



Application

Single-acting or double-acting positioner for attachment to pneumatic control valves.
Self-calibrating, automatic adaptation to valve and actuator.

Set point **4 to 20 mA**
Valve travel **3.6 to 300 mm**
Opening angle **24 to 100°**

The positioner ensures a predetermined assignment of the valve position to the control signal. It compares the input signal received from a control system to the travel or rotational angle of the control valve and issues a corresponding output signal pressure (output variable).

Special features

- High air capacity
- Simple attachment to all common linear and rotary actuators:
 - SAMSON direct attachment
 - NAMUR rib
 - Attachment to rod-type yokes according to IEC 60534-6-1
 - Attachment according to VDI/VDE 3847
 - Rotary actuator attachment according to VDI/VDE 3845
- Non-contact position sensing
- Plain-text display with NAMUR Recommendation NE 107 states and messages on the device
- Integrated diagnostic functions
- Simple one-knob, menu-driven operation
- LCD easy to read in any mounting position thanks to selectable reading direction
- Configurable with a computer over the SSP interface using the TROVIS-VIEW software
- Variable, automatic start-up with four different initialization modes
- Sub (substitution) initialization mode allows the positioner to be started up in case of emergency whilst the plant is running without having to change the valve position.
- All parameters saved in non-volatile EEPROM
- Two-wire system with a small electrical load of 465 Ω
- Adjustable tight-closing function
- Continuous zero monitoring



Fig. 1: TROVIS 3730-3 Electropneumatic Positioner

- Integrated temperature sensor and operating hours counter
- Self-diagnostics, messages as condensed state conforming to NAMUR Recommendation NE 107
- Integrated EXPERTplus diagnostics for control valves (► T 8389-3)
- Optional additional functions: Pressure sensors¹⁾, position transmitter, inductive limit contacts, software limit contacts, forced venting function, binary input, binary output²⁾

¹⁾ Hardware version 02.00.xx/firmware version 2.02.xx and higher (available in second quarter of 2025)
²⁾ Only in combination with limit switches

Design and principle of operation

The TROVIS 3730-3 Electropneumatic Positioner is mounted on pneumatic control valves and used to assign the valve position (controlled variable x) to the control signal (set point w). The positioner compares the electric control signal of a control system to the travel or opening angle of the control valve and issues a signal pressure for the pneumatic actuator.

The positioner mainly consists of a non-contact travel sensor system (2), pneumatics and the electronics with the microcontroller (4). The valve position is transmitted either as an angle of rotation or linear travel to the pick-up lever, from there to the travel sensor (2) and forwarded to the microcontroller (4). The PID algorithm in the microcontroller compares the valve position measured by the travel sensor (2) to the 4 to 20 mA DC control signal issued by the control system after it has been converted by the A/D converter (3).

In case of a set point deviation, the activation of the i/p converter (7) is changed so that the actuator of the control valve (1) is pressurized or vented accordingly over the downstream air capacity booster (6). As a result, the closure member of the valve (e.g. plug) is moved to the position determined by the set point.

The positioner is operated by a rotary pushbutton (10) for menu navigation on the plain-text display (11).

The extended EXPERTplus diagnostics are integrated into the positioner. They provide information on the control valve and positioner and generate diagnostic and status messages, which allow faults to be pinpointed quickly.

Version

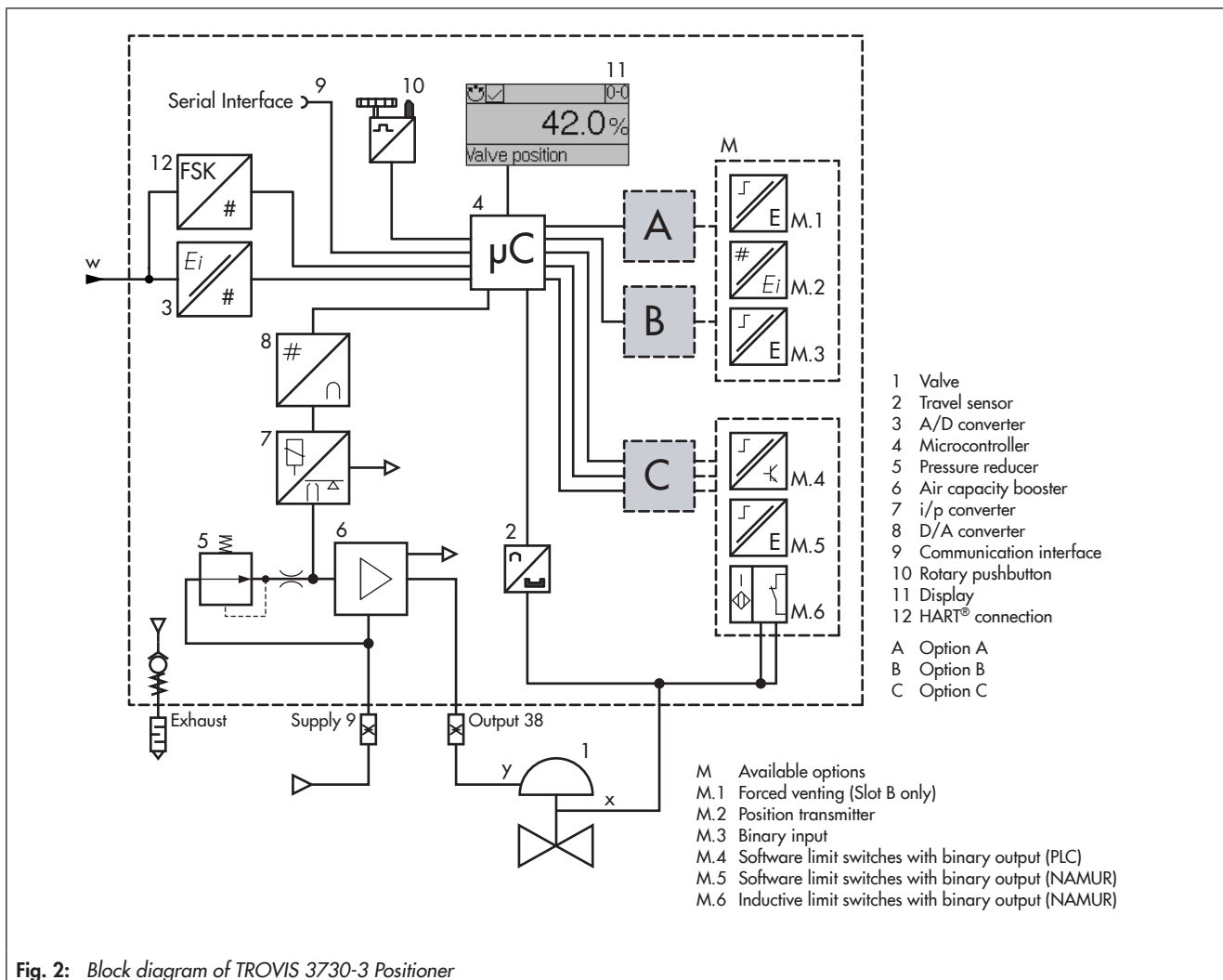
- **TROVIS 3730-3** · Electropneumatic positioner for control valves, HART® communication, on-site operation, local communication with SSP interface, EXPERTplus diagnostics

Optional modules

The optional additional functions of the TROVIS 3730-3 Positioner allows it to be adapted to specific requirements. The following additional functions are available:

- Position transmitter
- Inductive limit switches
- Software limit switches
- Forced venting
- Binary input
- Binary output (only in combination with limit switches)

If the positioner is ordered with additional functions, they are ready installed and connected upon delivery.



Technical data · TROVIS 3730-3 Positioner

Travel	
Adjustable travel for	Direct attachment to Type 3277: 3.6 to 30 mm Attachment according to IEC 60534-6 (NAMUR): 3.6 to 300 mm Attachment according to VDI/VDE 3847: 3.6 to 300 mm Attachment to rotary actuators: 24 to 100°
Travel range	Adjustable within the initialized travel/angle of rotation of the valve; travel can be restricted to 1/5 at the maximum.
Set point w	
Signal range	4 to 20 mA · Two-wire device, reverse polarity protection · Minimum span 4 mA
Static destruction limit	40 V, internal current limit approx. 40 mA
Minimum current	3.75 mA for display/operation (HART® communication and configuration) 3.90 mA for pneumatic function
Load impedance	≤9.3 V (corresponds to 465 Ω at 20 mA)
Supply	
Supply air	1.4 to 7 bar (20 to 105 psi)
Air quality acc. to ISO 8573-1	Max. particle size and density: Class 4 Oil content: Class 3 Pressure dew point: Class 3 or at least 10 K below the lowest ambient temperature to be expected
Hysteresis	≤0.3 %
Sensitivity	≤0.1 %
Characteristic	Linear/Equal percentage/Reverse equal percentage/SAMSON butterfly valve
Transit time	Exhaust and supply adjustable separately up to 240 s by software
Direction of action	Reversible
Air consumption, steady state	Independent of supply air, approx. 65 l _n /h
Air output capacity (when Δp = 6 bar)	
Actuator (supply)	8.5 m _n ³ /h · At Δp = 1.4 bar: 3.0 m _n ³ /h · K _{Vmax(20 °C)} = 0.09 – At the signal pressure output (38) (connecting plate or connection block): Can be restricted to K _{Vmax(20 °C)} ≈ 1/3 K _{Vmax(20 °C)} – At the signal pressure output on the back: K _{Vmax(20 °C)} ≈ 1/3 K _{Vmax(20 °C)}
Actuator (exhaust)	14.0 m _n ³ /h · At Δp = 1.4 bar: 4.5 m _n ³ /h · K _{Vmax(20 °C)} = 0.15 – At the signal pressure output (38) (connecting plate or connection block): Can be restricted to K _{Vmax(20 °C)} ≈ 1/3 K _{Vmax(20 °C)} – At the signal pressure output on the back: K _{Vmax(20 °C)} ≈ 1/3 K _{Vmax(20 °C)}
Environmental conditions and permissible temperatures	
Permissible environmental conditions according to EN 60721-3	
Storage	1K6 (relative humidity ≤95 %)
Transport	2K4
Operation	–20 to +85 °C: All versions –40 to +85 °C: With metal cable glands –55 to +85 °C: Low-temperature version with metal cable glands Observe the limits in the test certificate for explosion-protected versions.
Resistance to vibration	
Vibrations (sinusoidal)	According to DIN EN 60068-2-6: 0.15 mm, 10 to 60 Hz; 20 m/s ² , 60 to 500 Hz per axis 0.75 mm, 10 to 60 Hz; 100 m/s ² , 60 to 500 Hz per axis
Bumps (half sine)	According to DIN EN 60068-2-29: 150 m/s ² , 6 ms; 4000 bumps per axis
Noise	According to DIN EN 60068-2-64: 10 to 200 Hz: 1 (m/s ²) ² /Hz 200 to 500 Hz: 0.3 (m/s ²) ² /Hz 4 h/axis
Recommended continuous duty	≤20 m/s ²
Influences	
Temperature	≤0.15 %/10 K
Supply	None

Requirements	
EMC	Complying with EN 61000-6-2, EN 61000-6-3, EN 61326-1 and NAMUR Recommendation NE 21
Degree of protection	IP66/NEMA 4X
Electrical connections	
Cable glands	One M20x1.5 cable gland for 6 to 12 mm clamping range Second M20x1.5 threaded connection additionally available
Terminals	Screw terminals for 0.2 to 2.5 mm ² wire cross-section
Explosion protection	
ATEX, IECEx	See Table 1/Table 2
Materials	
Housing and cover	Die-cast aluminum EN AC-ALSi12(Fe) (EN AC-44300) acc. to DIN EN 1706, chromate and powder coating · Special version: stainless steel 1.4408
Window	Makrolon® 2807
Cable glands	Polyamide, nickel-plated brass, stainless steel 1.4305
Other external parts	Stainless steel: 1.4571 and 1.4301
Communication	
	TROVIS VIEW with SSP/HART® Revision 7
Weight	
	Aluminum housing: approx. 1.0 kg · Stainless steel housing: approx. 2.2 kg

Table 1: Explosion protection certificates for TROVIS 3730-3 with hardware version 01.00.xx/firmware version 02.00.xx

	Certification	Type of protection/comments			
		Number	Date		
TROVIS 3730-3	-110 Ex EU type examination certificate	BVS 18 ATEX E 044 X	2023-05-11	II 2G Ex ia IIC T4/T6 Gb II 2D Ex ia IIIC T85 °C Db	
	-510 Ex EU type examination certificate	BVS 18 ATEX E 044 X	2023-05-11	II 2D Ex tb IIIC T85 °C Db	
	-810 Ex EU type examination certificate	BVS 18 ATEX E 044 X	2023-05-11	II 3G Ex ec IIC T4/T6 Gc II 2D Ex tb IIC T85 °C Db	
	-850 Ex Statement of conformity	BVS 18 ATEX E 045	2023-05-11	II 3G Ex ec IIC T4/T6 Gc	
	-111 IECEx	IECEx BVS 18.0035X	2023-05-26	Ex ia IIC T4/T6 Gb Ex ia IIIC T85 °C Db	
	-511 IECEx	IECEx BVS 18.0035X	2023-05-26	Ex tb IIIC T85 °C Db	
	-811 IECEx	IECEx BVS 18.0035X	2023-05-26	Ex tb IIIC T85 °C Db Ex ec IIC T4/T6 Dc	
	-851 IECEx	IECEx BVS 18.0035X	2023-05-26	Ex ec IIC T6 Gc	
	-112 CCC Ex	2020322307001518	2023-04-29	2025-09-17	Ex ia IIC T4/T6 Gb Ex ia IIIC T85 °C Db
	-512 CCC Ex	2020322307001518	2023-04-29	2025-09-17	Ex tb IIIC T85 °C Db
	-111 CCoE	A/P/HQ/MH/104/8013	2023-12-31	2028-12-31	Ex ia IIC T4/T6 Gb
	-113 EAC Ex	RU C-DE.HA65.B.00700/20	2020-08-19	2025-08-18	1Ex ia IIC T6...T4 Gb X Ex ia IIIC T85 °C Db X
		ECAS-Ex	On request		
	-130 FM		FM21CA0064	2022-10-18	IS Class I, II, III, Div. 1, Gr. A,B,C,D,E,F,G; T4/T6 Ex ia IIC T4/T6 Gb NI Class I, II, III Div. 2, Gr. A,B,C,D,F,G; T4/T6 Type 4X; IP66

		Certification		Type of protection/comments
TROVIS 3730-3	-130	FM	Number FM21US0097 Date 2022-10-18	IS Class I, II, III, Div. 1, Gr. A,B,C,D,E,F,G; T4/T6 IS Class I, Zone 1, AEx ia IIC T4/6 Gb NI Class I, II, III Div. 2, Gr. A,B,C,D,F,G; T4/T6 Type 4X; IP66
	-115	INMETRO	Number IEx 20.0090X/1 Date 2024-01-11 Valid until 2030-01-10	Ex ia IIC T4/T6 Gb Ex ia IIIC T85°C Db
	-515	INMETRO	Number IEx 20.0090X/1 Date 2024-01-11 Valid until 2030-01-10	Ex tb IIIC T85°C Db
	-815	INMETRO	Number IEx 20.0090X/1 Date 2024-01-11 Valid until 2030-01-10	Ex ec IIC T4/T6 Gc Ex tb IIIC T85°C Db
	-855	INMETRO	Number IEx 20.0090X/1 Date 2024-01-11 Valid until 2030-01-10	Ex ec IIC T4/T6 Gc
	-114	KCS Korea	Number 21-KA4BO-0920 Date 2021-12-06 Valid until 2024-12-06	Ex ia IIC T6/T4
	-112	NEPSI	Number GYJ23.1092X Date 2023-04-29 Valid until 2028-04-28	Ex ia IIC T4/T6 Gb Ex ia IIIC T85°C Db
	-512	NEPSI	Number GYJ23.1092X Date 2023-04-29 Valid until 2028-04-28	Ex tb IIIC T85°C Db
	-116	TR CMU 1055	Number ZETC/35/2021 Date 2021-07-26 Valid until 2024-07-25	II 2G Ex ia IIC T4/T6 Gb II 2D Ex ia IIIC T85 °C Db
	-516	TR CMU 1055	Number ZETC/35/2021 Date 2021-07-26 Valid until 2024-07-25	II 2D Ex tb IIIC T85 °C Db
-816	TR CMU 1055	Number ZETC/35/2021 Date 2021-07-26 Valid until 2024-07-25	II 3G Ex nA IIC T4/T6 Gc II 2D Ex tb IIIC T85 °C Db	
-856	TR CMU 1055	Number ZETC/35/2021 Date 2021-07-26 Valid until 2024-07-25	II 3G Ex nA IIC T4/T6 Gc	

Table 2: Explosion protection certificates for TROVIS 3730-3 with hardware version 02.00.xx/firmware version 02.02.xx ¹⁾

		Certification		Type of protection/comments
TROVIS 3730-3	-110	ATEX/IECEX	Number BVS 18 ATEX E 044 X Date 2025-02-21	II 2G Ex ia IIC T4/T6 Gb II 2D Ex ia IIIC T85 °C Db
	-510	ATEX/IECEX	Number BVS 18 ATEX E 044 X Date 2025-02-21	II 2D Ex tb IIIC T85°C Db or II 2D Ex tb IIIC T85°C Db and II 3G Ex ec IIC T4/T5 Gc
	-810	ATEX/IECEX	Number BVS 18 ATEX E 044 X Date 2025-02-21	II 3G Ex ec IIC T4/T6 Gc II 2D Ex tb IIC T85°C Db

¹⁾ Available in second quarter of 2025

Mounting the positioner

The positioner can be attached directly to the Type 3277 Actuator (240 to 750 cm²) over a connection block. In actuators with "actuator stem extends" fail-safe action, the signal pressure is routed over an internal hole in the actuator yoke to the actuator. In actuators with "actuator stem retracts" fail-safe action, the signal pressure is routed to the actuator over ready-made external piping.

Using the appropriate bracket, the positioner can also be attached according to IEC 60534-6-1 (NAMUR recommendation). The positioner can be mounted on either side of the control valve.

A pair of universal brackets is used for the attachment to Type 3278 Rotary Actuators or other rotary actuators according to VDI/VDE 3845. The rotary motion of the actuator is transferred to the positioner over a coupling wheel with travel indication.

A special version of the positioner allows it to be attached according to VDI/VDE 3847. This type of attachment allows the positioner to be replaced quickly while the process is running by blocking the air in the actuator. The positioner can be attached directly to the Type 3277 Actuator using an adapter bracket or adapter block. Alternatively, it can be attached to the NAMUR rib of a control valve using an additional NAMUR connection block.

Operation

The positioner is operated using one proven, user-friendly rotary pushbutton: the various menu levels, parameters and values are selected by turning the button. By pressing the button, the required setting is activated. All parameters can be checked and changed on site.

All values are displayed on the plain-text display. The reading direction of the display can be rotated by 180°.

The initialization key activates initialization which is started according to the ready adjusted parameters (autotune). After initialization is completed, the positioner immediately starts closed-loop operation.

To configure the positioner with SAMSON's TROVIS-VIEW software, the positioner is equipped with an additional digital interface to be connected to the USB interface of a computer using an adapter.

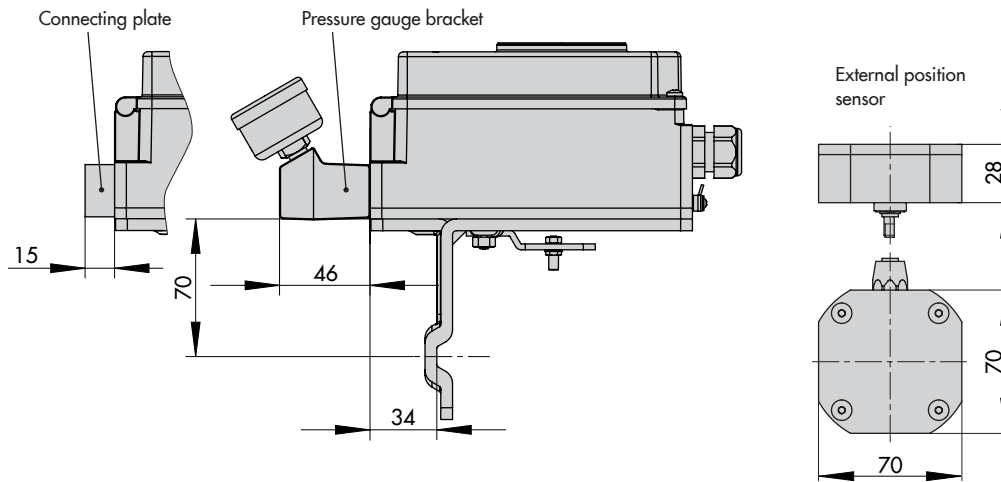
Additionally, all parameters of the TROVIS 3730-3 Positioner can be accessed using HART® communication.

Technical data · Optional additional functions

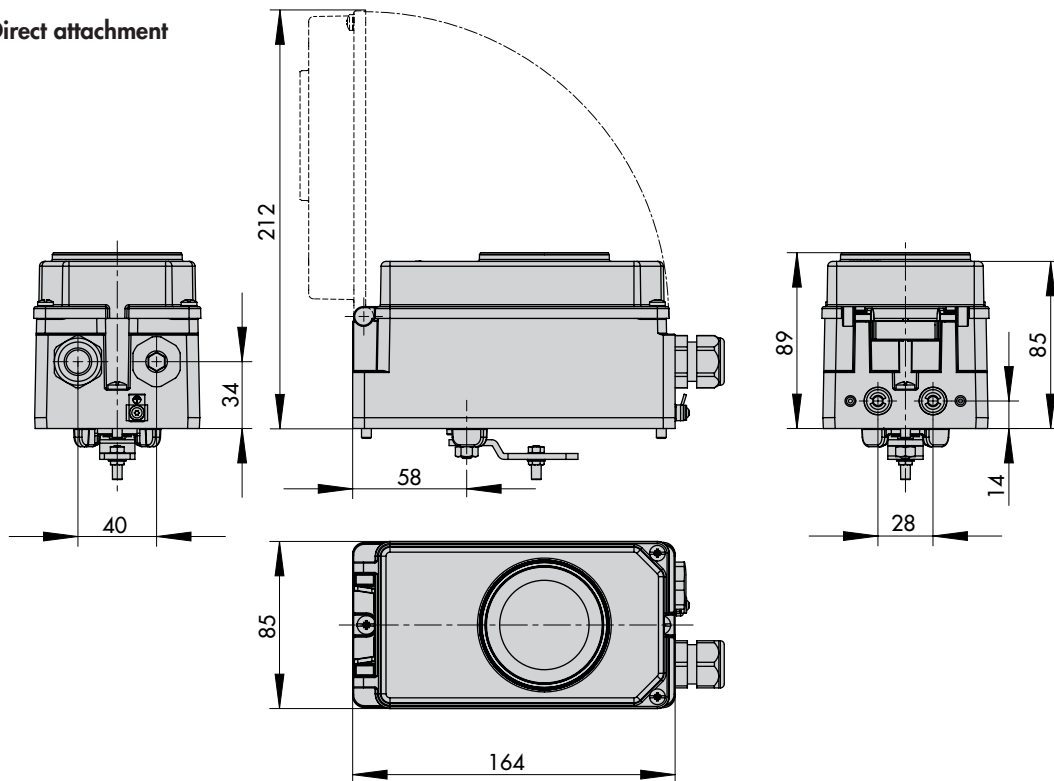
Position transmitter		
Version	Two-wire system, galvanic isolation, reverse polarity protection, reversible direction of action	
Supply	10 to 30 V DC	
Output signal	4 to 20 mA	
Error indication	2.4 or 21.6 mA	
No-load current	1.4 mA	
Static destruction limit	38 V DC · 30 V AC	
Software limit switches		
	NAMUR	PLC
Version	Galvanic isolation, reverse polarity protection, switching output acc. to EN 60947-5-6	Galvanic isolation, reverse polarity protection, binary input of a PLC acc. to EN 61131-2, $P_{\max} = 400 \text{ mW}$
Signal state	$\leq 1.0 \text{ mA}$ (non-conducting)	$R = 10 \text{ k}\Omega$ (non-conducting)
	$\geq 2.2 \text{ mA}$ (conducting)	$R = 348 \Omega$ (conducting)
Static destruction limit	32 V DC/24 V AC	32 V DC/50 mA
Binary output		
	NAMUR	PLC
Version	Galvanic isolation, reverse polarity protection, switching output acc. to EN 60947-5-6	Galvanic isolation, reverse polarity protection, binary input of a PLC acc. to EN 61131-2, $P_{\max} = 400 \text{ mW}$
Signal state	$\leq 1.0 \text{ mA}$ (non-conducting)	$R = 10 \text{ k}\Omega$ (non-conducting)
	$\geq 2.2 \text{ mA}$ (conducting)	$R = 348 \Omega$ (conducting)
Static destruction limit	32 V DC/24 V AC	32 V DC/50 mA
Inductive limit switches		
Version	For connection to switching amplifier according to EN 60947-5-6, SJ2-SN proximity switches, reverse polarity protection	
Measuring plate not detected	$\geq 3 \text{ mA}$	
Measuring plate detected	$\leq 1 \text{ mA}$	
Static destruction limit	20 V DC	
Permissible ambient temperature	-50 to +85 °C	
Binary input (switching behavior configured in TROVIS-VIEW software)		
Active switching behavior (default setting)		
Connection	For external switch (floating contact) or relay contact	
Open-circuit voltage	Max. 10 V (when contact is open)	
Current draw	Max. 100 mA (pulsed when contact is closed)	
Contact	Closed: $R < 20 \Omega$; open: $R > 400 \Omega$	
Passive switching behavior		
Connection	For externally applied DC voltage, reverse polarity protection	
Voltage input	0 to 30 V	
Static destruction limit	40 V DC	
Current draw	3.7 V at 24 mA	
Switching voltage	Closed: $< 1 \text{ V}$; open: $> 6 \text{ V}$	
Forced venting		
Version	Galvanic isolation, reverse polarity protection	
Voltage input	0 to 24 V DC	
Input resistance	$\geq 7 \text{ k}\Omega$	
Signal state	Active $U_e < 11 \text{ V}$	
	Not active $U_e > 15 \text{ V}$	
Static destruction limit	38 V DC/30 V AC	
Pressure sensors ¹⁾		
Pressure range	0 to 7 bar	
Perm. temperature range	-40 to +85 °C	

¹⁾ Hardware version 02.00.xx/firmware version 2.02.xx and higher (available in second quarter of 2025)

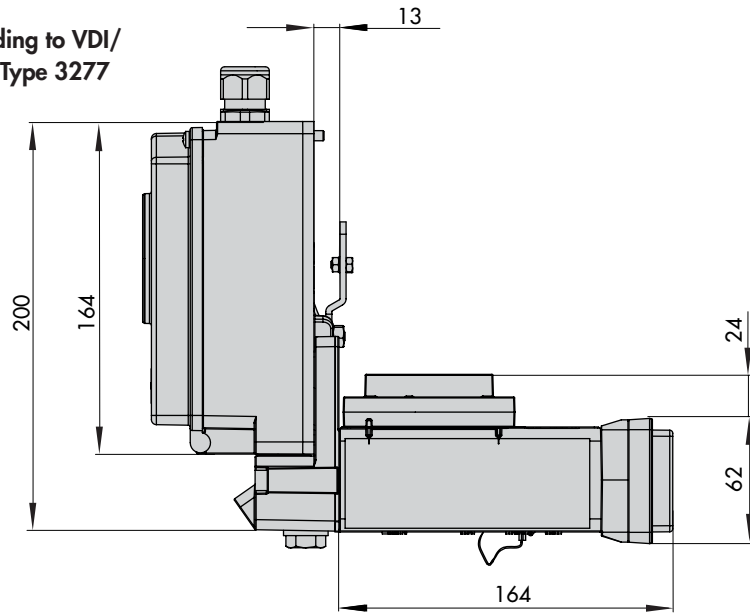
Attachment according to IEC 60534-6



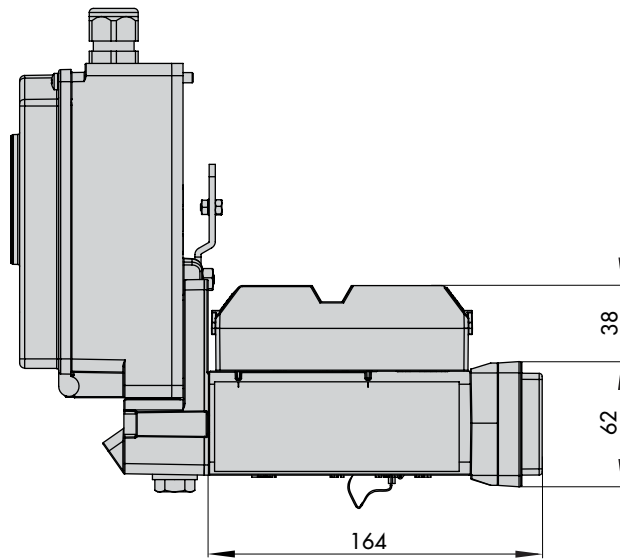
Direct attachment



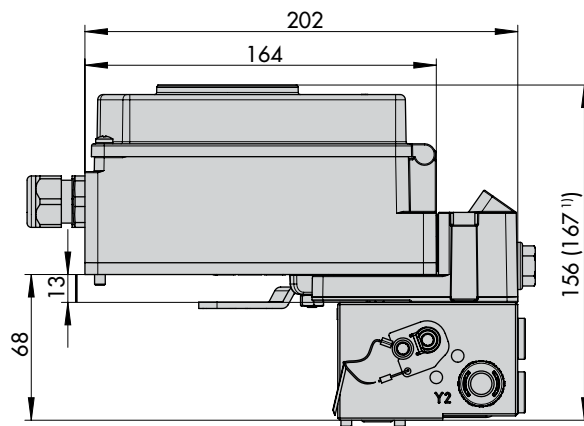
Attachment according to VDI/
VDE 3847-1 onto Type 3277
Actuator



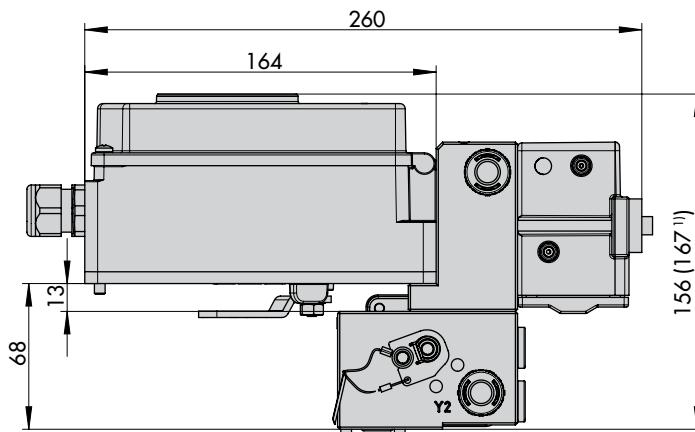
Attachment according to VDI/
VDE 3847-1 to a NAMUR rib



**Attachment according to VDI/VDE 3847-2
with single-acting actuator**

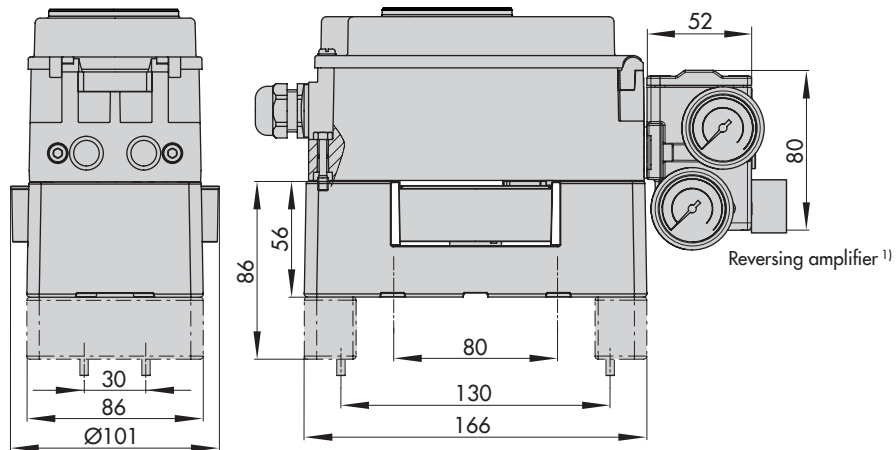


**Attachment according to VDI/VDE 3847-2 with
double-acting actuator**

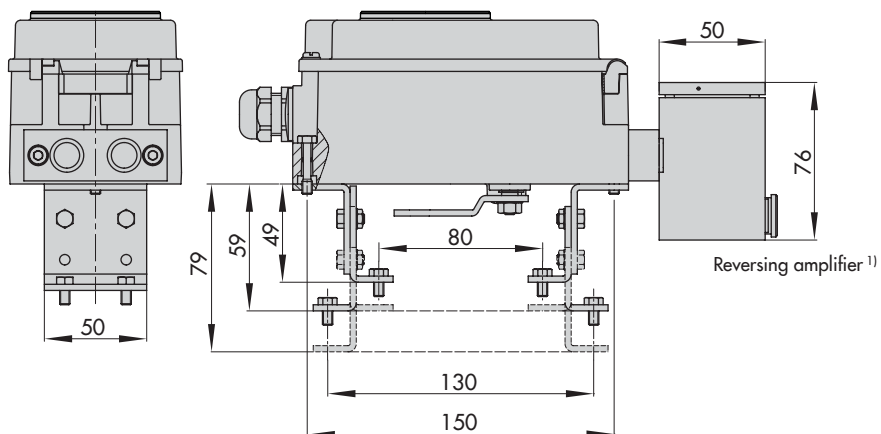


Attachment to rotary actuators according to VDI/VDE 3845

Heavy-duty version

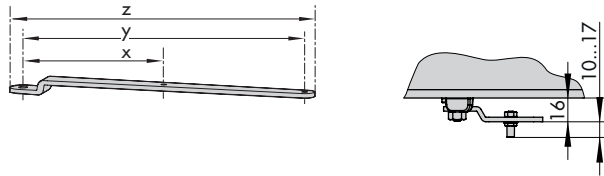


Light version



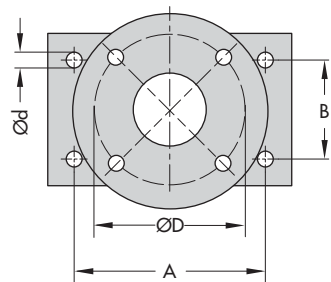
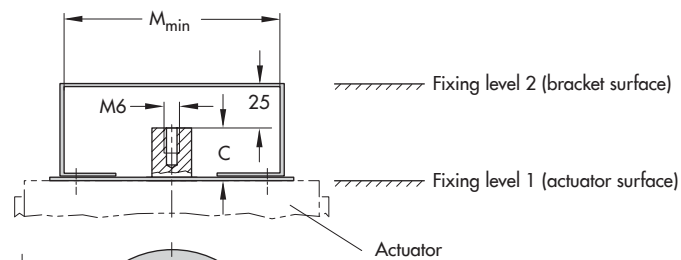
- ¹⁾ Reversing amplifier
 – Type 3710 (see drawing of heavy-duty version for dimensions)
 – 1079-1118/1079-1119, no longer available
 (see drawing of light version for dimensions)

Lever



Lever	x	y	z
M	25 mm	50 mm	66 mm
L	70 mm	100 mm	116 mm
XL	100 mm	200 mm	216 mm
XXL	200 mm	300 mm	316 mm

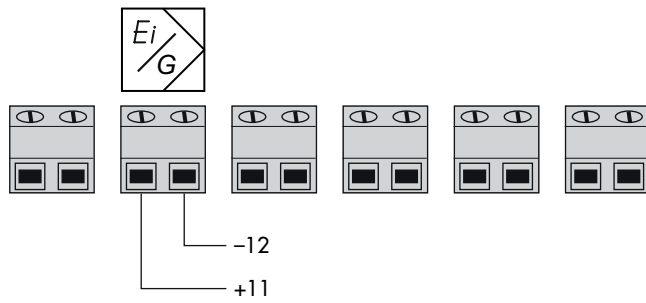
Fixing levels according to VDI/VDE 3845 (September 2010)



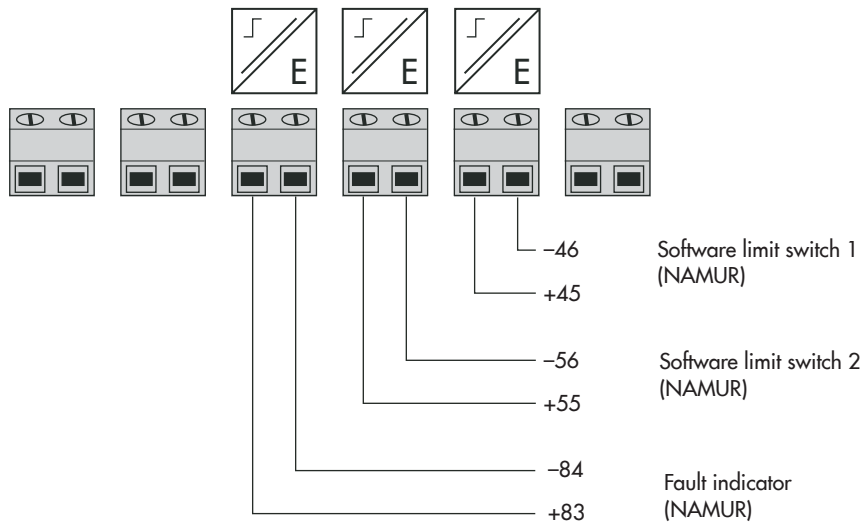
Dimensions in mm						
Size	A	B	C	Ød	M _{min}	D ¹⁾
AA0	50	25	15	5.5 for M5	66	50
AA1	80	30	20	5.5 for M5	96	50
AA2	80	30	30	5.5 for M5	96	50
AA3	130	30	30	5.5 for M5	146	50
AA4	130	30	50	5.5 for M5	146	50
AA5	200	50	80	6.5 for M6	220	50

¹⁾ Flange type F05 acc. to DIN EN ISO 5211

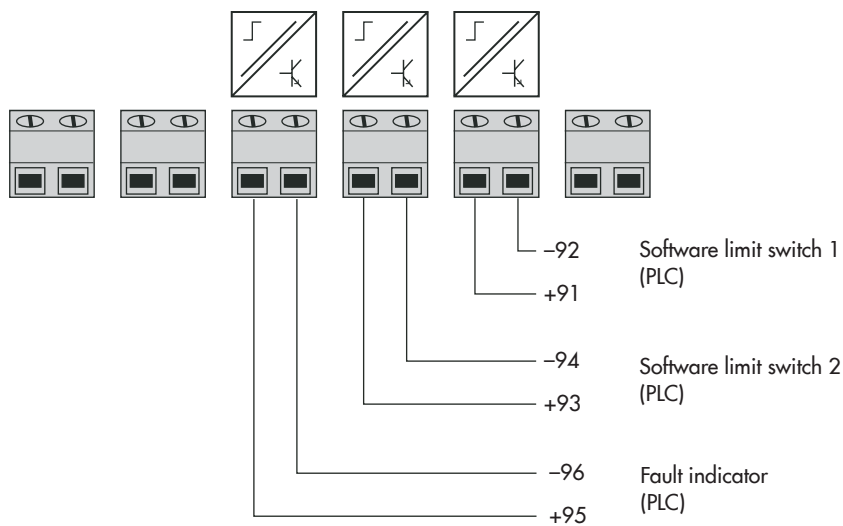
Electrical connection



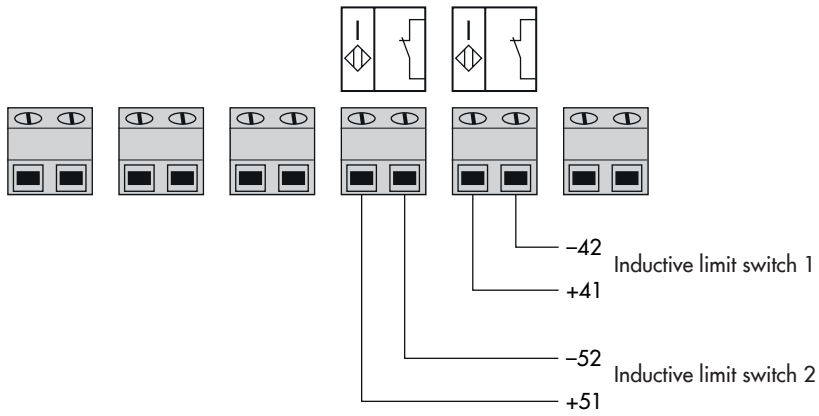
Connecting the mA control signal



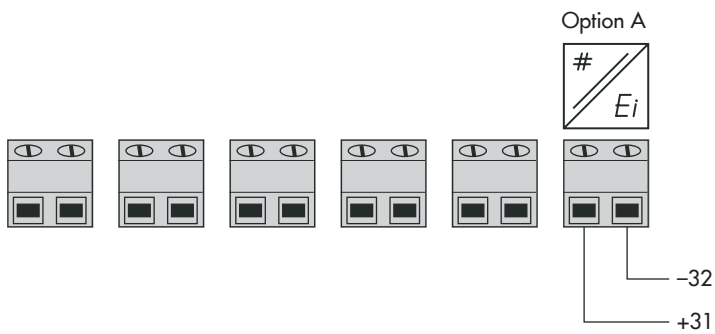
Terminal assignment of binary output (fault alarm output, NAMUR) and software limit switch (NAMUR) – Option C



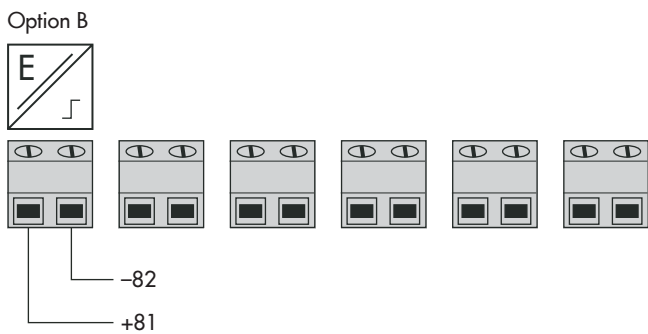
Terminal assignment of binary output (fault alarm output, PLC) and software limit switch (PLC) – Option C



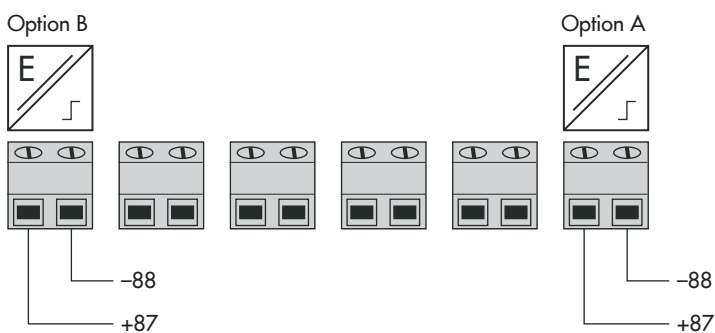
Terminal assignment of inductive limit switches – Option C



Terminal assignment of position transmitter – Option A



Terminal assignment of forced venting – Option B



Terminal assignment of binary input – Option A/B

Article code

TROVIS 3730-3 with hardware version 01.00.xx/firmware version 02.00.xx

Positioner	TROVIS 3730-3- x x x 0 x x x x x 0 x x 0 x x x x x x x x x x x																
With LCD, autotune, HART® communication																	
Explosion protection																	
Without																	
		0	0	0										9	9	9	7
ATEX	II 2G Ex ia IIC T4/T6 Gb	1	1	0										9	9	9	7
	II 2D Ex ia IIIC T85 °C Db																
	II 2D Ex tb IIIC T85 °C Db	5	1	0										1	9	9	9
	II 3G Ex ec IIC T4/T6 Gc	8	1	0										1	9	9	9
	II 2D Ex tb IIC T85 °C Db																
	II 3G Ex ec IIC T4/T6 Gc	8	5	0										1	9	9	9
IECEX	Ex ia IIC T4/T6 Gb	1	1	1													
	Ex ia IIIC T85 °C Db																
	Ex tb IIIC T85 °C Db	5	1	1										1	9	9	9
	Ex tb IIIC T85 °C Db	8	1	1										1	9	9	9
	Ex ec IIC T4/T6 Dc	8	5	1										1	9	9	9
	Ex ec IIC T6 Gc																
CCC Ex	Ex ia IIC T4/T6 Gb	1	1	2													
	Ex ia IIIC T85 °C Db																
	Ex tb IIIC T85 °C Db	5	1	2										1	9	9	9
CCoE	Ex ia IIC T4/T6 Gb	1	1	1													
EAC Ex	IEx ia IIC T6...T4 Gb X	1	1	3													
	Ex ia IIIC T85 °C Db X																
FM	IS Class I, II, III, Div. 1, Gr. A,B,C,D,E,F,G; T4/T6																
	Ex ia IIC T4/T6 Gb	1	3	0													
	NI Class I, II, III Div. 2, Gr. A,B,C,D,F,G; T4/T6																
	IS Class I, II, III, Div. 1, Gr. A,B,C,D,E,F,G; T4/T6																
	IS Class I, Zone 1, AEx ia IIC T4/6 Gb	1	3	0													
	NI Class I, II, III Div. 2, Gr. A,B,C,D,F,G; T4/T6																
INMETRO	Ex ia IIC T4/T6 Gb	1	1	5													
	Ex ia IIIC T85 °C Db																
	Ex tb IIIC T85 °C Db	5	1	5										1	9	9	9
	Ex ec IIC T4/T6 Gc	8	1	5										1	9	9	9
	Ex tb IIIC T85 °C Db																
	Ex ec IIC T4/T6 Gc	8	5	5													
KCS Korea	Ex ia IIC T6/T4	1	1	4													
NEPSI	Ex ia IIC T4/T6 Gb	1	1	2													
	Ex ia IIIC T85 °C Db																
	Ex tb IIIC T85 °C Db	5	1	2													
TR CMU 1055	II 2G Ex ia IIC T4/T6 Gb	1	1	6													
	II 2D Ex ia IIIC T85 °C Db																
	II 2D Ex tb IIIC T85 °C Db	5	1	6										1	9	9	9
	II 3G Ex nA IIC T4/T6 Gc	8	1	6										1	9	9	9
	II 2D Ex tb IIIC T85 °C Db																
	II 3G Ex nA IIC T4/T6 Gc	8	5	6										1	9	9	9
Option A																	
Without																	
				0													
	Position transmitter 4 to 20 mA			1													
	Binary input 24 V DC			2													
Option B																	
Without																	
				0													
	Binary input 24 V DC			2													
	Forced venting			3													

Positioner	TROVIS 3730-3- x x x 0 x x x x x 0 x x 0 x x x x x x x x x x															
Option C																
Without	0															9 9 9 7
2x Software limit switches + binary output (PLC)	1															9 9 9 7
2x Software limit switches + binary output (NAMUR) ¹⁾	2															9 9 9 7
2x Inductive limit switches + binary output (NAMUR); -50 to +85 °C	4															9 9 9 7
Option D																
Without	0															9 9 9 7
External travel sensor with M12x1 connector; with 10 m connecting cable	1															9 9 9 7
Prepared for external travel sensor with M12x1 connector	2															9 9 9 7
Field barrier																
Without	0															9 9 9 7
Prepared for Type 3770 Field Barrier	3															9 9 9 7
Emergency shutdown																
3.8 mA							0									9 9 9 7
Electrical connection																
2x M20x1.5 (1x cable gland, 1x blanking plug)								1								9 9 9 7
Housing material																
Aluminum EN AC-44300DF (standard)								0								9 9 9 7
Stainless steel 1.4408								1								9 9 9 7
Cover																
With round window										1						9 9 9 7
Without window										2						9 9 9 7
Housing version																
Standard										0 0						9 9 9 7
With additional vent hole and VDI/VDE 3847 adapter; without travel pick-off parts										2 0						9 9 9 7
With additional vent hole										2 1						9 9 9 7
Safety approval																
SIL													1			9 9 9 7
Type approval for marine applications																
Without													0			9 9 9 7
Bureau Veritas													1			9 9 9 7
DNV GL													2			9 9 9 7
American Bureau of Shipping (ABS)													3			9 9 9 7
Lloyd's Register													5			9 9 9 7
Permissible ambient temperature																
Standard: -20 to +85 °C																0 9 9 9 7
-40 to +85 °C metal cable gland																1 9 9 9 7
-55 to +85 °C, low-temperature version with metal cable gland																2 9 9 9 7
Hardware version																
HV 01.00.00 ¹⁾																9 9
HV 02.00.00 ²⁾																9 8
Firmware version																
SV 02.00.15																9 7
SV 02.02.12																9 4

¹⁾ The hardware version 01.00.00 is only compatible with software version 02.00.xx (updating to version 02.02.xx is not possible).

²⁾ The hardware version 02.00.00 is only compatible with software version 02.02.xx (downdating to version 02.00.xx is not possible).

TROVIS 3730-3 with hardware version 02.00.xx/firmware version 02.02.xx

Positioner	TROVIS 3730-3- x x x 0 x x x x 0 x x x 0 x x x x x x x x x x x x																											
With LCD, autotune, HART® communication																												
Explosion protection																												
Without																												
												0	0	0	0/1/4								9	8	9	4		
ATEX/IECEX	II 2G Ex ia IIC T4/T6 Gb												1	1	0	2/4								0/1	9	8	9	4
	II 2D Ex ia IIIC T85 °C Db																											
	II 2D Ex tb IIIC T85 °C Db												5	1	0	2/4								1	9	8	9	4
	II 3G Ex ec IIC T4/T6 Gc II 2D Ex tb IIC T85 °C Db												8	1	0	2/4								1	9	8	9	4
Option A																												
Without																												
												0								9	8	9	4					
Position transmitter 4 to 20 mA												1								9	8	9	4					
Binary input 24 V DC												2								9	8	9	4					
Option B																												
Without																												
												0								9	8	9	4					
Binary input 24 V DC												2								9	8	9	4					
Forced venting												3								9	8	9	4					
Option C																												
Without																												
												0								9	8	9	4					
2x Software limit switches ¹) + binary output (PLC)												1								9	8	9	4					
2x Software limit switches ¹) + binary output (NAMUR)												2								9	8	9	4					
2x Inductive limit switches ¹) + binary output (NAMUR); -50 to +85 °C												4								9	8	9	4					
Option D																												
Without																												
												0								9	8	9	4					
Pressure sensors																												
Without																												
												0								9	8	9	4					
Supply 9, Output 38												1								0/1	9	8	9	4				
Emergency shutdown																												
3.8 mA																												
												0								9	8	9	4					
Electrical connection																												
2x M20x1.5 (1x cable gland, 1x blanking plug)														1						9	8	9	4					
Housing material																												
Aluminum EN AC-44300DF (standard)														0						9	8	9	4					
Stainless steel 1.4408														1						9	8	9	4					
Cover																												
With round window														1						9	8	9	4					
Without window														2						9	8	9	4					
Housing version																												
Standard														0 0						9	8	9	4					
With additional vent hole and VDI/VDE 3847 adapter; without travel pick-off parts														2 0						9	8	9	4					
With additional vent hole														2 1						9	8	9	4					
Safety approval																												
SIL																												
														1						9	8	9	4					
Type approval for marine applications																												
Without																												
														0						9	8	9	4					
Bureau Veritas														1						9	8	9	4					
DNV GL														2						9	8	9	4					
American Bureau of Shipping (ABS)														3						9	8	9	4					
Lloyd's Register														5						9	8	9	4					
Permissible ambient temperature																												
Standard: -20 to +85 °C																												
														0						9	8	9	4					
-40 to +85 °C metal cable gland														1						9	8	9	4					
-55 to +85 °C, low-temperature version with metal cable gland														2						9	8	9	4					

Positioner	TROVIS 3730-3- x x x 0 x x x x 0 x x x 0 x x x x x x x x x x											
Hardware version												
HV 01.00.00 ²⁾									9	9		
HV 02.00.00 ³⁾									9	8		
Firmware version												
SV 02.00.15											9	7
SV 02.02.12											9	4

- ¹⁾ Software limit switches (PLC) are not available in the explosion-protection version.
- ²⁾ The hardware version 01.00.00 is only compatible with software version 02.00.xx (updating to version 02.02.xx is not possible).
- ³⁾ The hardware version 02.00.00 is only compatible with software version 02.02.xx (downdating to version 02.00.xx is not possible).