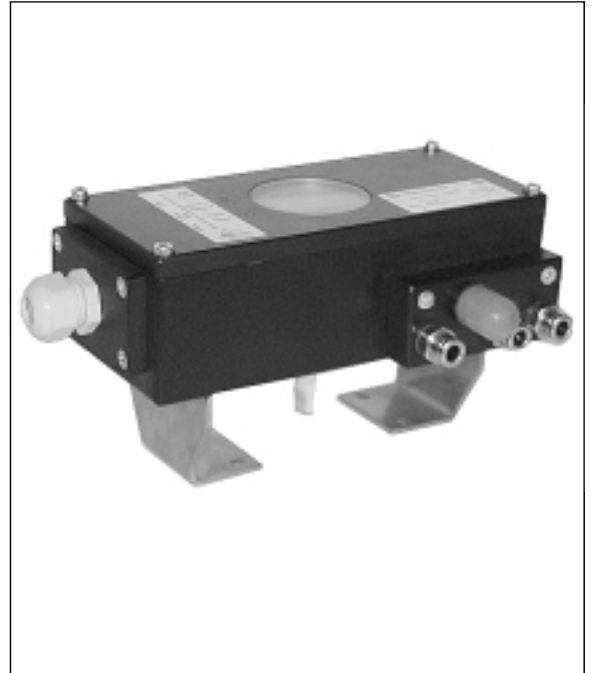


**Valve Control Box  
For operating pneumatic drives**

- **Simple design, simple arrangement and activation due to integration of all parts**
- **High pneumatic flow rate**
- **Adjustable position sensors**
- **Visual indication for armature setting**
- **Low electrical power input**

**Technical data****Description**

The valve control box is used to control pneumatic drives (swivel unit) in OPEN / CLOSED function, with the E/P transformer, booster valves, position sensors and, depending on the version, a fieldbus interface located in one housing. The valve control box is connected with the pneumatic drive via the standard mechanical interface in line with NAMUR. In order to satisfy the requirements for different applications, the valve control box has been constructed in modular form and accepts variation with regard to valve function, electrical controls as well as pneumatic and electrical connections.

**Standard version****Non-hazardous area / AS interface**

In this version the valve control box has an integrated AS interface and therefore enables direct fieldbus connection.

**Actuation via isolating contact amplifier or remote I/O (EEx ia)****Multi-pole version**

The integrated E/P transformer and the NAMUR 2 strand initiators for position monitoring are connected via a multi-pole cable with the upstream control.

**Actuation via intrinsically safe fieldbus systems****Multi-pole version**

The low power input of the E/P transformers enable interfacing to intrinsically safe fieldbus systems e.g. Profibus PA, Fieldbus Foundation (FF) or Sensoplex.

**Ordering example**

See type key on page 3

**Applications**

- **Process technology**
- **Chemical industry**
- **Foodstuff industry**
- **Water treatment**



## General information

<b>Actuation Type</b>	<b>AS-i V75 00 ... / V75 01 ...</b>	<b>Multi-pole E/P transformer 50 mW V75 11 ...</b>	<b>Multi-pole E/P transformer 5 mW V75 10 ...</b>
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## General

Size	See dimensional drawing	See dimensional drawing	See dimensional drawing
Weight	1,8 kg	1,8 kg	1,8 kg
Housing material	Aluminium	Aluminium	Aluminium
Type of protection	IP 65	IP 65	IP 65
Ambient temperature	-25 to +65 °C	-25 to +65 °C (EEx ia IIC T4) applied for -25 to +45 °C (EEx ia IIC T6)	-25 to +65 °C (EEx ia IIC T4) applied for -25 to +45 °C (EEx ia IIC T6)
Fluid temperature	-25 to +65 °C	-25 to +65 °C	-25 to +65 °C
Storage temperature	-40 to +80 °C	-40 to +80 °C	-40 to +80 °C

## Pneumatic

Fluid	Dried, filtered, oil-free compressed air	Dried, filtered, oil-free compressed air	Dried, filtered, oil-free compressed air
Operating pressure	2 to 8 bar	2 to 8 bar	2 to 8 bar
Flow rate at 6 bar	>300 l/min	>300 l/min	>300 l/min
Filter	-	< 63 µm	< 63 µm
Connections	Optional, plug connection Ø 6 mm G 1/4 or 1/4 NPT	Optional, plug connection Ø 6 mm G 1/4 or 1/4 NPT	Optional, plug connection Ø 6 mm G 1/4 or 1/4 NPT

## Electrics

<b>Version AS-I</b>					
E/A configuration	03 (hex) (2 E / 2 A)				
ID code	0F (hex) (free profile)				
AS-i Certificate	Applied for				
Supply for E/P transformer	AS-i cable (Standard)	Ext. aux. power (Option)			
Voltage U <sub>ASI</sub>	29,5 ... 31,6 V DC	29,5 ... 31,6 V DC			
Voltage U <sub>EXT</sub>	-	21,6 ... 27,6 V DC			
Input current I <sub>ASI</sub>	100 mA *	60 mA *			
Input current I <sub>EXT</sub>	-	50 mA *			
EMC capability					
Noise emission	EN 50081-2 (planned)				
Noise immunity	EN 50082-2 (planned)				
Electrical connection	1 x M12 or Pg 11**				
<b>Multi-pole version</b>					
<b>E/P transformer</b>					
Nominal output		50 mW		5 mW	
Terminal voltage		≥ 10 V		≥ 5 V	
Switched current		≥ 2,7 mA		≥ 1 mA	
Coil resistance		3700 Ω		5100 Ω	
Type of protection		EEx ia IIC T4/T6		EEx ia IIC T4/T6	
Category		II 2 G		II 2 G	
EEx i max. values					
U <sub>i</sub>		28 V    25,2 V    22 V		28 V    25,2 V    22 V	
I <sub>i</sub>		120 mA    155 mA    224 mA		120 mA    155 mA    224 mA	
P <sub>i</sub>		0,75 W    0,75 W    0,75 W		0,75 W    0,75 W    0,75 W	
<b>Position sensors</b>					
Position OPEN		Per 1 inductive proximity sensor with 2-wire connection acc. to NAMUR		Per 1 inductive proximity sensor with 2-wire connection acc. to NAMUR	
Position CLOSED					
Nominal voltage		8 V		8 V	
Current input					
Position not reached		3 mA		3 mA	
Position reached		1 mA		1 mA	
Type of protection		EEx ia IIC T6		EEx ia IIC T6	
EEx i max. values					
U <sub>o</sub>		15,5 V		15,5 V	
I <sub>k</sub>		52 mA		52 mA	
P <sub>max</sub>		169 mW		169 mW	
<b>Electrical connection</b>		1 x Pg 9 or Pg 11		1 x Pg 9 or Pg 11	

\* Including E/P transformer

\*\* In scope of delivery: Gaskets/seals for ASI profile cable and round cable as well as blind plugs for use only with 1 x Pg 11.



## Type key

### AS-i

V 75 \*\* \* 0 0 \*\* \* 0 0 000

Electrical activation	Identification
AS-i without aux. electr. power	00
AS-i with aux. electr. power	01

Electrical connection	Identification
2 x Pg 11	3
1 x M12	4

Pneumatic connection	Identification
G 1/4	0
1/4 NPT	1
Hose plug connection $\varnothing$ 6	2

Pneumatic function	Identification
3/2 way valve	00
5/2 way valve, monostable	01
5/2 way valve, bistable	02

### EEx i (Multi-pole)

V 75 \*\* \* 0 0 \*\* \* 0 0 000

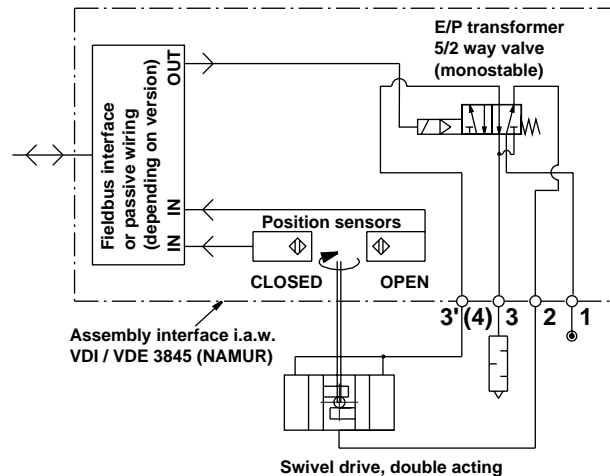
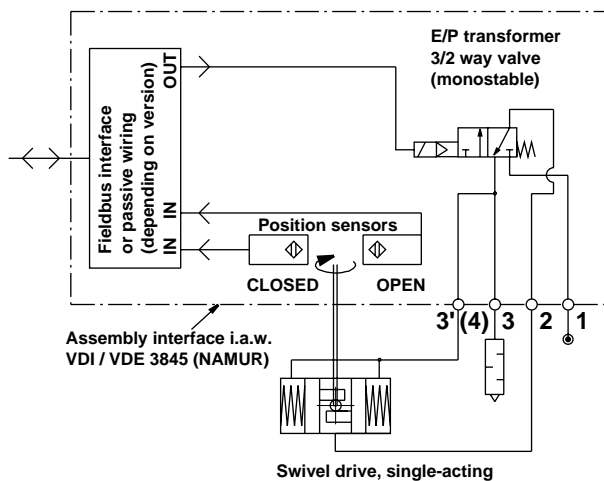
Electrical activation	Identification
Multi-pole with 5 mW-E/P transformer	10
Multi-pole with 50 mW-E/P transformer	11

Electrical connection	Identification
Pg 9	0
Pg 11	2

Pneumatic connection	Identification
G 1/4	0
1/4 NPT	1
Hose plug connection $\varnothing$ 6	2

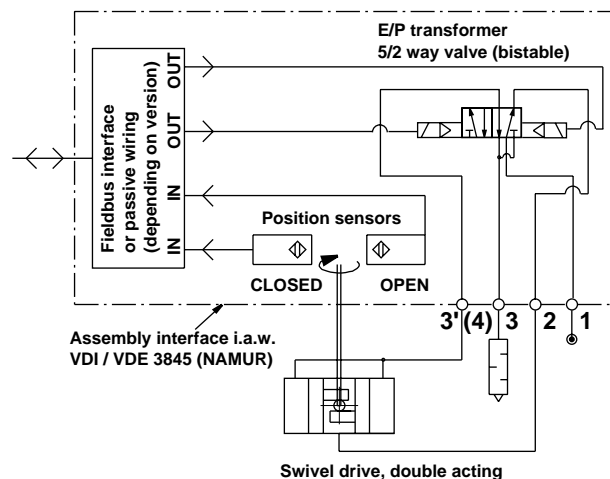
Pneumatic function	Identification
3/2 way valve	00
5/2 way valve, monostable	01
5/2 way valve, bistable	02

## Pneumatic switching function



## Accessories

Description	Type
Standard bracket for swivel drives i.a.w. VDI/VDE 3845	Size I 0611566 Size II 0611567 Size III 0611568 Size IV 0611569
Silencer G 1/4 A	M/S2
Silencer , plug-in version	10 011 0600

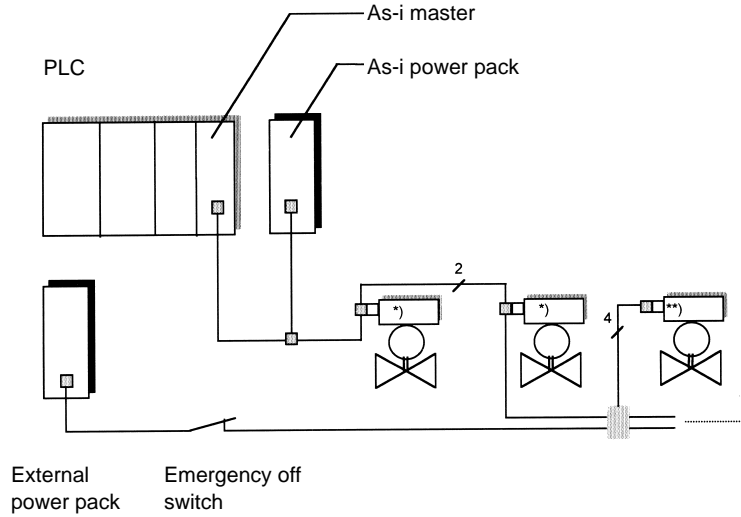




### Examples for electrical system construction

#### Actuation via AS interface (in Non-Ex area)

Types: V 7500...  
V 7501...

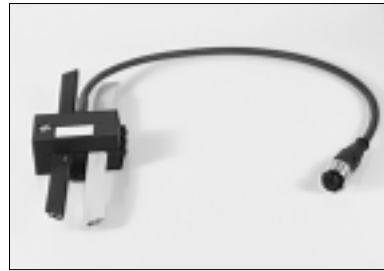
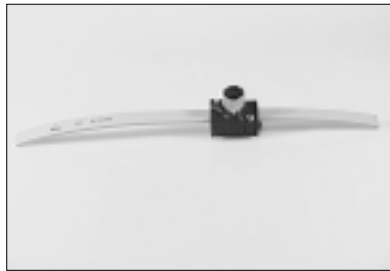


\*) Valve control box  
Version without ext. aux. power  
V7500...

\*\*) Valve control box  
Version with ext. aux. power  
(Emergency off capable)  
V 7501...

Possible connecting plug for yellow  
AS-i profile cable ASI FK M12K  
(Co. Hirschmann)

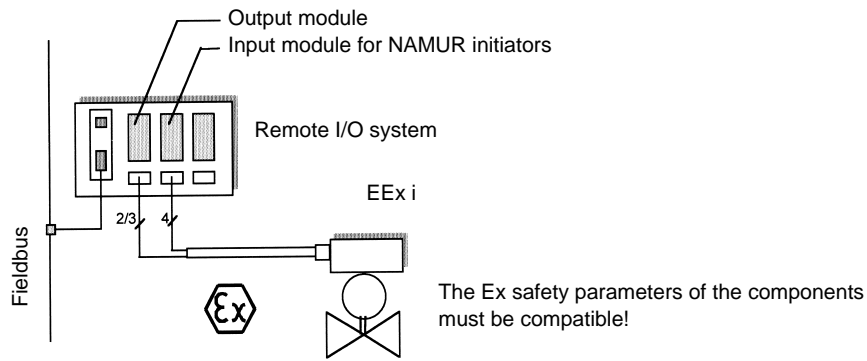
Possible connecting plug for  
yellow and black AS-i profile cable  
ASI 2F RK-K/EF 4412 PUR 034  
(Co. Hirschmann)





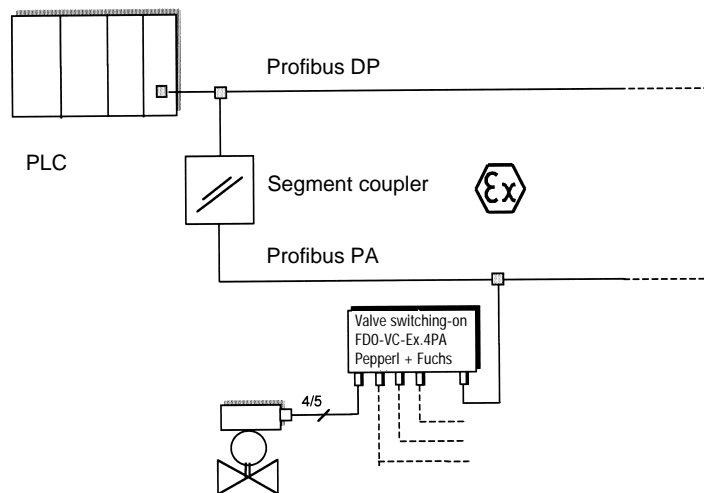
**Actuation via isolating contact amplifier or remote I/O systems in Ex area  
(Multi-pole version)**

Type: V 7511...



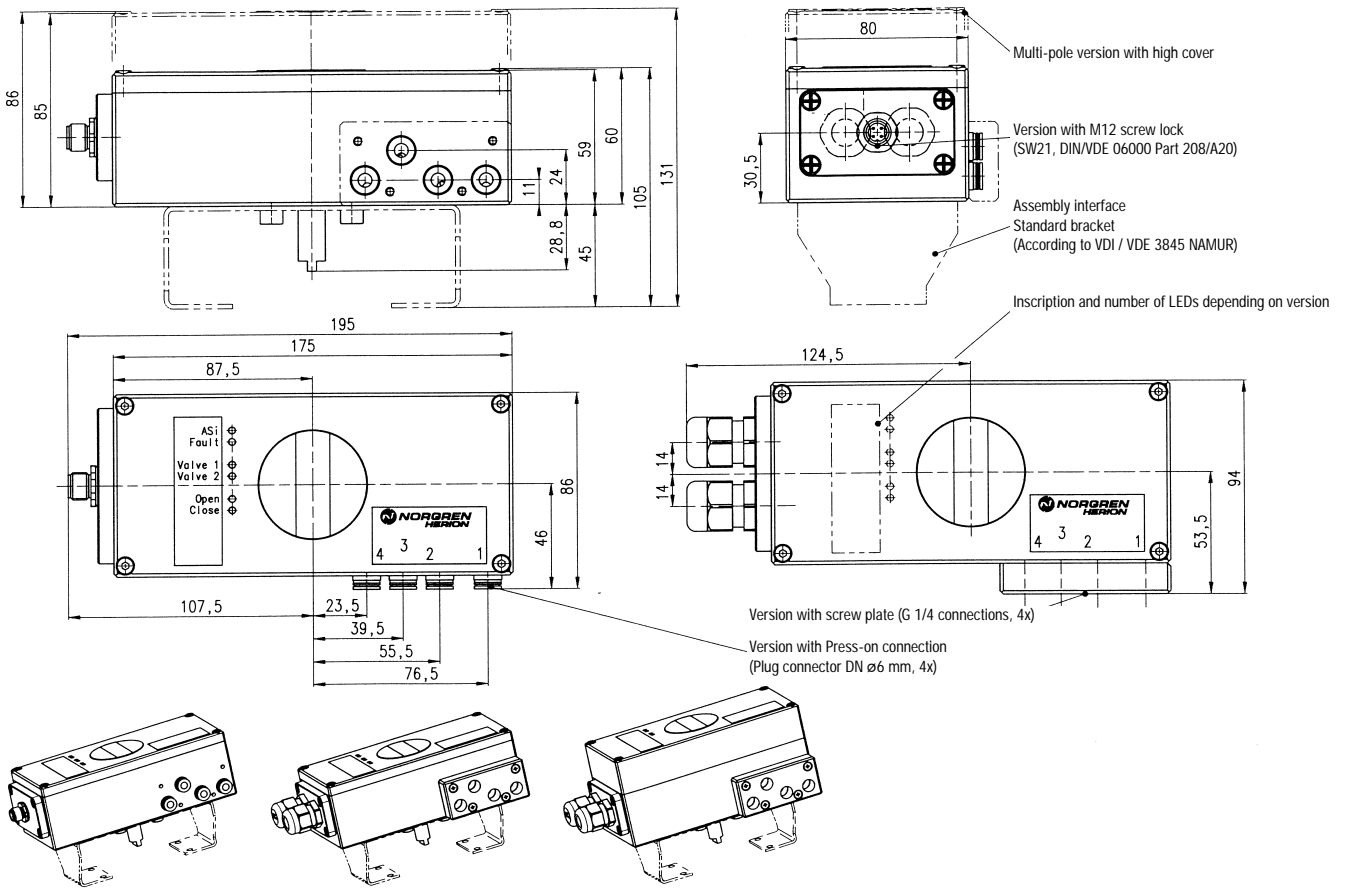
**Actuation via intrinsically safe fieldbus systems  
(Multi-pole version)**

Type: V 7511...

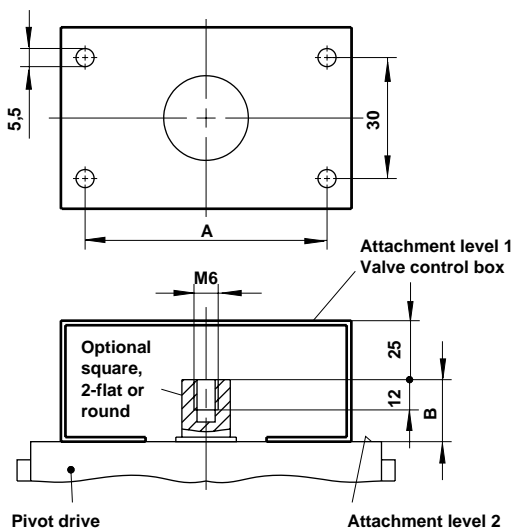




### Basic dimensions



### Standard bracket i.a.w. VDI/VDE 3845 for swivel drives



Size	A	B	Type
I	80	20	0611566
II	80	30	0611567
III	130	30	0611568
IV	130	50	0611569