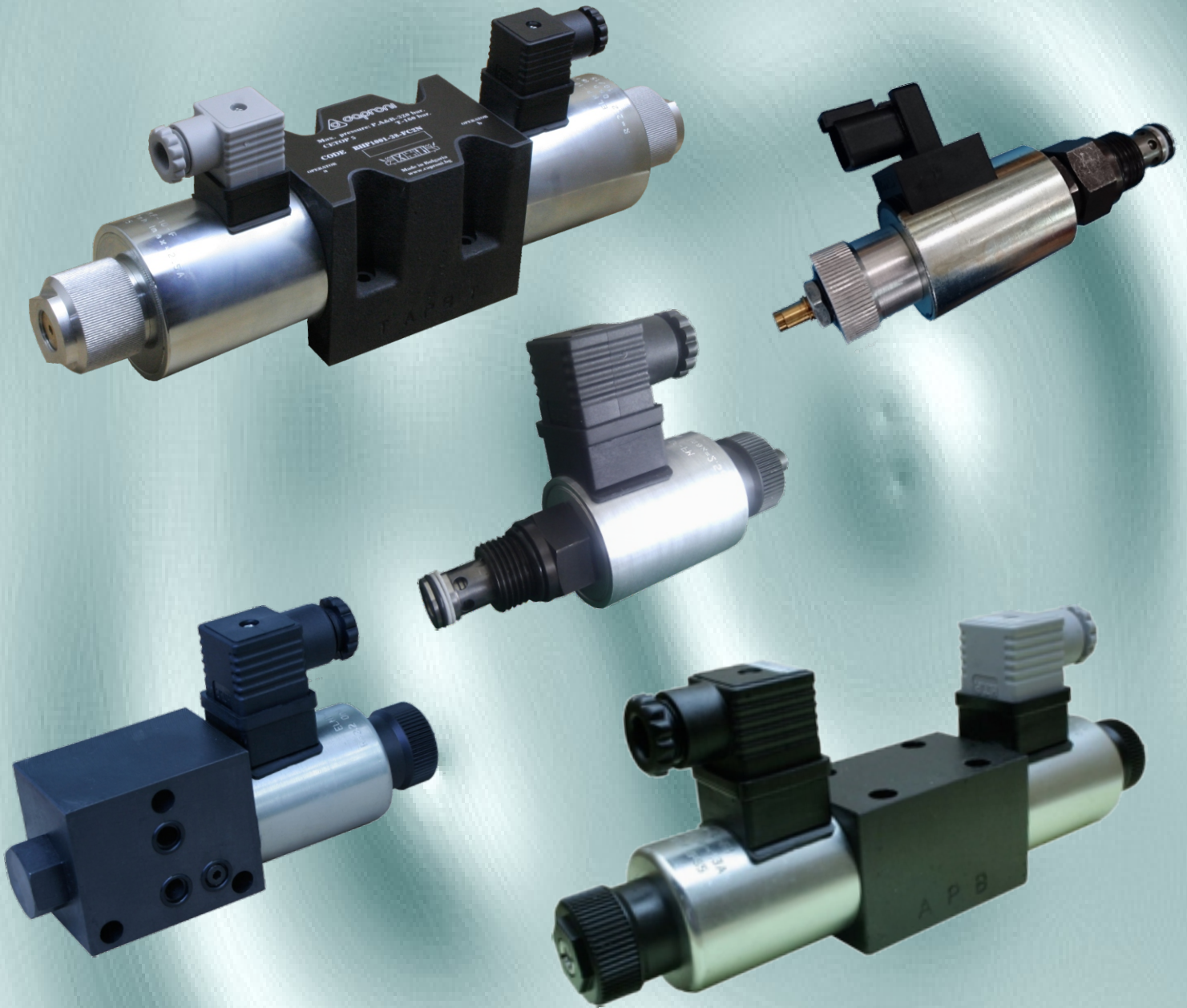




# Caproni



**PROPORTIONAL VALVES**

CONTENTS:

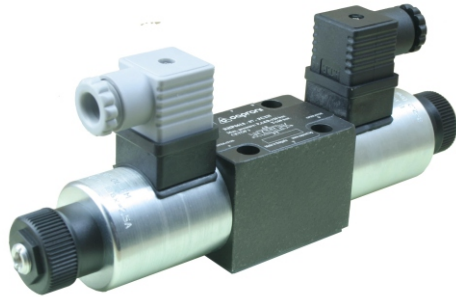
Page

|                     |               |
|---------------------|---------------|
| RHP06... ..         | 1/24...4/24   |
| RHP10... ..         | 5/24...8/24   |
| F RTP06... ..       | 9/24...11/24  |
| RVP10... ..         | 12/24...13/24 |
| RVPB06... ..        | 14/24...15/24 |
| RVPB06P... ..       | 16/24...17/24 |
| IRVP10... ..        | 18/24...20/24 |
| EDAR1211-1-25 ..... | 21/24...22/24 |
| EDAR1211-2-25 ..... | 23/24...24/24 |

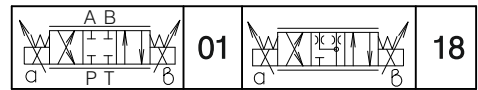
PROPORTIONAL DIRECTIONAL CONTROL VALVES WITHOUT FEEDBACK - CETOP 3

GENERAL DESCRIPTION

The RHP06...-...-F... valve is used to control the speed and direction of hydraulic actuators.



Symbol



- ✓ 4/3- way directional control valves with proportional solenoid operation without feedback
- ✓ Removable coils-quick replacement and rotation in any direction without leakage from the system
- ✓ Manual override option (push button)
- ✓ Mounting surface CETOP3 (NG6)

ORDERING CODE

|  |  |             |              |  |   |     |     |     |     |     |  |
|--|--|-------------|--------------|--|---|-----|-----|-----|-----|-----|--|
|  | <table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding: 2px;">RHP</td> <td style="padding: 2px;">06</td> <td style="padding: 2px;">...</td> <td style="padding: 2px;">-</td> <td style="padding: 2px;">...</td> <td style="padding: 2px;">-</td> <td style="padding: 2px;">F</td> <td style="padding: 2px;">...</td> <td style="padding: 2px;">...</td> </tr> </table> | RHP         | 06           | ...  | - | ... | -   | F   | ... | ... |  |
| RHP  | 06   | ...         | -            | ...  | - | F   | ... | ... |     |     |  |
| Proportional directional control valve<br>Nominal size<br>Functional symbol: | <table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding: 2px;">01</td> </tr> <tr> <td style="padding: 2px;">18</td> </tr> </table>  | 01          | 18           | Climatic realization:<br>N - normal<br>T - tropical<br>Connectors:<br>C1 - without connectors<br>C2 - with connectors by DIN24650<br>C3 - with connectors by DIN24650 with light indicator<br>Modification |   |     |     |     |     |     |  |
| 01   |  |             |              |  |   |     |     |     |     |     |  |
| 18   |  |             |              |  |   |     |     |     |     |     |  |
| Nominal flow:  | <table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding: 2px;">7l/min - 07</td> </tr> <tr> <td style="padding: 2px;">15l/min - 15</td> </tr> </table>   | 7l/min - 07 | 15l/min - 15 |  |   |     |     |     |     |     |  |
| 7l/min - 07  |  |             |              |  |   |     |     |     |     |     |  |
| 15l/min - 15   |  |             |              |  |   |     |     |     |     |     |  |

**PROPORTIONAL DIRECTIONAL CONTROL VALVES WITHOUT FEEDBACK - CETOP 3**
**TECHNICAL DATA**
**GENERAL**

| DATA                         | UNIT | VALUE/RANGE                      |
|------------------------------|------|----------------------------------|
| Installation position        |      | optional , preferably horizontal |
| Ambient temperature range    | °C   | -20...+50                        |
| Weight double solenoid valve | kg   | 2,200                            |
| Hysteresis                   | %    | <6                               |
| Repeatability                | %    | ±1,5                             |

**HYDRAULIC**

|   |                          |                                   |                                  |
|---|--------------------------|-----------------------------------|----------------------------------|
| Max. pressure   | port P , A & B<br>port T | MPa<br>MPa                        | 32<br>16                         |
| Rated flow<br>(at $\Delta p$ 0,5MPa. per metering edge)   |                          | l/min                             | 7 /15                            |
| Hydraulic fluid-mineral oil:<br>-viscosity<br>-filtration degree to acc. ISO 4406<br>-temperature |                          | mm <sup>2</sup> /s<br>class<br>°C | 10...400<br>18/16/13<br>-20...80 |

**ELECTRICAL**

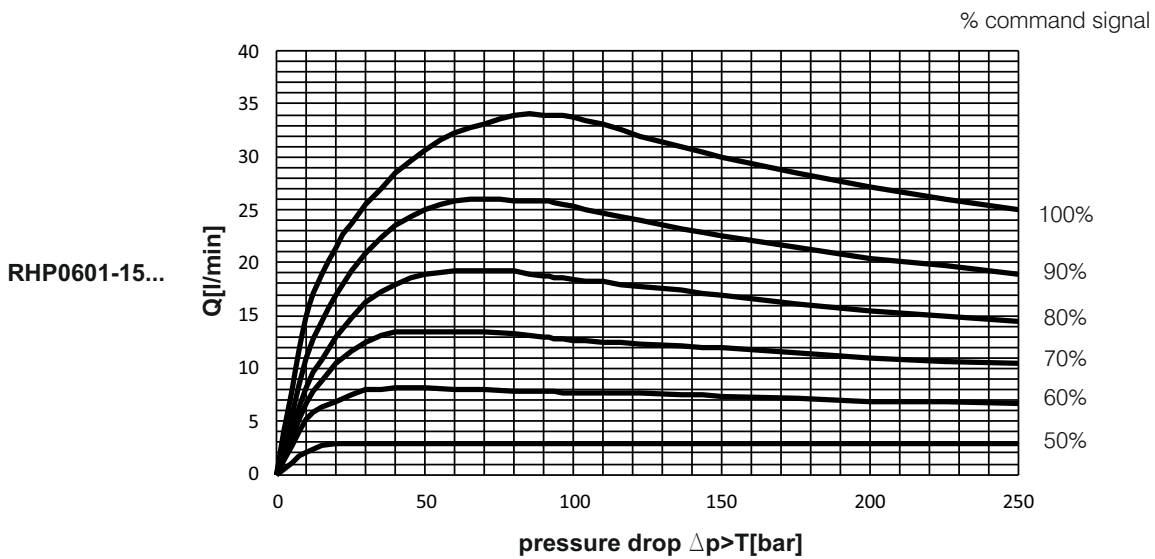
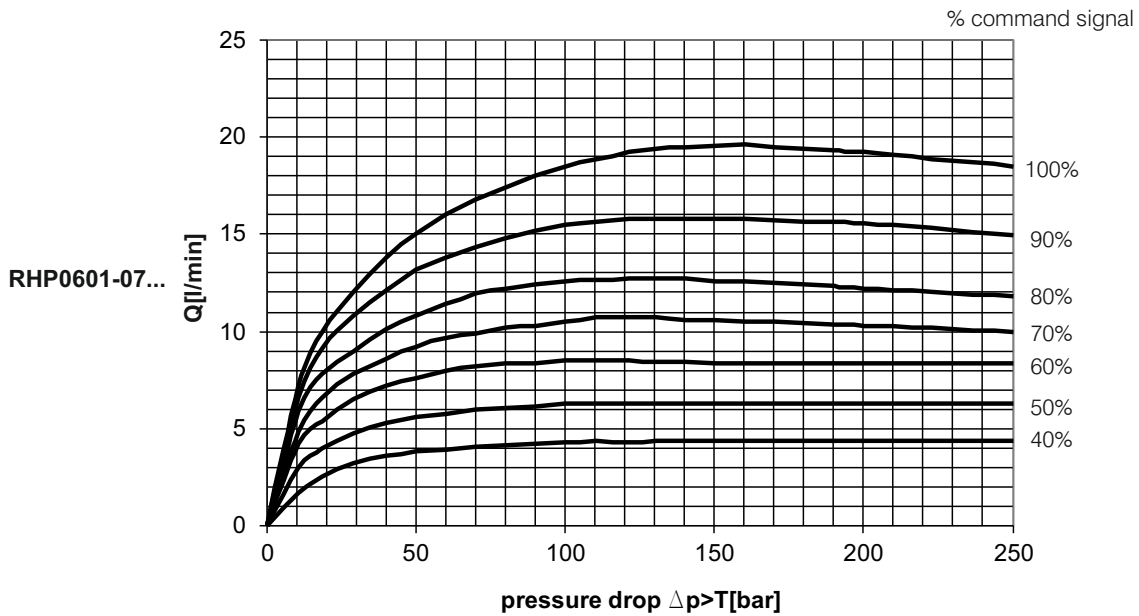
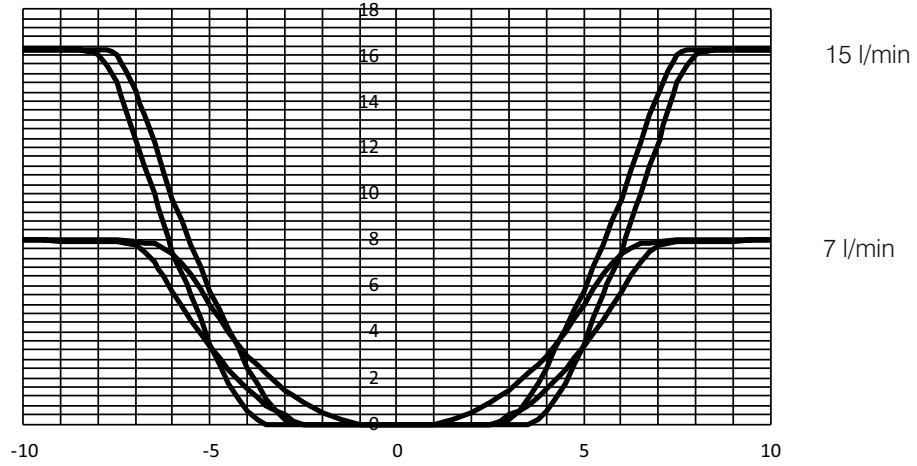
|                 |              |          |          |
|-----------------|--------------|----------|----------|
| Cyclic duration |              | %        | 100      |
| Waterproof      |              |          | IP65     |
| Heat insulation |              |          | H        |
| Coil resistance | cold<br>warm | $\Omega$ | 2,2<br>3 |
| Max current     |              | A        | 2,5      |

**AMPLIFIER**
**EDAR 1211-2-25 - Order separately**

These digital amplifier EDAR 1211-2-25 is designed to control direct operated proportional directional control valves without feedback - see "List: EDAR1211-2-25" and "OI:EDAR1211-...".

CHARACTERISTICS

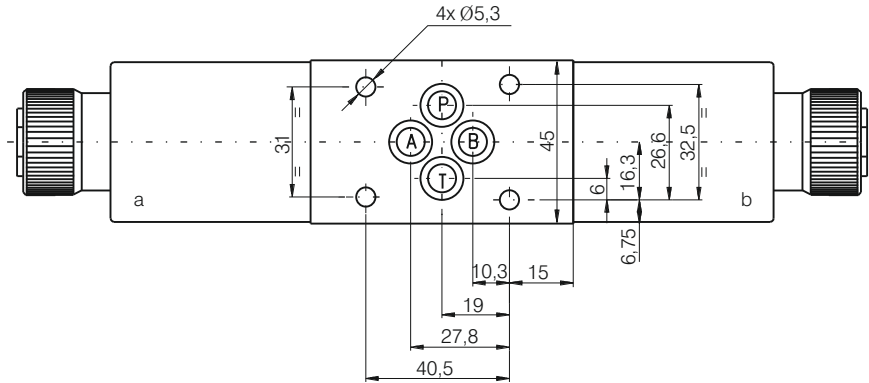
Measured at: PWM 170Hz,  $I_{max.}=2,5A$ ,  $I_{min.}=0,5A$ ,  $t=45+5^{\circ}C$



PROPORTIONAL DIRECTIONAL CONTROL VALVES WITHOUT FEEDBACK - CETOP 3

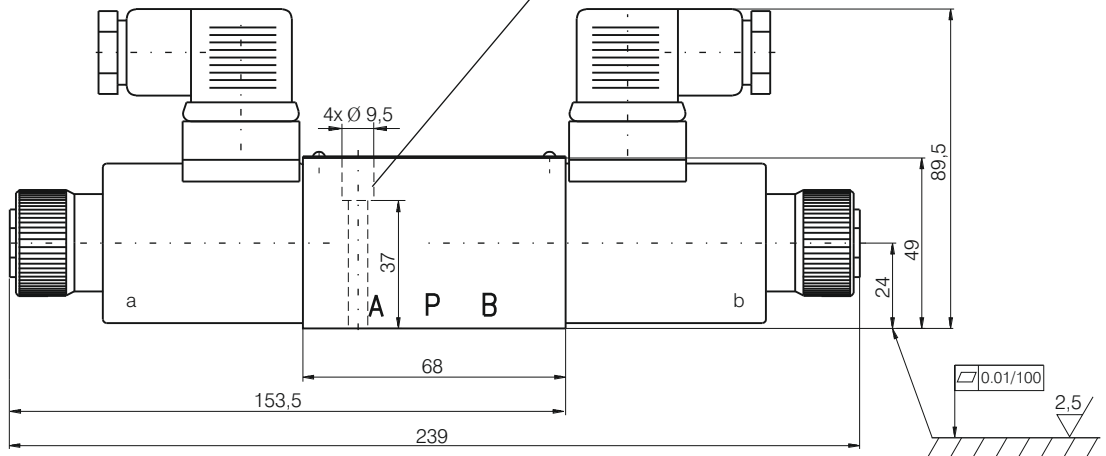
DIMENSIONS

All dimensions are shown in mm.



Gray or white plug connectors for solenoid "a", black connectors for solenoid "b" and transparent for solenoids with light indicator.

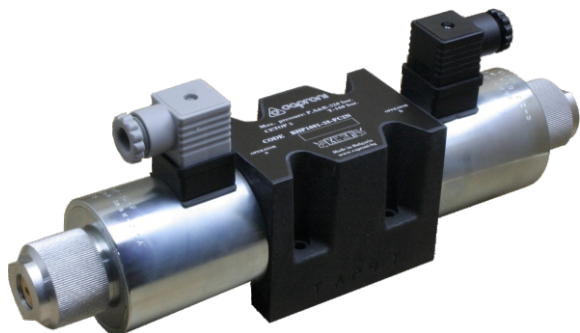
Standard fixing bolts M5x45 (10,9 class recommended). Torque 6...8 Nm.



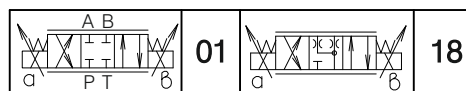
PROPORTIONAL DIRECTIONAL CONTROL VALVES WITHOUT FEEDBACK - CETOP 5

GENERAL DESCRIPTION

The RHP10...-...-F... valve is used to control the speed and direction of hydraulic actuators.



Symbol



- ✓ 4/3- way directional control valves with proportional solenoid operation without feedback
- ✓ Removable coils-quick replacement and rotation in any direction without leakage from the system
- ✓ Manual override option (push button)
- ✓ Mounting surface CETOP5 (NG10)

ORDERING CODE

|   |  |  |    |     |   |     |     |     |     |     |  |
|---|--|--|----|-----|---|-----|-----|-----|-----|-----|--|
|   | <table border="1" style="margin: auto;"> <tr> <td style="padding: 2px;">RHP</td> <td style="padding: 2px;">10</td> <td style="padding: 2px;">...</td> <td style="padding: 2px;">-</td> <td style="padding: 2px;">...</td> <td style="padding: 2px;">-</td> <td style="padding: 2px;">F</td> <td style="padding: 2px;">...</td> <td style="padding: 2px;">...</td> </tr> </table> | RHP  | 10 | ... | - | ... | -   | F   | ... | ... |  |
| RHP   | 10   | ...  | -  | ... | - | F   | ... | ... |     |     |  |
| <p>Proportional directional control valve</p> <hr/> <p>Nominal size</p> <hr/> <p>Functional symbol:</p> | <p><b>01</b></p> <p><b>18</b></p>  | <p>Climatic realization:</p> <p><b>N</b> - normal</p> <p><b>T</b> - tropical</p> <hr/> <p>Connectors:</p> <p><b>C1</b> - without connectors</p> <p><b>C2</b> - with connectors by DIN24650</p> <p><b>C3</b> - with connectors by DIN24650 with light indicator</p> <hr/> <p>Modification</p> |    |     |   |     |     |     |     |     |  |
| <p>Nominal flow:</p>  | <p>38l/min - <b>38</b></p> <p>54l/min - <b>54</b></p>  |  |    |     |   |     |     |     |     |     |  |

**PROPORTIONAL DIRECTIONAL CONTROL VALVES WITHOUT FEEDBACK - CETOP 5**
**TECHNICAL DATA**
**GENERAL**

| DATA                         | UNIT | VALUE/RANGE                      |
|------------------------------|------|----------------------------------|
| Installation position        |      | optional , preferably horizontal |
| Ambient temperature range    | °C   | -20...+50                        |
| Weight double solenoid valve | kg   | 6,700                            |
| Hysteresis                   | %    | <6                               |
| Repeatability                | %    | ±1,5                             |

**HYDRAULIC**

|   |                          |                                   |                                  |
|---|--------------------------|-----------------------------------|----------------------------------|
| Max. pressure   | port P , A & B<br>port T | MPa<br>MPa                        | 32<br>16                         |
| Rated flow<br>(at $\Delta p$ 0,5MPa. per metering edge)   |                          | l/min                             | 38/54                            |
| Hydraulic fluid-mineral oil:<br>-viscosity<br>-filtration degree to acc. ISO 4406<br>-temperature |                          | mm <sup>2</sup> /s<br>class<br>°C | 10...400<br>18/16/13<br>-20...80 |

**ELECTRICAL**

|                 |              |          |          |
|-----------------|--------------|----------|----------|
| Cyclic duration |              | %        | 100      |
| Waterproof      |              |          | IP65     |
| Heat insulation |              |          | H        |
| Coil resistance | cold<br>warm | $\Omega$ | 2,2<br>3 |
| Max current     |              | A        | 2,5      |

**AMPLIFIER**
**EDAR 1211-2-25 - Order separately**

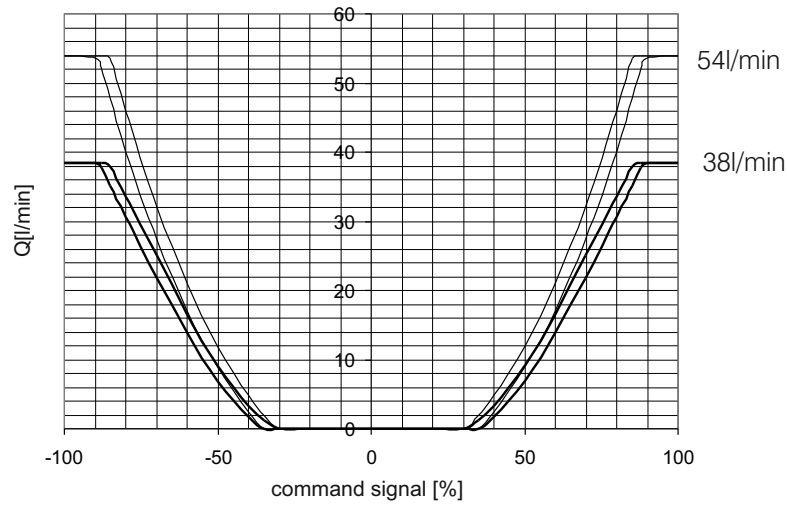
These digital amplifier EDAR 1211-2-25 is designed to control direct operated proportional directional control valves without feedback - see "List: EDAR1211-2-25" and "OI:EDAR1211-...".



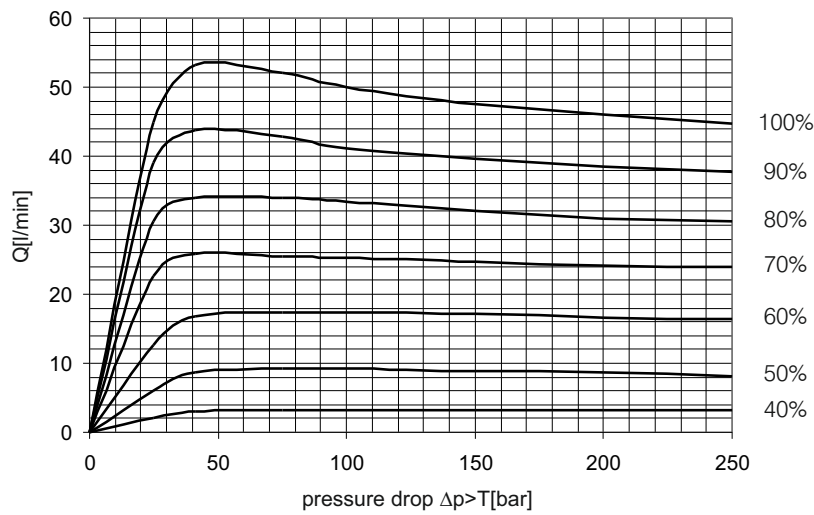
PROPORTIONAL DIRECTIONAL CONTROL VALVES WITHOUT FEEDBACK - CETOP 5

CHARACTERISTICS

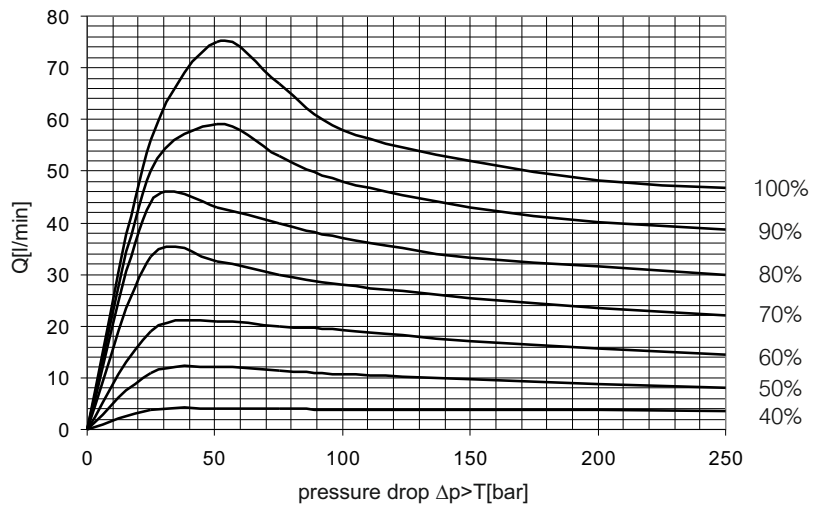
Measured at: PWM 100Hz. ,  $I_{max}=2,5A$  ,  $I_{min}=0A$  ,  $t=45+5^{\circ}C$



% command signal



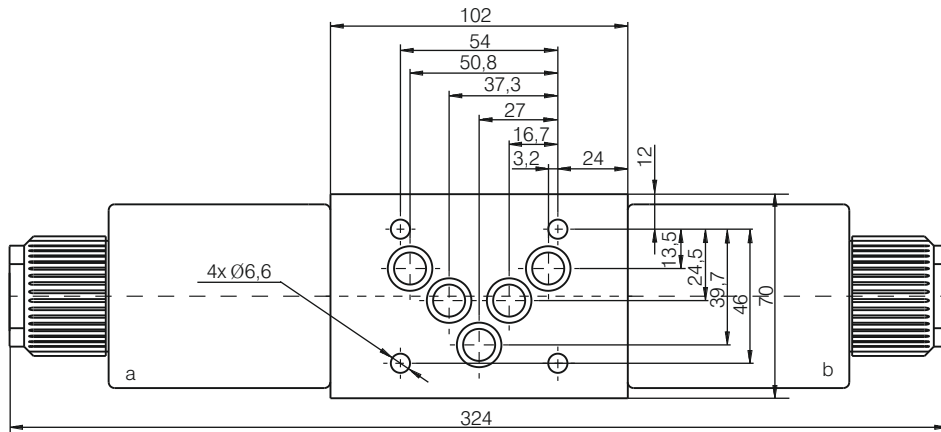
% command signal



PROPORTIONAL DIRECTIONAL CONTROL VALVES WITHOUT FEEDBACK - CETOP 5

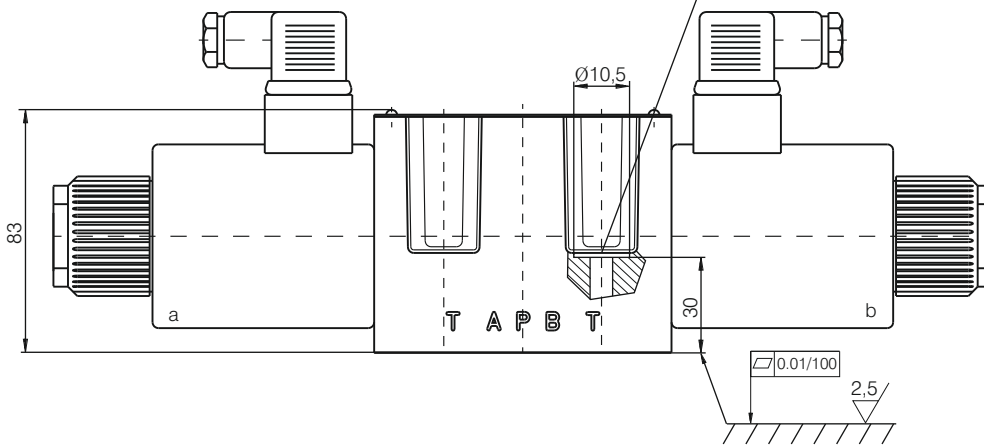
DIMENSIONS

All dimensions are shown in mm.



Gray or white plug connectors for solenoid "a", black connectors for solenoid "b" and transparent for solenoids with light indicator.

Standard fixing bolts M6x40 (10,9 class recommended). Torque 11...14 Nm.



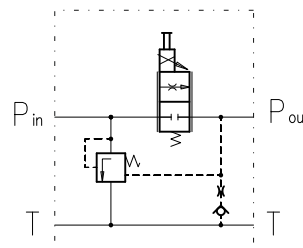
PROPORTIONAL FLOW REGULATOR 3-WAY STACKABLE WITHOUT FEEDBACK

GENERAL DESCRIPTION

The F RTP06... valve is used to control the speed of hydraulic actuators. This valve is designed for assembling with other valves for stackable control blocks.



Symbol



- ✓ 3- way flow regulator with proportional solenoid operation without feedback
- ✓ Removable coils-quick replacement and rotation in any direction without leakage from the system
- ✓ Manual override option (push button)

ORDERING CODE

F RTP 06 - 25 - GF ... ..

Proportional flow regulator

Nominal size

Nominal flow: 25l/min

Modification

N - normal  
T - tropical

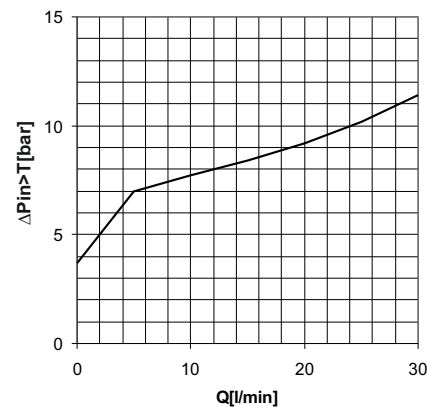
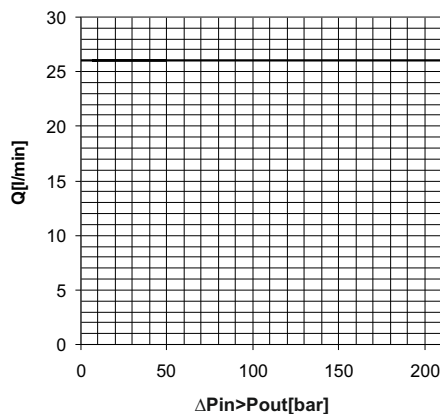
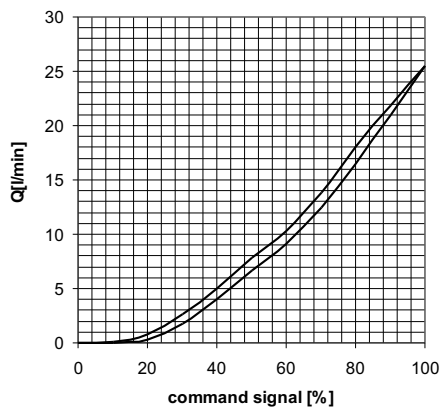
Climatic realization:

Connector:

- C1 - without connector
- C2 - with connector by DIN24650
- C3 - with connector by DIN24650 with light indicator

CHARACTERISTICS

Measured at: PWM 120Hz. ,  $I_{max}=2,5A$  ,  $I_{min}=1A$  ,  $t=45^{\circ}C$



**PROPORTIONAL FLOW REGULATOR 3-WAY STACKABLE WITHOUT FEEDBACK**
**TECHNICAL DATA**
**GENERAL**

| DATA                      | UNIT | VALUE/RANGE                      |
|---------------------------|------|----------------------------------|
| Installation position     |      | optional , preferably horizontal |
| Ambient temperature range | °C   | -20...+50                        |
| Weight                    | kg   | 1,600                            |
| Hysteresis                | %    | <6                               |
| Repeatability             | %    | ±1,5                             |

**HYDRAULIC**

|   |                                   |                                  |
|---|-----------------------------------|----------------------------------|
| Max. operating pressure   | MPa                               | 21                               |
| Regulated flow<br>Max. inlet flow   | l/min                             | 25<br>40                         |
| Hydraulic fluid-mineral oil:<br>-viscosity<br>-filtration degree to acc. ISO 4406<br>-temperature | mm <sup>2</sup> /s<br>class<br>°C | 10...400<br>18/16/13<br>-20...80 |

**ELECTRICAL**

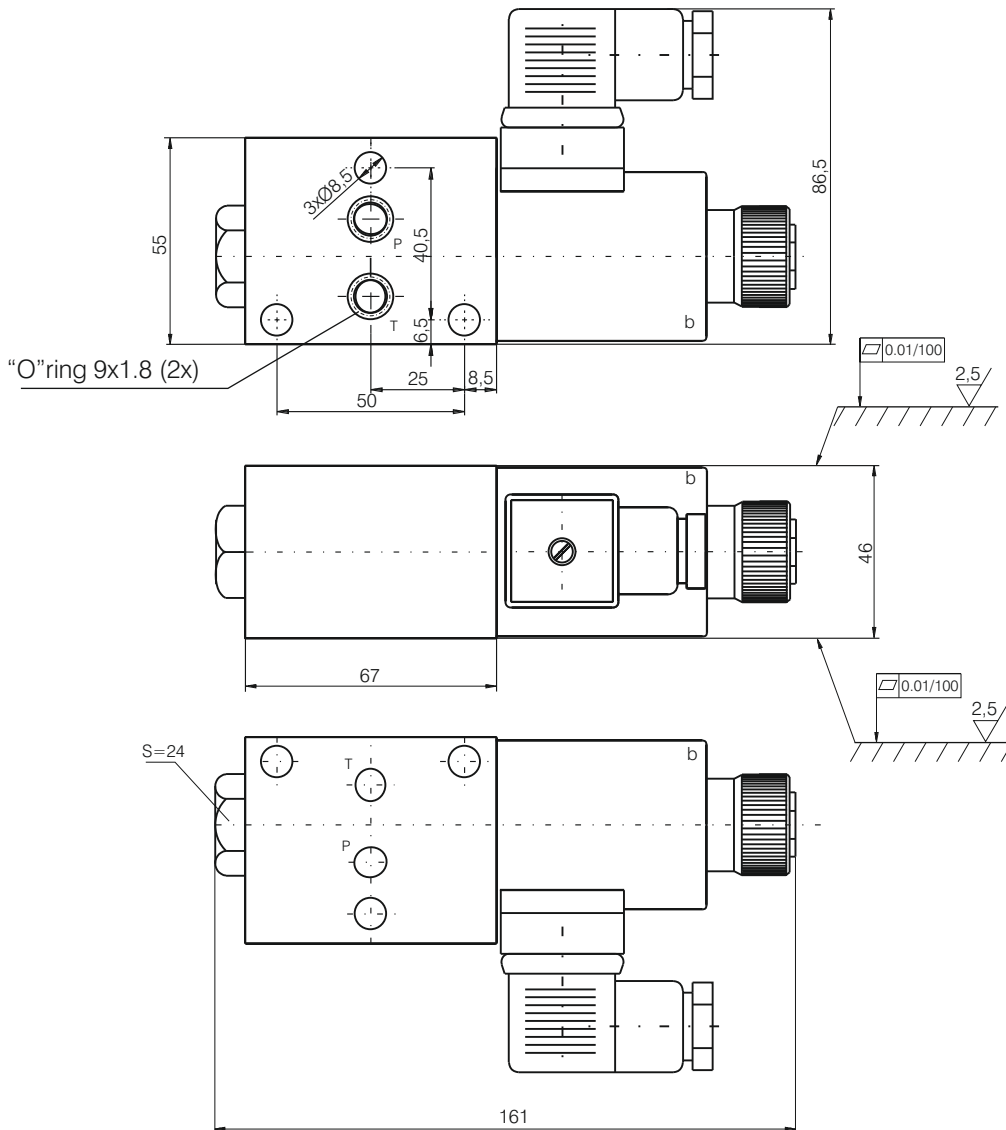
|                 |   |              |
|-----------------|---|--------------|
| Cyclic duration | % | 100          |
| Waterproof      |   | IP65         |
| Heat insulation |   | H            |
| Coil resistance | Ω | 2,2<br>3     |
|                 |   | cold<br>warm |
| Max current     | A | 2,5          |

**AMPLIFIER**
**EDAR 1211-1 -25 Order separately**

PROPORTIONAL FLOW REGULATOR 3-WAY STACKABLE WITHOUT FEEDBACK

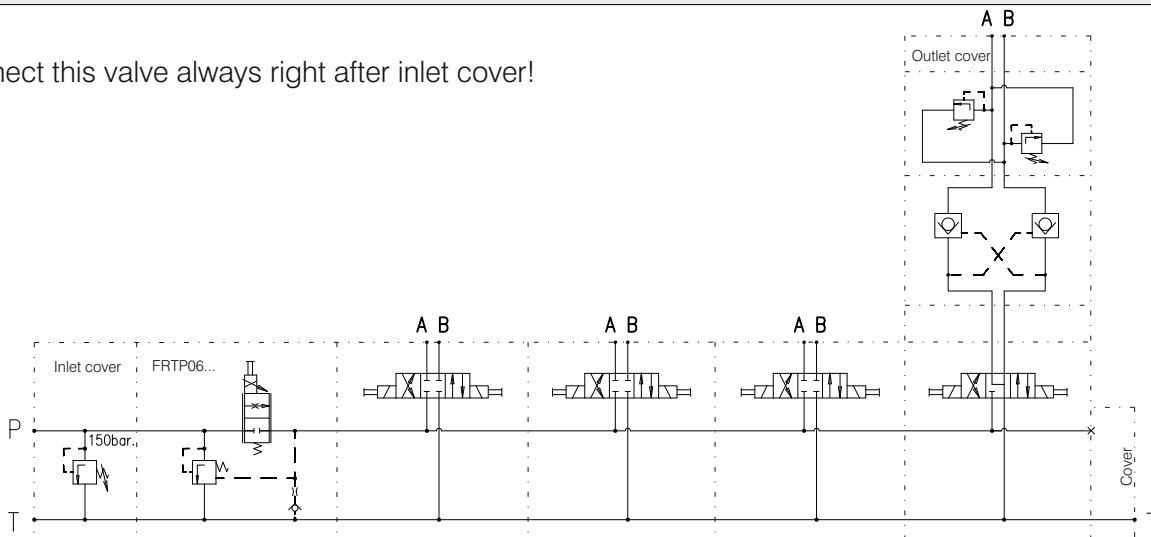
DIMENSIONS

All dimensions are shown in mm.



HOW TO CONNECT

Connect this valve always right after inlet cover!



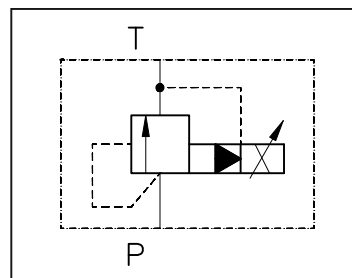
PROPORTIONAL PILOT OPERATED PRESSURE RELIEF VALVE

GENERAL DESCRIPTION

The RVP10... valve is designed to limit the pressure in a hydraulic system in proportion to the applied electrical input. The valve is normally open, cartridge type and increases the system pressure by increasing control input signal.

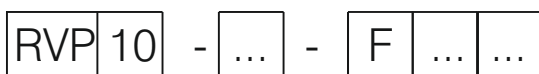


Symbol



- ✓ Removable coils for quick replacement and rotation in any direction without leakage from the system
- ✓ Standard industrial common cavity CC10-2 - see "Cavities and bodies" brochure
- ✓ External electronics

ORDERING CODE



Proportional pressure relief valve

Nominal size

Max. regulating pressure:

up to 350bar - **350**  
up to 205bar - **205**

N - normal  
T - tropical

Climatic realization:

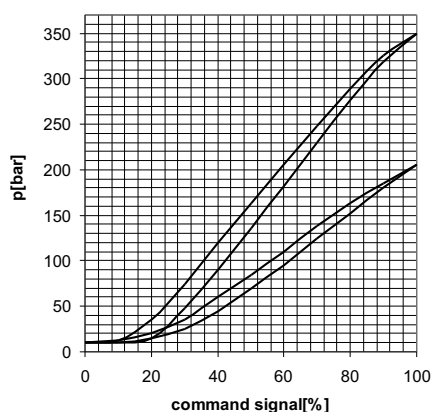
Connector:

**C1** - without connector  
**C2** - with connector by DIN24650  
**C3** - with connector by DIN24650 with light indicator

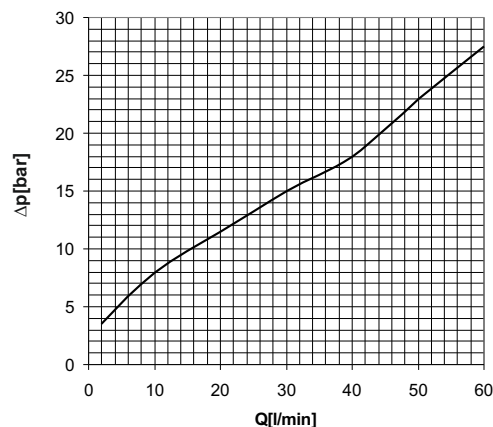
Modification

CHARACTERISTICS

Measured at: PWM 150Hz,  $I_{max} = 1,6A$ ,  $I_{min} = 0A$ ,  $Q_{in} = 10l/min$ ,  $t = 45^{\circ}C$



Measured at:  $t = 45^{\circ}C$ , without command signal



**PROPORTIONAL PILOT OPERATED PRESSURE RELIEF VALVE**
**TECHNICAL DATA**
**GENERAL**

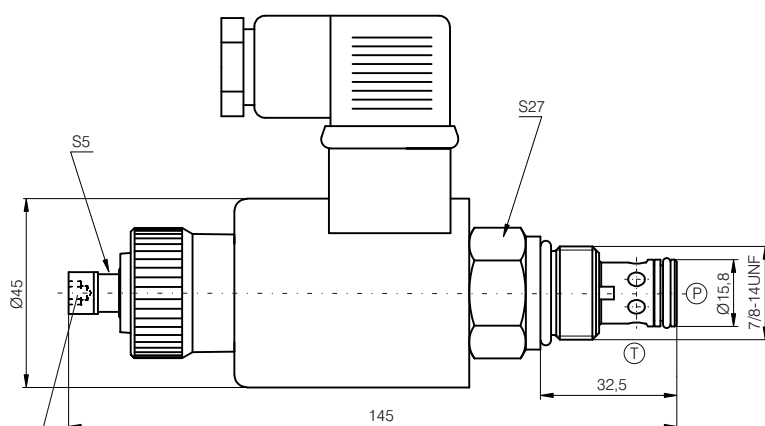
| DATA                      | UNIT | VALUE/RANGE                      |
|---------------------------|------|----------------------------------|
| Installation position     |      | optional , preferably horizontal |
| Ambient temperature range | °C   | -20...+50                        |
| Weight                    | kg   | 0,700                            |
| Hysteresis                | %    | <8                               |
| Repeatability             | %    | ±1,5                             |

**HYDRAULIC**

|   |                                   |                                  |
|---|-----------------------------------|----------------------------------|
| Max. operating pressure   | MPa                               | 35                               |
| Max. inlet flow   | l/min                             | 60                               |
| Hydraulic fluid-mineral oil:<br>-viscosity<br>-filtration degree to acc. ISO 4406<br>-temperature | mm <sup>2</sup> /s<br>class<br>°C | 10...400<br>18/16/13<br>-20...80 |

**ELECTRICAL**

|                   |              |               |
|-------------------|--------------|---------------|
| Cyclic duration   | %            | 100           |
| Waterproof        |              | IP65          |
| Heat insulation   |              | H             |
| Coil resistance   | cold<br>warm | Ω<br>2,2<br>3 |
| Max. coil current | A            | 2,5           |

**AMPLIFIER**
**EDAR 1211-1-25 - Order separately**
**DIMENSIONS**


All dimensions are shown in mm.

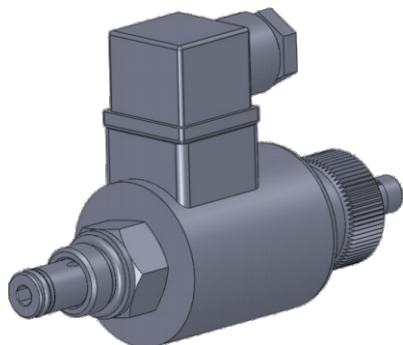
Air bleeding is obligatory for best performance characteristics.

Unscrew partially for air bleeding then screw to stop

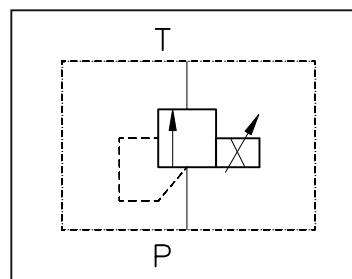
PROPORTIONAL DIRECT OPERATED PRESSURE RELIEF VALVE

GENERAL DESCRIPTION

The RVPB06... valve is designed to limit the pressure in a hydraulic system in proportion to the applied electrical input. The valve is normally open, cartridge type and increases the system pressure by increasing control input signal.



Symbol



- ✓ Removable coils for quick replacement and rotation in any direction without leakage from the system
- ✓ Standard industrial common cavity CC06-2 - see "Cavities and bodies" brochure
- ✓ External electronics

ORDERING CODE

RVPB 06 - ... - F ... ..

Proportional pressure relief valve

Nominal size

Max. regulating pressure:

up to 350bar - **350**  
up to 250bar - **250**

Climatic realization:

**N** - normal  
**T** - tropical

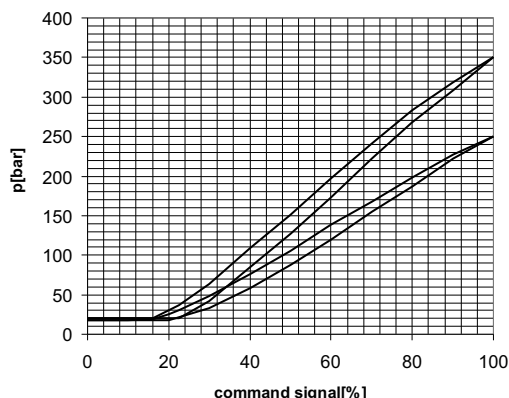
Connector:

**C1** - without connector  
**C2** - with connector by DIN24650  
**C3** - with connector by DIN24650 with light indicator

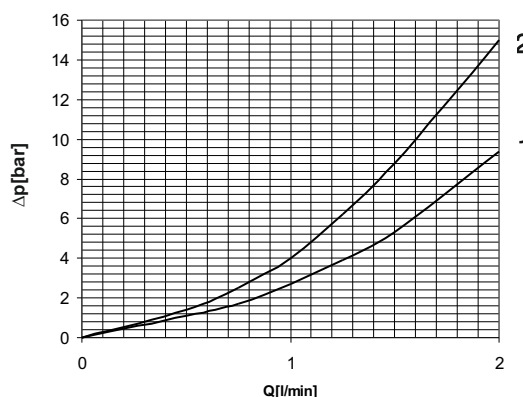
Modification

CHARACTERISTICS

Measured at: PWM 150Hz,  $I_{max.}=2A$ ,  
 $I_{min.}=0A$ ,  $Q_{in}=1,5l/min$ ,  $t=45^{\circ}C$



Measured at:  $t=45^{\circ}C$ , without command signal  
**1** - RVPB06-250... ; **2** - RVPB06-350...





**PROPORTIONAL DIRECT OPERATED PRESSURE RELIEF VALVE**
**TECHNICAL DATA**
**GENERAL**

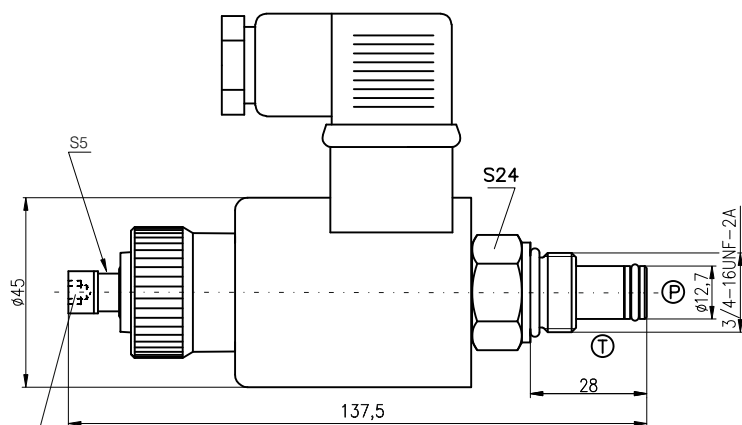
| DATA                      | UNIT | VALUE/RANGE                      |
|---------------------------|------|----------------------------------|
| Installation position     |      | optional , preferably horizontal |
| Ambient temperature range | °C   | -20...+50                        |
| Weight                    | kg   | 0,600                            |
| Hysteresis                | %    | <8                               |
| Repeatability             | %    | ±1,5                             |

**HYDRAULIC**

|   |                                   |                                  |
|---|-----------------------------------|----------------------------------|
| Max. operating pressure   | MPa                               | 35                               |
| Max. inlet flow   | l/min                             | 2                                |
| Hydraulic fluid-mineral oil:<br>-viscosity<br>-filtration degree to acc. ISO 4406<br>-temperature | mm <sup>2</sup> /s<br>class<br>°C | 10...400<br>18/16/13<br>-20...80 |

**ELECTRICAL**

|                   |              |               |
|-------------------|--------------|---------------|
| Cyclic duration   | %            | 100           |
| Waterproof        |              | IP65          |
| Heat insulation   |              | H             |
| Coil resistance   | cold<br>warm | Ω<br>2,2<br>3 |
| Max. coil current | A            | 2,5           |

**AMPLIFIER**
**EDAR 1211-1-25 - Order separately**
**DIMENSIONS**


All dimensions are shown in mm.

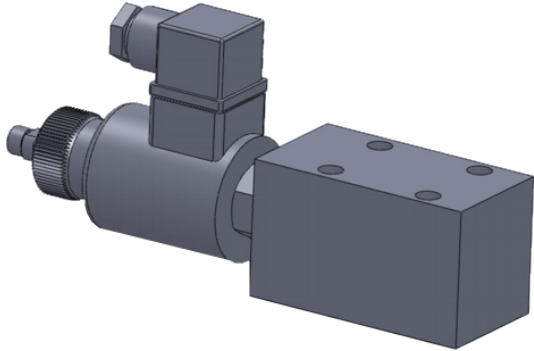
Air bleeding is obligatory for best performance characteristics.

Unscrew partially for air bleeding then screw to stop

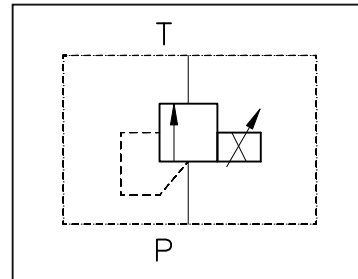
PROPORTIONAL DIRECT OPERATED PRESSURE RELIEF VALVE

GENERAL DESCRIPTION

The RVPB06P... valve is designed to limit the pressure in a hydraulic system in proportion to the applied electrical input. The valve is normally open, for plate mounting and increases the system pressure by increasing control input signal.



Symbol



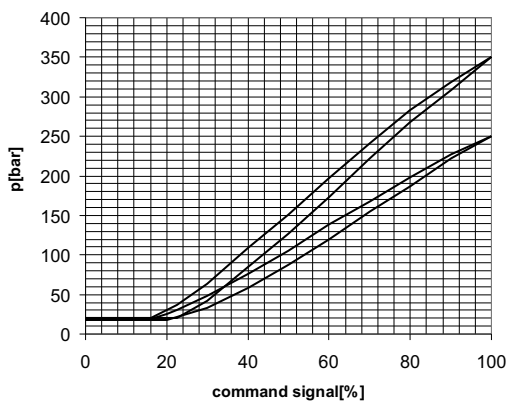
- ✓ Removable coils for quick replacement and rotation in any direction without leakage from the system
- ✓ Plate mounting connection CETOP3
- ✓ External electronics

ORDERING CODE

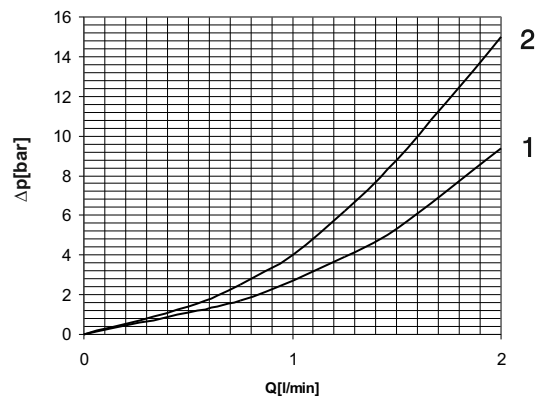
|                                    |    |   |   |     |   |  |     |     |
|------------------------------------|----|---|---|-----|---|--|-----|-----|
| RVPB                               | 06 | P | - | ... | - | F  | ... | ... |
| Proportional pressure relief valve |    |   |   |     |   | Climatic realization:                                |     |     |
| Nominal size                       |    |   |   |     |   | N - normal   |     |     |
| For plate mounting                 |    |   |   |     |   | T - tropical   |     |     |
| Max. regulating pressure:          |    |   |   |     |   | Connector:   |     |     |
| up to 350bar - <b>350</b>          |    |   |   |     |   | C1 - without connector                               |     |     |
| up to 250bar - <b>250</b>          |    |   |   |     |   | C2 - with connector by DIN24650                      |     |     |
|                                    |    |   |   |     |   | C3 - with connector by DIN24650 with light indicator |     |     |
|                                    |    |   |   |     |   | Modification   |     |     |

CHARACTERISTICS

Measured at: PWM 150Hz. ,  $I_{max}=2A$  ,  
 $I_{min}=0A$  ,  $Q_{in}=1,5l/min$  ,  $t=45^{\circ}C$



Measured at:  $t=45^{\circ}C$  , without command signal  
**1** - RVPB06P-250... ; **2** - RVPB06P-350...



**PROPORTIONAL DIRECT OPERATED PRESSURE RELIEF VALVE**
**TECHNICAL DATA**
**GENERAL**

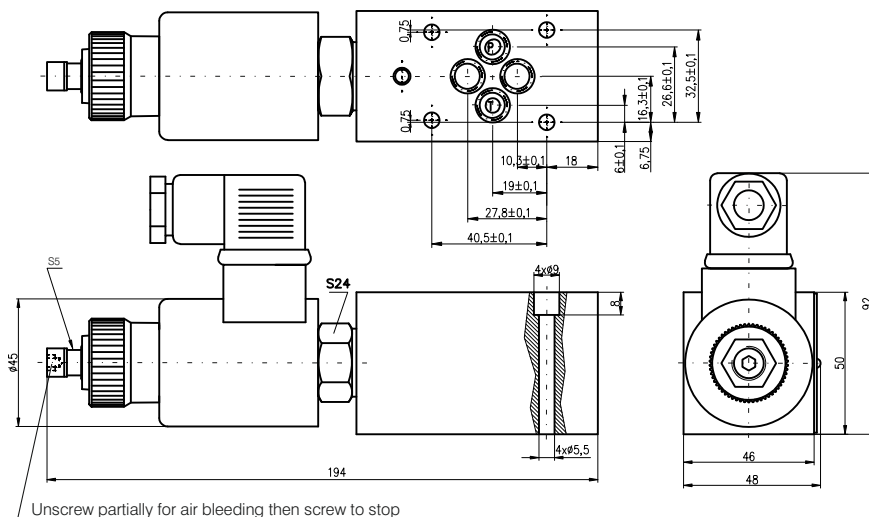
| DATA                      | UNIT | VALUE/RANGE                      |
|---------------------------|------|----------------------------------|
| Installation position     |      | optional , preferably horizontal |
| Ambient temperature range | °C   | -20...+50                        |
| Weight                    | kg   | 1,600                            |
| Hysteresis                | %    | <8                               |
| Repeatability             | %    | ±1,5                             |

**HYDRAULIC**

|   |                                   |                                  |
|---|-----------------------------------|----------------------------------|
| Max. operating pressure   | MPa                               | 35                               |
| Max. inlet flow   | l/min                             | 2                                |
| Hydraulic fluid-mineral oil:<br>-viscosity<br>-filtration degree to acc. ISO 4406<br>-temperature | mm <sup>2</sup> /s<br>class<br>°C | 10...400<br>18/16/13<br>-20...80 |

**ELECTRICAL**

|                   |              |        |
|-------------------|--------------|--------|
| Cyclic duration   | %            | 100    |
| Waterproof        |              | IP65   |
| Heat insulation   |              | H      |
| Coil resistance   | cold<br>warm | Ω<br>3 |
| Max. coil current | A            | 2,5    |

**AMPLIFIER**
**EDAR 1211-1-25 - Order separately**
**DIMENSIONS**


All dimensions are shown in mm.

Air bleeding is obligatory for best performance characteristics.

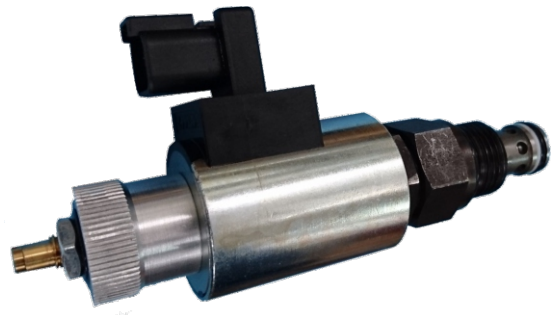
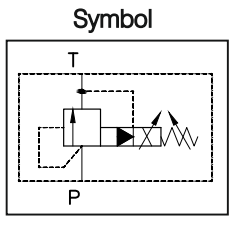
Unscrew partially for air bleeding then screw to stop

**PROPORTIONAL PILOT OPERATED PRESSURE RELIEF VALVE NORMALLY CLOSED**

**GENERAL DESCRIPTION**

The IRVP10... valve is designed to limit the pressure in a hydraulic system in proportion to the applied electrical input. The valve is normally closed, cartridge type and decreases the system pressure by increasing control input signal. This valve is mainly used for hydraulic fan drive cooling systems.

- ✓ Removable coils for quick replacement and rotation in any direction without leakage from the system
- ✓ Standard industrial common cavity CC10-2 - see "Cavities and bodies" brochure
- ✓ External electronics



**ORDERING CODE**

**IRVP 10 - ... - F ... ..**

Inverse type proportional pressure relief valve (normally closed)

Nominal size

Max. regulating pressure: up to 240bar - **240**  
 up to 210bar - **210**  
 up to 160bar - **160**

Modification

Climatic realization:

- N** - normal
- T** - tropical

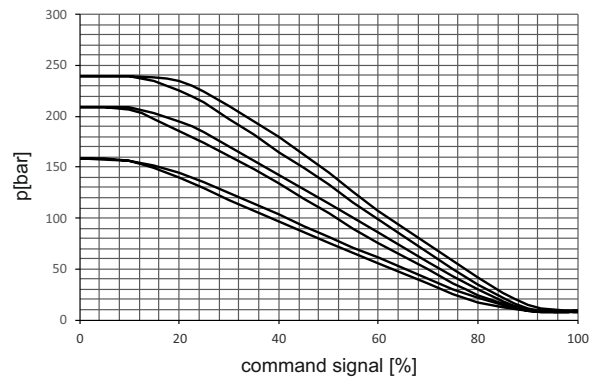
Connector type:

- C1** - without connector by DIN24650
- C2** - with connector by DIN24650
- C3** - by DIN24650 with light indicator
- C6** - AMP Junior(without connector)
- C7** - Deutsch 04-2P(without connector)

Valves are available with connector only by DIN24650-"C2" and "C3". Other types-without connector.

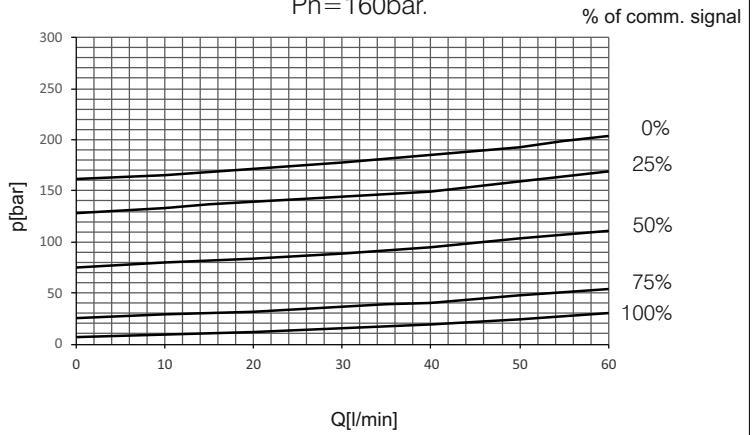
**CHARACTERISTICS**

Measured at: PWM 170Hz. ,  $I_{max.} = 1,5A$  ,  
 $I_{min.} = 0A$  ,  $Q_{in} = 5l/min$  ,  $t = 45^{\circ}C$

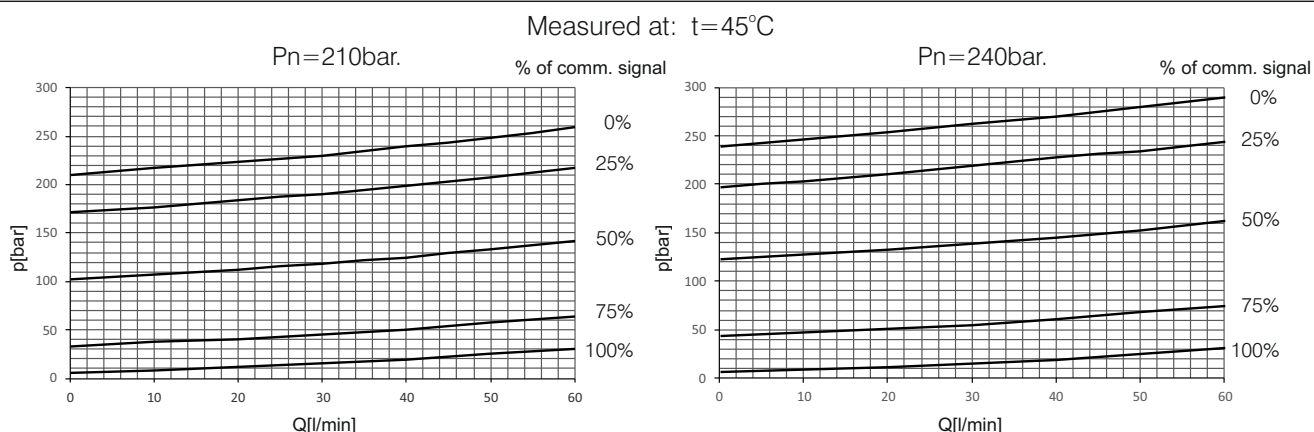


Measured at:  $t = 45^{\circ}C$  , for % of command signal

$P_n = 160bar.$



NOTE: If backpressure occur in port "T" it must be added to the setting pressure!

**PROPORTIONAL PILOT OPERATED PRESSURE RELIEF VALVE NORMALLY CLOSED**
**CHARACTERISTICS**

**TECHNICAL DATA**
**GENERAL**

| DATA                      | UNIT               | VALUE/RANGE           |
|---------------------------|--------------------|-----------------------|
| Installation position     |                    | preferably horizontal |
| Ambient temperature range | $^{\circ}\text{C}$ | -20...+50             |
| Weight                    | kg                 | 0,700                 |
| Hysteresis                | %                  | <6                    |
| Repeatability             | %                  | $\pm 1,5$             |

**HYDRAULIC**

|   |   |                                  |
|---|---|----------------------------------|
| Relief pressure ranges from 0 to 100% comm. signal  | bar   | 240...7 / 210...7 / 160...7      |
| Max. inlet flow   | l/min   | 60                               |
| Leakage (at nominal pressure w/o comm. signal)  | l/min   | max. 0,250                       |
| Hydraulic fluid-mineral oil:<br>-viscosity<br>-filtration degree to acc. ISO 4406<br>-temperature | $\text{mm}^2/\text{s}$<br>class<br>$^{\circ}\text{C}$ | 10...400<br>18/16/13<br>-20...80 |

**ELECTRICAL**

|   |          |          |
|---|----------|----------|
| Cyclic duration                         | %        | 100      |
| Waterproof: DIN/AMP/Deutsch DT04-2P     | IP       | 65/65/67 |
| Heat insulation                         |          | H        |
| Coil resistance at $20^{\circ}\text{C}$ | $\Omega$ | 6,4      |
| Recommended PWM frequency               | Hz       | 170      |
| Max. coil current                       | A        | 1,5      |

**AMPLIFIER**
**EDAR 1211-1-25 - Order separately**

This digital amplifier EDAR 1211-1-25 is designed to control direct operated proportional directional control valves, proportional pressure relief valve and proportional flow regulators with one solenoid without feedback - see "List: EDAR1211-1-25".

We reserve the right to change specifications without notice.

[www.caproni.bg](http://www.caproni.bg)

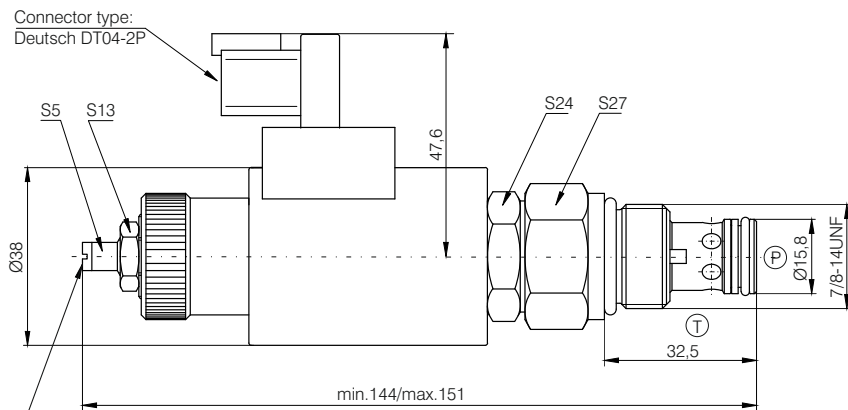
PROPV-Sept 2019

**PROPORTIONAL PILOT OPERATED PRESSURE RELIEF VALVE NORMALLY CLOSED**

**DIMENSIONS**

All dimensions are shown in mm.

Air bleeding is obligatory for best performance characteristics.



Unscrew partially for air bleeding then screw to stop

DIGITAL AMPLIFIER FOR PROPORTIONAL VALVES WITHOUT FEEDBACK

GENERAL DESCRIPTION

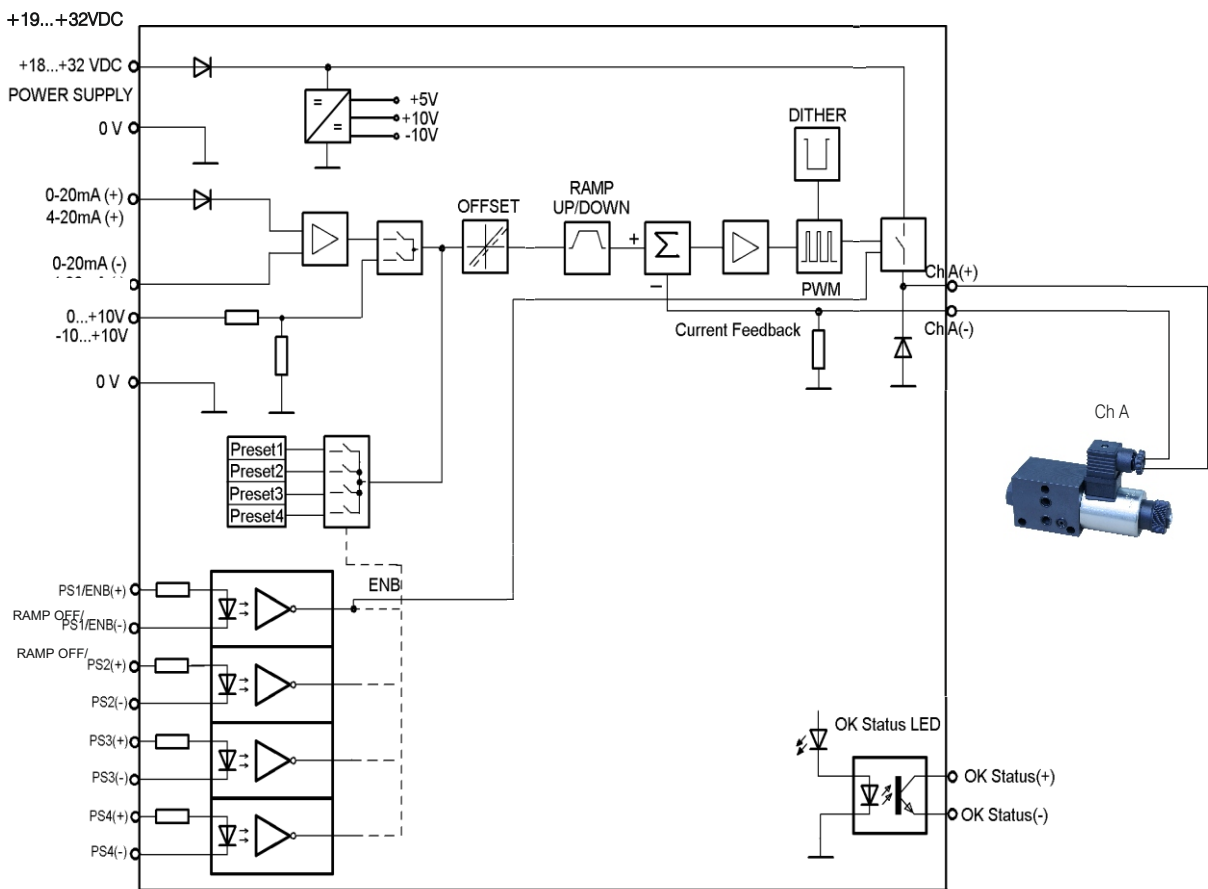


This digital amplifier EDAR 1211-1-25 is designed to control direct operated proportional directional control valves and proportional flow regulators with one solenoid without feedback.

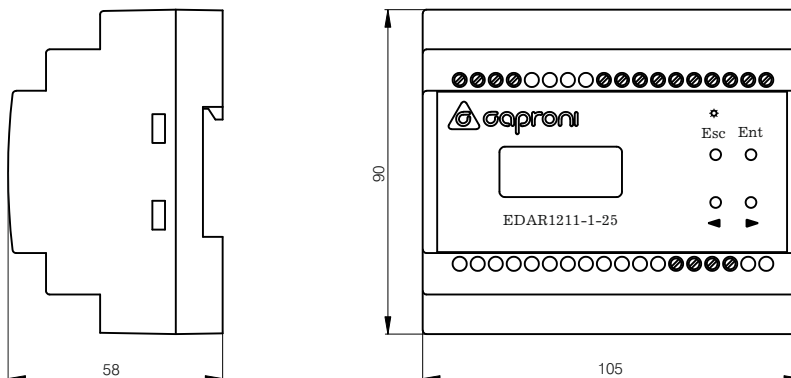
- There are few adjustments for base parameters:
- Imax. to control the maximum current to the solenoid
  - Imin. to correct the positive overlap (dead band elimination)
  - Ramps to set increasing/decreasing time on channel "a"
  - PWM to regulate hysteresis and stability (accuracy) of the valve -
    - high frequency - high accuracy , high hysteresis
    - low frequency - low accuracy , low hysteresis.

The adjustment sets realized by 4 push buttons on the front cover. The amplifier is designed for rail mounting type DIN EN 50022.

BLOCK DIAGRAM



DIMENSIONS



**DIGITAL AMPLIFIER FOR PROPORTIONAL VALVES WITHOUT FEEDBACK**
**TECHNICAL DATA**
**GENERAL**

| <b>DATA</b>  | <b>UNIT</b> | <b>VALUE/RANGE</b>   |
|--|-------------|--|
| Power supply   | V DC        | 24 (19...32)   |
| Max. power consumption                                   | W           | 35   |
| Max. output current                                      | A           | 2,7  |
| Power supply polarity protection                         |             |  |
| Output short-circuit protection                          |             |  |
| Available reference signals                              | V           | 0...+10  |
|  | mA          | 0...20   |
|  |             | 4...20   |
|  |             | 4 preset values selected by 4 discrete inputs              |
| Ramps  |             | Two ramps according to rising and falling reference signal |
| Ramps (duration)   | sec         | 0,01...9,99  |
| Opto isolated output signal - "OK"                       | mA<br>V DC  | $I_{max.}=50$<br>$U_{max.}=35$                             |
| Opto isolated input signal - "ENABLE"                    | V DC        | 24   |
| 4 opto isolated input signal for preset values selection | V DC        | 24   |
| PWM frequency  | Hz          | 80...500   |
| Reference signal offset correction                       | %           | -9,99...+9,99  |
| Mounting   |             | Rail type DIN EN 50022                                     |
| Ambient temperature                                      | °C          | 0...50   |
| Storage temperature                                      | °C          | -20...+50  |
| Dimensions   | mm          | 105x90x60  |



DIGITAL AMPLIFIER FOR PROPORTIONAL VALVES WITHOUT FEEDBACK

GENERAL DESCRIPTION

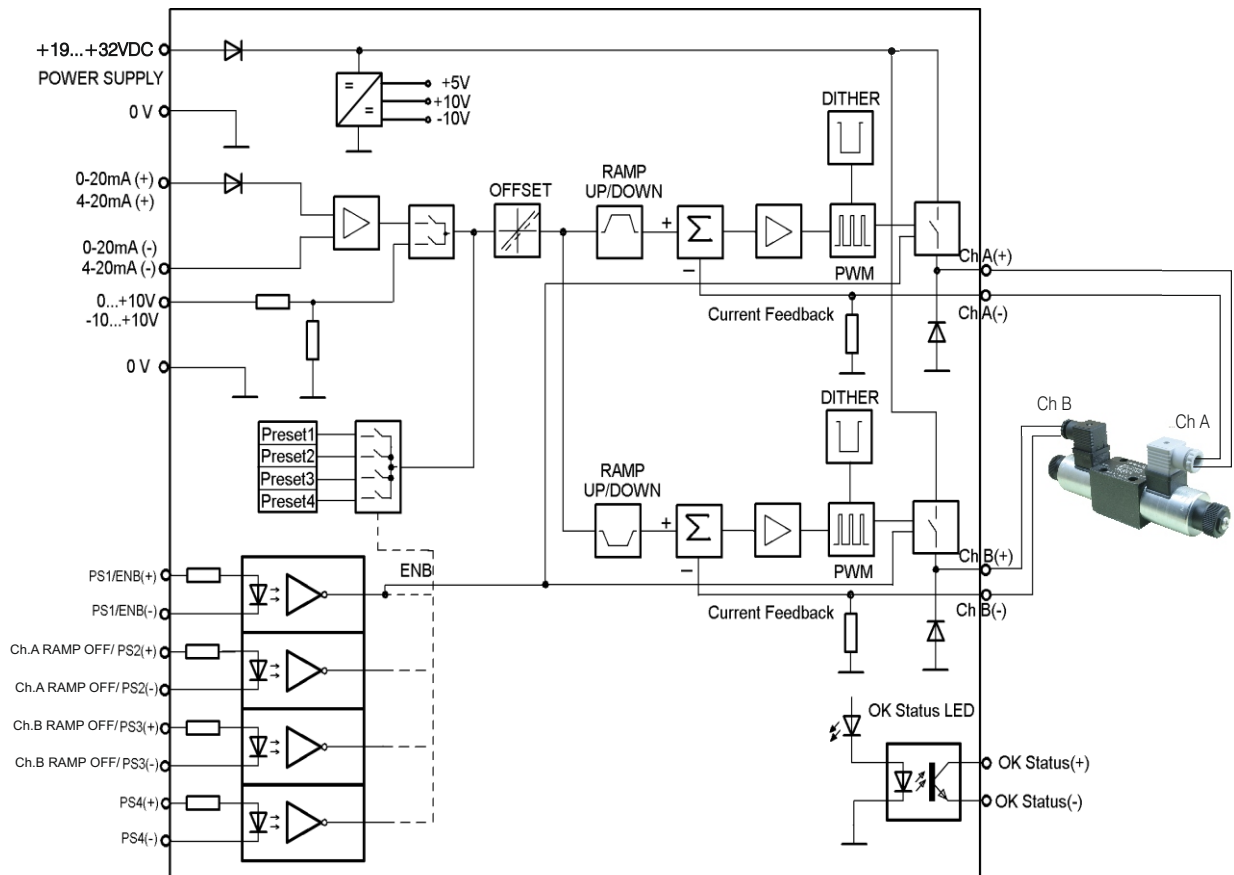


This digital amplifier EDAR 1211-2-25 is designed to control direct operated proportional directional control valves with two solenoids without feedback. There are few adjustments for base parameters:

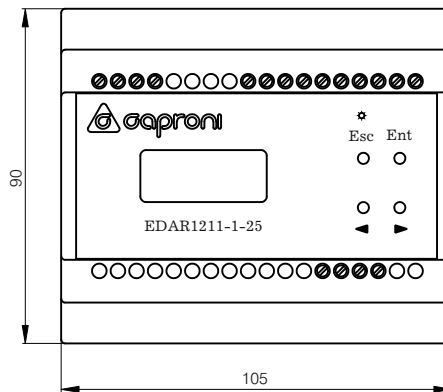
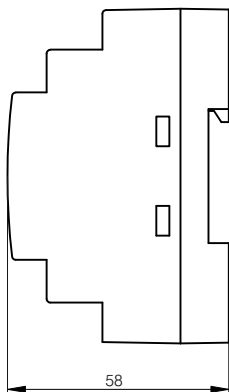
- Imax. to control the maximum current to the solenoid
- Imin. to correct the positive overlap (dead band elimination)
- Ramps to set increasing/decreasing time on channels "a" or "b"
- PWM to regulate hysteresis and stability (accuracy) of the valve -  
 high frequency - high accuracy , high hysteresys  
 low frequency - low accuracy , low hysteresys.

The adjustment sets realized by 4 push buttons on the front cover. The amplifier is designed for rail mounting type DIN EN 50022.

BLOCK DIAGRAM



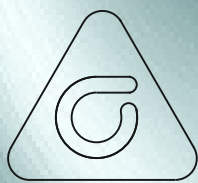
DIMENSIONS



**DIGITAL AMPLIFIER FOR PROPORTIONAL VALVES WITHOUT FEEDBACK**
**TECHNICAL DATA**
**GENERAL**

| DATA   | UNIT       | VALUE/RANGE   |
|--|------------|---|
| Power supply   | V DC       | 24 (19...32)  |
| Max. power consumption                                       | W          | 35  |
| Max. output current  | A          | 2,7   |
| Power supply polarity protection                             |            |   |
| Output short-circuit protection                              |            |   |
| Available reference signals                                  | V          | 0...+10<br>-10...+10  |
|  | mA         | 0...20<br>4...20  |
|  |            | 4 preset values selected<br>by 4 discrete inputs                                    |
| Ramps  |            | Two ramps for each direction<br>according to rising and falling<br>reference signal |
| Ramps (duration)   | sec        | 0,01...9,99   |
| Opto insulated output signal - "OK"                          | mA<br>V DC | $I_{max.} = 50$<br>$U_{max.} = 35$  |
| Opto insulated input signal - "ENABLE"                       | V DC       | 24  |
| 4 opto insulated input signal for<br>preset values selection | V DC       | 24  |
| PWM frequency  | Hz         | 80...500  |
| Reference signal offset correction                           | %          | -9,99...+9,99   |
| Mounting   |            | Rail type DIN EN 50022  |
| Ambient temperature  | °C         | 0...50  |
| Storage temperature  | °C         | -20...+50   |
| Dimensions   | mm         | 105x90x60   |





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