

Pneumatic Lists

Version 1.3

in accordance with BV1.13 (amendment index no. 17)
of the **Volkswagen Group**

Area of application: Car body construction
Volkswagen brand



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1. General Info

• 1.1 Change journal

| Version | Date | Amendment | Chapter |
|---------|------------|--|--------------------|
| 1.0 | 01.08.2018 | First edition | - |
| 1.1 | 01.09.2019 | Amendment index no. 15 | - |
| 1.2 | 23.05.2022 | Update EW compact cylinder ISO21287 Receptacle plug-in connections with release sleeve | 2.1.1.4. 3.1.1. |
| 1.3 | 04.04.2024 | Mounting Double-acting cylinder with brake (passive) Mounting guide units for ISO cylinders | 2.1.1.2. 2.2. |

• 1.2 Contact person

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• 1.3 Notes

This release list is based on the current equipment regulation BV1.13 of **Volkswagen AG**.
For products and components that are not part of this approval list, a written exception authorisation/special approval is required.

General technical product information can be found under the following link:
<http://www.camozzi.de>

The bullet points of this component release list are identical to those in the current BV1.13.

2. Components

• 2.1. Energy conversion

2.1.1. Pneumatic cylinder

2.1.1.1 Double-acting cylinder Ø 32 to 200 mm DIN ISO 15552 / VW Standard: 39D 20000


Operating data:

Operating pressure: 1÷ 10 bar

Operating temperature: 0°C÷ 80°C (dried air -20°C)

VW standard: 39D 20000

ISO 15552 Double-acting cylinder, diameter 32 to 63 mm Series 63

| Type | Ø | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|--|----|--------|------------|-------------|--------------------------------|---------------------------------|----------------------------|
|  <p>Cylinder Series 63 Profile tube design</p> <p>ZBM Group (VW): ZIC-E2</p> | 32 | 25 | 21-5 | 2170 | 10-4285-0252 | 63MP2C032A0025 | Data sheet |
| | 32 | 50 | 21-5 | 2146 | 10-4285-0502 | 63MP2C032A0050 | Data sheet |
| | 32 | 80 | 21-5 | 2147 | 10-4285-0802 | 63MP2C032A0080 | Data sheet |
| | 32 | 200 | 21-5 | A181 | 10-4285-2002 | 63MP2C032A0200 | Data sheet |
| | 32 | 880 | 21-5 | | 10-4585-8802 | 63MP2C032A0880 | Data sheet |
| | 50 | 25 | 21-5 | 2148 | 10-4885-0252 | 63MP2C050A0025 | Data sheet |
| | 50 | 40 | 21-5 | A163 | 10-4885-0402 | 63MP2C050A0040 | Data sheet |
| | 50 | 50 | 21-5 | 2113 | 10-4885-0502 | 63MP2C050A0050 | Data sheet |
| | 50 | 80 | 21-5 | 2150 | 10-4885-0802 | 63MP2C050A0080 | Data sheet |
| | 50 | 100 | 21-5 | 2151 | 10-4885-1002 | 63MP2C050A0100 | Data sheet |
| | 50 | 125 | 21-5 | 2172 | 10-4885-1252 | 63MP2C050A0125 | Data sheet |
| | 50 | 160 | 21-5 | A164 | 10-4885-1602 | 63MP2C050A0160 | Data sheet |
| | 50 | 320 | 21-5 | A165 | 10-4885-3202 | 63MP2C050A0320 | Data sheet |
| | 50 | 500 | 21-5 | A166 | 10-4885-5002 | 63MP2C050A0500 | Data sheet |
| | 50 | 900 | 21-5 | A167 | 10-4885-9002 | 63MP2C050A0900 | Data sheet |
| | 63 | 25 | 21-5 | 2152 | 10-5185-0252 | 63MP2C063A0025 | Data sheet |
| | 63 | 40 | 21-5 | A168 | 10-5185-0402 | 63MP2C063A0040 | Data sheet |
| | 63 | 50 | 21-5 | 2153 | 10-5185-0502 | 63MP2C063A0050 | Data sheet |
| | 63 | 60 | 21-5 | A169 | 10-5185-0602 | 63MP2C063A0060 | Data sheet |
| | 63 | 80 | 21-5 | 2154 | 10-5185-0802 | 63MP2C063A0080 | Data sheet |
| | 63 | 100 | 21-5 | 2155 | 10-5185-1002 | 63MP2C063A0100 | Data sheet |
| | 63 | 125 | 21-5 | 2173 | 10-5185-1252 | 63MP2C063A0125 | Data sheet |
| | 63 | 160 | 21-5 | 2156 | 10-5185-1602 | 63MP2C063A0160 | Data sheet |
| | 63 | 200 | 21-5 | 2174 | 10-5185-2002 | 63MP2C063A0200 | Data sheet |
| | 63 | 1000 | 21-5 | A161 | 10-5185-A002 | 63MP2C063A1000 | Data sheet |
| | 63 | 1200 | 21-5 | A162 | 10-5185-B002 | 63MP2C063A1200 | Data sheet |

| ISO 15552 Double-acting cylinder, diameter 80 to 125 mm Series 63 | | | | | | | |
|--|-----|--------|------------|-------------|--------------------------------|---------------------------------|----------------------------|
| Type | Ø | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
| | 80 | 25 | 21-5 | 2175 | 10-5485-0252 | 63MP2C080A0025 | Data sheet |
| | 80 | 50 | 21-5 | 2176 | 10-5485-0502 | 63MP2C080A0050 | Data sheet |
| | 80 | 80 | 21-5 | 2157 | 10-5485-0802 | 63MP2C080A0080 | Data sheet |
| | 80 | 100 | 21-5 | 2158 | 10-5485-1002 | 63MP2C080A0100 | Data sheet |
| | 80 | 125 | 21-5 | 2159 | 10-5485-1252 | 63MP2C080A0125 | Data sheet |
| | 80 | 150 | 21-5 | A154 | 10-5485-1502 | 63MP2C080A0150 | Data sheet |
| | 80 | 160 | 21-5 | 2177 | 10-5485-1602 | 63MP2C080A0160 | Data sheet |
| | 80 | 200 | 21-5 | 2178 | 10-5485-2002 | 63MP2C080A0200 | Data sheet |
| | 80 | 1460 | 21-5 | A155 | 10-5485-E602 | 63MP2C080A1460 | Data sheet |
| | 100 | 25 | 21-5 | 2179 | 10-5785-0252 | 63MP2C100A0025 | Data sheet |
| | 100 | 50 | 21-5 | 2180 | 10-5785-0502 | 63MP2C100A0050 | Data sheet |
| | 100 | 80 | 21-5 | 2181 | 10-5785-0802 | 63MP2C100A0080 | Data sheet |
| | 100 | 100 | 21-5 | 2182 | 10-5785-1002 | 63MP2C100A0100 | Data sheet |
| | 100 | 125 | 21-5 | A151 | 10-5785-1252 | 63MP2C100A0125 | Data sheet |
| | 100 | 160 | 21-5 | 2160 | 10-5785-1602 | 63MP2C100A0160 | Data sheet |
| | 100 | 200 | 21-5 | 2183 | 10-5785-2002 | 63MP2C100A0200 | Data sheet |
| | 100 | 320 | 21-5 | A156 | 10-5785-3202 | 63MP2C100A0320 | Data sheet |
| | 100 | 400 | 21-5 | A157 | 10-5785-4002 | 63MP2C100A0400 | Data sheet |
| | 100 | 700 | 21-5 | A159 | 10-5785-7002 | 63MP2C100A0700 | Data sheet |
| | 125 | 50 | 21-5 | 2264 | 10-6085-0502 | 63MP2C125A0050 | Data sheet |
| | 125 | 80 | 21-5 | 2265 | 10-6085-0802 | 63MP2C125A0080 | Data sheet |
| | 125 | 100 | 21-5 | 2184 | 10-6085-1002 | 63MP2C125A0100 | Data sheet |
| | 125 | 125 | 21-5 | 2272 | 10-6085-1252 | 63MP2C125A0125 | Data sheet |
| | 125 | 160 | 21-5 | 2273 | 10-6085-1602 | 63MP2C125A0160 | Data sheet |
| | 125 | 200 | 21-5 | 2161 | 10-6085-2002 | 63MP2C125A0200 | Data sheet |
| | 125 | 250 | 21-5 | 2274 | 10-6085-2502 | 63MP2C125A0250 | Data sheet |
| | 125 | 300 | 21-5 | A152 | 10-6085-3002 | 63MP2C125A0300 | Data sheet |
| | 125 | 500 | 21-5 | A153 | 10-6085-5002 | 63MP2C125A0500 | Data sheet |
| | 125 | 1200 | 21-5 | A203 | 10-6085-C002 | 63MP2C125A1200 | Data sheet |
| | 125 | 1250 | 21-5 | | 10-6085-C502 | 63MP2C125A1250 | Data sheet |



Cylinder Series 63
Profile tube design

ZBM Group (VW):
ZIC-E2

ISO 15552 Double-acting cylinder, diameter 125 to 200 mm Series 63 and 40




| Type | ∅ | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|--|-----|--------|------------|-------------|--------------------------------|---------------------------------|----------------------------|
| Cylinder series 63 and 40 Series 63 (∅125) Series 40 (∅160-200) | 125 | 50 | 21-5 | A206 | 10-6086-0502 | 63MT2C125A0050 | Data sheet |
| | 125 | 80 | 21-5 | | 10-6086-08021 | 63MT2C125A0080 | Data sheet |
| | 125 | 100 | 21-5 | A208 | 10-6086-1002 | 63MT2C125A0100 | Data sheet |
| | 125 | 125 | 21-5 | A209 | 10-6086-1252 | 63MT2C125A0125 | Data sheet |
| | 125 | 160 | 21-5 | A210 | 10-6086-1602 | 63MT2C125A0160 | Data sheet |
| | 125 | 200 | 21-5 | A211 | 10-6086-2002 | 63MT2C125A0200 | Data sheet |
| | 125 | 250 | 21-5 | A212 | 10-6086-2502 | 63MT2C125A0250 | Data sheet |
| | 160 | 100 | 21-5 | 2275 | 10-K286-1002 | 40K2L160A0100 | Data sheet |
| | 160 | 160 | 21-5 | 2276 | 10-K286-1602 | 40K2L160A0160 | Data sheet |
| | 160 | 200 | 21-5 | 2277 | 10-K286-2002 | 40K2L160A0200 | Data sheet |
| | 160 | 250 | 21-5 | 2280 | 10-K286-2502 | 40K2L160A0250 | Data sheet |
| | 160 | 400 | 21-5 | 2281 | 10-K286-4002 | 40K2L160A0400 | Data sheet |
| | 160 | 500 | 21-5 | 2282 | 10-K286-5002 | 40K2L160A0500 | Data sheet |
| | 200 | 160 | 21-5 | 2283 | 10-K586-1602 | 40K2L200A0160 | Data sheet |
| | 200 | 200 | 21-5 | 2284 | 10-K586-2002 | 40K2L200A0200 | Data sheet |
| | 200 | 400 | 21-5 | 2285 | 10-K586-4002 | 40K2L200A0400 | Data sheet |
| | 200 | 500 | 21-5 | 2286 | 10-K586-5002 | 40K2L200A0500 | Data sheet |

Fastening elements / VW standard: 39D 20000

| Type | ∅ | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi company | Data sheet |
|---|-----|------------|-------------|--------------------------------|---|--|
| Bearing block with rigid bearing ISO 15552-12 Series ZC (∅32-125) ZBM Group (VW): ZIG-E2 | 32 | 21-5 | 2291 | 70-1104-0015 | ZC-32 | Data sheet |
| | 50 | 21-5 | 2131 | 70-1104-0017 | ZC-50 | Data sheet |
| | 63 | 21-5 | 2290 | 70-1104-001 | ZC-63 | Data sheet |
| | 80 | 21-5 | 2292 | 70-1104-0018 | ZC-80 | Data sheet |
| | 100 | 21-5 | 2293 | 70-1104-0019 | ZC-100 | Data sheet |
| | 125 | 21-5 | 2294 | 70-1104-0020 | ZC-125 | Data sheet |
| | 160 | 21-5 | 2296 | ** | ** | |
| | 200 | 21-5 | 2297 | ** | ** | |
| Fork mounting MP2 (incl. bolts) ISO 15552-12 Series C (∅32-50) Series C-H (∅63-200) ZBM Group (VW): ZIG-E2 | 32 | 21-5 | 2298 | SDE05A8652-002002 | C-41-32-DE01 | Data sheet Data sheet |
| | 50 | 21-5 | 2299 | SDE05A8692-002002 | C-41-50-DE02 | Data sheet Data sheet |
| | 63 | 21-5 | 2300 | SDE05A8712-002002 | C-H-41-63-DE01 | Data sheet Data sheet |
| | 80 | 21-5 | 2301 | SDE05A8732-002001 | C-H-41-80-DE01 | Data sheet Data sheet |
| | 100 | 21-5 | 2302 | SDE05A8752-002001 | C-H-41-100-DE01 | Data sheet Data sheet |
| | 125 | 21-5 | 2303 | SDE05A8772-002002 | C-H-41-125-DE02 | Data sheet Data sheet |
| | 160 | 21-5 | 23204 | * | C-H-41-160-EN0. | Data sheet Data sheet |
| | 200 | 21-5 | 2305 | * | C-H-41-200-EN0. | Data sheet Data sheet |

* will be assigned when ordering

** on request

| Type | ∅ | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|---|------|------------|--------------|--------------------------------|---------------------------------|--|
|  <p>Bearing block with plain bearing VDMA 24562-2</p> <p>ZBM Group (VW): ZIG-E3</p> | 32 | 21-5 | 2334 | * | ZC-32-STAHL-DE0 | Data sheet |
| | 50 | 21-5 | 2335 | SDE70-1104-001703 | ZC-50-STAHL-DE02 | Data sheet |
| | 63 | 21-5 | 2336 | SDE70-1104-001401 | ZC-63-STAHL-DE01 | Data sheet |
| | 80 | 21-5 | 2337 | SDE70-1104-001802 | ZC-80-STAHL-DE01 | Data sheet |
| | 100 | 21-5 | 2338 | SDE70-1104-001901 | ZC-100-STAHL-DE01 | Data sheet |
| | 125 | 21-5 | 2339 | SDE70-1104-002002 | ZC-125-STAHL-DE01 | Data sheet |
| | 160 | 21-5 | 2340 | ** | ** | |
| | 200 | 21-5 | 2364 | ** | ** | |
|  <p>Narrow fork attachment (incl. bolt) ISO 15552-12</p> <p>ZMB Group (VW): ZLE-E2</p> | 32 | 21-5 | 2306 | SDE05A8652-002001 | CN-41-32-DE01 | Data sheet Data sheet |
| | 50 | 21-5 | 2307 | SDE05A8692-002001 | CN-41-50-DE01 | Data sheet Data sheet |
| | 63 | 21-5 | 2308 | SDE05A8712-002001 | CN-41-63-DE01 | Data sheet Data sheet |
| | 80 | 21-5 | 2309 | SDE05A8732-002002 | CN-41-80-DE01 | Data sheet Data sheet |
| | 100 | 21-5 | 2301 | SDE05A8752-002002 | CN-41-100-DE01 | Data sheet Data sheet |
| | 125 | 21-5 | 2311 | SDE05A8772-002001 | CN-41-125-DE01 | Data sheet Data sheet |
| | 160 | 21-5 | 2312 | ** | ** | |
| 200 | 21-5 | 2313 | ** | ** | | |
|  <p>Flange mounting MF1/MF2 ISO 15552-12</p> <p>ZBM Group (VW): ZLH-E2</p> | 32 | 21-5 | 2326 | 10-8652-0030 | D-E-41-32 | Data sheet |
| | 50 | 21-5 | 2327 | 10-8692-0030 | D-E-41-50 | Data sheet |
| | 63 | 21-5 | 2328 | 10-8712-0030 | D-E-41-63 | Data sheet |
| | 80 | 21-5 | 2329 | 10-8732-0030 | D-E-41-80 | Data sheet |
| | 100 | 21-5 | 2330 | 10-8752-0030 | D-E-41-100 | Data sheet |
| | 125 | 21-5 | 2331 | 10-8772-0030 | D-E-41-125 | Data sheet |
| | 160 | 21-5 | 2332 | 10-8792-0030 | D-E-41-160 | Data sheet |
| 200 | 21-5 | 2333 | 10-8812-0030 | D-E-41-200 | Data sheet | |

* will be assigned when ordering

** on request


2.1.1.2 Double-acting cylinders with brake (passive)

Operating data:

Operating pressure: 1÷ 10 bar

Operating temperature: 0°C÷ 80°C (dried air -20°C)

 **VW standard: 39D 20000**

| ISO 15552 Double-acting cylinder with brake, diameter 32 to 63 mm Series | | | | | | | |
|--|-----|--------|------------|-------------|--------------------------------|---------------------------------|----------------------------|
| Type | Ø | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|  <p>Cylinder Series 63</p> <p>Profile tube version with brake (passive) Ø 32mm to Ø 100 mm</p> | 32 | 25 | | | * | 63MP2C032RL0025 | Data sheet |
| | 32 | 50 | | | 10-4285-0502ZP | 63MP2C032RL0050 | Data sheet |
| | 32 | 80 | | | 10-4285-0802ZP | 63MP2C032RL0080 | Data sheet |
| | 50 | 25 | | | * | 63MP2C050RL0025 | Data sheet |
| | 50 | 50 | | | 10-4885-0502ZP | 63MP2C050RL0050 | Data sheet |
| | 50 | 80 | | | * | 63MP2C050RL0080 | Data sheet |
| | 50 | 100 | | | * | 63MP2C050RL0100 | Data sheet |
| | 50 | 125 | | | 10-4885-1252ZP | 63MP2C050RL0125 | Data sheet |
| | 63 | 25 | | | 10-5185-0252ZP | 63MP2C063RL0025 | Data sheet |
| | 63 | 50 | | | 10-5185-0502ZP | 63MP2C063RL0050 | Data sheet |
| | 63 | 80 | | | 10-5185-0802ZP | 63MP2C063RL0080 | Data sheet |
| | 63 | 100 | | | 10-5185-1002ZP | 63MP2C063RL0100 | Data sheet |
| | 63 | 125 | | | 10-5185-1252ZP | 63MP2C063RL0125 | Data sheet |
| | 63 | 160 | | | 10-5185-1602ZP | 63MP2C063RL0160 | Data sheet |
| | 63 | 200 | | | 10-5185-2002ZP | 63MP2C063RL0200 | Data sheet |
| | 80 | 25 | | | * | 63MP2C080RL0025 | Data sheet |
| | 80 | 50 | | | 10-5485-0502ZP | 63MP2C080RL0050 | Data sheet |
| | 80 | 80 | | | 10-5485-0802ZP | 63MP2C080RL0080 | Data sheet |
| | 80 | 100 | | | * | 63MP2C080RL0100 | Data sheet |
| | 80 | 125 | | | 10-5485-1252ZP | 63MP2C080RL0125 | Data sheet |
| | 80 | 160 | | | * | 63MP2C080RL0160 | Data sheet |
| | 80 | 200 | | | 10-5485-2002ZP | 63MP2C080RL0200 | Data sheet |
| | 100 | 25 | | | 10-5785-0252ZP | 63MP2C100RL0025 | Data sheet |
| | 100 | 50 | | | 10-5785-0502ZP | 63MP2C100RL0050 | Data sheet |
| | 100 | 80 | | | * | 63MP2C100RL0080 | Data sheet |
| | 100 | 100 | | | 10-5785-1002ZP | 63MP2C100RL0100 | Data sheet |
| | 100 | 125 | | | 10-5785-1252ZP | 63MP2C100RL0125 | Data sheet |
| | 100 | 160 | | | 10-5785-1602ZP | 63MP2C100RL0160 | Data sheet |
| | 100 | 200 | | | 10-5785-2002ZP | 63MP2C100RL0200 | Data sheet |

* will be assigned when ordering


2.1.1.3 Double-acting small cylinder Ø 16 to 25 mm DIN ISO 6432

Operating data:



Operating pressure: max 10 bar

Operating temperature: 0 to +80°C (dried air -20°C)

Attachments according to DIN ISO 8139 and 8140

| ISO 6432 Double-acting cylinder, diameter 16 to 25 mm, series 24 and 25 | | | | | | | |
|--|----|--------|------------|-------------|-----------------------------|------------------------------|----------------------------|
| Type | Ø | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|  <p>Cylinder Series 24 and 25</p> <p>Series 24 (solenoid version)</p> <p>Series 25 (solenoid version with adjustable end position damping)</p> | 16 | 25 | 21-5 | | 10-1600-0252 | 25N2A16A025 | Data sheet |
| | 16 | 50 | 21-5 | | 10-1600-0502 | 25N2A16A050 | Data sheet |
| | 16 | 80 | 21-5 | A194 | 10-1600-0802 | 25N2A16A080 | Data sheet |
| | 16 | 100 | 21-5 | A196 | 10-1300-1003 | 24N2A16A100 | Data sheet |
| | 20 | 40 | 21-5 | A195 | 10-1650-0402 | 25N2A20A040 | Data sheet |
| | 20 | 80 | 21-5 | A191 | 10-1650-0802 | 25N2A20A080 | Data sheet |
| | 20 | 100 | 21-5 | A192 | 10-1650-1002 | 25N2A20A100 | Data sheet |
| | 20 | 160 | 21-5 | A193 | 10-1650-1602 | 25N2A20A160 | Data sheet |
| | 25 | 25 | 21-5 | | 10-1700-0252 | 25N2A25A025 | Data sheet |
| | 25 | 50 | 21-5 | 8477 | 10-1400-0503 | 24N2A25A050 | Data sheet |
| | 25 | 50 | 21-5 | A190 | 10-1700-0502 | 25N2A25A050 | Data sheet |
| | 25 | 100 | 21-5 | A187 | 10-1700-1002 | 25N2A25A100 | Data sheet |
| | 25 | 100 | 21-5 | 8478 | 10-1400-1003 | 24N2A25A100 | Data sheet |
| | 25 | 300 | 21-5 | A189 | 10-1700-3002 | 25N2A25A300 | Data sheet |

Fastening elements

| Type | Ø | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|---|----------|------------|-------------|-----------------------------|------------------------------|----------------------------|
|  <p>Clevis with pin DIN ISO 8140</p> <p>ZBM Group (VW): ZLF-E2</p> | M4 | 21-5 | A183 | 10-8520-0050 | G-8-10 | Data sheet |
| | M6 | 21-5 | A184 | 10-8560-0050 | G-12-16 | Data sheet |
| | M8 | 21-5 | A185 | 10-8600-0050 | G-20 | Data sheet |
| | M10x1.25 | 21-5 | 2316 | 10-8620-0050 | G-25-32 | Data sheet |
| | M12 | 21-5 | | ** | ** | |
| | M12x1.25 | 21-5 | | 10-8660-0050 | G-40 | Data sheet |
| | M16x1.5 | 21-5 | 2317 | 10-8680-0050 | G-50-63 | Data sheet |
| | M20x1.5 | 21-5 | 2318 | 10-8720-0050 | G-80-100 | Data sheet |
| | M27x2 | 21-5 | 2319 | 10-8760-005001 | G-41-125 | Data sheet |
| | M36x2 | 21-5 | 2320 | 10-8780-0050 | G-160-200 | Data sheet |
|  <p>Rod end DIN ISO 8139</p> <p>ZBM Group (VW): ZLG-E2</p> | M8 | 21-5 | A176 | 10-8600-0060 | GA-20 | Data sheet |
| | M10x1.25 | 21-5 | 2321 | 10-8620-0060 | GA-25-32 | Data sheet |
| | M10 | 21-5 | | ** | ** | |
| | M16x1.5 | 21-5 | 2322 | 10-8680-0060 | GA-50-63 | Data sheet |
| | M20x1.5 | 21-5 | 2323 | 10-8720-0060 | GA-80-100 | Data sheet |
| | M27x2 | 21-5 | 2324 | 10-8760-006001 | GA-41-125 | Data sheet |
| | M36x2 | 21-5 | 2325 | 10-8780-0060 | GA-160-200 | Data sheet |

* will be assigned when ordering

2.1.1.4 Compact short-stroke cylinders DIN ISO 21287

Operating data:

Operating pressure: max 10 bar

Operating temperature: 0 to +80°C (dried air -20°C)

ISO 21287 Compact short-stroke cylinders, diameter 20 to 100 mm, Series 32

| Type | Ø | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|------|-----|--------|------------|--------------|--------------------------------|---------------------------------|--|
| | 16 | 25 | 21-5 | | ** | ** | |
| | 20 | 10 | 21-5 | A213 A214 | 10-3322-0103 10-3320-0103 | 32M2A020A010 32F2A020A010 | Data sheet Data sheet |
| | 20 | 20 | 21-5 | A215 | 10-3320-0203 | 32F2A020A020 | Data sheet |
| | 20 | 30 | 21-5 | A217 A216 | 10-3322-0303 10-3320-0303 | 32M2A020A030 32F2A020A030 | Data sheet Data sheet |
| | 25 | 10 | 21-5 | A218 A221 | 10-3332-0103 10-3330-0103 | 32M2A025A010 32F2A025A010 | Data sheet Data sheet |
| | 25 | 30 | 21-5 | A219 A222 | 10-3332-0303 10-3330-0303 | 32M2A025A030 32F2A025A030 | Data sheet Data sheet |
| | 25 | 40 | 21-5 | A220 | 10-3332-0403 | 32M2A025A040 | Data sheet |
| | 32 | 10 | 21-5 | A226 A223 | 10-3342-0103 10-3340-0103 | 32M2A032A010 32F2A032A010 | Data sheet Data sheet |
| | 32 | 30 | 21-5 | A227 A224 | 10-3342-0303 10-3340-0303 | 32M2A032A030 32F2A032A030 | Data sheet Data sheet |
| | 32 | 40 | 21-5 | A225 | 10-3340-0403 | 32F2A032A040 | Data sheet |
| | 32 | 50 | 21-5 | A228 | 10-3342-0503 | 32M2A032A050 | Data sheet |
| | 40 | 10 | 21-5 | A229 A231 | 10-3352-0103 10-3350-0103 | 32M2A040A010 32F2A040A010 | Data sheet Data sheet |
| | 40 | 30 | 21-5 | A230 A232 | 10-3352-0303 10-3350-0303 | 32M2A040A030 32F2A040A030 | Data sheet Data sheet |
| | 40 | 60 | 21-5 | | ** | ** | |
| | 50 | 10 | 21-5 | A234 A233 | 10-3362-0103 10-3360-0103 | 32M2A050A010 32F2A050A010 | Data sheet Data sheet |
| | 50 | 20 | 21-5 | A235 | 10-3362-0203 | 32M2A050A020 | Data sheet |
| | 50 | 25 | 21-5 | | ** | ** | |
| | 50 | 30 | 21-5 | A236 A237 | 10-3362-0303 10-3360-0303 | 32M2A050A030 32F2A050A030 | Data sheet Data sheet |
| | 50 | 40 | 21-5 | A239 | 10-3362-0403 | 32M2A050A040 | Data sheet |
| | 63 | 10 | 21-5 | A240 A238 | 10-3372-0103 10-3370-0103 | 32M2A063A010 32F2A063A010 | Data sheet Data sheet |
| | 63 | 30 | 21-5 | A241 A245 | 10-3372-0303 10-3370-0303 | 32M2A063A030 32F2A063A030 | Data sheet Data sheet |
| | 63 | 40 | 21-5 | A242 | 10-3372-0403 | 32M2A063A040 | Data sheet |
| | 80 | 10 | 21-5 | A243 A246 | 10-3382-0103 10-3380-0103 | 32M2A080A010 32F2A080A010 | Data sheet Data sheet |
| | 80 | 30 | 21-5 | A244 A247 | 10-3382-0303 10-3380-0303 | 32M2A080A030 32F2A080A030 | Data sheet Data sheet |
| | 100 | 10 | 21-5 | A250 A248 | 10-3392-0103 10-3390-0103 | 32M2A100A010 32F2A100A010 | Data sheet Data sheet |
| | 100 | 30 | 21-5 | A251 * | 10-3392-0303 10-3390-0302 | 32M2A100A030 32F2A100A030 | Data sheet Data sheet |



Cylinder Series 32
Series 32 (Ø20-100)
32F internal thread
32M male thread

Standard strokes according to BV1.13:

10 and 30 mm; Ø 20-25 mm; stroke 5-50 mm possible

Ø 32-40 mm; stroke 5-80 mm possible

Ø 50-100 mm; stroke 10-80 mm possible

* will be assigned when ordering

** on request


2.1.1.5 Cylinders for design-related exceptional cases

Operating data:

Operating pressure: max 10 bar

Operating temperature: 0 to +80°C (dried air -20°C)

Single-acting cylinders (LL 21-5)


| Cylinder Series 32 different versions | | | | | | | |
|---|----|--------|------------|--------------|--------------------------------|---------------------------------|----------------------------|
| Type | Ø | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|  <p>Cylinder Series 32 32F internal thread 32M male thread 32..1..Front spring 32..4..Rear spring</p> | 20 | 10 | 21-5 | A252 | 10-3322-0101 | 32M1A020A010 | Data sheet |
| | 20 | 10 | 21-5 | A253 | 10-3322-010A | 32M4A020A010 | Data sheet |
| | 20 | 10 | 21-5 | A254 | 10-3320-0101 | 32F1A020A010 | Data sheet |
| | 20 | 10 | 21-5 | A255 | 10-3320-010A | 32F4A020A010 | Data sheet |
| | 25 | 10 | 21-5 | A260 | 10-3332-0101 | 32M1A025A010 | Data sheet |
| | 25 | 10 | 21-5 | A261 | 10-3332-010A | 32M4A025A010 | Data sheet |
| | 25 | 10 | 21-5 | A262 | 10-3330-0101 | 32F1A025A010 | Data sheet |
| | 25 | 10 | 21-5 | A263 | 10-3330-010A | 32F4A025A010 | Data sheet |
| | 32 | 10 | 21-5 | A268 | 10-3342-0101 | 32M1A032A010 | Data sheet |
| | 32 | 10 | 21-5 | A269 | 10-3342-010A | 32M4A032A010 | Data sheet |
| | 32 | 10 | 21-5 | A270 | 10-3340-0101 | 32F1A032A010 | Data sheet |
| | 32 | 10 | 21-5 | A271 | 10-3340-010A | 32F4A032A010 | Data sheet |
| | 40 | 10 | 21-5 | A272 | 10-3352-0101 | 32M1A040A010 | Data sheet |
| | 40 | 10 | 21-5 | A273 | 10-3352-010A | 32M4A040A010 | Data sheet |
| | 40 | 10 | 21-5 | A274 | 10-3350-0101 | 32F1A040A010 | Data sheet |
| | 40 | 10 | 21-5 | A275 | 10-3350-010A | 32F4A040A010 | Data sheet |
| | 50 | 10 | 21-5 | A284 | 10-3362-0101 | 32M1A050A010 | Data sheet |
| | 50 | 10 | 21-5 | A285 | 10-3362-010A | 32M4A050A010 | Data sheet |
| | 50 | 10 | 21-5 | A286 | 10-3360-0101 | 32F1A050A010 | Data sheet |
| | 50 | 10 | 21-5 | A287 | 10-3360-010A | 32F4A050A010 | Data sheet |
| 63 | 10 | 21-5 | A292 | 10-3372-0101 | 32M1A063A010 | Data sheet | |
| 63 | 10 | 21-5 | A293 | 10-3372-010A | 32M4A063A010 | Data sheet | |
| 63 | 10 | 21-5 | A294 | 10-3370-0101 | 32F1A063A010 | Data sheet | |
| 63 | 10 | 21-5 | A295 | 10-3370-010A | 32F4A063A010 | Data sheet | |

Standard strokes:

Ø 20-40 mm; Stroke 5-25 mm possible

Ø 50-100 mm; Stroke 10-25 mm possible

Single-acting cylinders (LL 21-5)

| Cylinder Series 32 different versions | | | | | | | |
|---|-----|--------|------------|-------------|--------------------------------|---------------------------------|----------------------------|
| Type | Ø | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|  <p>Cylinder Series 32 32F internal thread 32M male thread 32..1..Front spring 32..4..Rear spring</p> | 80 | 10 | 21-5 | A304 | * | 32M1A080A010 | Data sheet |
| | 80 | 10 | 21-5 | A305 | 10-3382-010A | 32M4A080A010 | Data sheet |
| | 80 | 10 | 21-5 | A306 | 10-3380-0101 | 32F1A080A010 | Data sheet |
| | 80 | 10 | 21-5 | A307 | 10-3380-010A | 32F4A080A010 | Data sheet |
| | 100 | 10 | 21-5 | A308 | 10-3392-0101 | 32M1A100A010 | Data sheet |
| | 100 | 10 | 21-5 | A309 | * | 32M4A100A010 | Data sheet |
| | 100 | 10 | 21-5 | A310 | 10-3390-0101 | 32F1A100A010 | Data sheet |
| | 100 | 10 | 21-5 | A311 | * | 32F4A100A010 | Data sheet |

Standard strokes:

Ø 20-40 mm; Stroke 5-25 mm possible

Ø 50-100 mm; stroke 10-25 mm possible

* will be assigned when ordering


• 2.2. Management units

Operating data:

Operating pressure: max 10 bar

Operating temperature: 0 to +80°C (dried air -20°C)

Based on 39D1777

| Cylinder Series 32 different versions | | | | | | | |
|---|-----|--------|------------|-------------|--------------------------------|---------------------------------|----------------------------|
| Type | Ø | Stroke | Stock list | Bearing no. | Item number Camozzi company | Material designation Camozzi | Data sheet |
|  <p>Guide units for standard cylinders</p> | 32 | 50 | | | * | 45NHB032A0050S. | Data sheet |
| | 32 | 100 | | | * | 45NHB032A0100S. | Data sheet |
| | 32 | 200 | | | * | 45NHB032A0200S. | Data sheet |
| | 50 | 50 | | | * | 45NHB050A0050S. | Data sheet |
| | 50 | 100 | | | * | 45NHB050A0100S. | Data sheet |
| | 50 | 200 | | | * | 45NHB050A0200S. | Data sheet |
| | 50 | 320 | | | * | 45NHB050A0320S. | Data sheet |
| | 63 | 50 | | | * | 45NHB063A0050S. | Data sheet |
| | 63 | 100 | | | * | 45NHB063A0100S. | Data sheet |
| | 63 | 200 | | | * | 45NHB063A0200S. | Data sheet |
| | 63 | 320 | | | * | 45NHB063A0320S. | Data sheet |
| | 63 | 500 | | | * | 45NHB063A0500S. | Data sheet |
| | 80 | 100 | | | * | 45NHB080A0100S. | Data sheet |
| | 80 | 200 | | | * | 45NHB080A0200S. | Data sheet |
| | 80 | 320 | | | * | 45NHB080A0320S. | Data sheet |
| | 80 | 500 | | | * | 45NHB080A0500S. | Data sheet |
| | 100 | 100 | | | * | 45NHB100A0100S. | Data sheet |
| | 100 | 200 | | | * | 45NHB100A0200S. | Data sheet |
| | 100 | 320 | | | * | 45NHB100A0320S. | Data sheet |
| | 100 | 500 | | | * | 45NHB100A0500S. | Data sheet |

* will be assigned when ordering

3. Energy transfer

• 3.1. Cables and cable and connections

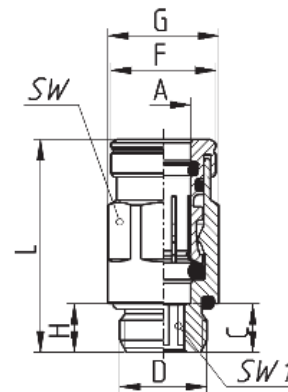
3.1.1. Plug-in connections with release sleeve or release ring

Standard bodywork design Release sleeve / Viton (LL 21-5)

VW standard: 39D 1425

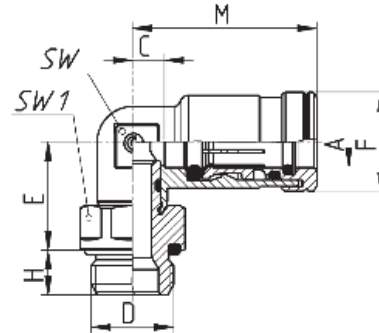
| | | | |
|---|---------------------------------|------------------------|-----------------------|
| BV 1.13 Page 16 | Camozzi Series H8000 | Operating data: | |
| 4.3.1.4 Plug-in connections with release sleeve (see LL 21-5) | | Operating pressure: | -0.9 to 60bar * |
| | | Operating temperature: | -15 to + 200°C ** |
| | | Body: | Brass (nickel-plated) |
| | | Seal: | Viton |
| Remarks: * : The pipe/hose material is the limiting factor ** : With dry air | | | |

Straight screw-in plug-in connections with Camozzi H8512 release sleeve (shape: SDSL)



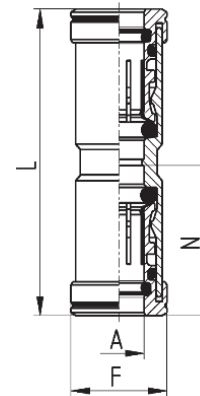
| Version/type acc. 39D 1425/: | Hose OD: | Thread: | Stock list | Stock no: | Material designation Camozzi | Data sheet: |
|------------------------------|----------|---------|------------|-----------|------------------------------|----------------------------|
| SDSL 6-G1/8 | 6mm | G1/8 | 21-5 | 1885 | H8512 6-1/8-V | Data sheet |
| SDSL 6-G1/4 | 6mm | G1/4 | 21-5 | 1886 | H8512 6-1/4-V | Data sheet |
| SDSL 8-G1/8 | 8mm | G1/8 | 21-5 | 1887 | H8512 8-1/8-V | Data sheet |
| SDSL 8-G1/4 | 8mm | G1/4 | 21-5 | 1888 | H8512 8-1/4-V | Data sheet |
| SDSL 10-G1/4 | 10mm | G1/4 | 21-5 | 1890 | H8512 10-1/4-V | Data sheet |
| SDSL 10-G3/8 | 10mm | G3/8 | 21-5 | 1891 | H8512 10-3/8-V | Data sheet |
| SDSL 12-G1/4 | 12mm | G1/4 | 21-5 | 1892 | H8512 12-1/4-V | Data sheet |
| SDSL 12-G3/8 | 12mm | G3/8 | 21-5 | 1893 | H8512 12-3/8-V | Data sheet |
| SDSL 12-G1/2 | 12mm | G1/2 | 21-5 | 1894 | H8512 12-1/2-V | Data sheet |
| SDSL 14-G3/8 | 14mm | G3/8 | 21-5 | 1895 | H8512 14-3/8-V | Data sheet |
| SDSL 14-G1/2 | 14mm | G1/2 | 21-5 | 1896 | H8512 14-1/2-V | Data sheet |

Angled screw-in plug-in connections with swivelling release sleeve Camozzi H8522 (shape: SWEL)

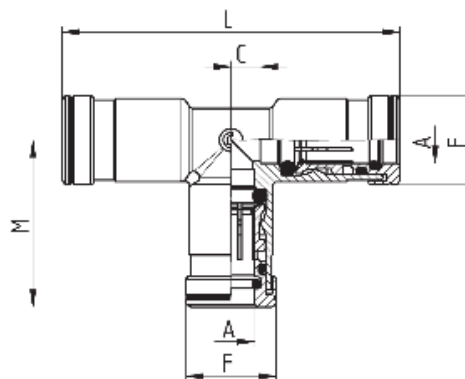


| Version/type acc. 39D 1425/: | Hose OD: | Thread: | Stock list | Stock no: | Material designation Camozzi | Data sheet: |
|------------------------------|----------|---------|------------|-----------|------------------------------|----------------------------|
| SWEL 6-G1/8 | 6mm | G1/8 | 21-5 | 1867 | H8522 6-1/8-V | Data sheet |
| SWEL 6-G1/4 | 6mm | G1/4 | 21-5 | 1868 | H8522 6-1/4-V | Data sheet |
| SWEL 8-G1/8 | 8mm | G1/8 | 21-5 | 1464 | H8522 8-1/8-V | Data sheet |
| SWEL 8-G1/4 | 8mm | G1/4 | 21-5 | 1465 | H8522 8-1/4-V | Data sheet |
| SWEL 10-G1/4 | 10mm | G1/4 | 21-5 | 1496 | H8522 10-1/4-V | Data sheet |
| SWEL 10-G3/8 | 10mm | G3/8 | 21-5 | 1497 | H8522 10-3/8-V | Data sheet |
| SWEL 12-G3/8 | 12mm | G3/8 | 21-5 | 1870 | H8522 12-3/8-V | Data sheet |
| SWEL 12-G1/2 | 12mm | G1/2 | 21-5 | 1871 | H8522 12-1/2-V | Data sheet |
| SWEL 14-G3/8 | 14mm | G3/8 | 21-5 | 1765 | H8522 14-3/8-V | Data sheet |
| SWEL 14-G1/2 | 14mm | G1/2 | 21-5 | 1864 | H8522 14-1/2-V | Data sheet |

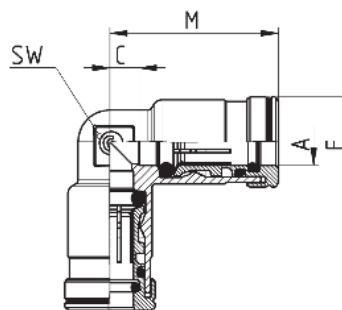
Straight double plug-in connections with Camozzi H8580 release sleeve (shape: SL)



| Version/type acc. 39D 1425/: | Hose 1 OD: | Hose 2 OD: | Stock list | Stock no: | Material designation Camozzi | Data sheet: |
|------------------------------|------------|------------|------------|-----------|------------------------------|----------------------------|
| SL 4 x 4 | 4mm | 4mm | 21-5 | 1897 | H8580 4-V | Data sheet |
| SL 4 x 6 | 4mm | 6mm | 21-5 | 1905 | H8580 4-6-V | Data sheet |
| SL 6 x 6 | 6mm | 6mm | 21-5 | 1898 | H8580 6-V | Data sheet |
| SL 6 x 8 | 6mm | 8mm | 21-5 | 1910 | H8580 6-8-V | Data sheet |
| SL 8 x 8 | 8mm | 8mm | 21-5 | 1900 | H8580 8-V | Data sheet |
| SL 8 x 10 | 8mm | 10mm | 21-5 | 1913 | H8580 8-10-V | Data sheet |
| SL 10 x 10 | 10mm | 10mm | 21-5 | 1901 | H8580 10-V | Data sheet |
| SL 12 x 12 | 12mm | 12mm | 21-5 | 1902 | H8580 12 V | Data sheet |
| SL 14 x 14 | 14mm | 12mm | 21-5 | 1904 | H8580 14 V | Data sheet |

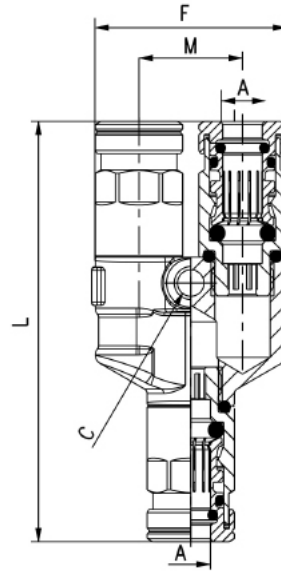
T-connectors with release sleeve Camozzi H8540 (form: TL)


| Version/type acc. 39D 1425/: | Hose OD: | Stock list | Stock no: | Material designation Camozzi | Data sheet: |
|------------------------------|----------|------------|-----------|------------------------------|----------------------------|
| TL 8 x 8 x 8 | 8mm | 21-5 | 1932 | H8540 8-V | Data sheet |
| TL 10 x 10 x 10 | 10mm | 21-5 | 1933 | H8540 10-V | Data sheet |
| TL 12 x 12 x 12 | 12mm | 21-5 | 1934 | H8540 12-V | Data sheet |
| TL 14 x 14 x 14 | 14mm | 21-5 | 1935 | H8540 14-V | Data sheet |

Elbow - push-in connectors 90° with release sleeve Camozzi H8550 (shape: EL)


| Version/type acc. 39D 1425/: | Hose OD: | Stock list | Stock no: | Material designation Camozzi | Data sheet: |
|------------------------------|----------|------------|-----------|------------------------------|----------------------------|
| EL 8 x 8 | 8mm | 21-5 | 1873 | H8550 8-V | Data sheet |
| EL 10 x 10 | 10mm | 21-5 | 1874 | H8550 10-V | Data sheet |
| EL 12 x 12 | 12mm | 21-5 | 1875 | H8550 12-V | Data sheet |
| EL 14 x 14 | 14mm | 21-5 | 1876 | H8550 14-V | Data sheet |

Y - Push-in connectors with release sleeve Camozzi H8560 (form: YL)



| *Design/type based on 39D 1425: | Hose OD: | Stock list | Stock no: | Material designation Camozzi | Data sheet: |
|---------------------------------|----------|------------|-----------|------------------------------|----------------------------|
| YL 4 x 4 x 4 | 4mm | 21-5 | 1936 | H8560 4-DE.. | Data sheet |
| YL 6 x 6 x 6 | 6mm | 21-5 | A077 | H8560 6-DE.. | Data sheet |
| YL 8 x 8 x 8 | 8mm | 21-5 | A078 | H8560 8-DE.. | Data sheet |
| YL 10 x 10 x 10 | 10mm | 21-5 | A079 | H8560 10-DE.. | Data sheet |
| YL 12 x 12 x 12 | 12mm | 21-5 | A080 | H8560 12-DE.. | Data sheet |

Notes:

Mounting hole diameter: 4.1mm

* Material deviating

Attachment

Camozzi articles with stock location numbers at VW.

| ZBM key | KRIAS no. | Supplier name | Work(s) | Designation | LAN | KO |
|------------|--------------|---------------|------------|-------------------------------|----------------|----|
| LM=21-8473 | 000037690-00 | CAMOZZI GMBH | 11F | PNEUMATIKZYL. 39V16270/16X25 | 24N-2-A-16A025 | |
| LM=21-8474 | 000037690-00 | CAMOZZI GMBH | 11F | PNEUMATIC CYL. 39V16270/16X50 | 24N-2-A-16A050 | |
| LM=21-8476 | 000037690-00 | CAMOZZI GMBH | 11F | PNEUMATIC CYL. 39V16270/25X25 | 24N-2-A-25A025 | |
| LM=21-9067 | 000037690-00 | CAMOZZI GMBH | 11F / 12 F | CONNECTING PLATE 39D1343/A1G | 901-F1A | |
| LM=21-9068 | 000037690-00 | CAMOZZI GMBH | 11F / 12 F | CONNECTING PLATE 39D1343/A3G | 903-F3A | |
| LM=21-9071 | 000037690-00 | CAMOZZI GMBH | 11F | CHAINING PL. 39D1343/C1G | 901-C1A | |
| LM=21-9072 | 000037690-00 | CAMOZZI GMBH | 11F / 22F | CHAINING PL. 39D1343/C3G | 903-C3A | |
| LM=21-9073 | 000037690-00 | CAMOZZI GMBH | 11F | END PLATE KIT 39D1343/D1G | 901-H1 | |
| LM=21-9074 | 000037690-00 | CAMOZZI GMBH | 11F / 22F | END PLATE KIT 39D1343/D3G | 903-H3 | |
| LM=21-9075 | 000037690-00 | CAMOZZI GMBH | 11F / 22F | L-CONNECTION PLATE 39D1343/1 | 901-N1 | |
| LM=21-9077 | 000037690-00 | CAMOZZI GMBH | 11F / 66 | L-CONNECTION PLATE 39D1343/3K | 903-N3-S.. | |



Automation

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