ZIMMER Since 1958 Automation

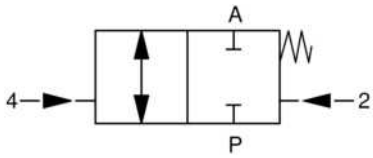
Robuste Lösungen für Prozessanwendungen

# 2/2-Wege Coaxialventil
# *2/2-way coaxial valve*

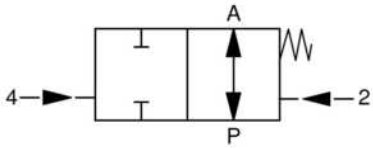
**Baureihe 280 / 281 / 282**
***Type 280 / 281 / 282***

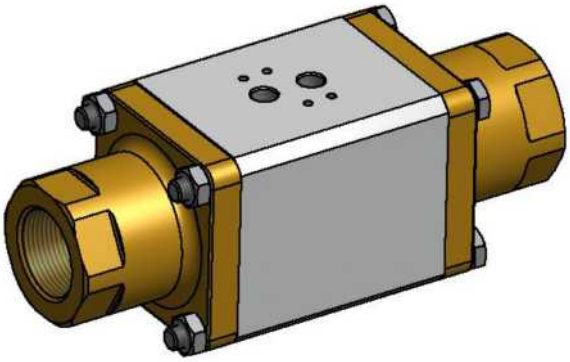
**fremdgesteuert**
***Externally controlled***

Schaltfunktion A: NC (stromlos geschlossen)
*function A: NC (normally closed)*




Schaltfunktion B: NO (stromlos offen)
*function B: NO (normally open)*



| | | | |
|---|---|---|---|
| **Nennweite** | DN 10 – 50 | ***diameter*** | *DN 10 – 50* |
| **Druckbereich** | 0 – max. 160bar<br>gegen druckdicht bis max. 16bar | ***pressure range*** | *0 – max. 160bar*<br>*backpressure leakproof up to max. 16bar* |
| **Gehäusewerkstoff** | Muffenausführung: Messing, 1.4305, 1.4571<br>Flanschausführung: Stahl verzinkt,<br>Stahl vernickelt, 1.4571 | ***body material*** | *threaded version: brass, AISI 303, AISI 316*<br>*flange version: steel galvanized*<br>*steel nickel-plated, AISI 316* |
| **Dichtwerkstoff** | statisch: FKM<br>dynamisch: FKM, PTFE<br>Sitzdichtung: PTFE | ***seal material*** | *static: FKM*<br>*dynamic: FKM, PTFE*<br>*seat seal: PTFE* |
| **Temperatur** | Medium: -10 bis +100°C<br>Umgebung: -10 bis +50°C | ***temperature*** | *media: -10 up to +100°C*<br>*ambient: -10 up to +50°C* |
| **Anschluss** | G1/4 – G2<br>Flansch siehe Tabelle Seite 4 | ***connection*** | *G1/4 – G2*<br>*flange see table page 4* |
| **Durchflussrichtung** | P A max. 160bar<br>A P max. 16bar | ***flow direction*** | *P A max. 160bar*<br>*A P max. 16bar* |
| **Antriebsteil** | doppelt wirkender Kolben mit<br>Rückstellfeder | ***actuating part*** | *double acting piston*<br>*with return spring* |
| **Steuerdruck** | 3 – 8bar<br>Anschlüsse 2+4 (siehe Maßzeichnung S.3)<br>Schnittstelle nach NAMUR<br><br>eine vorgeschaltete Wartungseinheit<br>verlängert die Lebensdauer der Ventile | ***control pressure*** | *3 – 8bar*<br>*connections 2+4 (see dimension drawing page 3)*<br>*port according to NAMUR*<br><br>*an upstreamed service unit extends*<br>*the lifetime of the valves* |
| **Schaltzeiten** | Öffnen / Schließen 50 – 1000ms abhängig<br>von Steuerdruck, Pilotventil<br>(Option) und Abluftdrosseln (Option) | ***switching time*** | *opening / closing 50 – 1000ms depending*<br>*on operating pressure, pilot valve (option)*<br>*and exhaust air throttle (option)* |
| **Einbaulage** | beliebig | ***mounting*** | *in any position* |

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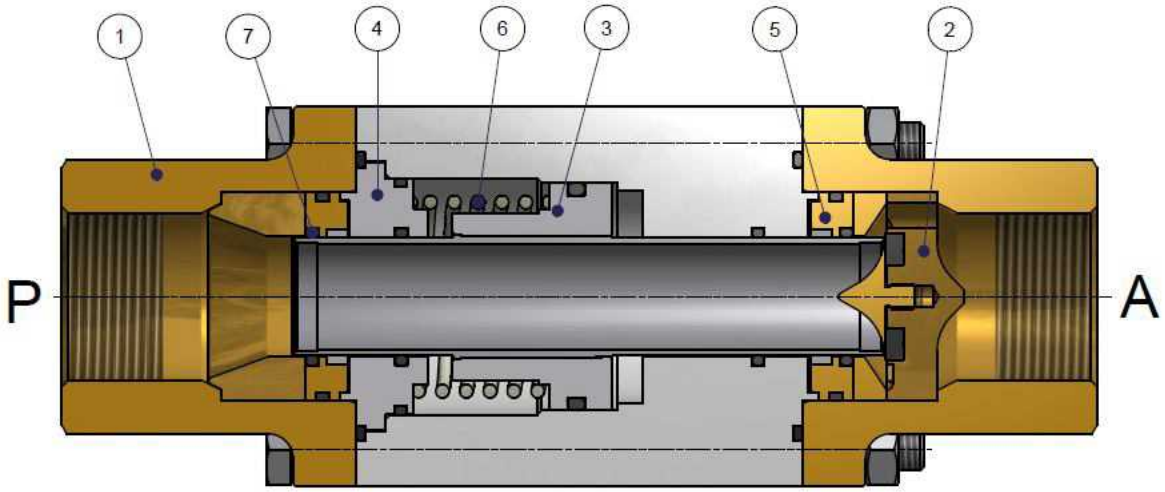
## 2/2-Wege Coaxialventil
## *2/2-way coaxial valve*

## Baureihe 280 / 281 / 282
## *Type 280 / 281 / 282*

| Baureihe *type* | DN [mm] | Druck *pressure range* [bar] | Anschluss *connection* | $K_v$-Wert *flow rate* [m³/h] | Gewicht - Messing *weight – brass* [kg] |
|---|---|---|---|---|---|
| 280 | 10 | 0 – 64 | G1/4, G3/8, G1/2 | 2,7 | 1,6 |
| 280 | 15 | 0 – 64 | G3/8, G1/2, G3/4 | 7,2 | 2,8 |
| 280 | 20 | 0 – 64 | G1/2, G3/4, G1 | 9,4 | 4,0 |
| 280 | 25 | 0 – 64 | G3/4, G1, G1 1/4 | 14,5 | 5,3 |
| 280 | 32 | 0 – 64 | G1, G1 1/4, G1 1/2 | 20,0 | 6,9 |
| 280 | 40 | 0 – 64 | G1 1/2 | 45,7 | 11,7 |
| 280 | 50 | 0 – 64 | G2 | 47,2 | 11,7 |
| 281 | 10 | 0 – 120 | G1/4, G3/8, G1/2 | 2,7 | 1,6 |
| 281 | 15 | 0 – 120 | G3/8, G1/2, G3/4 | 7,2 | 2,8 |
| 281 | 20 | 0 – 120 | G1/2, G3/4, G1 | 9,4 | 4,0 |
| 281 | 25 | 0 – 120 | G3/4, G1, G1 1/4 | 14,5 | 5,3 |
| 281 | 32 | 0 – 100 | G1, G1 1/4, G1 1/2 | 20,0 | 6,9 |
| 281* | 40 | 0 – 100 | G1 1/2 | 45,7 | 11,7 |
| 281* | 50 | 0 – 100 | G2 | 47,2 | 11,7 |
| 282 | 10 | 0 – 160 | G1/4, G3/8, G1/2 | 2,7 | 1,6 |
| 282 | 15 | 0 – 160 | G3/8, G1/2, G3/4 | 7,2 | 2,8 |
| 282 | 20 | 0 – 160 | G1/2, G3/4, G1 | 9,4 | 4,0 |
| 282 | 25 | 0 – 160 | G3/4, G1, G1 1/4 | 14,5 | 5,3 |

*Auf Anfrage

### Schnittzeichnung
### *sectional drawing*




| Pos. *pos.* | Menge *quantity* | Benennung | *description* |
|---|---|---|---|
| 1 | 2 | Anschlussstück | *adapter fitting* |
| 2 | 1 | Ventilsitz | *valve seat* |
| 3 | 1 | Kolben / Steuerrohr | *piston / control tube* |
| 4 | 1 | Betätigungsscheibe | *actuating plate* |
| 5 | 2 | Führungsscheibe | *guiding disk* |
| 6 | 1 | Feder | *spring* |
| 7 | 2 | PTFE-Stangendichtung | *PTFE-rod seal* |



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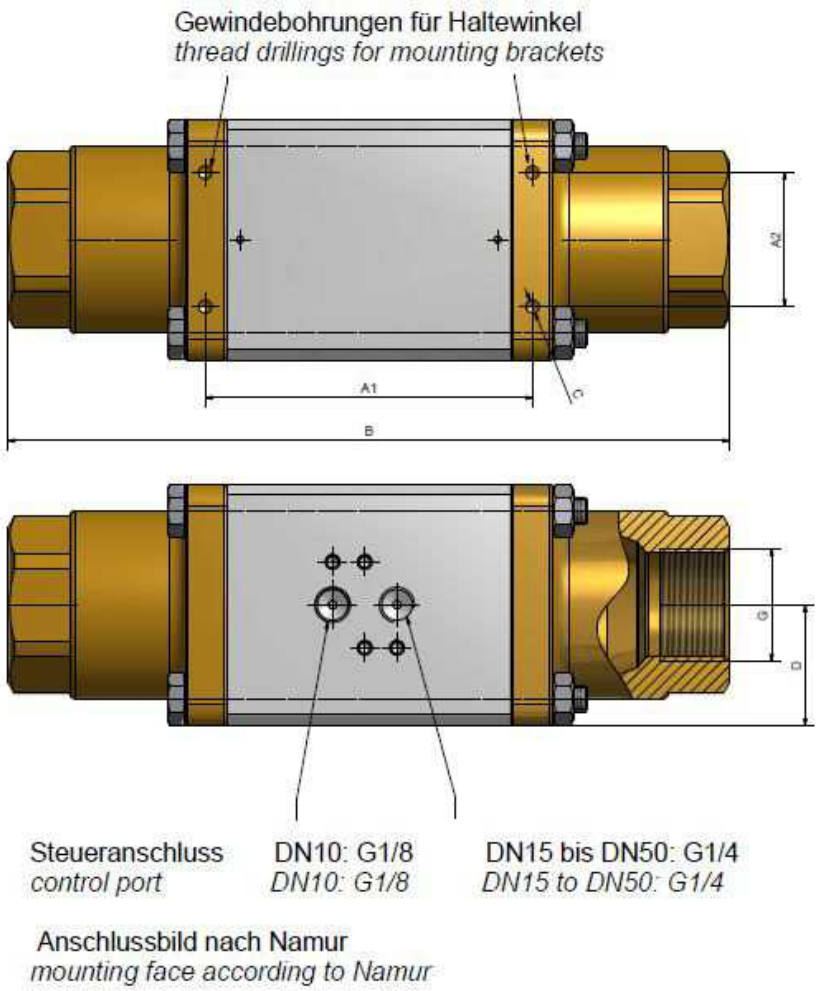
## Maßzeichnung
*dimension drawing*



| DN [mm] | G | SW | A1 [mm] | A2 [mm] | B [mm] | C | D [mm] | E [mm] |
|---|---|---|---|---|---|---|---|---|
| 10 | 1/4, 3/8, 1/2 | 32 | 84 | - | 159,5 | M4 | 25 | 50 |
| 15 | 3/8, 1/2, 3/4 | 41 | 100 | - | 184 | M5 | 35 | 70 |
| 20 | 1/2, 3/4, 1 | 46 | 108 | - | 215 | M5 | 40 | 80 |
| 25 | 3/4, 1, 1 1/4 | 55 | 121 | - | 246 | M5 | 45 | 90 |
| 32 | 1, 1 1/4, 1 1/2 | 60 | 122 | 50 | 269 | M6 | 45 | 90 |
| 40 | 1 1/2 | 75 | 131 | 60 | 304 | M6 | 55 | 110 |
| 50 | 2 | 75 | 131 | 60 | 304 | M6 | 55 | 110 |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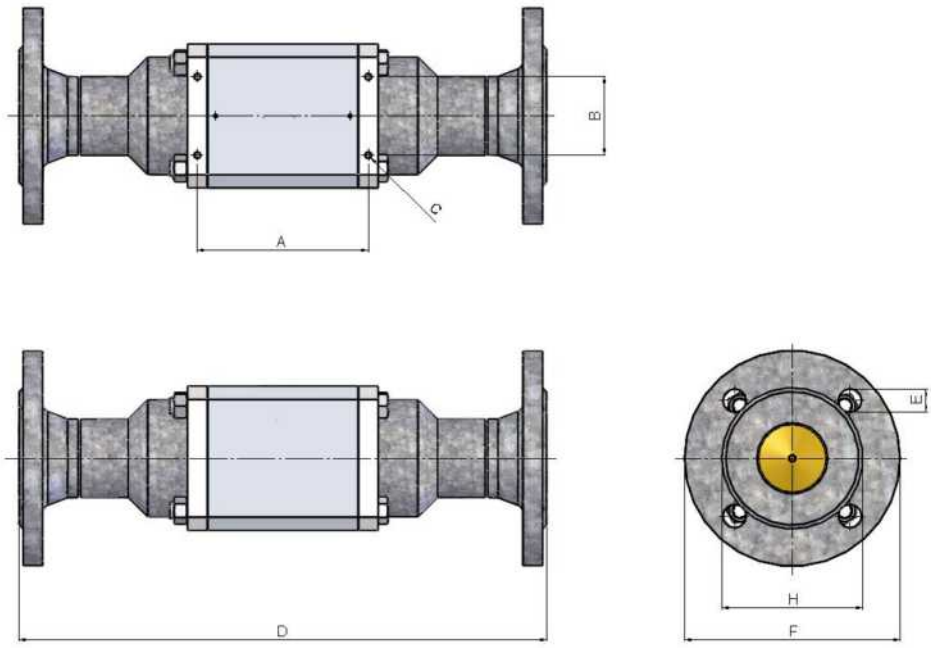
## Maßzeichnung Flanschventile
*dimension drawing flange valves*




| Flansch - Norm<br>*flange standard*<br>DIN | EN | Druckstufe PN<br>*pressure rating*<br>[bar] | DN Flansch<br>*DN flange* | DN Ventil<br>*DN valve* | $K_v$-Wert<br>*flow rate*<br>[m³/h] | A<br>[mm] | B<br>[mm] | C<br>[mm] | D<br>[mm | E<br>[mm] | F<br>[mm] | H<br>[mm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2633 | - | 16 | 15 | 15 | 6,6 | 100 | - | M5 | 242 | 14 | 95 | 65 |
| 2633 | | 16 | 20 | 20 | 9,4 | 108 | - | M5 | 269 | 14 | 105 | 75 |
| 2633 | - | 16 | 25 | 25 | 14,5 | 121 | - | M5 | 302 | 14 | 115 | 85 |
| 2633 | | 16 | 32 | 32 | 20,0 | 122 | 50 | M6 | 324 | 18 | 140 | 100 |
| 2633 | - | 16 | 40 | 40 | 38,2 | 131 | 60 | M6 | 385 | 18 | 150 | 110 |
| 2633 | 1092 -1 Typ 11 | 16 | 50 | 50 | 47,2 | 131 | 60 | M6 | 385 | 18 | 165 | 125 |
| 2635 | 1092 -1 Typ 11 | 40 | 15 | 15 | 6,6 | 100 | - | M5 | 242 | 14 | 95 | 65 |
| 2635 | 1092 -1 Typ 11 | 40 | 20 | 20 | 9,4 | 108 | - | M5 | 269 | 14 | 105 | 75 |
| 2635 | 1092 -1 Typ 11 | 40 | 25 | 25 | 14,5 | 121 | - | M5 | 302 | 14 | 115 | 85 |
| 2635 | 1092 -1 Typ 11 | 40 | 32 | 32 | 20,0 | 122 | 50 | M6 | 324 | 18 | 140 | 100 |
| 2635 | 1092 -1 Typ 11 | 40 | 40 | 40 | 38,2 | 131 | 60 | M6 | 385 | 18 | 150 | 110 |
| 2635 | 1092 -1 Typ 11 | 40 | 50 | 50 | 47,2 | 131 | 60 | M6 | 385 | 18 | 165 | 125 |
| - | 1092 -1 Typ 11 | 63 | 50 | 50 | 47,2 | 131 | 60 | M6 | 385 | 22 | 180 | 135 |
| 2636 | - | 64 | 50 | 50 | 47,2 | 131 | 60 | M6 | 385 | 22 | 180 | 135 |
| 2637 | 1092 -1 Typ 11 | 100 | 15 | 15 | 6,6 | 100 | - | M5 | 242 | 14 | 105 | 75 |
| - | 1092 -1 Typ 11 | 100 | 20 | 20 | 9,4 | 108 | - | M5 | 269 | 18 | 130 | 90 |
| 2637 | 1092 -1 Typ 11 | 100 | 25 | 25 | 14,5 | 121 | - | M5 | 302 | 18 | 140 | 100 |
| - | 1092 -1 Typ 11 | 100 | 32 | 32 | 20,0 | 122 | 50 | M6 | 324 | 22 | 155 | 110 |
| 2637 | 1092 -1 Typ 11 | 100 | 40 | 40 | 38,2 | 131 | 60 | M6 | 385 | 22 | 170 | 125 |
| 2637 | 1092 -1 Typ 11 | 100 | 50 | 50 | 47,2 | 131 | 60 | M6 | 385 | 26 | 195 | 145 |
| 2638 | 1092 -1 Typ 11 | 160 | 15 | 15 | 6,6 | 100 | - | M5 | 242 | 14 | 105 | 75 |
| 2638 | 1092 -1 Typ 11 | 160 | 25 | 25 | 14,5 | 121 | - | M5 | 302 | 18 | 140 | 100 |

Technische Änderungen vorbehalten / *modifications reserved* ·

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## Typenschlüssel
*type code*

Die Typenbezeichnung setzt sich zusammen aus:
*structure of the order specification:*

280 A 00 00 /10/ M0 G14 F

**Dichtung** / *seal*
F = FKM
N = NBR (optional)
E = EPDM (optional)

**Anschluss** / *connection*

| | |
|---|---|
| G14 = G1/4 | F1 = Flansch / *flange* PN16 |
| G38 = G3/ 8 | F3 = Flansch / *flange* PN40 |
| G12 = G1/2 | F7 = Flansch / *flange* PN63 |
| G34 = G3/4 | F4 = Flansch / *flange* PN64 |
| G1 = G1 | F5 = Flansch / *flange* PN100 |
| G54 = G1 1/4 | F8 = Flansch / *flange* PN160 |
| G64 = G1 1/2 | |
| G2 = G2 | |

**Werkstoff** / *material*
M0 = Messing / *brass*
V2 = 1.4305 / *AISI 303*
V4 = 1.4571 / *AISI 316*
S1 = Stahl verzinkt / *steel galvanized*
S2 = Stahl vernickelt / *steel nickel-plated*

**Nennweite** / *diameter*
10 = DN 10
15 = DN 15
20 = DN 20
25 = DN 25
32 = DN 32
40 = DN 40
50 = DN 50

**Elektrische Option** / *electrical option*
00 = ohne Option / *without option*

**Mechanische Option** / *mechanical option*
00 = ohne Option / *without option*
02 = chemisch vernickelt / *nickel-plated*
07 = Sonderanschluss / *special connection*
12 = Vakuumausführung / *vaccum version*
15 = Haltewinkel / *mounting brackets*
16 = öl - und fettfrei / *free of oil and grease*

**Schaltfunktion** / *function*
A = „NC“
B = „NO”

**Baureihe** / *type*
280 = Druckbereich / *pressure range*
DN 10 – DN 50: 0 – 64bar

281 = Druckbereich / *pressure range*
DN 10 – DN 25: 0 – 120bar
DN 32 – DN 50: 0 – 100bar

282 = Druckbereich / *pressure range*
DN 10 – DN 25: 0 – 160bar



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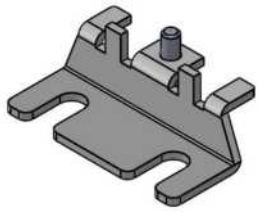
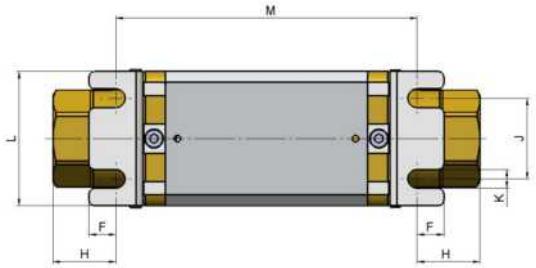
## Zubehör
*accessories*



**Haltewinkel**
*mounting brackets*

**mechanische Option = 15**
*mechanical option = 15*



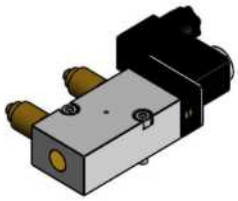

| DN [mm] | F [mm] | H [mm] | J [mm] | K [mm] | L [mm] | M [mm] |
|---|---|---|---|---|---|---|
| 10 | 10 | 23,5 | 30 | 7 | 50 | 113 |
| 15 | 10,5 | 22,5 | 45 | 7 | 70 | 139 |
| 20 | 15,3 | 33,5 | 50 | 7 | 80 | 149 |
| 25 | 16 | 34 | 60 | 8,5 | 90 | 178 |
| 32 | 6 | 37 | 78 | 6,5 | 90 | 195 |
| 40 | 6 | 40 | 98 | 6,5 | 110 | 224 |
| 50 | 6 | 40 | 98 | 6,5 | 110 | 224 |

**Abluftdrossel**
*exhaust air throttle*

**G1/8**
**G1/4**

**Schalldämpf er Sinterbronze**
*silencer of sinter bronze casting*

**G1/8**
**G1/4**



**5/2-Wege Pilotventil (NAMUR)**
**zum Anflanschen**
**Anschlüsse seitlich**
*5/2-way pilot valve (NAMUR) to flange*
*connections laterally*

**24V DC**
**230V 50Hz**



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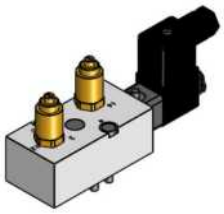
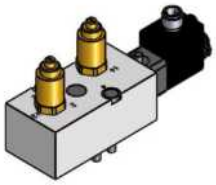
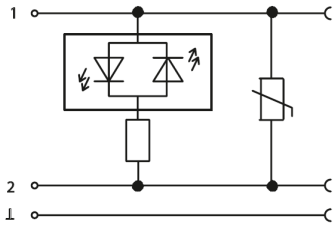
| | | |
|---|---|---|
|  | **5/2-Wege Pilotventil (NAMUR)**<br>**zum Anflansc hen**<br>**Anschlüsse oben**<br>*5/2-way pilot valve (NAMUR) to flange*<br>*connections above*<br><br>**24V DC**<br>**230V 50Hz** | |
|  | **5/2-Wege Pilotventil (NAMUR)**<br>**zum Anflanschen**<br>**Anschlüsse oben**<br>**Magnet M12x1**<br>*5/2-way pilot valve (NAMUR) to flange*<br>*connections above*<br>*solenoid M12 x 1*<br><br>**24V D C**<br>**230V 50Hz** | |
| | **Gerätesteckdose mit LED**<br>*plug with LED*<br><br>**elektrische Option = 20**<br>*electrical option = 20* |  |
| | **Gerätesteckdose mit**<br>**Leistungsabsenkung**<br>**24V DC**<br>**Bauform A**<br>*plug with power reduction form A*<br><br>**elektrische Option = 07**<br>*electrical option = 07* | |
| | **Sonderschutzart**<br>*explosion proof*<br><br>**II 2G Ex m II T4**<br>**II 3D IP65 T130°C**<br><br>**elektrische Option = 13**<br>*electrical option = 13* | **der Betriebsdruck ist bei Ex-Ausführung um ca. 20% reduziert**<br>*operating pressure is reduced by 20% in Ex specification* |



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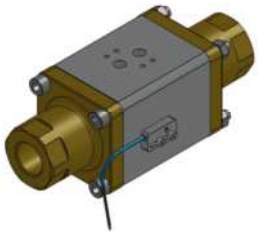
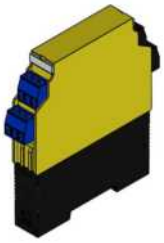
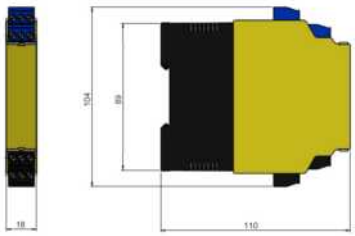
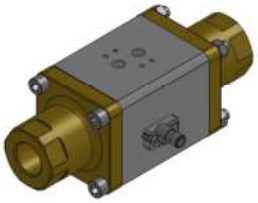
| | | |
|---|---|---|
| | **Magnetfeldsensor EX**<br>*magnetic field sensor EX*<br><br>**KEMA 04 ATEX 1152 X**<br>**Ex II 1G Ex ia IIC T6**<br>**Ex II 1D Ex ia IIIC T *95°C***<br><br>**elektrische Option = 25**<br>*electrical option = 25* |  |
|  | **Trennschaltverstärker 2-kanalig**<br>*isolating switching amplifier 2-channel*<br><br>**ATEX: II (1) G, II (1) D; II 3 G**<br><br>**elektrische Option = ?**<br>*electrical option = ?* |  |
| | **Magnetfeldsensor M12x1**<br>*magnetic field sensor M12x1*<br><br>**elektrische Option = 19**<br>*electrical option = 19* |  |

**Weitere Optionen und Zubehör stimmen wir gerne auf Ihre Anforderungen ab.**
***We gladly coordinate further options and accessories according to your requirements.***



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