

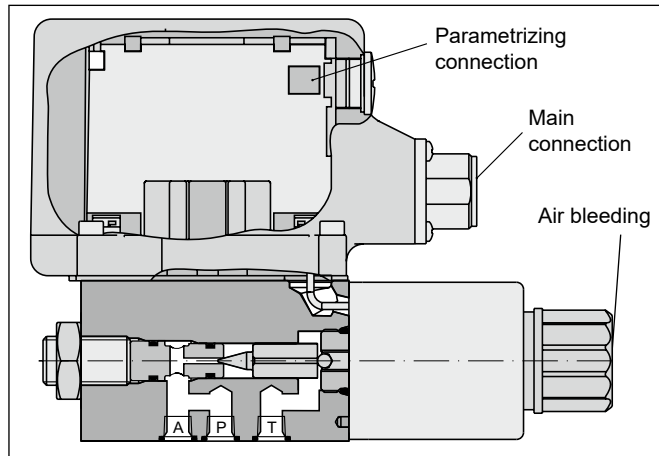
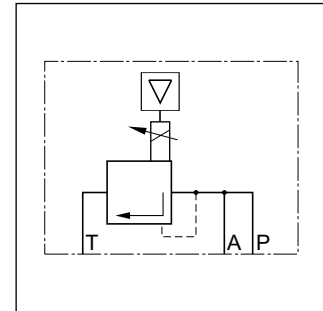
Parker Series RE06M*T Direct Operated Proportional Pressure Relief Valve Service Manual

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 exceeds 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

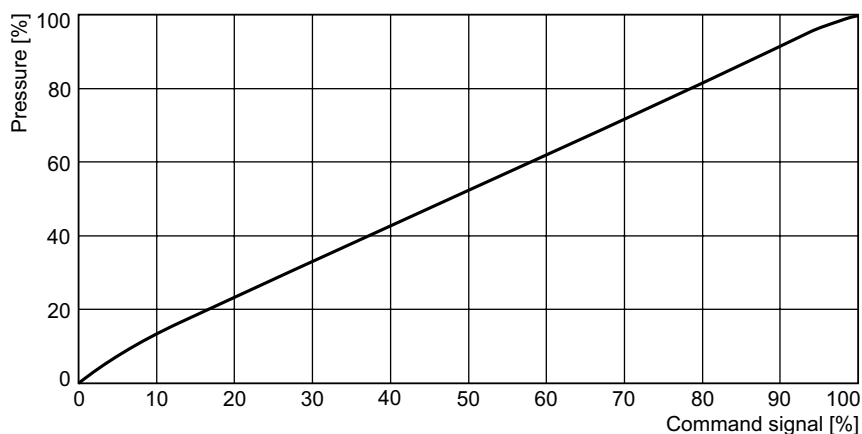
Please order plugs separately, see chapter 4, accessories.
 Parametrizing cable OBE → RS232, Item no. 40982923

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 10 (RMS) noise 20...2000 Hz acc. to IEC 68-2-36 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	[cSt] / [mm ² /s]	20 ... 400
recommended	[cSt] / [mm ² /s]	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	[V]	0...+10, ripple < 0.01 % eff., surge free, Ri = 100 kOhm
Code R current	[mA]	4...20, ripple < 0.01 % eff., surge free, Ri = <250 Ohm < 3.6 mA = enable off, > 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	[%]	0...50
Max current	[%]	50...100
Ramp	[s]	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	[mm ²]	7 x 1.0 overall braid shield
Cable length max.	[m]	50

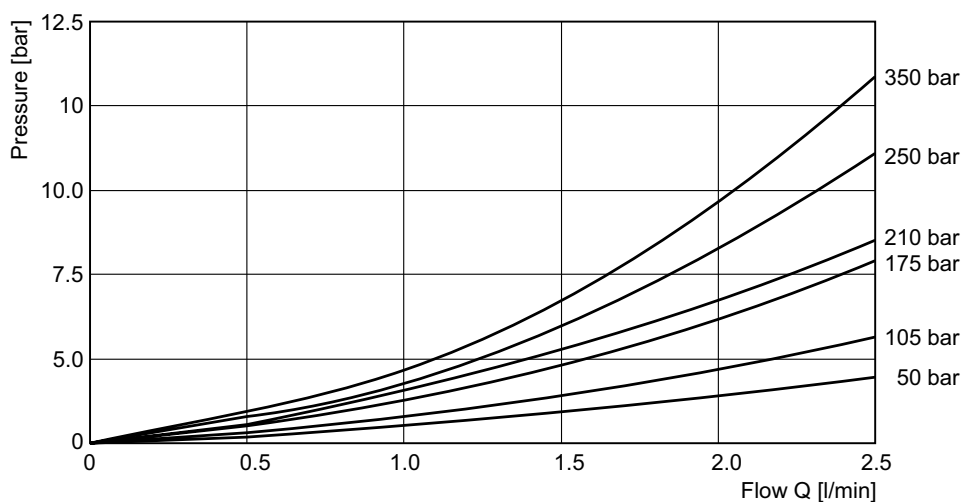
¹⁾ If valves with onboard electronics are used in safety-related parts of control systems, in case the safety function is requested, the valve electronics voltage supply is to be switched off by a suitable switching element with sufficient reliability.

Characteristic Curves

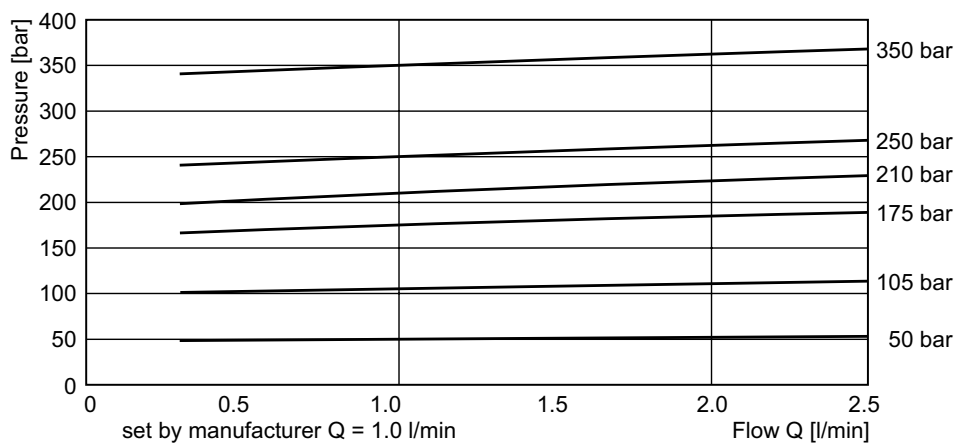
Signal/pressure curve



Min. adjusted pressure



p/Q curve

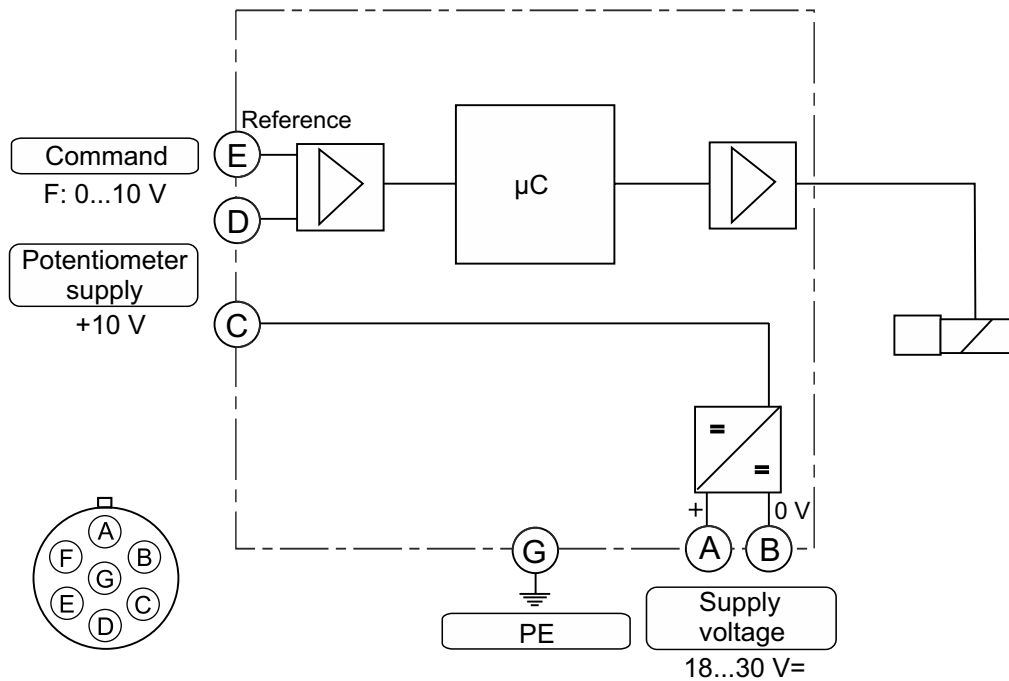


All characteristic curves measured with HLP46 at 50 °C.

Block diagram

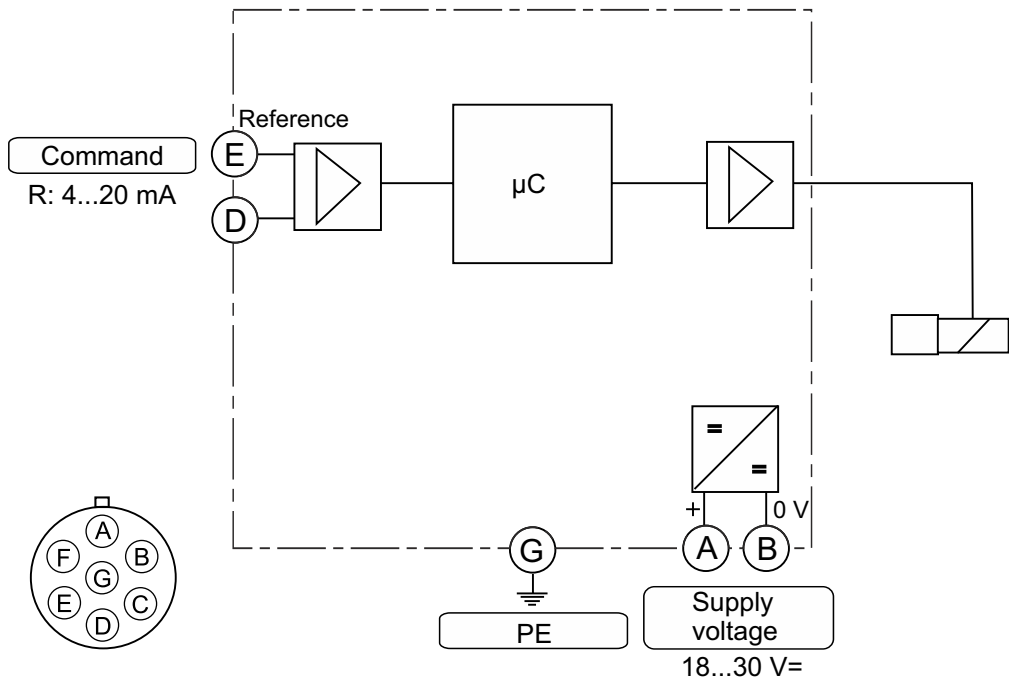
Code F

6 + PE acc. EN 175201-804



Code R

6 + PE acc. EN 175201-804



Interface Program

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 recalcing or modification.

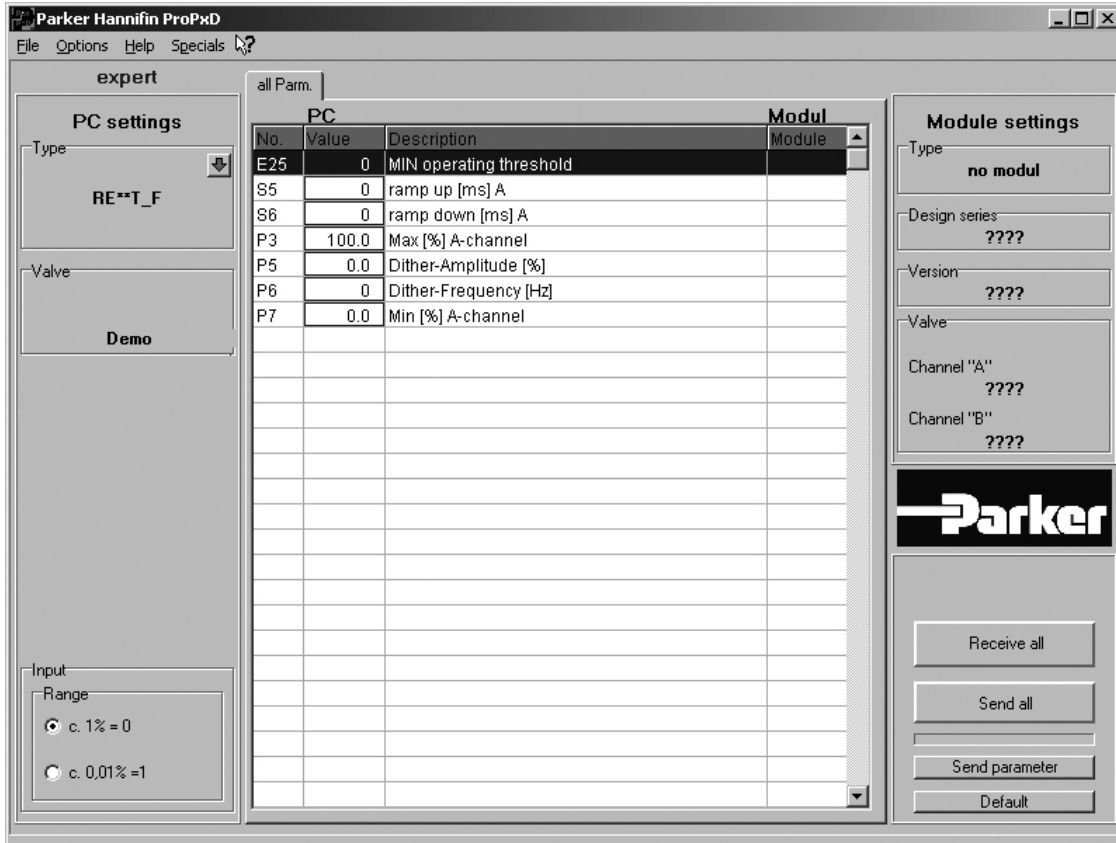
The PC software can be downloaded free of charge at www.parker.com/isde – see page “Support“ or directly at www.parker.com/propxd.

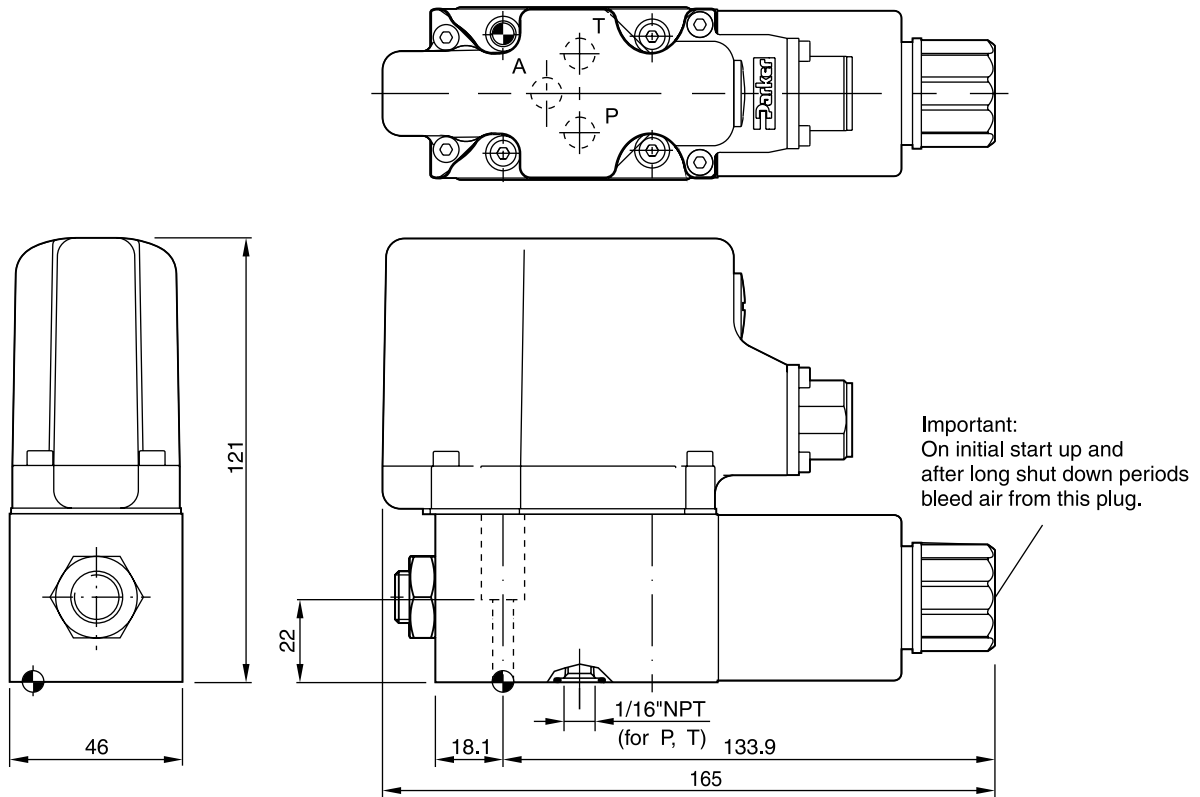
Features

- 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

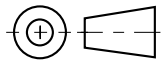
The parametrizing cable may be ordered under item no. 40982923.

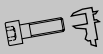
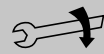

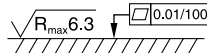
4





Important:
 On initial start up and
 after long shut down periods
 bleed air from this plug.



Surface finish	Bolt kit			NBR  Kit	FPM
	BK 375	4x M5x30 ISO 4762-12.9	7.6 Nm ±15 %	SK-RE06MTN	SK-RE06MTV

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

