

## Proportional Pressure-Reducing Valve for Hydraulics

# 13

Product group

V 1300.1865

**VR 032** AA 035 V..

- To a large extent proportional relation between solenoid current and control pressure
- Working pressure almost constant in flow range
- Tank pressure: higher pressures at request
- Small hysteresis through precise armature bearing
- Short actuating times
- Compact design
- Protection rating to DIN VDE 0470/EN 60529 if mounted properly
- Electrical connection  
Plug connector – 2-pole AMP Junior Timer
- Further electrical connections at request
- Other mounting methods at request
- ATEX-version at request
- Modifications and special designs on request
- Application examples:  
Particularly used as proportional actuator in hydraulic control chains and control circuits.

– IP 65



Fig. 1: Type VR 032 AA 035 V04



## Technical data

VR 032 AA 035	V04	V03
<b>Hydraulic data</b>		
Control pressure	25 bar	32 bar
Pump pressure	max. 50 bar	max. 350 bar
Tank pressure	max. 20 bar static	max. 20 bar static
Flow P → A	> 3 l/min ( $\Delta p=7$ bar)	> 2 l/min ( $\Delta p=4$ bar)
Flow A → T	> 3 l/min ( $\Delta p=7$ bar)	> 2 l/min ( $\Delta p=6$ bar)
Control flow	< 0.2 l/min	
Leakage	< 0.1 l/min	
Hysteresis (with PWM 100 Hz)	< 0.5 bar	
Medium	Hydraulic oils to DIN 51524	
Oil temperature	-20 °C to + 80 °C	
<b>Elektrical data</b>		
Resistance	5.0 $\Omega$ (12 V) 20.5 $\Omega$ (24 V)	5.3 $\Omega$ (12 V) 22 $\Omega$ (24 V)
Limit current	1.5 A (12 V) 0.75 A (24 V)	1.5 A (12 V) 0.75 A (24 V)
Operating mode	S1 (100 %)	
Protection rating	IP 65	
Ambient temperature	-30° C to+ 90° C	

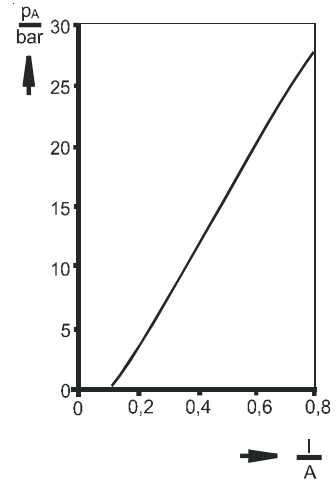


Fig. 2: Pressure-control graph for solenoid valve for hydraulics type VR 032 AA 035 V04 (24V)

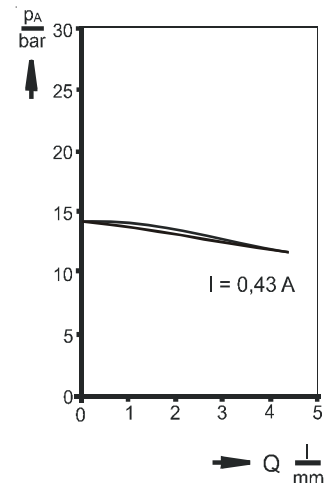


Fig. 3: Flow graph for solenoid valve for hydraulics type VR 032 AA 035 V04 (24 V)

Please make sure that the described devices are suitable for your application. Please find further details and definitions in our Technical Explanation or, respectively, in VDE 0580.

### Note on the technical harmonisation guidelines within the EU



Electromagnetic solenoids of this product range are subject to the low-voltage guideline 73 / 23 EWG.

To guarantee the targets of this regulation, products are manufactured and inspected to the valid edition of DIN VDE 0580. This

### Note on the EMC (electromagnetic compatibility) guideline 89/336 EWG

Electromagnetic solenoids are not affected by this guideline because neither do they cause electromagnetic disturbances nor can they be disturbed through electromagnetic disturbances. Therefore, the adherence to the EMC guideline has to be guaranteed by the user through appropriate circuitry wiring. Examples for protection circuits can be taken from the corresponding technical documents.

### Note on the RoHS guideline 2002/95/ EC

The devices presented in this document do not fall into the scope of regulation 2002/95/EC („RoHS“) and do not become part of products which fall into the scope according to our state of information. In case of surfaces zinc coating with yellow chromating and zinc iron with black chromating separate agreements are necessary for application according RoHS.

# Dimensions drawing

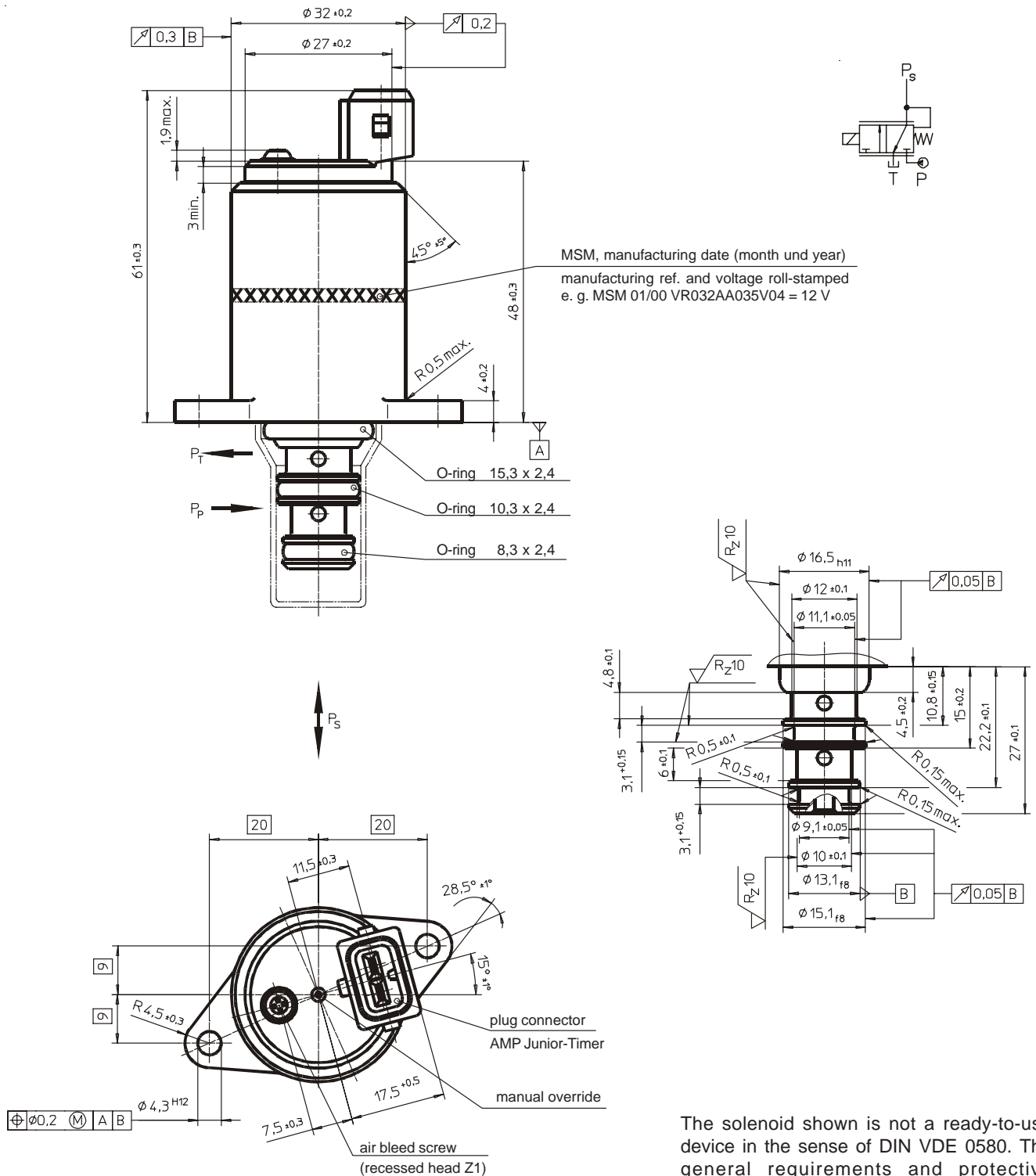


Fig. 4: Type VR 032 AA 035 V04

The solenoid shown is not a ready-to-use device in the sense of DIN VDE 0580. The general requirements and protective measures to be taken by the user are included in DIN VDE 0580.

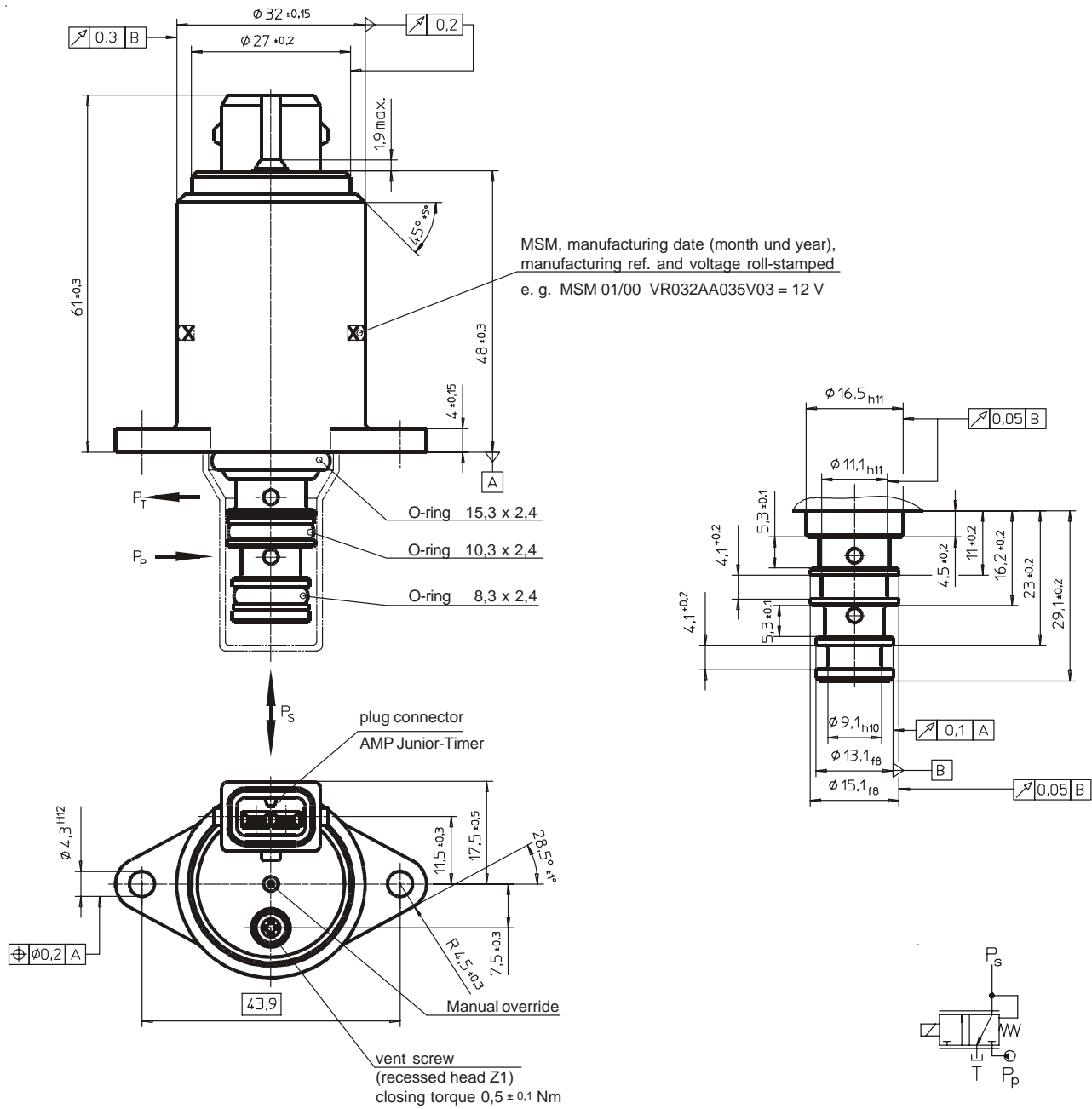


Fig. 5: Type VR 032 AA 035 V03

### Order Example

Type	VR 032 AA 035 V04
Voltage	== 24 V DC
Operating mode	S1 (100 %)

### Specials

Please do not hesitate to ask us for application-oriented problem solutions. In order to find rapidly a reliable solution we need complete details about your application conditions. The details should be specified as precisely as possible in accordance with the relevant - technical explanations.

If necessary, please request the support of our corresponding technical office.