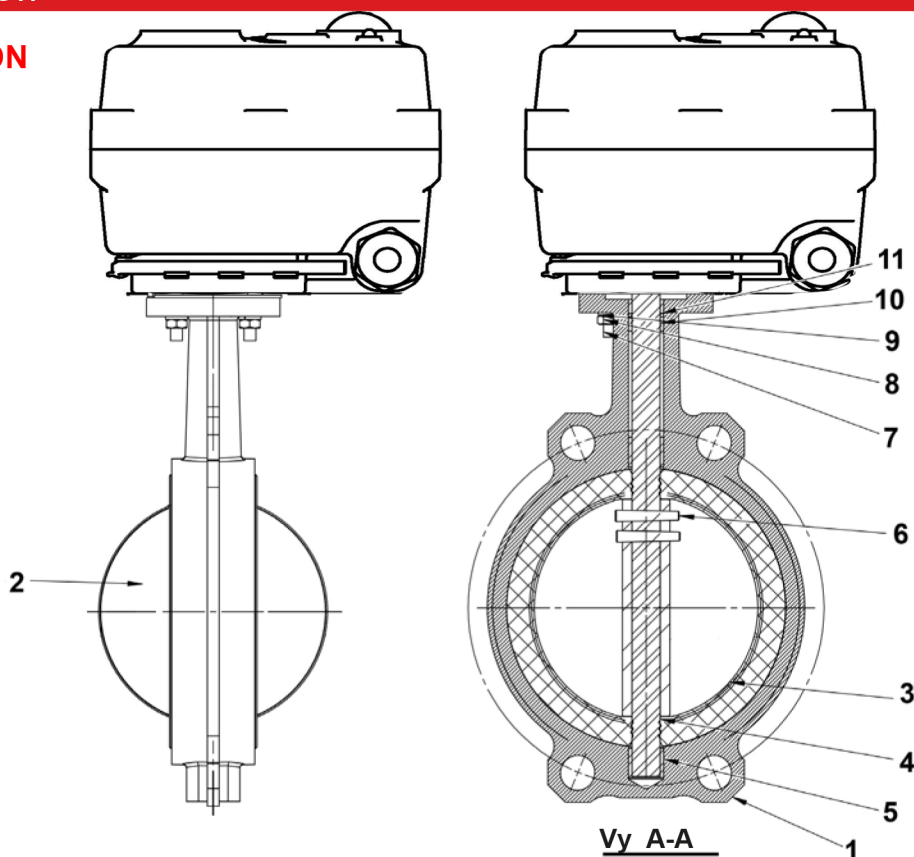


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KONSTRUKTION



Pulverlackerad epoxibelagt hus RAL 5015 tjocklek 150μ

Pos.	Antal	Beskrivning	Material	DIN
1	1	Hus	Segjärn EN-GJS-400	GGG40
2	1	Skiva	Syrafaststål, CF8M	CF8M
3	1	Tätning	NBR	
4	1	Axel	Rostfritt stål 420	X20Cr13
5	2	Lagring	PTFE	
6	2	Nit	Rostfritt stål 420	X20Cr13
7	2	Skruv	Rostfritt stål 201	
8	2	Mutter	Rostfritt stål 201	
9	2	Bricka	Rostfritt stål 201	
10	2	Lagring	PTFE	
11	1	O-ring	EPDM	

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VRIDSPJÄLLVENTIL MED ELEKTRISKT VRIDDON FÖR VALFRI SPÄNNING

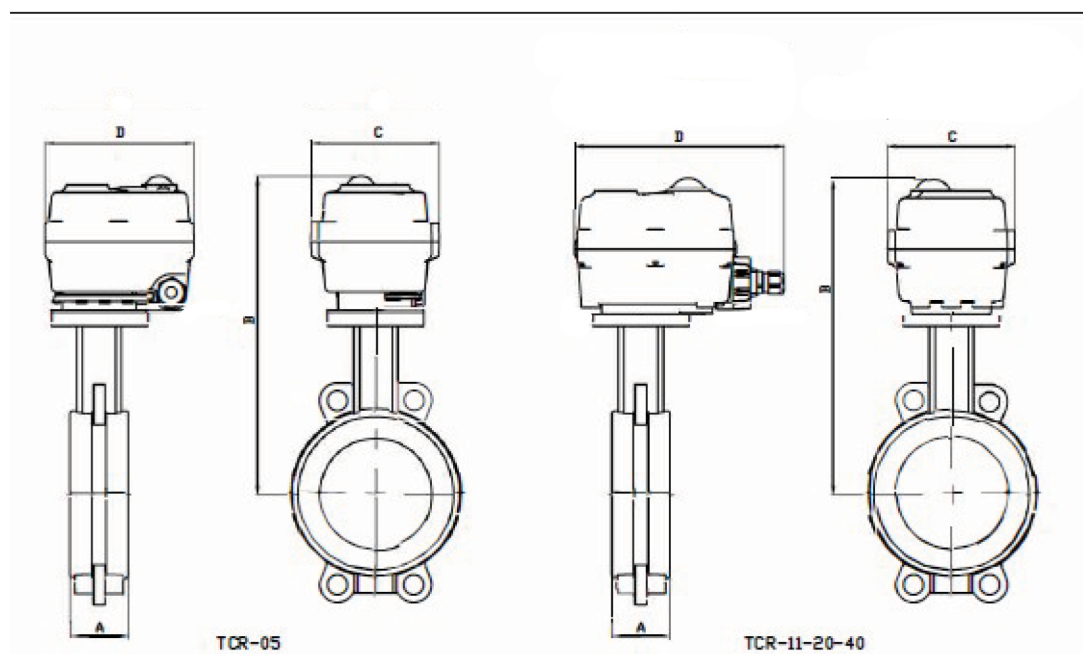


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PA 204 El don

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DIMENSIONER



DN	40	50	65	80	100
SERVO	TCR05	TCR05	TCR05	TCR05	TCR11
A	33	43	46	46	52
B	277	283.5	289	305	328
C	111	111	111	111	115
D	132	132	132	132	165
KG	3.9	4.4	5	5.7	7.9

DN	125	150	200	250	300
SERVO	TCR11	TCR20	TCR40	TCR40	TCR40
A	56	56	60	68	78
B	340	413	429	532	582
C	115	160	160	160	160
D	165	270	270	270	270
KG	9.5	14.6	19.1	35.9	46.9

Teknisk Data

Maximalt arbetstryck: 16 bar
Maximalt vakumtryck: 0.8 bar i 10 minuter
Maximal arbetstemperatur : -10°C / +80°C

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TCR-N ELECTRICAL ACTUATOR

FEATURES

The TCR-N electric actuators are intended for motorising ¼ turn valves with a torque of 15, 20, 50, 110, 200 or 400 Nm. With a compact construction and plastic housing, they are especially well suited for motorising ball valves and butterfly valves. Several variants offer advanced functions. IP67 leak-tightness: to be used indoors and, possibly, outdoors under a shelter. Possible installation in parallel. Manual control with a key.

AVAILABLE MODELS

Supply voltages: 230V AC, 24V AC/DC, 12V DC.

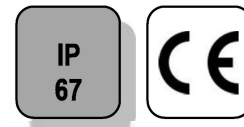
LIMITS OF USE

IP Code	IP 67
Ambient temperature	- 20°C / +60°C
Service factor	S4 - 50% (TCR 02-05-11)
	S3 - 85% (TCR 20-40)



MECHANICAL FEATURES

Gear box	treated steel pinions
Torques	15 - 20 - 50 - 110 - 200 - 400 Nm
Angle of rotation	90° +/- 2°
Declutching	Without (TCR 02-05-11)
	With (TCR 20-40)
Override control	By key



Actuator	TCR 02N			TCR 05N		
Torques (Nm)	15	20	20	50		
Voltage	12V DC	24V AC-DC	95-265V AC-DC	12VDC	24V AC-DC	95-265V AC-DC
Manoeuvring time (s)	15	10	10	12	12	12
ISO 5211:	F03/F05 - star 11			F05/F07 - star 14		

Actuator	TCR 11N			TCR 20N			TCR 40N		
Torques (Nm)	110			200			400		
Voltage	12V DC	24V AC-DC	95-265V AC-DC	12VDC	24V AC-DC	95-265V AC-DC	12V DC	24V AC-DC	95-265V AC-DC
Manoeuvring time (s)	10	10	10	25	25	25	25	25	25
ISO 5211:	F05/F07 - star 17			F07/F10 - star 22			F07/F10 - star 22		

Information given as an indication only, and subject to possible modifications

 PA Ventil AB EN DEL AV BEIJERTECH			

TCR-N ELECTRICAL ACTUATOR

ELECTRICAL FEATURES

Actuator	TCR 02N	TCR 05N
Motor protection	Thermal switch	
Limit switches	2 adjustable switches	
Auxiliary switches	2 adjustable dry switches	
Anti-condensation	integrated	
Electrical connection	PE M10 + 1.5m cable	PE M20 + 1.5m cable

Actuator	TCR 02N			TCR 05N		
Voltage	12V DC	24V AC-DC	95-265V AC-DC	12V DC	24V AC-DC	95-265V AC-DC
Power (W)	15	15	15	25	25	25
Current (A)	1,5	1,5	0,09	1,67	0,18 - 0,37	
Fuse Protection (A)	5	5	1	8	1 - 2	

Actuator	TCR 11N	TCR 20N	TCR 40N
Motor protection	Thermal switch		
Limit switches	2 adjustable switches		
Auxiliary switches	2 adjustable dry switches		
Anti-condensation	Integrated		
Electrical connection	2 x PE M14 + 1,5m cable	2 x PE M20 + 1.5m cable	2 x PE M20 + 1,5m cable

Actuator	TCR 11N			TCR 20N			TCR 40N		
Voltage	12V DC	24V AC-DC	95-265V AC-DC	12V DC	24V AC-DC	95-265V AC-DC	12V DC	24V AC-DC	95-265V AC-DC
Power (W)	100	100	100	50	50	50	80	80	80
Current (A)	2,5		0,3 – 0,6	2		0,22	3,3		0,36
Fuse Protection (A)	5		2 - 3	3		5	8		2

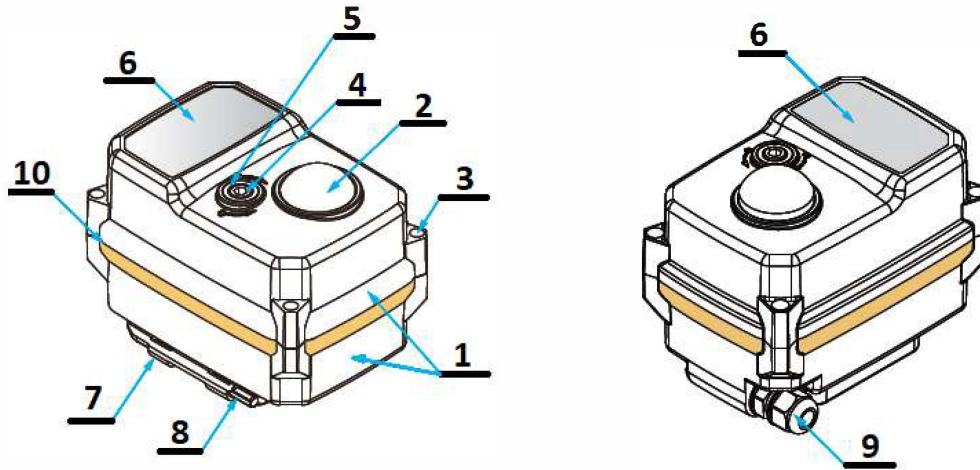
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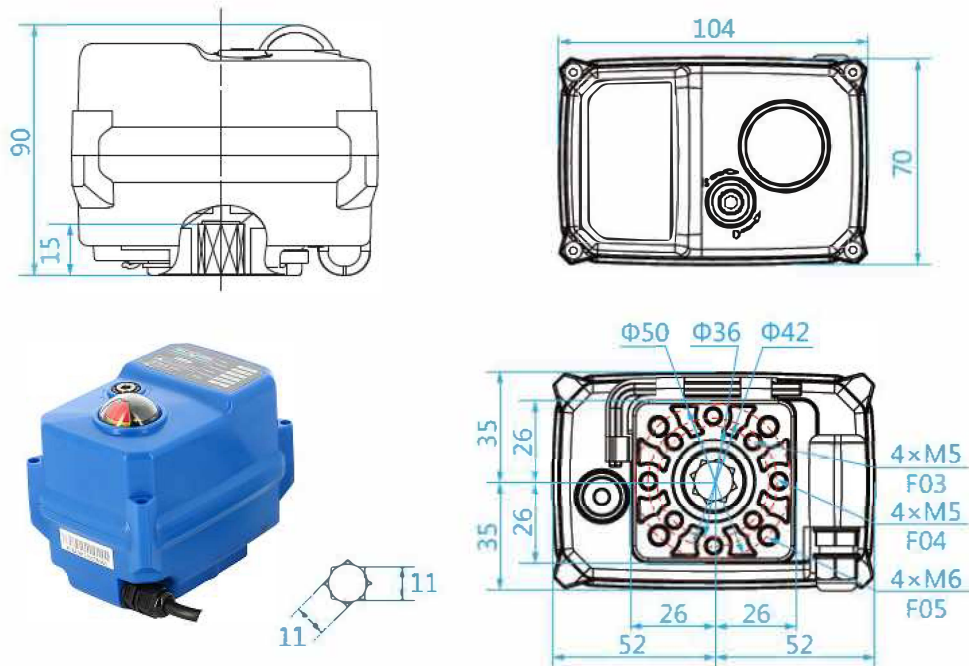
TCR-N ELECTRICAL ACTUATOR

CONSTRUCTION (TCR-02N)

TCR-02N					
No.	Name	Material	No.	Name	Material
1	Casing + lid	Plastic (ABS)	6	Rating plate	PVC
2	Position indicator	Polycarbonate plastic	7	Key support	Plastic (ABS)
3	Screw x 4	Aisi 304	8	Hex key	Steel
4	Backup control stem	Aisi 304	9	Packing gland	Nylon
5	Gasket	NBR	10	Cover gasket	NBR
Weight (kg): 0.620					



DIMENSIONS (mm)



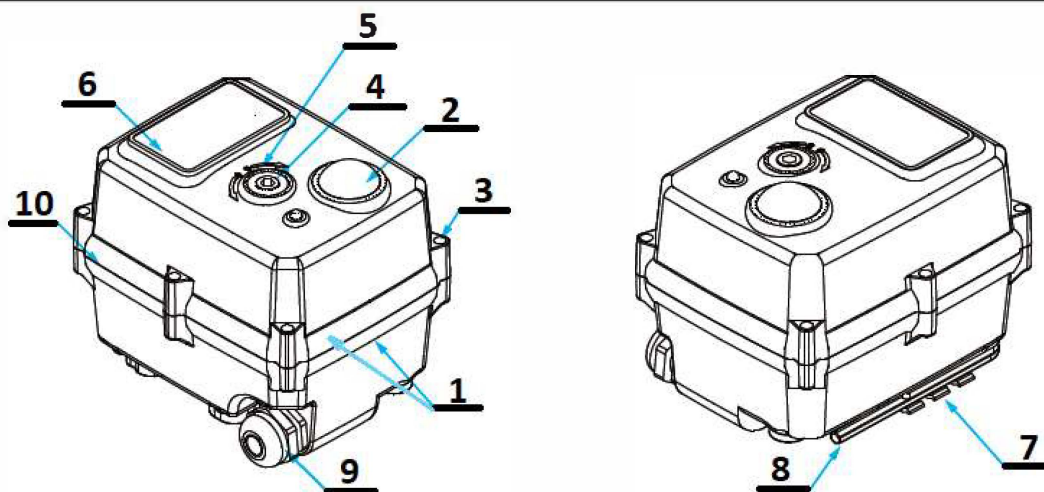
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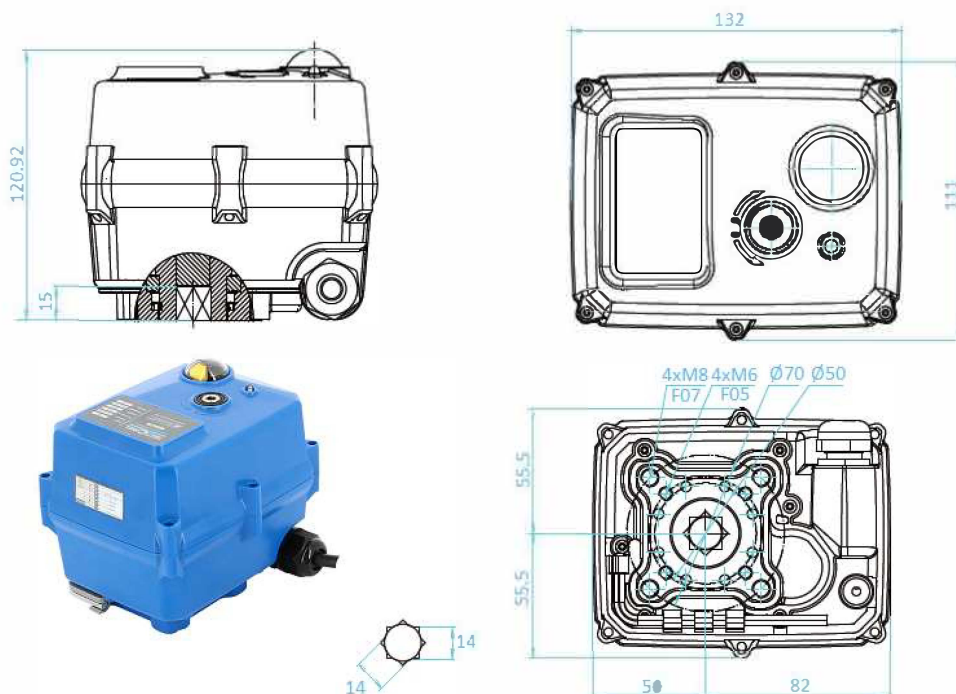
TCR-N ELECTRICAL ACTUATOR

CONSTRUCTION (TCR-05N)

TCR-05N					
No.	Name	Material	No.	Name	Material
1	Casing + lid	Plastic (ABS)	6	Rating plate	PVC
2	Position indicator	Polycarbonate plastic	7	Key support	Plastic (ABS)
3	Screw x 6	Aisi 304	8	Hex key	Steel
4	Backup control stem	Aisi 304	9	Packing gland	Nylon
5	Gasket	NBR	10	Cover gasket	NBR
Weight (kg): 1.800					



DIMENSIONS (mm)



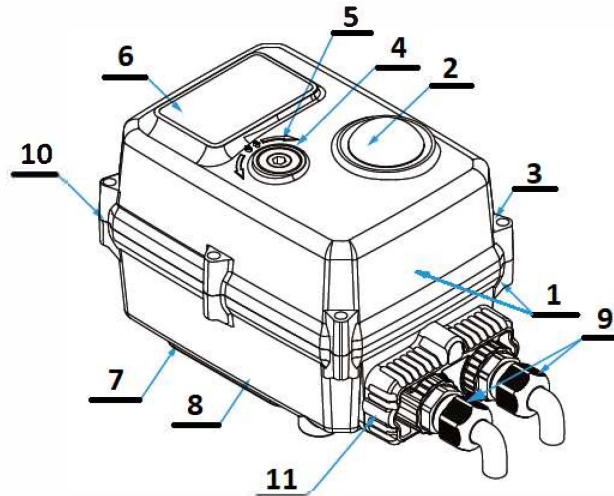
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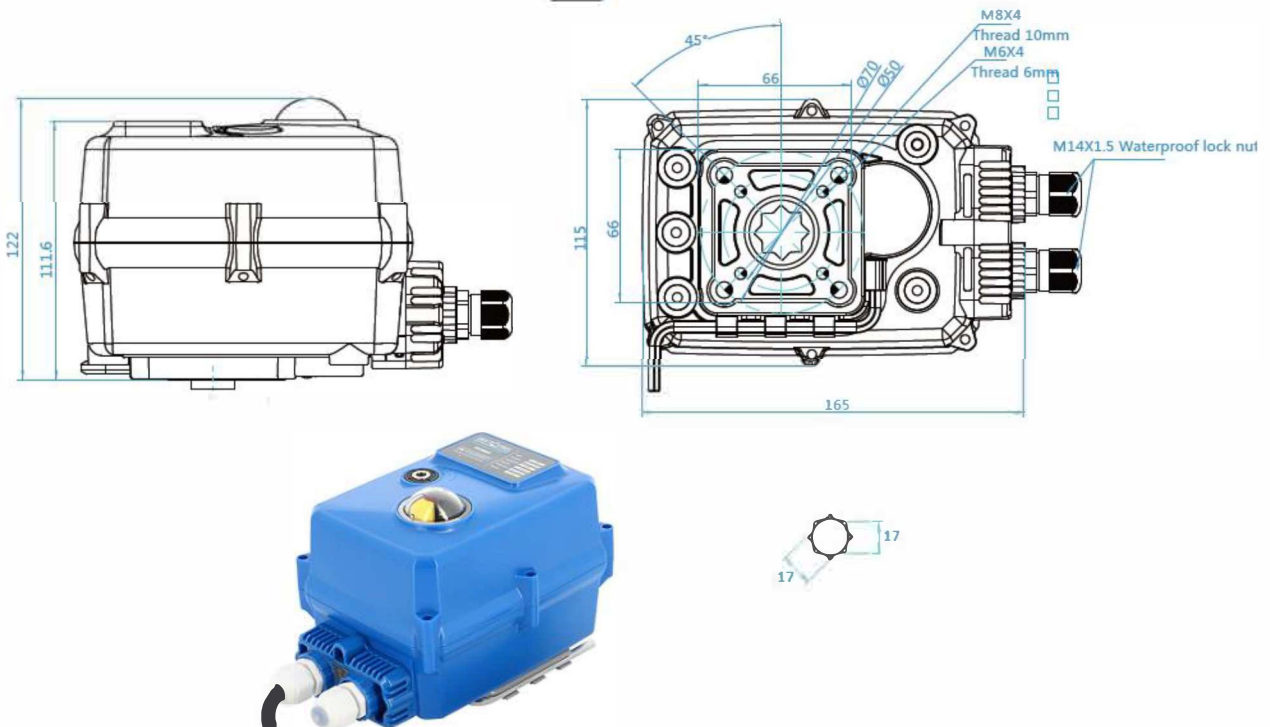
TCR-N ELECTRICAL ACTUATOR

CONSTRUCTION (TCR-11N)

TCR-11N					
No.	Name	Material	No.	Name	Material
1	Casing + lid	Plastic (ABS)	6	Rating plate	PVC
2	Position indicator	Polycarbonate plastic	7	Key support	Plastic (ABS)
3	Screw x 6	Aisi 304	8	Hex key	Steel
4	Backup control stem	Aisi 304	9	X 2Packing gland	Nylon
5	Gasket	NBR	10	Cover gasket	NBR
Weight (kg): 2.200			11	Cable gland unit	Plastic (ABS)



DIMENSIONS (mm)



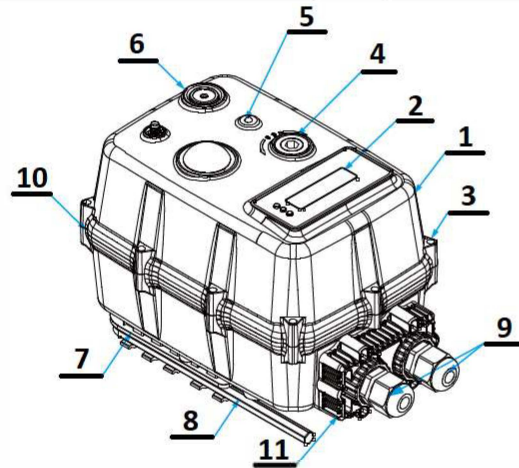
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 PA Ventiler AB EN DEL AV BEVERTECH			

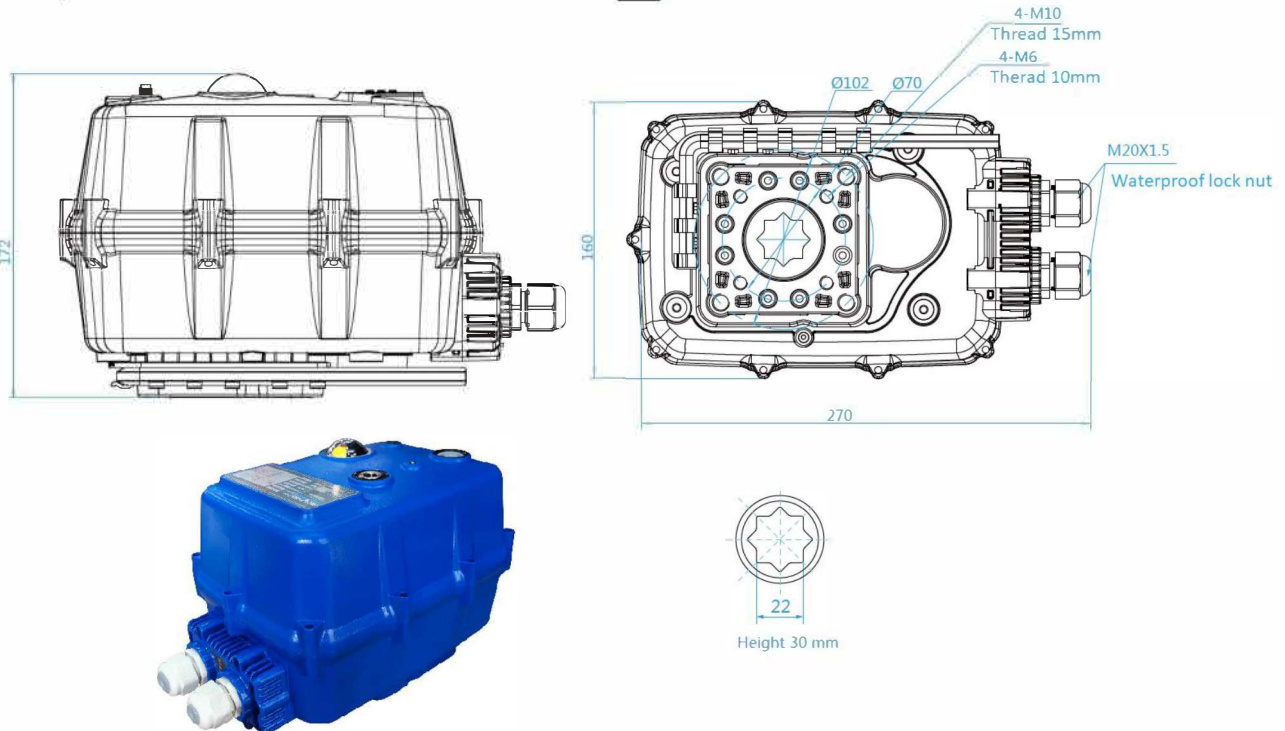
TCR-N ELECTRICAL ACTUATOR

CONSTRUCTION (TCR-20N / TCR-40N)

TCR-20N / TCR-40N					
No.	Name	Material	No.	Name	Material
1	Casing + lid	PC + PET	6	Clutch	Polyoxymethylene POM
2	Position indicator	Polycarbonate plastic	7	Key support	Plastic ABS
3	Screw x 6	Aisi 304	8	Hex key	Steel
4	Backup control stem	Aisi 304	9	X 2Packing gland	Nylon
5	LED	Transparent PC	10	Cover gasket	NBR
Weight (Kg) : 6,000			11	Cable gland unit	Plastic ABS



DIMENSIONS (mm)

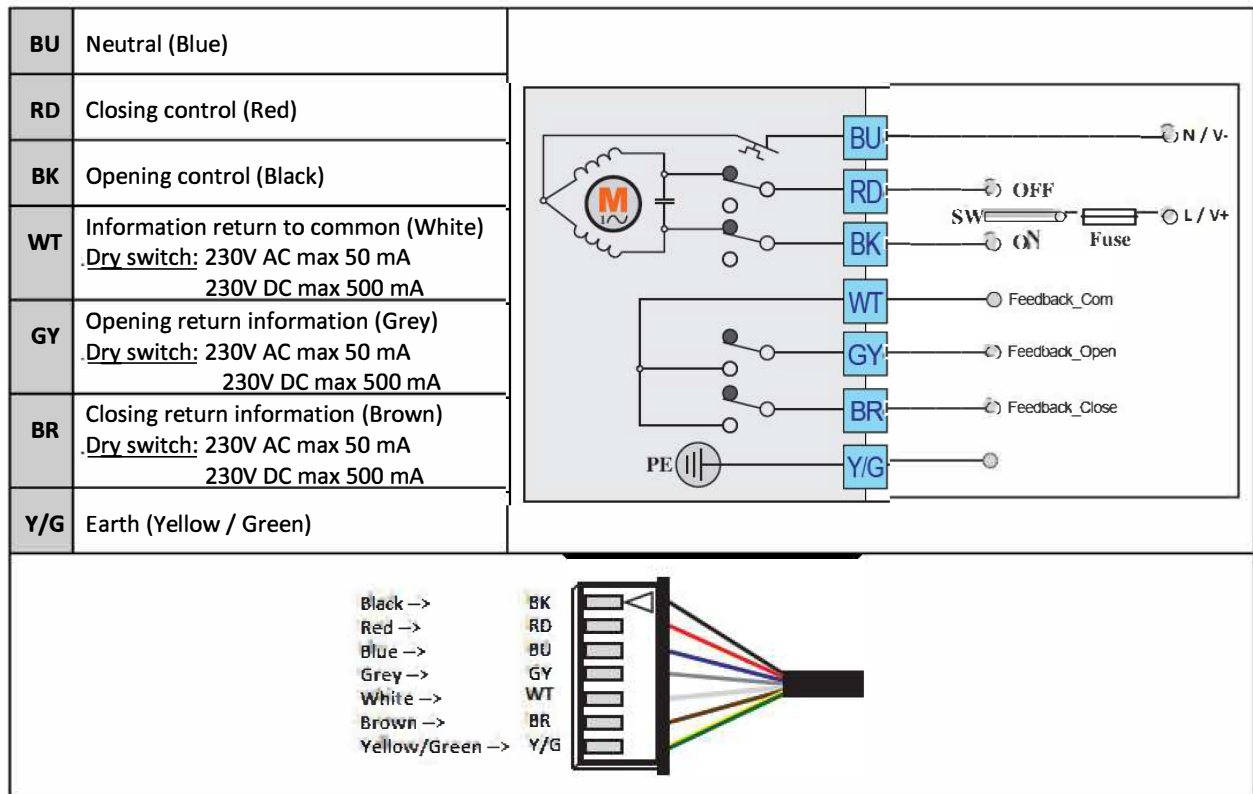


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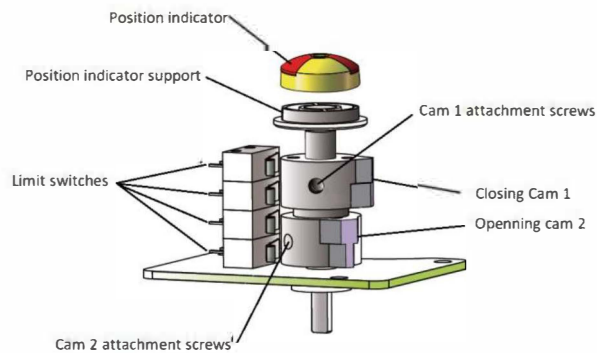
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TCR-N ELECTRICAL ACTUATOR

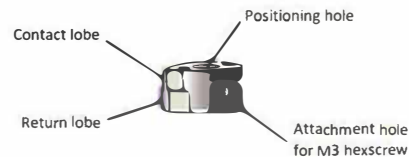
WIRING DIAGRAM



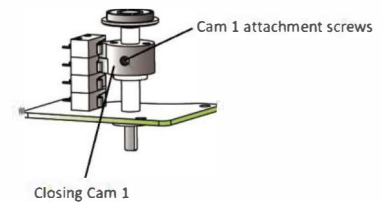
SWITCH SETTING



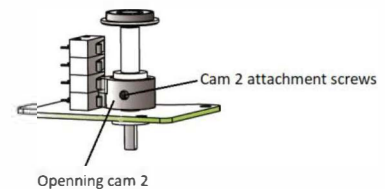
GENERAL VIEW



CAM DETAIL



CLOSING CAM ADJUSTMENT



OPENING CAM ADJUSTMENT

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TCR-N ELECTRICAL ACTUATOR

TROUBLESHOOTING

Defect met	Cause of defect	Method of solving
Inactive actuator	Non-connected electrical grid.	Connect to the electrical grid.
	Wrong voltage.	Check the actuator's voltage.
	Motor overheating.	Check the torque on the valve.
	Faulty connection.	Check the connection to the terminal box.
	Damaged start capacitor.	Contact the supplier for repair.
No switch signal	Faulty connection.	Check the connections.
	Damaged microswitch	Change the microswitch
Valve that is not fully closed	Use the return signal from the actuator check.	Receiving a return signal does not mean that the actuator is fully closed, hence do not cut the power supply.
	The hysteresis increases due to wear or between the actuator and the valve's stem.	Readjust the limit cams. Contact the supplier for repair.
Presence of humidity or water in the actuator	Unsuitable cable cross-section being used.	Contact the supplier for repair.
	The cable connection is not leak-tight.	
	Worn sealing gaskets.	
	Loose cover screws.	Dry the internal parts and tighten the cover screws.

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