

bar-**posiswitch**

A module of the valve-control system bar-vacotrol for marine equipment and systems

Technical data sheet



Objective

The new opto-electric position indicator system bar-positswitch was specially developed for the actubar type of actuator.

It can be placed directly onto the actubar – without brackets or feet – and therefore forms a compact unit.

Alternatively the bar-positswitch can be mounted on all quarter-turn-actuators with NAMUR interface acc. to VDI/VDE 3845 so that the unique advantages are usable at these combinations also.

One of the special features: the system adjusts the end positions itself!

The adjustment which is often resulting in mistakes and waste of time is not necessary any more. The position indicator system is ready for use directly after mounting. bar-positum has all features for wiring the solenoid valves for use for monostabile as well for bistabile valves. The expensive laying of different cables per valve each is avoided as bar-positswitch offers all input and output signals and needs only one cable at all.

Note: Accessories like solenoid valves are not part of the positswitch and therefore need to be DNV certified themselves.



Technical data

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Materials	casing: screws: sight glass: cable glands: actuating shaft:	alu-diecast, resin-coated stainless steel A2 PC PA stainless steel
Pivoting angle	to 180°	
Protection type	IP 66 - DNV Enclosure Class C	
Temperature range	-10 °C to +50 °C	
Weight	520 g	
Cable glands	up to 4 glands 3 x M 16, 1 x M 20	
Cable	M 16 = ø 5 - 10 mm, up to 1,5 mm ² M 20 = ø 7 - 13 mm, up to 1,5 mm ²	
Display/switch range	0° up to 180° pivoting angle	
Micro-switch	voltage/cont. current: contacts: switch function:	type M2 DC up to 120 Volt/4A AC up to 250 Volt/16A Silver/Nickel-coated Change-over contacts
Inductive sensor	voltage range: continuous current: switch function:	type D2 , direct switching, 3-wire technology 10 V – 36 V/DC 200 mA PNP normally open
Certificates	Certificate No: TAA0000368 to comply with DNV rules for classification – Ships, offshore units, and high speed and light craft	

Special features

Description	Benefits
Up to 4 cable glands.	Simple, also subsequent wiring of solenoid valves in bar-positswitch is possible. Also for bistable versions with 2 coils.
Available in 2 different types of switch.	Multiple application possibilities and short delivery time via modular construction.
Adjusting switch points for both end positions.	Time and cost savings. Switching points are always correctly adjusted.
Protected and clearly visible position indicator, adjustable for 2-way- and 3-way-valves.	Path of flow is recognisable from long distances for both 2-way as well as 3-way valves.
Robust construction via Aluminium diecast-casing.	Unaffected by outside influences.
Flexible modular design.	Especially advantageous price/-performance ratio.
All components are made from either corrosion-resistant or corrosion-protected materials.	Can be adopted for many conditions.
Optionally with pressure-balance device to avoid emergence of condensation water at extrem climatic conditions	Extended life cycle of the electric components as well as higher corrosion resistance.
Direct assembly via vacotrol-interface of the quarterturn actuator actubar. Alternatively applicable for all interfaces according to VDI/VDE 3845.	Compactness and robustness due to direct mounting as well as flexible assembly to all common actuator-series
Certificates	DNV TAA 0000368



No adjusting of the end positions!

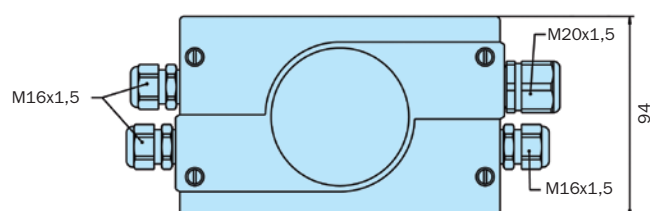
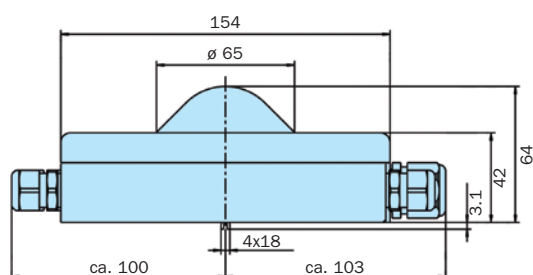


bar-positswitch is mounted directly on top of the actubar

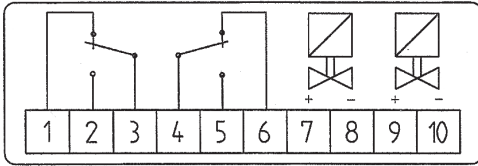


Paths of flow of the valve are clearly displayed with the red markings

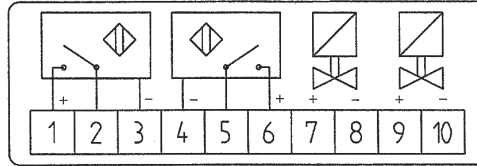
Dimensions



Switch diagrams



Micro-switch type M2



Inductive sensors type D2

Ordering code

PH-DV-	XX-	X-	X-	XX-	XXX
	Version M2 = 2 mechanical change-over switches D2 = 2 proximity sensors, 3-wire, PNP normally open	Mounting brackets 0 = none 1 = mounting bracket 80 x 30 x 30 mm 2 = mounting bracket 130 x 30 x 30 mm 5 = universal mounting bracket	Hole pattern in box-bottom 0 = none (assembly via mounting bracket) 1 = 80 x 30 mm 2 = 130 x 30 mm	integrated solenoid-control S1 = integrated solenoid-control for 1 coil (monostabile control-valve) S2 = integrated solenoid-control for 2 coils (bistabile control-valve)	Pressure balance device DAE DAE = pressure balance device DAE avoiding internal condensation

Examples of use

PH-DV-	M2-	1-	0-
	2 change-over switches	assembly via mounting bracket 80 x 30 x 30 mm	no hole pattern in box-bottom (assembly via mounting bracket)

PH-DV-	D2-	0-	1-	S1
	2 proximity sensors, 3-wire, PNP NO	no mounting bracket	hole pattern in box-bottom: 80 x 30 mm	integrated solenoid-control for 1 coil (monostabile)

PH-DV-	M2-	0-	2-	S2-	DAE
	2 change-over switches	no mounting bracket	hole pattern in box-bottom: 130 x 30 mm	integrated solenoid-control for 2 coils (bistabile)	Integrated pressure balance device DAE avoiding internal condensation

PH-DV-	D2-	2-	0-	DAE
	2 proximity sensors, 3-wire, PNP NO	assembly via mounting bracket 130 x 30 x 30 mm	no hole pattern in box-bottom (assembly via mounting bracket)	Integrated pressure balance device DAE avoiding internal condensation

DNV-Certificate



DNV

Certificate No:
TAA0000368

TYPE APPROVAL CERTIFICATE

This is to certify:
That the Limiting Switches

with type designation(s)
bar-miniswitch MS-DV-..., bar-posiswitch PH-DV-...

Issued to
bar pneumatische Steuerungssysteme GmbH
Dattenberg, Rheinland-Pfalz, Germany

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
bar-miniswitch MS-DV-...	D	B	B	--	C (IP66)
bar-posiswitch PH-DV-...	D	B	B	--	C (IP66)

Issued at **Hamburg** on **2022-07-13**

This Certificate is valid until **2027-07-12**.
DNV local station: **Essen**

Approval Engineer: **Holger Jansen**

for DNV
Digitally Signed By: Papanuskas, Joannis
Location: DNV GL SE Hamburg, Germany



Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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bar GmbH hereby objects to any term, different from or additional to bar GmbH terms, contained in any buyer communication in any form,
unless agreed to in a writing signed by an officer of bar GmbH.



bar pneumatische Steuerungssysteme GmbH
Auf der Hohl 1 • 53547 Dattenberg • Germany
Tel. +49 (0) 2644 96070 • Fax +49 (0) 2644 960735
bar-info@wattswater.com • www.bar-gmbh.de