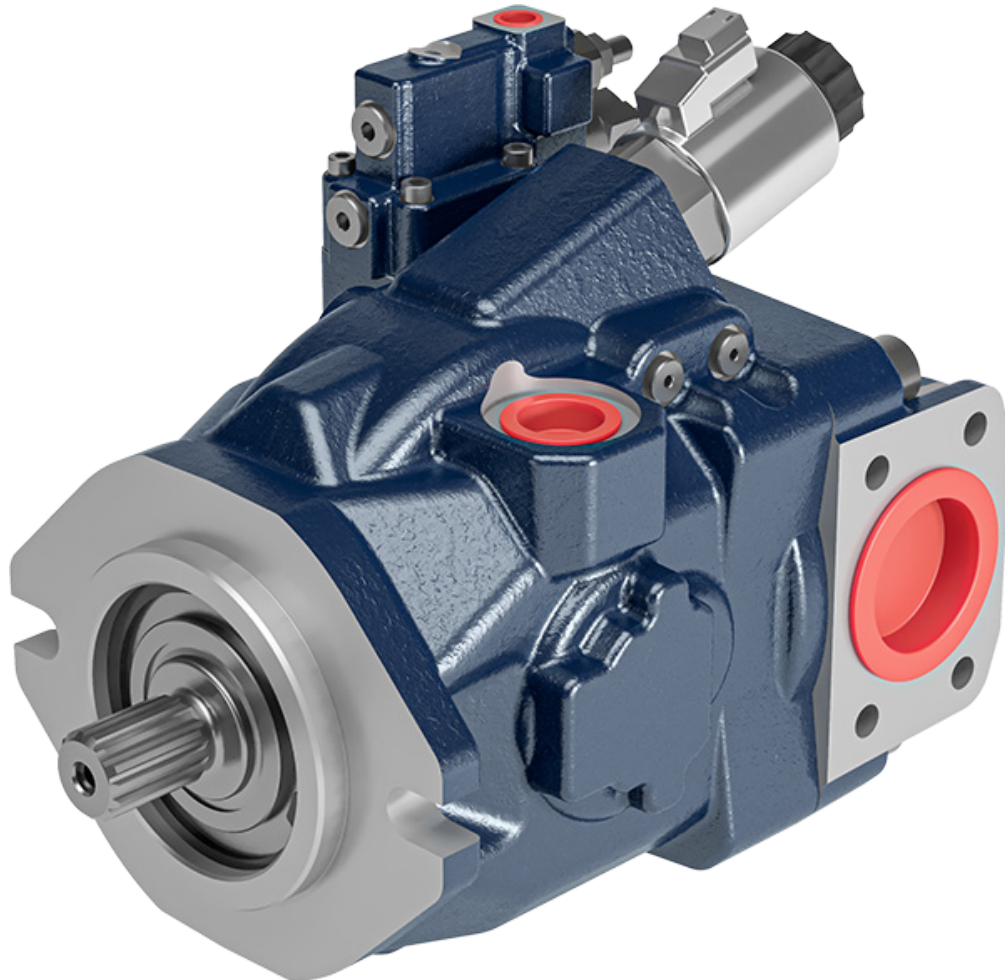
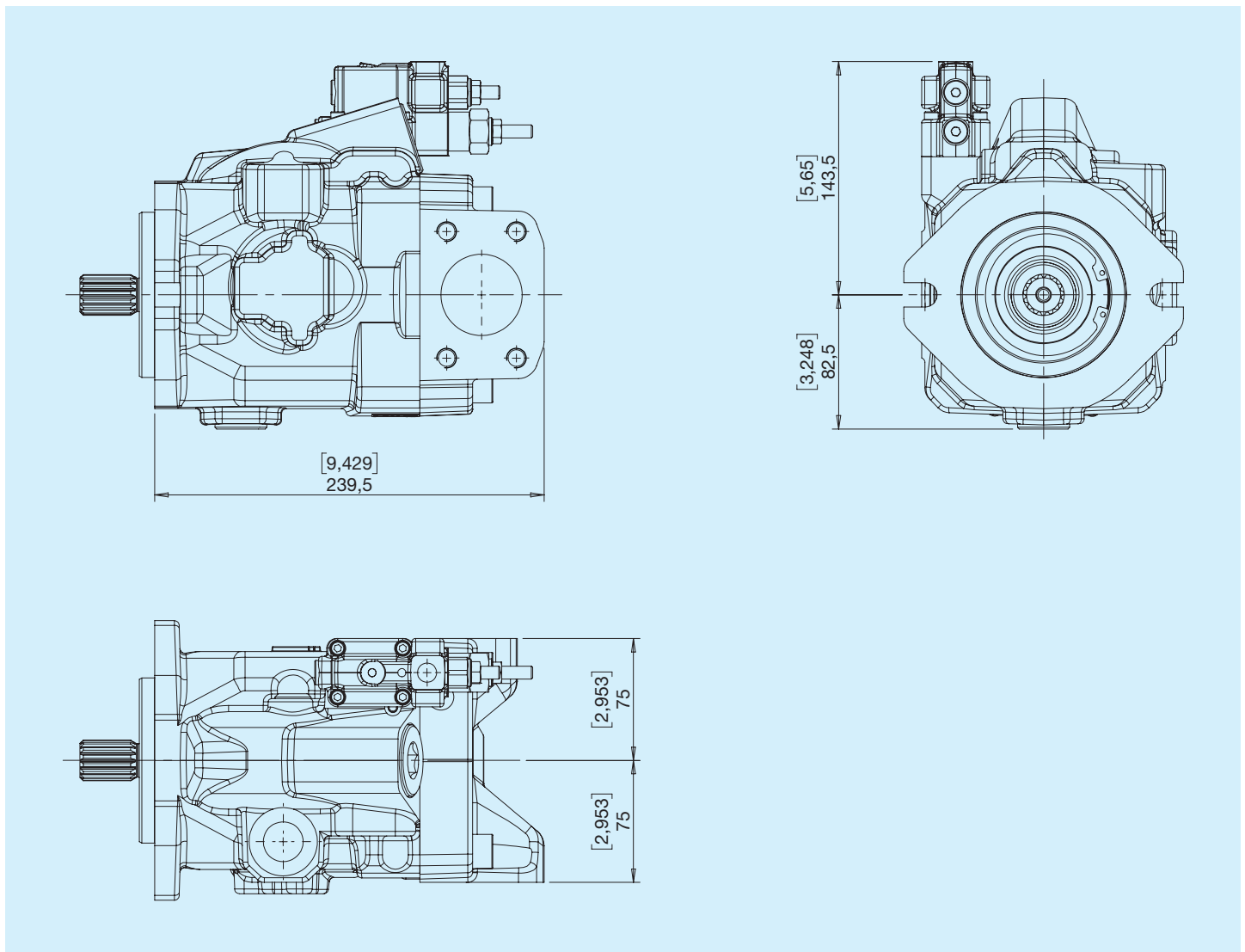


## Verstellpumpen

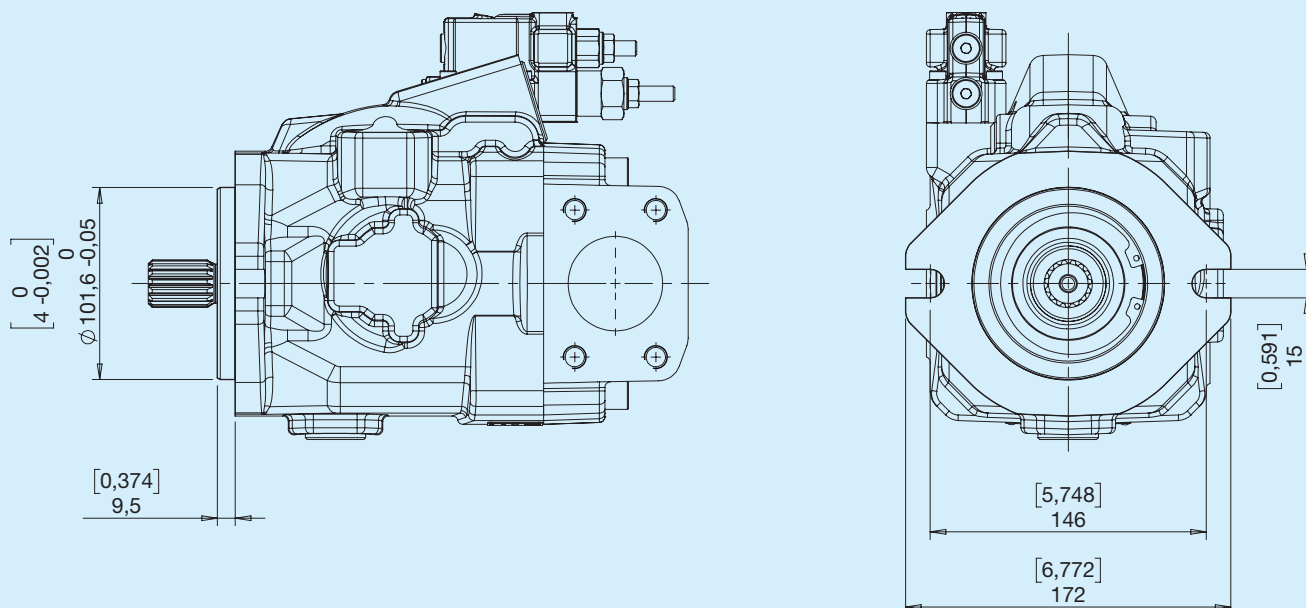


Bevor Sie mit der Benutzung beginnen, lesen Sie bitte das Dokument ALLGEMEINE GEBRAUCHSANWEISUNGEN FÜR AXIALKOLBENPUMPEN FÜR OFFENEN KREISLAUF sorgfältig durch.

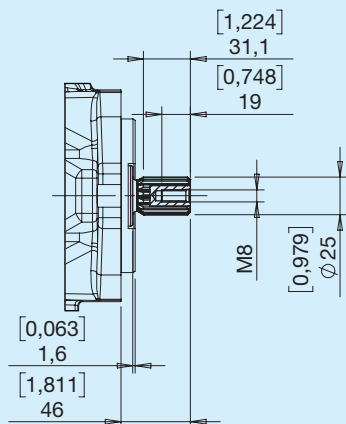


| HPA5      | Fördervolumen |      | Oszillierend<br>° | Dauerdruck |      | Intermittierender<br>Druck |      | Spitzendruck |      | Drehzahl |       | Gewicht |     |
|-----------|---------------|------|-------------------|------------|------|----------------------------|------|--------------|------|----------|-------|---------|-----|
|           | cm³           | in³  |                   | bar        | psi  | bar                        | psi  | bar          | psi  | min⁻¹    | min⁻¹ | kg      | lbs |
| <b>72</b> | 72            | 4,39 | 19                | 280        | 4060 | 320                        | 4640 | 350          | 5075 | 2500     | 500   | 24,5    | 54  |
| <b>80</b> | 80            | 4,89 | 15                | 250        | 3625 | 300                        | 4350 | 320          | 4640 | 2400     | 500   | 24,5    | 54  |
| <b>90</b> | 90            | 5,50 | 17                | 250        | 3625 | 280                        | 4060 | 300          | 4350 | 2300     | 500   | 24,5    | 54  |

## B SAE B

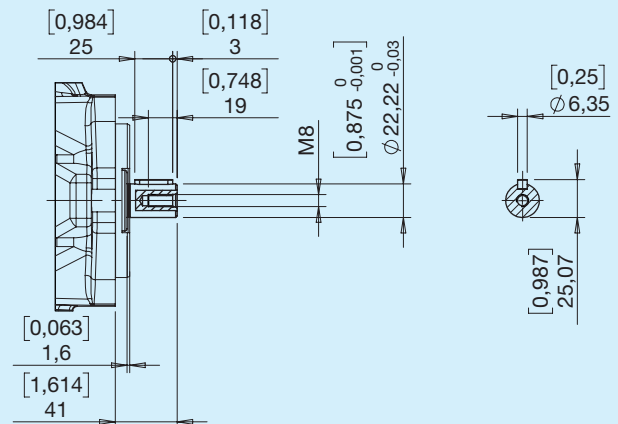


## 1 SAE 15T 16/32 DP



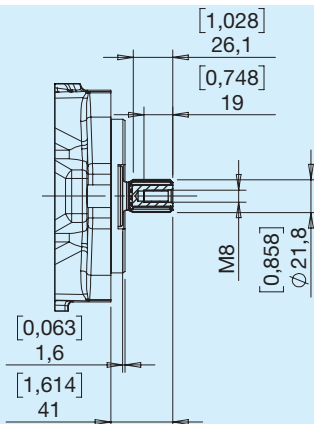
Max. Drehmoment 460 Nm

## 6 ZYLINDRISCH D22.22



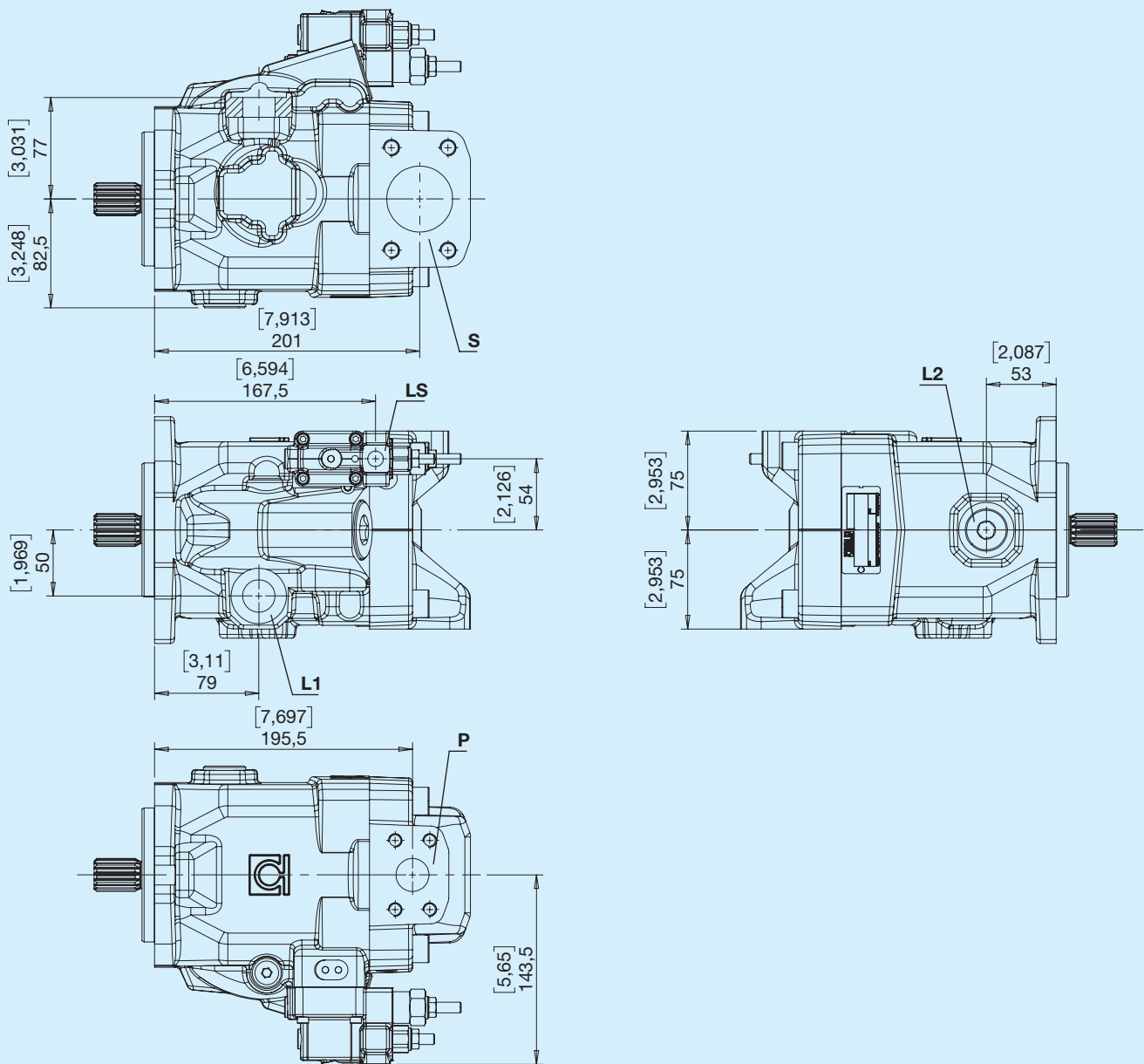
Max. Drehmoment 210 Nm

## 9 SAE 13T 16/32 DP



Max. Drehmoment 310 Nm

## **S** **N** Seitliche Rechtslauf



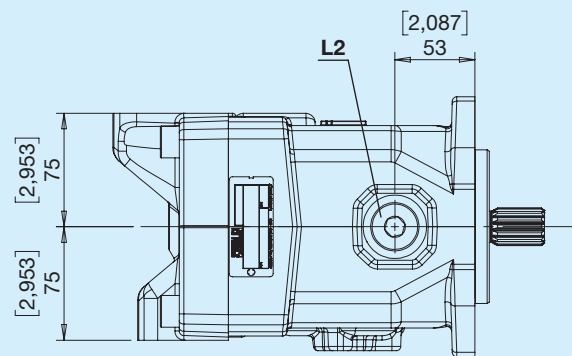
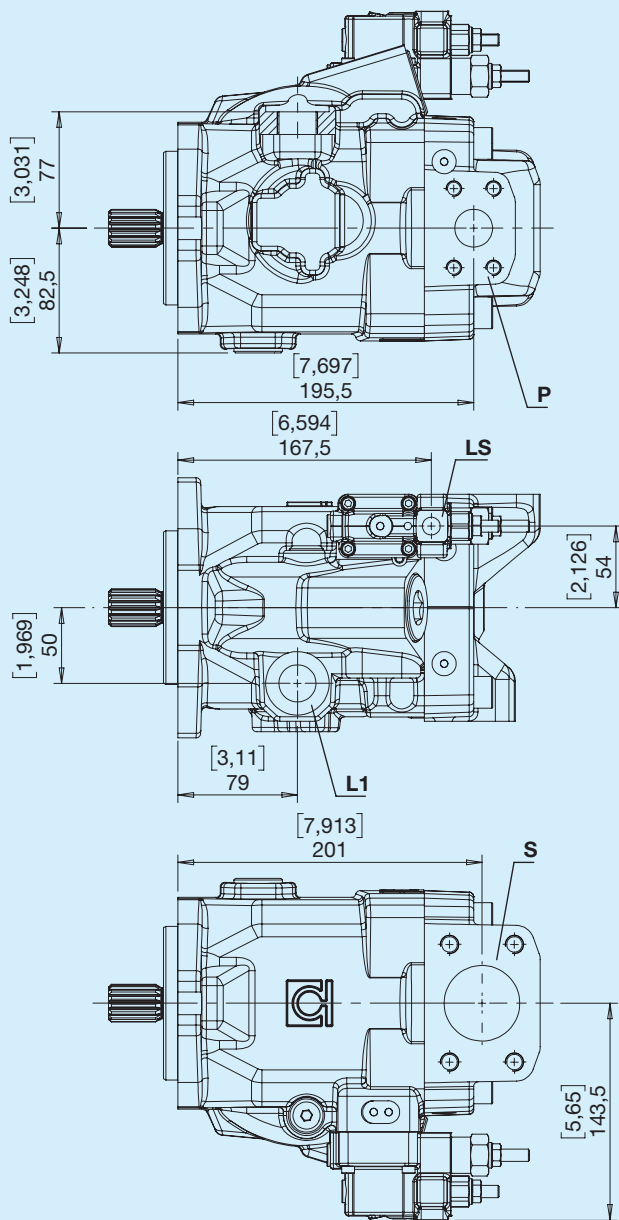
**S** - Ansaugöffnung

**P** - Ausgang

**L1, L2** - Leckölanschluss

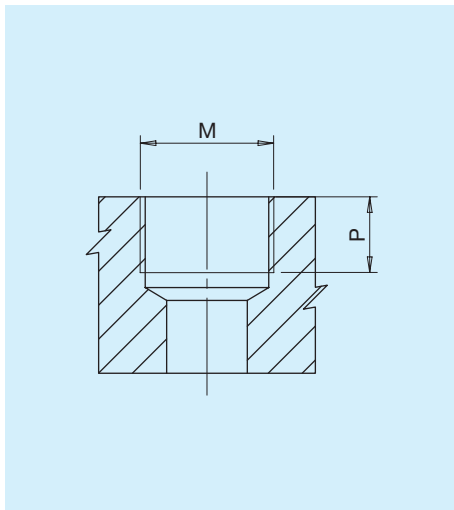
**LS (x)** - Steuerdruck

## S N Seitliche Linkslauf



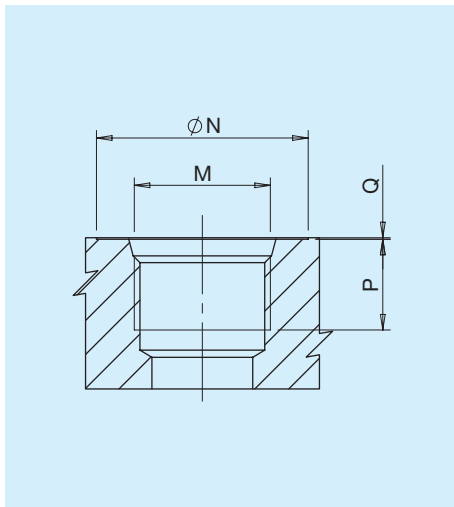
**S** - Ansaugöffnung  
**P** - Ausgang  
**L1, L2** - Leckölanschluss  
**LS (x)** - Steuerdruck

## Typ G



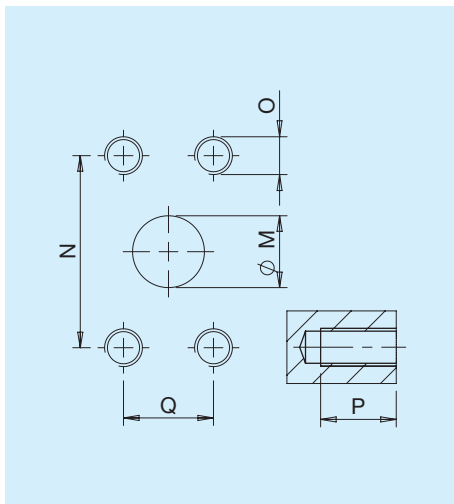
| Typ | M                               | Nm | P  |      |
|-----|---------------------------------|----|----|------|
|     |                                 |    | mm | in   |
| G2  | ANSCHLUSS ISO 1179-1 - G<br>1/4 | 17 | 14 | 0,55 |
| G6  | ANSCHLUSS ISO 1179-1 - G<br>3/4 | 90 | 23 | 0,91 |

## Typ U



| Typ | Maße | N  |      | P  |      | Q   |      | M                                   | Nm |
|-----|------|----|------|----|------|-----|------|-------------------------------------|----|
|     |      | mm | in   | mm | in   | mm  | in   |                                     |    |
| U2  | 1/4' | 17 | 0,67 | 12 | 0,47 | 0,3 | 0,01 | ANSCHLUSS ISO 11926-<br>1-7/16-20   | 17 |
| U6  | 3/4' | 42 | 1,65 | 20 | 0,79 | 0,3 | 0,01 | ANSCHLUSS ISO 11926-<br>1-1 1/16-12 | 90 |

## Typ N

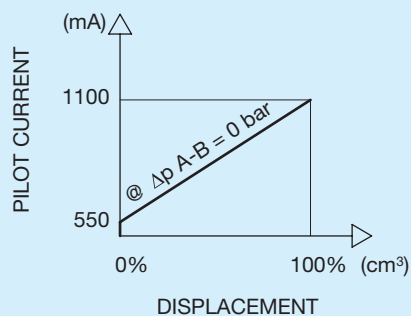
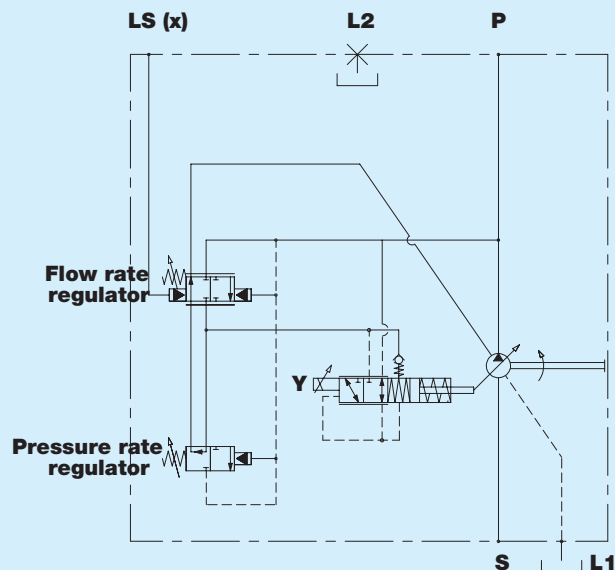
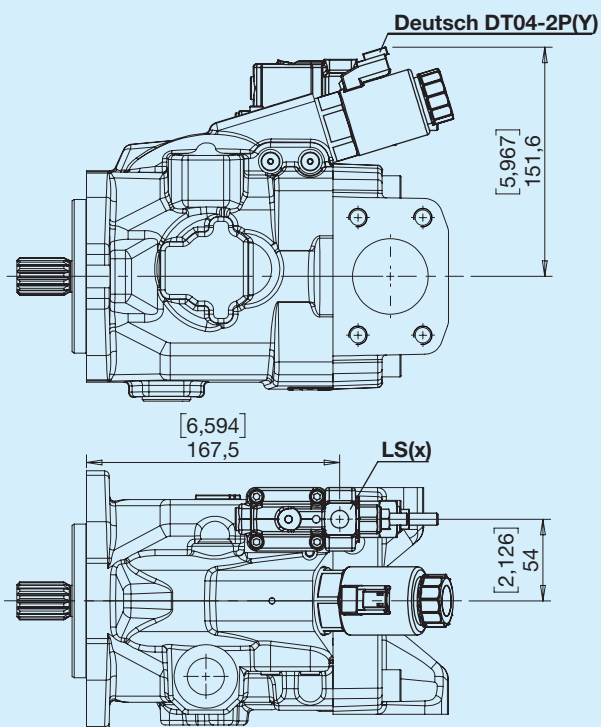


| Typ | M  |      | N    |      | Q    |      | P  |      | O   | Nm |
|-----|----|------|------|------|------|------|----|------|-----|----|
|     | mm | in   | mm   | in   | mm   | in   | mm | in   |     |    |
| N7  | 25 | 0,98 | 52,4 | 2,06 | 26,2 | 1,03 | 20 | 0,79 | M10 | 38 |
| N0  | 50 | 1,97 | 77,8 | 3,06 | 42,9 | 1,69 | 20 | 0,79 | M12 | 70 |

## Kombinationen

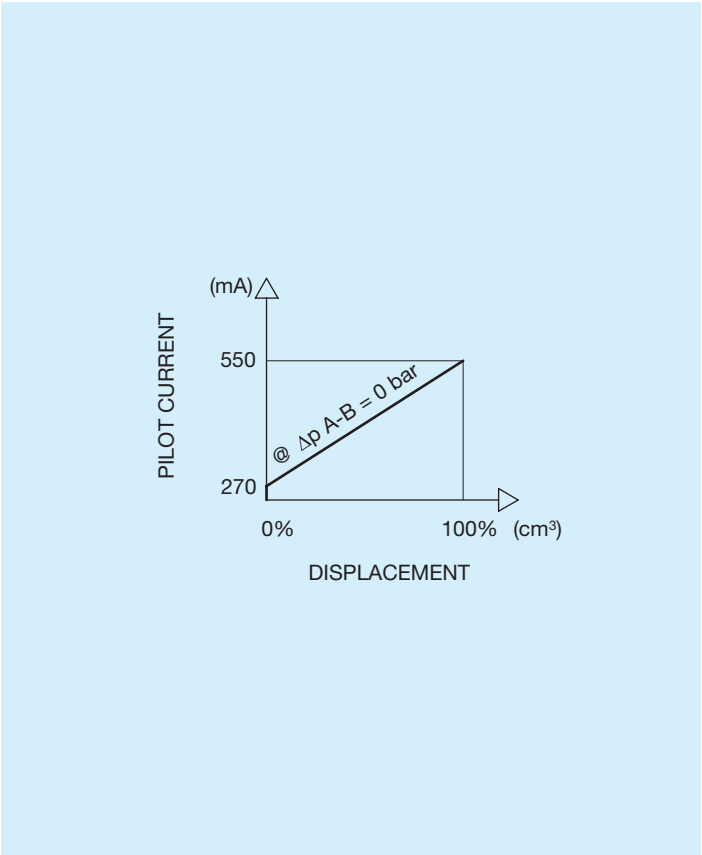
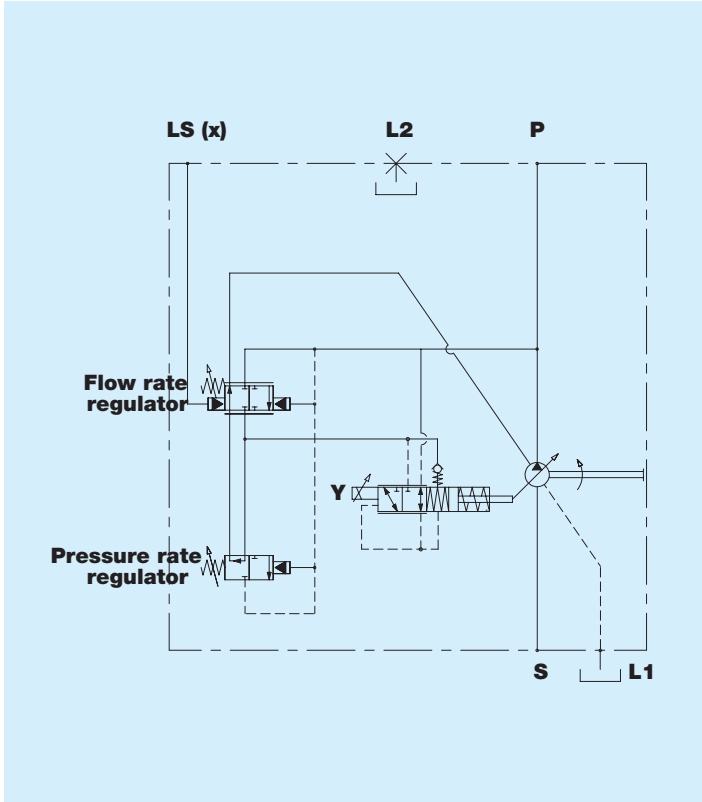
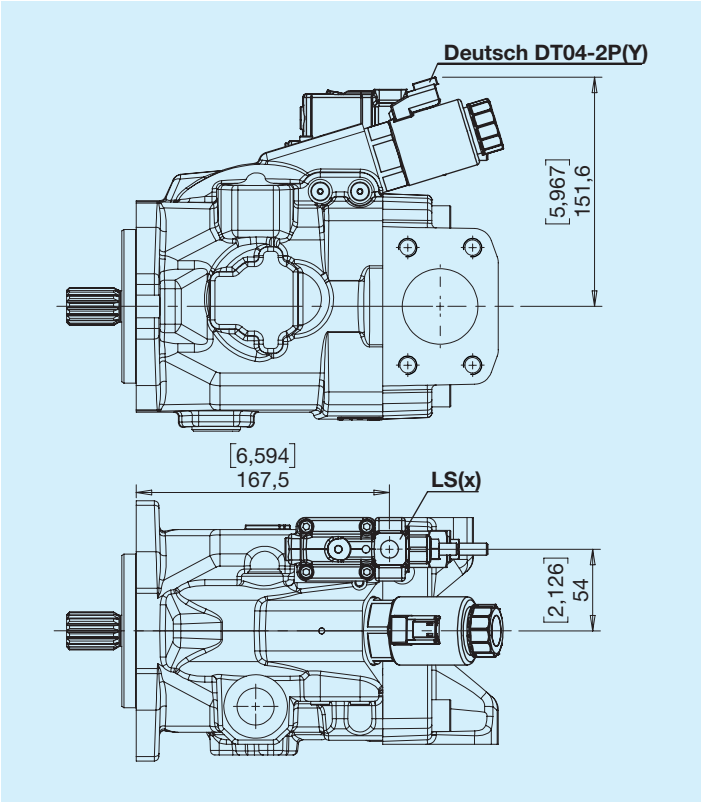
| Typ      | Ansaugung<br><b>S</b> | Druckseite<br><b>A-B</b> | Leckölanschluss<br><b>L1-L2</b> | Steuerung<br><b>LS(x)</b> |
|----------|-----------------------|--------------------------|---------------------------------|---------------------------|
| <b>G</b> | N0                    | N7                       | G6                              | G2                        |
| <b>U</b> | N0                    | N7                       | U6                              | U2                        |

## E Elektroproportional 12 V +



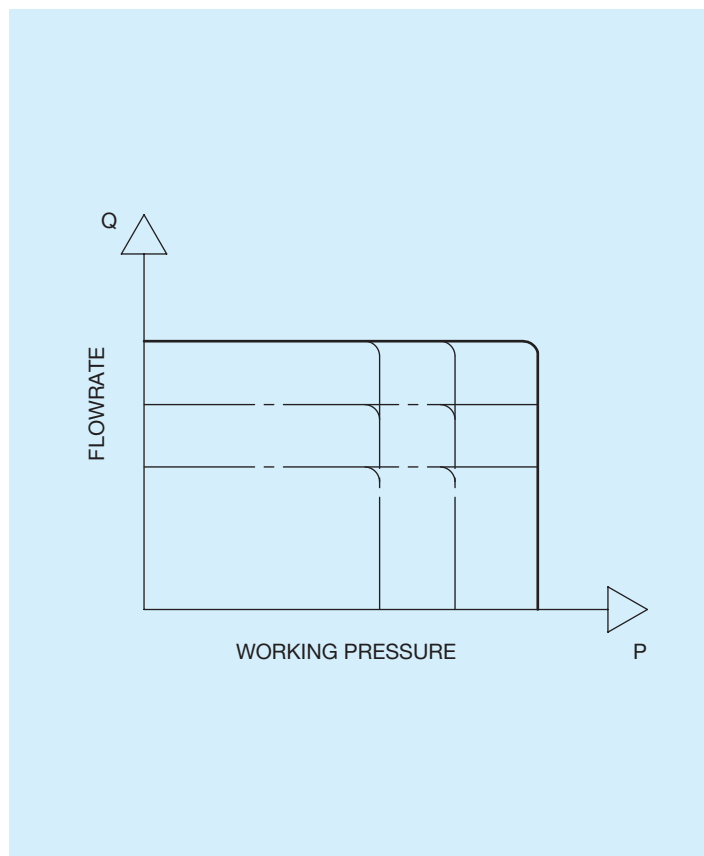
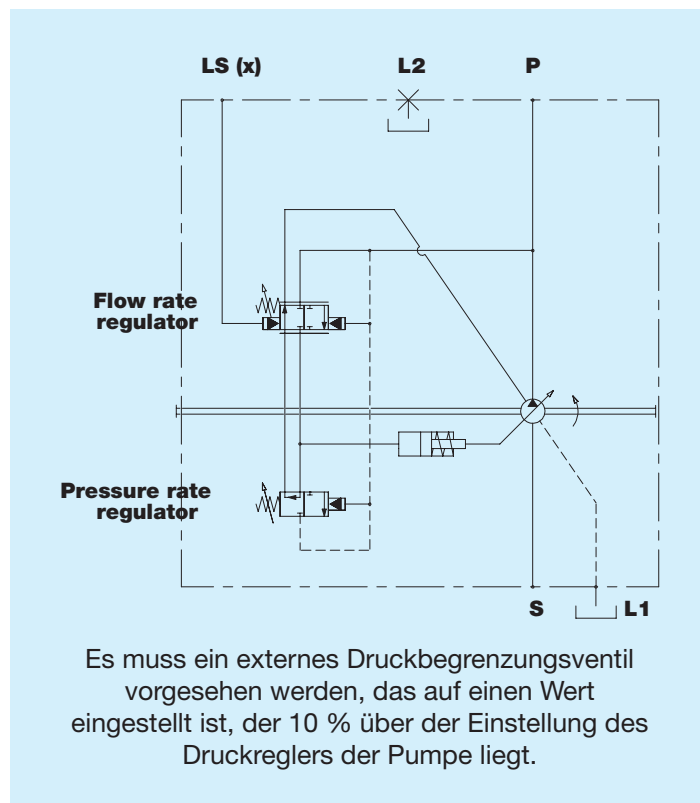
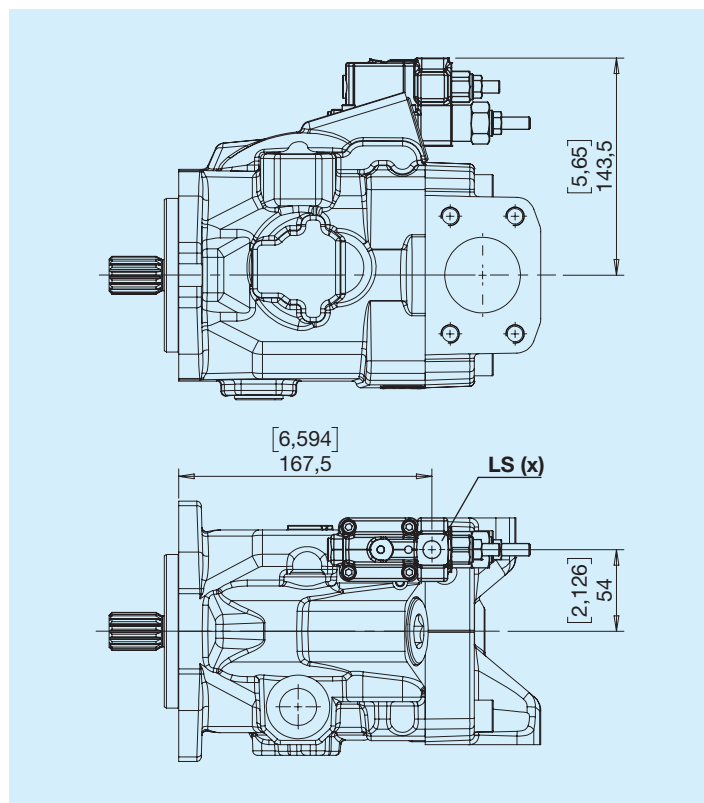
| Betriebsdruck<br>bar - psi | Druckdifferenz   |                  |                  |
|----------------------------|------------------|------------------|------------------|
|                            | 14 bar - 203 psi | 21 bar - 305 psi | 25 bar - 363 psi |
| 180 - 2610                 | <b>A</b>         | <b>B</b>         | <b>C</b>         |
| 210 - 3045                 | <b>E</b>         | <b>F</b>         | <b>G</b>         |
| 250 - 3625                 | <b>I</b>         | <b>L</b>         | <b>M</b>         |
| 280 - 4060                 | <b>O</b>         | <b>P</b>         | <b>Q</b>         |
| 320 - 4640                 | <b>S</b>         | <b>T</b>         | <b>U</b>         |
| 350 - 5075                 | <b>Z</b>         | <b>X</b>         | <b>Y</b>         |

## F Elektroproportional 24 V +



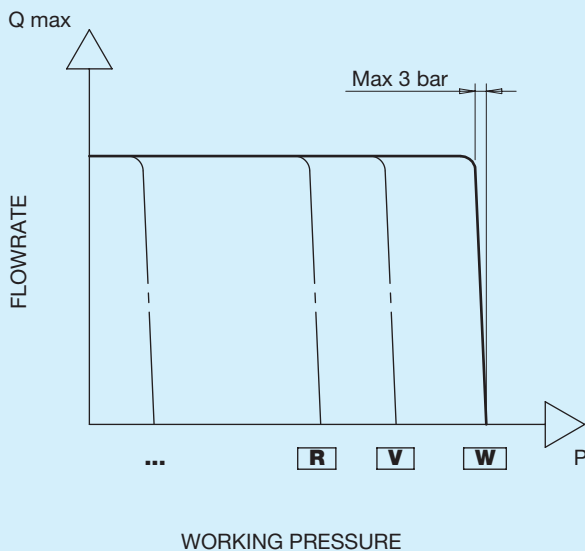
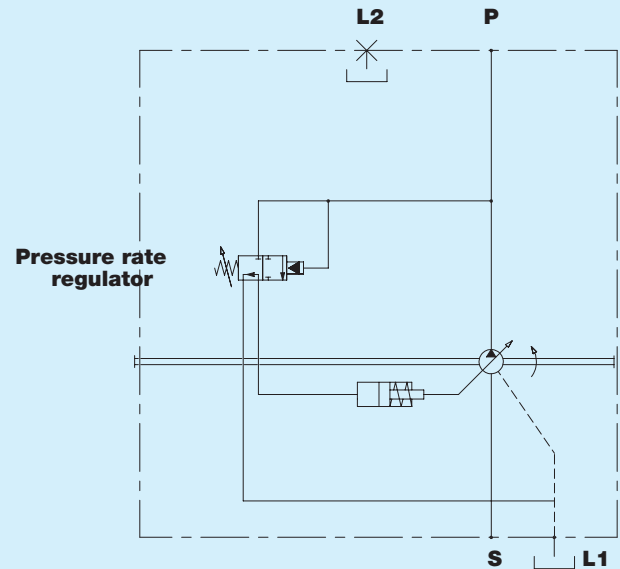
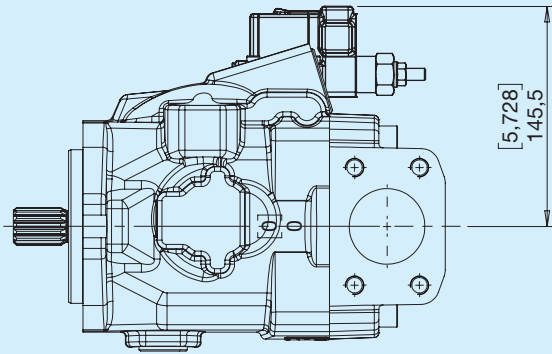
| Betriebsdruck<br>bar - psi | Druckdifferenz   |                  |                  |
|----------------------------|------------------|------------------|------------------|
|                            | 14 bar - 203 psi | 21 bar - 305 psi | 25 bar - 363 psi |
| 180 - 2610                 | <b>A</b>         | <b>B</b>         | <b>C</b>         |
| 210 - 3045                 | <b>E</b>         | <b>F</b>         | <b>G</b>         |
| 250 - 3625                 | <b>I</b>         | <b>L</b>         | <b>M</b>         |
| 280 - 4060                 | <b>O</b>         | <b>P</b>         | <b>Q</b>         |
| 320 - 4640                 | <b>S</b>         | <b>T</b>         | <b>U</b>         |
| 350 - 5075                 | <b>Z</b>         | <b>X</b>         | <b>Y</b>         |

## L hydraulisches LS



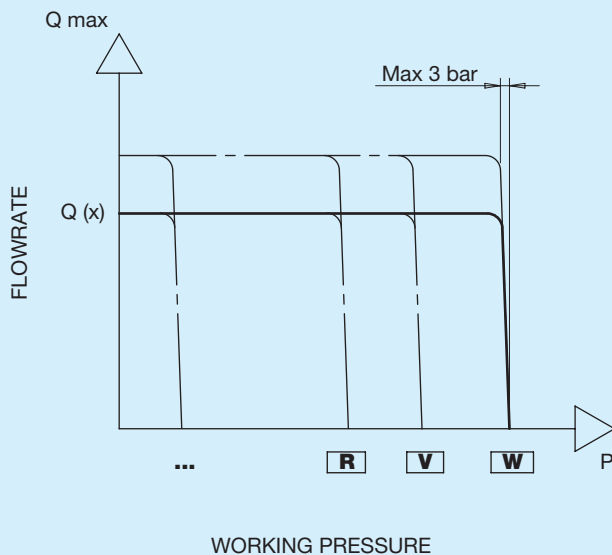
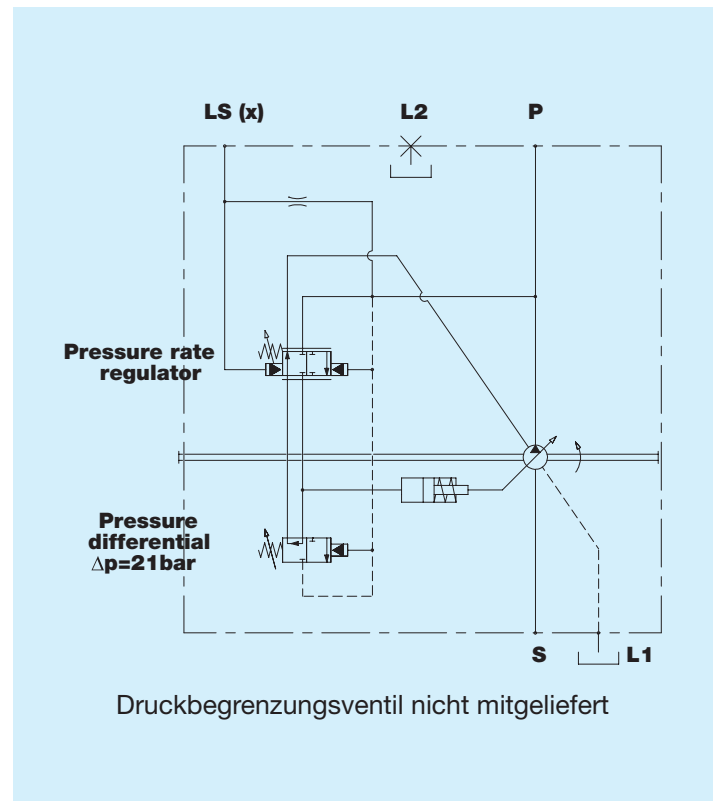
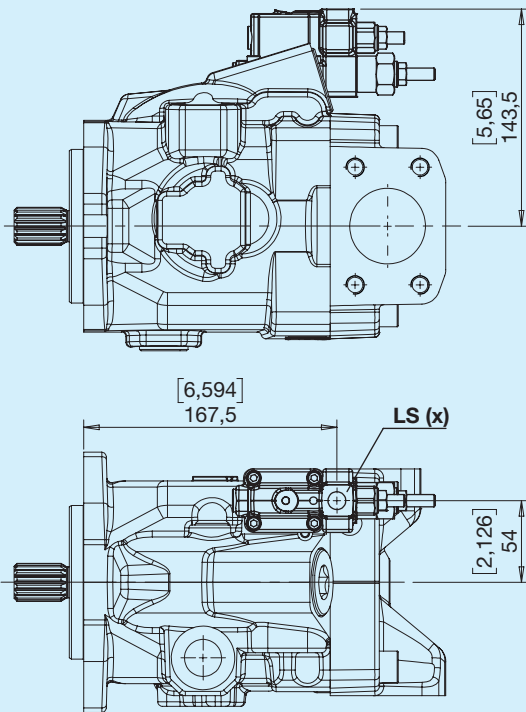
| Betriebsdruck<br>bar - psi | Druckdifferenz   |                  |                  |
|----------------------------|------------------|------------------|------------------|
|                            | 14 bar - 203 psi | 21 bar - 305 psi | 25 bar - 363 psi |
| 180 - 2610                 | <b>A</b>         | <b>B</b>         | <b>C</b>         |
| 210 - 3045                 | <b>E</b>         | <b>F</b>         | <b>G</b>         |
| 250 - 3625                 | <b>I</b>         | <b>L</b>         | <b>M</b>         |
| 280 - 4060                 | <b>O</b>         | <b>P</b>         | <b>Q</b>         |
| 320 - 4640                 | <b>S</b>         | <b>T</b>         | <b>U</b>         |
| 350 - 5075                 | <b>Z</b>         | <b>X</b>         | <b>Y</b>         |

## P Konstantdruckregler



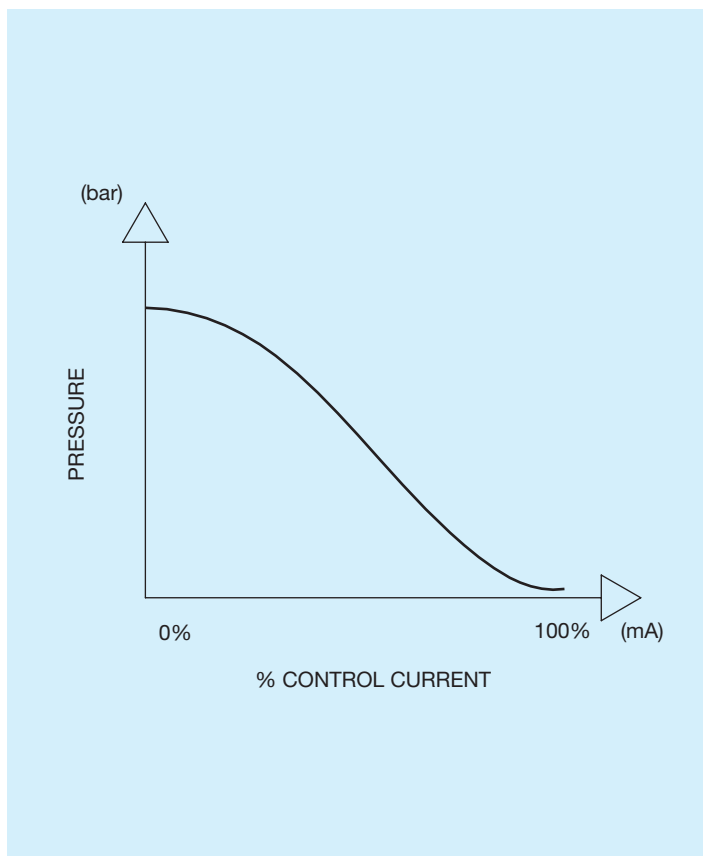
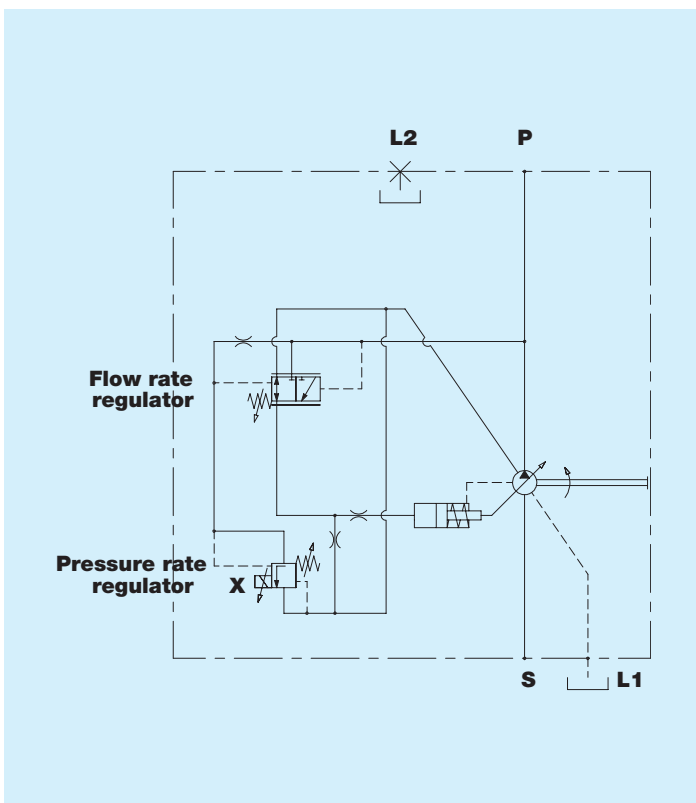
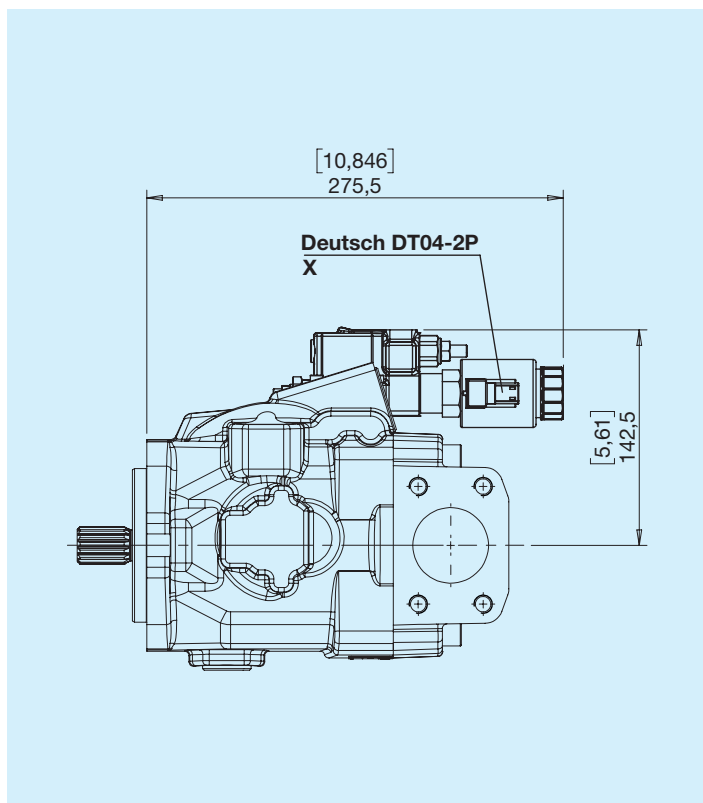
| Code                              | Betriebsdruck |
|-----------------------------------|---------------|
| Differenziale di pressione 21 bar | bar - psi     |
| <b>D</b>                          | 180 - 2610    |
| <b>H</b>                          | 210 - 3045    |
| <b>N</b>                          | 250 - 3625    |
| <b>R</b>                          | 280 - 4060    |
| <b>V</b>                          | 320 - 4640    |
| <b>W</b>                          | 350 - 5075    |

## R Ferngesteuerter Druckregler



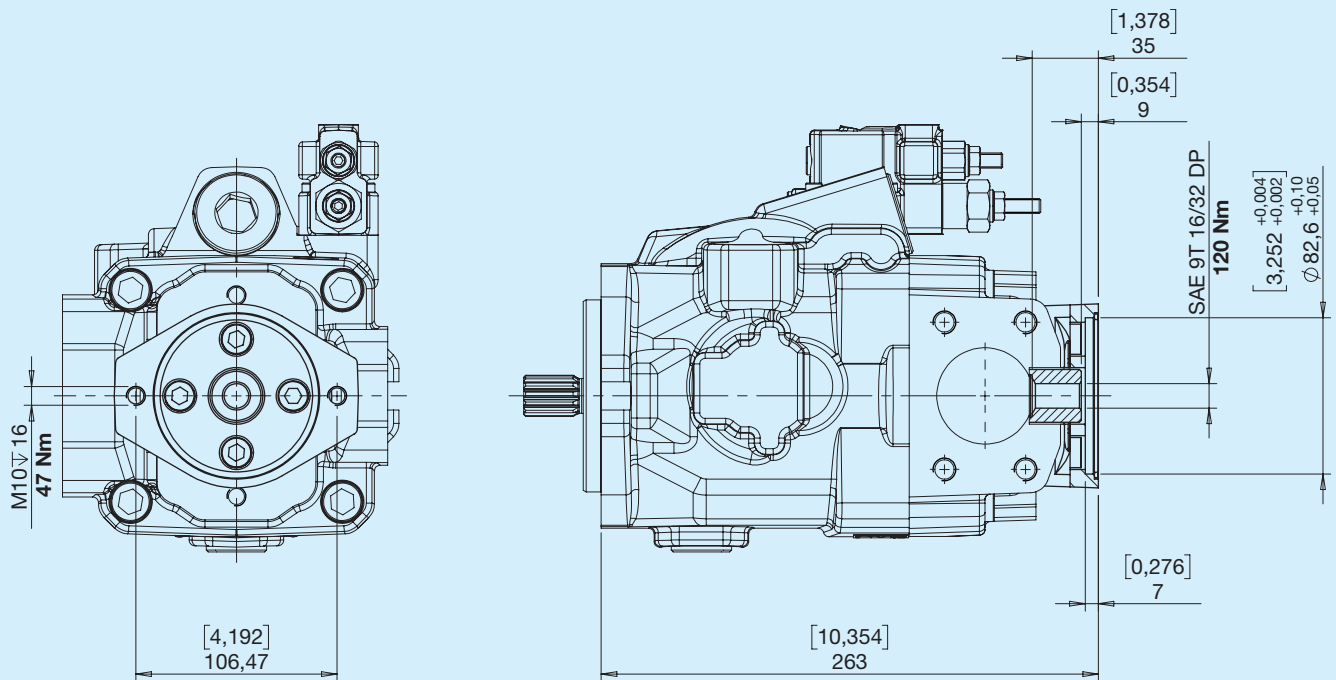
| Code                              | Betriebsdruck |
|-----------------------------------|---------------|
| Differenziale di pressione 21 bar | bar - psi     |
| <b>D</b>                          | 180 - 2610    |
| <b>H</b>                          | 210 - 3045    |
| <b>N</b>                          | 250 - 3625    |
| <b>R</b>                          | 280 - 4060    |
| <b>V</b>                          | 320 - 4640    |
| <b>W</b>                          | 350 - 5075    |

## S Fan Drive

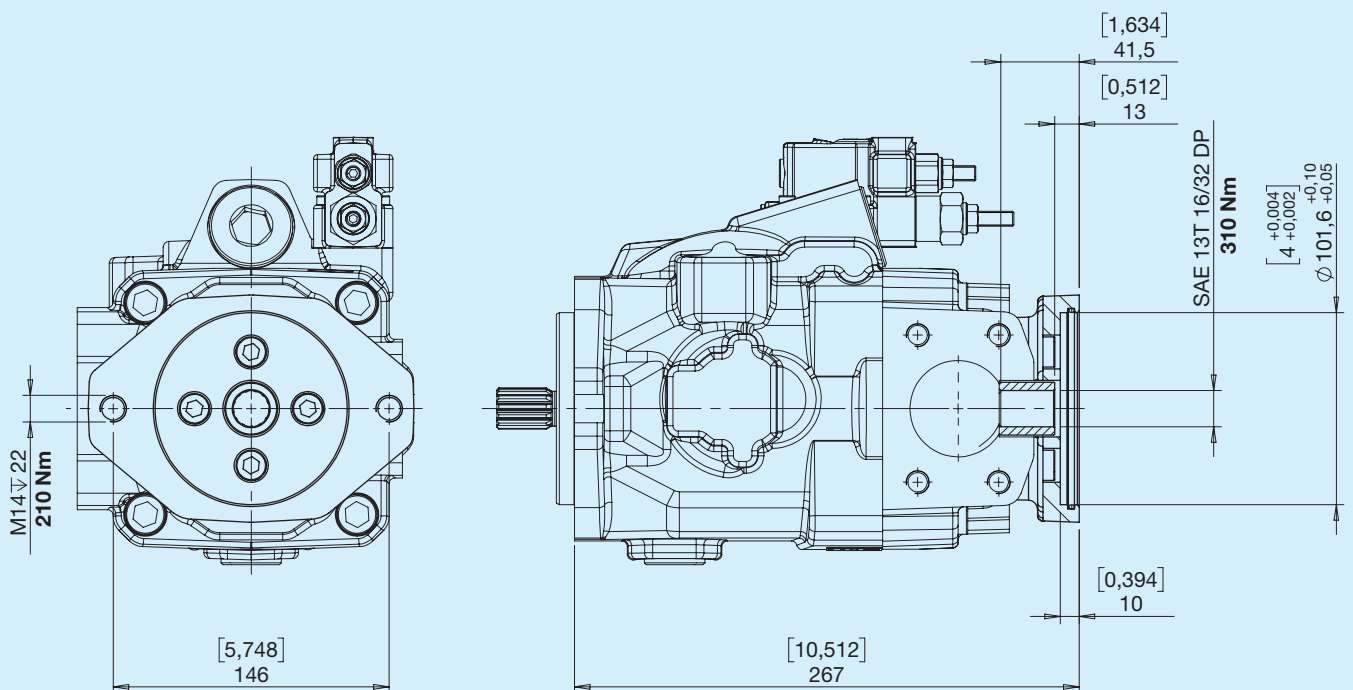


| Betriebsdruck<br>bar - psi | Druckdifferenz   |                  |                  |
|----------------------------|------------------|------------------|------------------|
|                            | 14 bar - 203 psi | 21 bar - 305 psi | 25 bar - 363 psi |
| 180 - 2610                 | <b>A</b>         | <b>B</b>         | <b>C</b>         |
| 210 - 3045                 | <b>E</b>         | <b>F</b>         | <b>G</b>         |
| 250 - 3625                 | <b>I</b>         | <b>L</b>         | <b>M</b>         |
| 280 - 4060                 | <b>O</b>         | <b>P</b>         | <b>Q</b>         |
| 320 - 4640                 | <b>S</b>         | <b>T</b>         | <b>U</b>         |
| 350 - 5075                 | <b>Z</b>         | <b>X</b>         | <b>Y</b>         |

## 5 SAE A



## 6 SAE B



|             | 1                                             | 2 | 3 | 4 | 5                                          | 6 | 7                              | 8 | 9                             | 10 | 11 | 12 | 13 |
|-------------|-----------------------------------------------|---|---|---|--------------------------------------------|---|--------------------------------|---|-------------------------------|----|----|----|----|
| <b>HPA5</b> |                                               |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
| 1 2         | Hubraum                                       |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | 72                                            |   |   |   | 80                                         |   |                                |   | 90                            |    |    |    |    |
| 3           | Drehrichtung                                  |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | R Rechts                                      |   |   |   | L Links                                    |   |                                |   |                               |    |    |    |    |
| 4           | Flansche                                      |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | B SAE B                                       |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
| 5           | Wellenenden                                   |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | 1 SAE 15T 16/32 DP                            |   |   |   | 6 ZYLINDRISCH D22.22                       |   |                                |   | 9 SAE 13T 16/32 DP            |    |    |    |    |
| 6           | Anschlusstyp                                  |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | S Seitliche SAE-Gas-Anschlüsse                |   |   |   |                                            |   | N Seitliche SAE-Unf-Anschlüsse |   |                               |    |    |    |    |
| 7           | Steuerungen                                   |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | E Elektroproportional 12 V + hydraulisches LS |   |   |   | L Hydraulischer LS-Druck-/Durchflussregler |   |                                |   | R Ferngesteuerter Druckregler |    |    |    |    |
|             | F Elektroproportional 24 V + hydraulisches LS |   |   |   | P Konstantdruckregler                      |   |                                |   | S Fan Drive                   |    |    |    |    |
| 8           | Sollwerte Steuerungen                         |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | ... Siehe entsprechende Tabellen              |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
| 9           | Vorrüstungen                                  |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | 0 Keine Vorrüstung                            |   |   |   | 5 SAE A                                    |   |                                |   | 6 SAE B                       |    |    |    |    |
| 10          | Zubehör                                       |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | 0 Keine Option                                |   |   |   | O Drucksensor                              |   |                                |   | S Mehrfach-Zubehör            |    |    |    |    |
|             | A Winkelsensor                                |   |   |   | P Lackierung                               |   |                                |   |                               |    |    |    |    |
| 11 12 13    | Sonderausführungen                            |   |   |   |                                            |   |                                |   |                               |    |    |    |    |
|             | ...                                           |   |   |   |                                            |   |                                |   |                               |    |    |    |    |