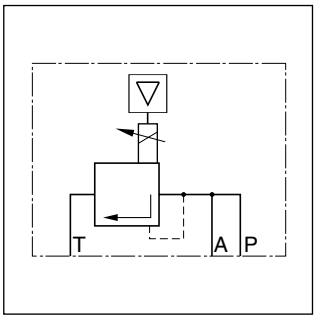
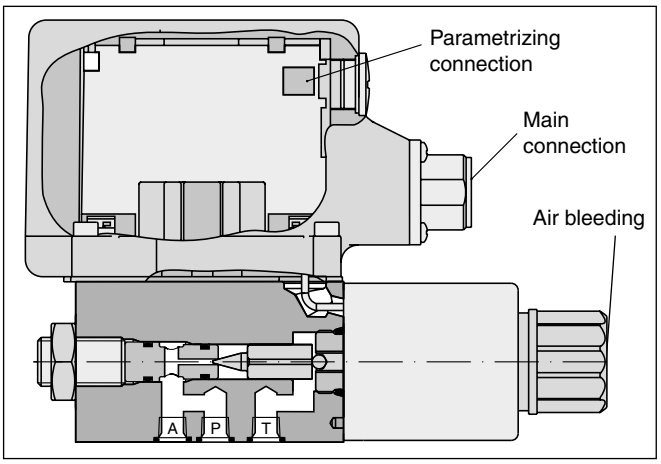
The proportional pressure relief valve series RE06M*T (NG06) with onboard electronics is based on the functionality of the digital amplifier PCD00.
The digital onboard electronics is situated in a robust metal housing and can be used in rough environments. The nominal values of the valves are factory set. Additionally the ProPxD software permits the editing of all parameters. The software is also used for the digital electronic modules. The cable for connection to a serial RS232C interface is available as accessory.




The electrical connection is available in 2 options:
Code F: 6 + PE central connection
+/- 10 V command signal
+10 V reference voltage output
Code R: 6 + PE central connection
4…20 mA command signal






### Function

When the pressure in port P or A exeeds the pressure setting at the solenoid, the cone opens to port T and limits the inlet pressure to the adjusted level.

The pressure adjustment is effected by applying current to the solenoid. The control signal is modulated to the solenoid current by the electronics.

### Features

- Direct operated with proportional solenoid
- Onboard electronics
- Very low pressure adjustment of $p_{min}$
- Subplate mounting acc. to ISO 6264
- 6 pressure stages
- 2 pressure inlet ports A and P

### Ordering code

| RE | 06 | M | | T | 2 | | 1 | | 0 | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Proportional pressure relief valve** | **NG06** | **Interface ISO 6264** | **Pressure stages** | **Onboard electronics** | | **Seals** | **Normally open** | **Command signal** | **Electronic attachment** | **Design series** (not required for ordering) |

| Code | Pressure stages |
|---|---|
| 05 | 50 bar |
| 10 | 105 bar |
| **17** | **175 bar** |
| **21** | **210 bar** |
| 25 | 250 bar |
| **35** | **350 bar** |

| Code | Command signal |
|---|---|
| **F** | **Voltage input 0...+10 V with reference output +10 V** |
| R | Current input 4...20 mA |

| Code | Seals |
|---|---|
| N | NBR |
| **V** | **FPM** |

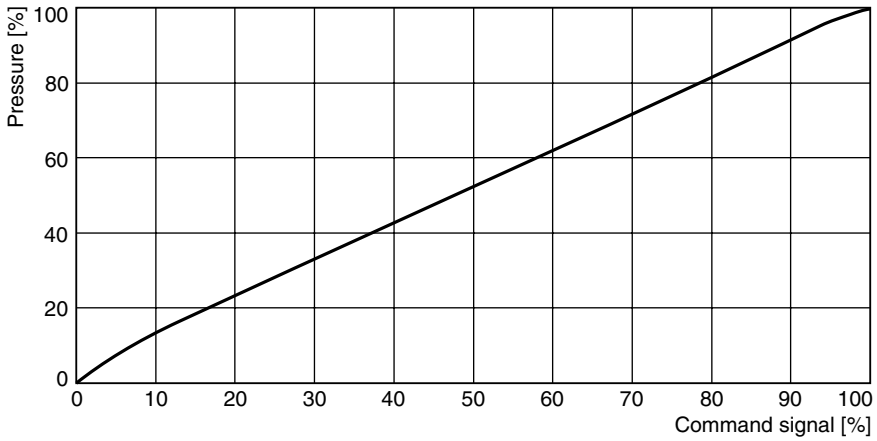
**Bold letters =**
Short-term availability

Please order plugs separately, see chapter 4, accessories.
Parametrizing cable OBE → RS232, Item no. 40982923

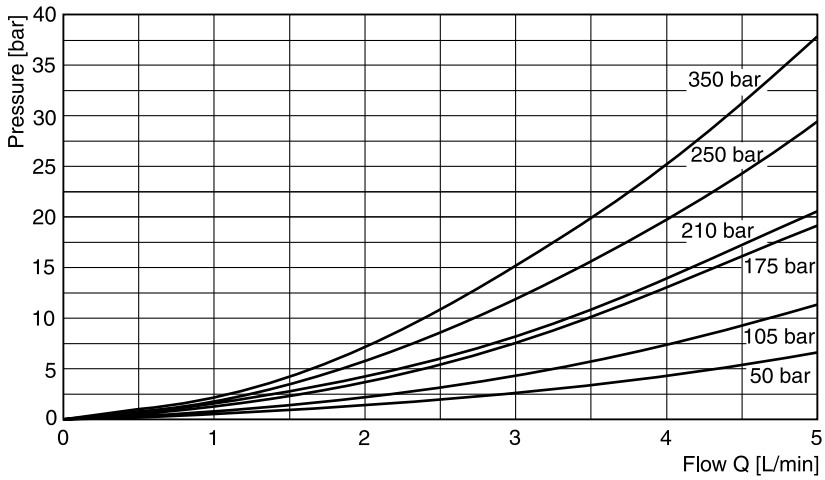
| | | |
|---|---|---|
| **General** | | |
| Nominal size | | DIN NG06 / CETOP 03 / NFPA D03 |
| Interface | | Subplate mounting according to ISO 6264 |
| Mounting position | | Unrestricted, horizontal mounting preferred |
| Ambient temperature | [°C] | -20...+60 |
| $MTTF_D$ value [1] | [years] | 150 |
| Weight | [kg] | 2.2 |
| Vibration strength | [g] | 10 sinus 5...2000 Hz acc. to IEC 68-2-6<br>10 (RMS) noise 20...2000 Hz acc. to IEC 68-2-36<br>15 shock acc. to IEC 68-2-27 |
| **Hydraulic** | | |
| Max. operating pressure | [bar] | Ports A and P 350, connection T 30 |
| Pressure stages | [bar] | 50, 105, 175, 210, 250, 350 |
| Nominal flow | [l/min] | See p/Q curves |
| Fluid | | Hydraulic oil according to DIN 51524 |
| Viscosity, permitted<br>recommended | [cSt] / [mm²/s]<br>[cSt] / [mm²/s] | 20 ... 400<br>30 ... 80 |
| Fluid temperature | [°C] | -20...+70 (NBR: -25...+70) |
| Filtration | | ISO 4406; 18/16/13 |
| Linearity | [%] | See curve |
| Repeatability | [%] | <±1 |
| Hysteresis | [%] | ±1.5 of $p_{max}$ |
| **Electrical** | | |
| Duty ratio ED | [%] | 100 |
| Protection class | | IP65 in accordance with EN 60529 (with correctly mounted plug-in connector) |
| Supply voltage | [VDC] | 18...30, ripple < 5 % eff., surge free |
| Current consumption max. | [A] | 2.0 |
| Pre-fusing | [A] | 2.5 medium lag |
| Potentiometer supply | [V] | +10 / ±5 % max. 10 mA |
| Command signal | | |
| Code F voltage<br>Code R current | [V]<br>[mA] | 0...+10, ripple < 0.01 % eff., surge free, Ri = 100 kOhm<br>4...20, ripple < 0.01 % eff., surge free, Ri = <250 Ohm<br>< 3.6 mA = enable off,<br>> 3.8 mA = enable on (acc. NAMUR NE43) |
| Differential input voltage max. | [V] | 30 for terminal D and E against PE (terminal G) |
| | [V] | 11 for terminal D and E against 0V (terminal B) |
| Adjustment ranges Min current<br>Max current<br>Ramp | [%]<br>[%]<br>[s] | 0...50<br>50...100<br>0...32.5 |
| Interface | | RS 232C, parametrizing connection 5polig |
| EMC | | EN 61000-6-2, EN 61000-6-4 |
| Central connection | | 6 + PE acc. EN 175201-804 |
| Cable specification | [mm²] | 7 x 1.0 overall braid shield |
| Cable length max. | [m] | 50 |

[1] If valves with onboard electronics are used in safety-related parts of control systems, in case the safety function is requested, the valve electronics voltage supply is to be switched off by a suitable switching element with sufficient reliability.

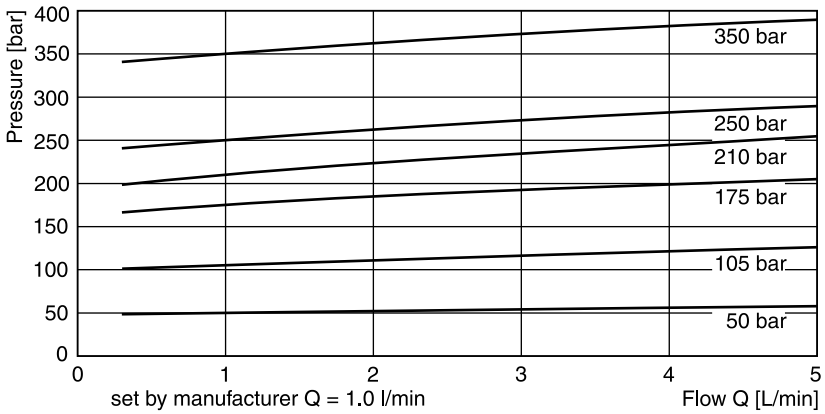
### Signal/pressure curve




### Min. adjusted pressure



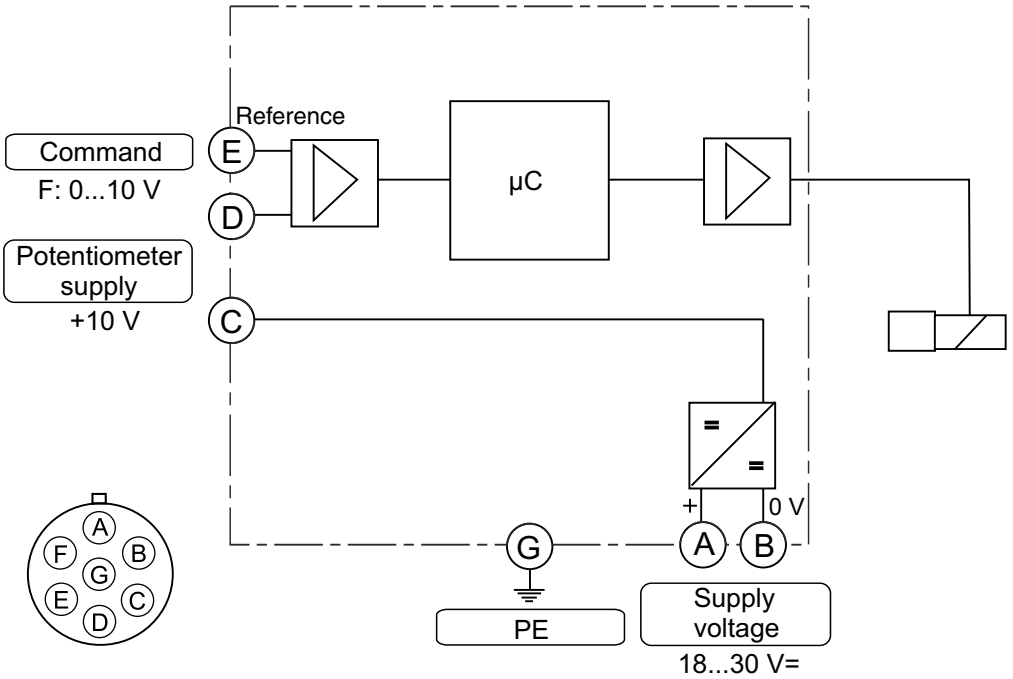

### p/Q curve



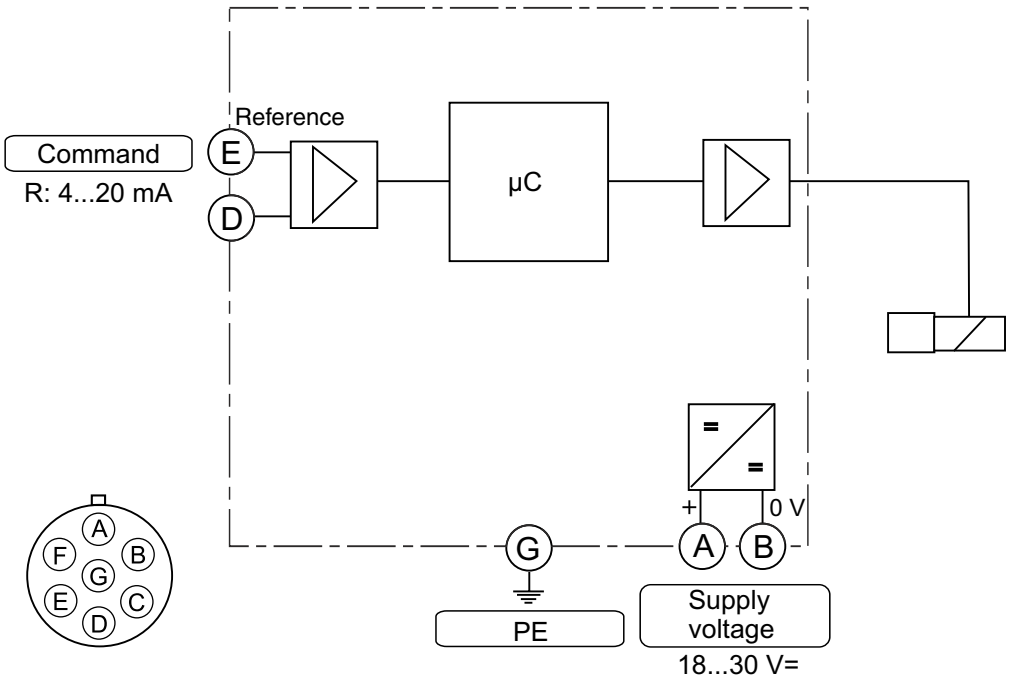

All characteristic curves measured with HLP46 at 50 °C.

**Block diagram**

**Code F**
**6 + PE acc. EN 175201-804**




**Code R**
**6 + PE acc. EN 175201-804**



### ProPxD interface program

The ProPxD software permits comfortable parameter setting for the module electronics. Via the clearly arranged entry mask the parameters can be noticed and modified. Storage of complete parameter sets is possible as well as printout or record as a text file for further documentation. Stored parameter sets may be loaded anytime and transmitted to other valves. Inside the electronics a non-volatile memory stores the data with the option for recalling or modification.

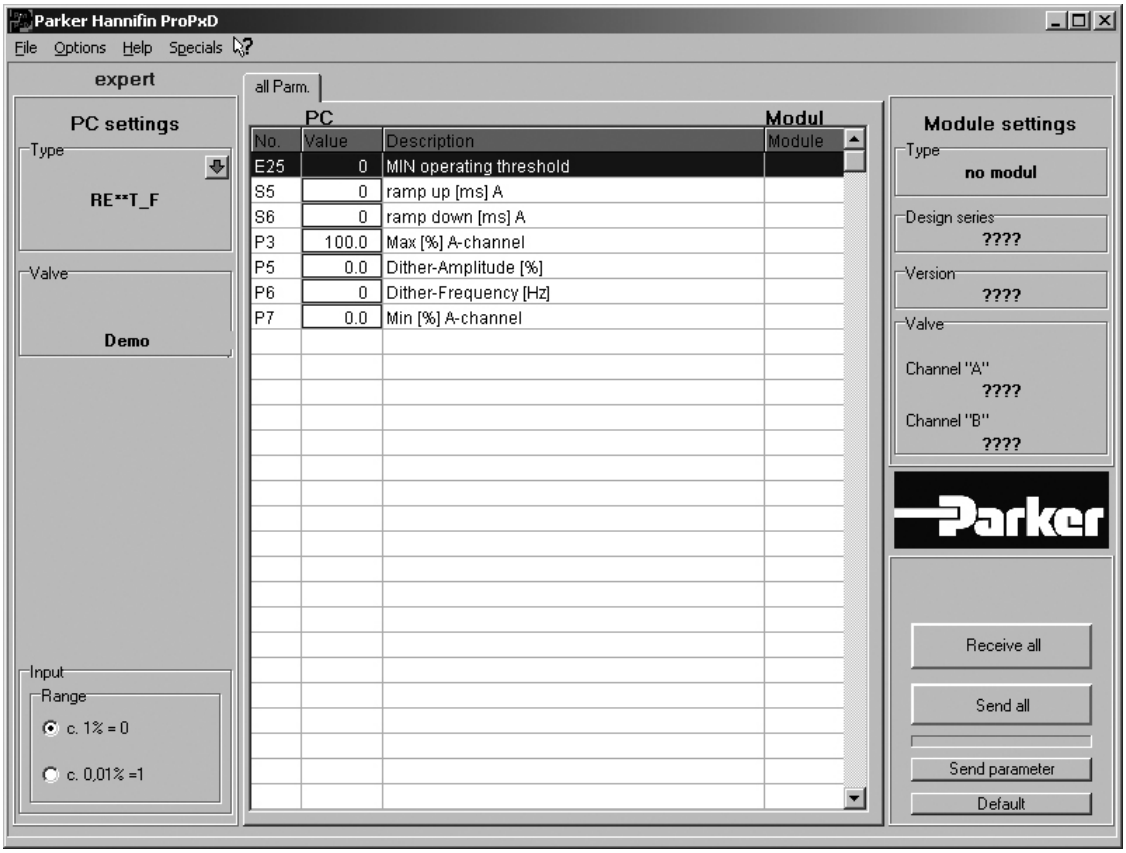
The PC software can be downloaded free of charge at www.parker.com/isde – see page “Support“ or directly at www.parker.com/propxd.

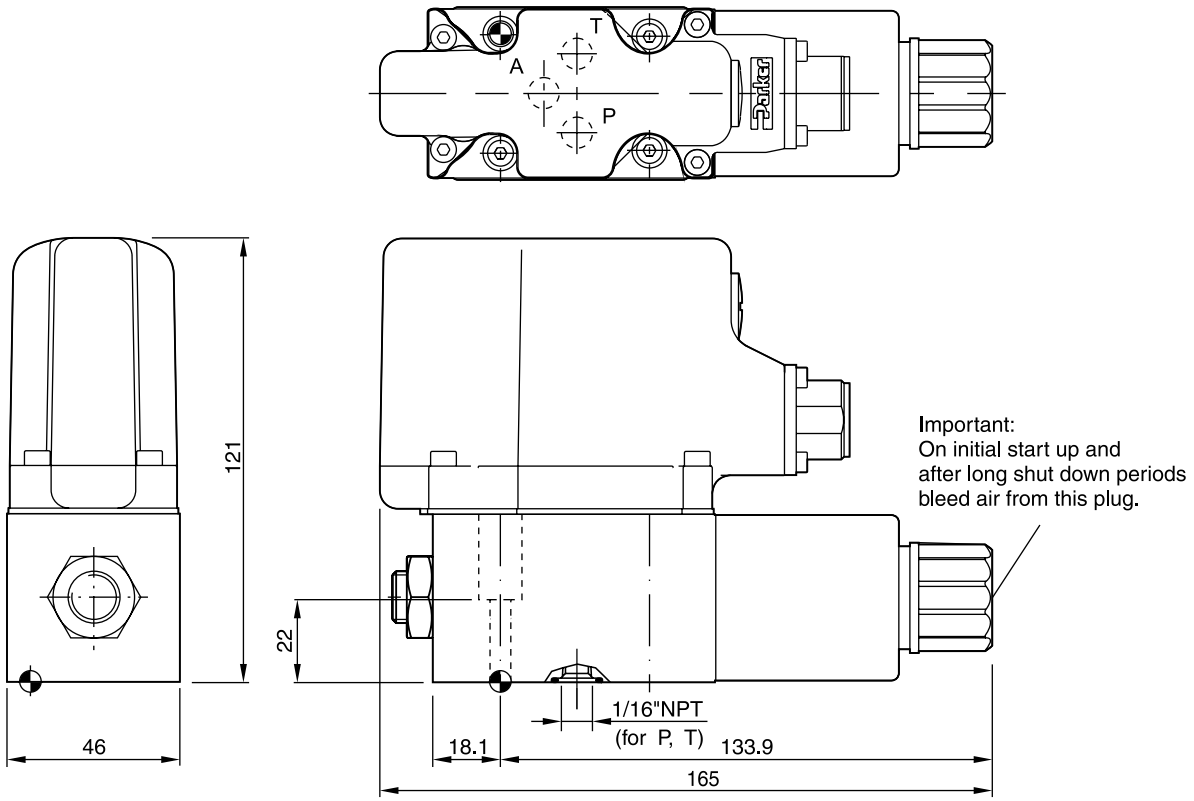
### Features

- Comfortable editing of all parameters
- Depiction and documentation of parameter sets
- Storage and loading of optimized parameter adjustments
- Executable with all actual Windows® operating systems from Windows® XP upwards
- Plain communication between PC and electronics via serial interface RS232C

**The parametrizing cable may be ordered under item no. 40982923.**








| Surface finish | Bolt kit | | | Kit NBR | Kit FPM |
|---|---|---|---|---|---|
| $\sqrt{R_{max}6.3}$ 0.01/100 | BK 375 | 4x M5x30 ISO 4762-12.9 | 7.6 Nm ±15 % | SK-RE06MTN | SK-RE06MTV |

**Mounting pattern ISO 6264-03-04-*-97**