

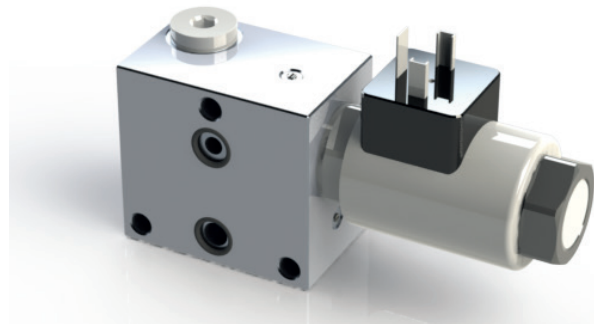
AMF PROPORTIONAL PRESSURE REDUCING VALVE

AMF-RE-P/*

20 l/min 5 MPa (50 bar)

1 DESCRIPTION

The module AMF-RE-P is designed to proportionally reduce the pressure in the P line. A 3 way proportional cartridge valve with different pressure ranges is installed in a body suitable to be stacked with other HDF or AMF valves.



2 ORDERING CODE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | | | |
|-----|-----|-----|-----|-----|-----|-----|----|---|----|
| AMF | - | RE | - | P | / | - | R* | / | 10 |

(1) AMF: module stackable with 4 way solenoid valve HDF-ES

(2) RE: proportional pressure reducing valve

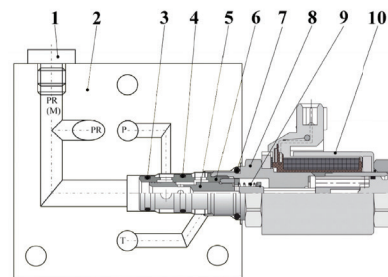
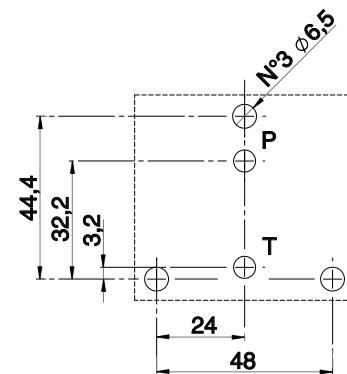
(3) P: line where the control operates

(4) PR regulated pressure ranges:
 2: from 0 to 2,0 MPa (0 to 20bar)
 3,2: from 0 to 3,2 MPa (0 to 32bar)

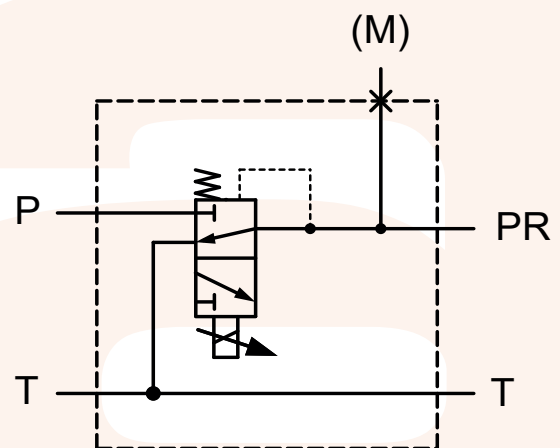
(5) R* supply voltage:
 *: 2 = coil for V12DC
 4 = coil for V24DC

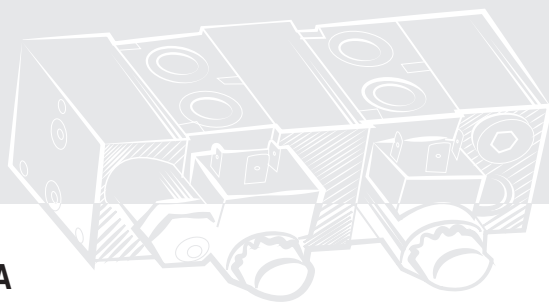
(6) Connection to electric supply:
 no designation : standard 3-PIN according to ISO 44000 (DIN 43650)
 AMP: 2-poles AMP Junior-Timer

(7) Design number (progressive) of the valves



AMF-RE-P/* is a directly operated 3-way valve controlled by proportional solenoid 10. In the de-energized state, the spring 9 keeps the spool 5 in the position that closes the P line and connects PR line to tank. When the solenoid 10 is energized, it pushes the spool with a force proportional to the current. This force makes the spool shift, thus gradually opening the passage P-PR and closing the return line. In this configuration the reduced pressure in PR and the spring force act against the solenoid force. This balance is maintained by the spool 5 that opens the passage P-PR if the reduced pressure is lower than value sets by the solenoid, or opens the passage to tank if the reduced pressure overcomes the solenoid force. Additional M (manometer) G 1/4" port is available (normally closed by plug 1)



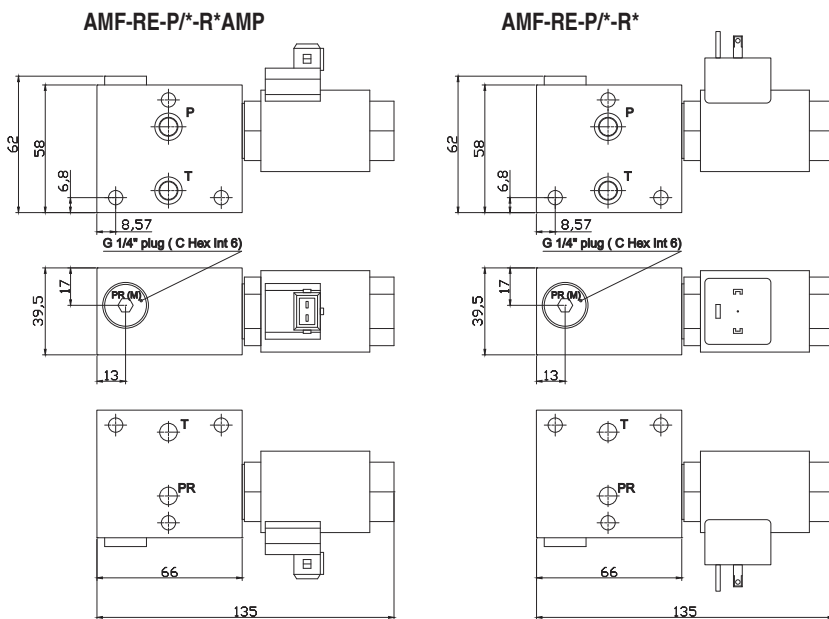


3 TECHNICAL DATA

| | | | |
|---------------------------|--|-----------------------------|-------------------------|
| Maximum nominal flow rate | 20 l/min | Solenoid technical data: | |
| Maximum rec. flow rate | 25 l/min | Control | PWM signal 100Hz |
| Maximum input pressure | 5 MPa (50 bar) | Maximum current | 12V: 1,5A 24V: 0,75A |
| Regulated pressure range | AMF-RE-P/2-R*: up to 2,0 MPa (20 bar) AMF-RE-P/3,2-R*: up to 3,2 MPa (32 bar) | Resistance at 20°C | 12V: 7,2 Ω 24V: 21 Ω |
| | | Duty cycle | 100% |
| | | Insulation class | F |
| | | Enclosure type to DIN 40050 | IP 65 |

4 INSTALLATION DIMENSIONS (mm)

Leakage between valve and mounting surface is prevented by the positive compression on their seats of 2 seals of OR type 2037 (9,25 x 1,78) or Quad-Rings (9,25 x 1,68 x 1,68 mm).

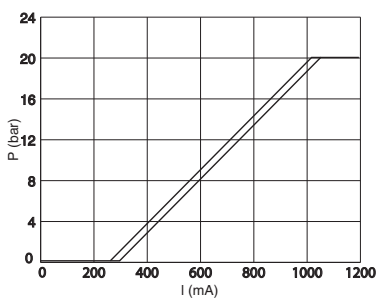


5 HYDRAULIC FLUIDS

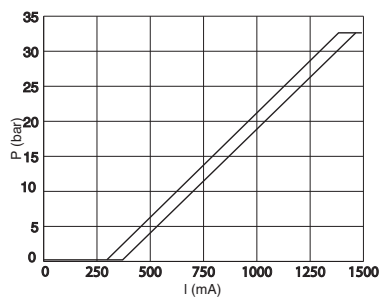
Seals and materials used on standard valves AMF are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 21/18/15, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.

6 TYPICAL DIAGRAMS

20 bar



32 bar



p-Q characteristics

