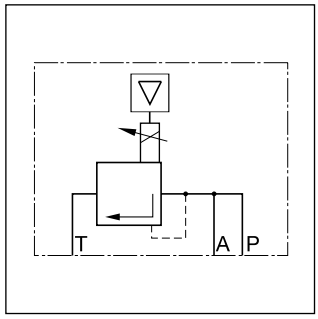
Hydraulic Valves
Industrial Standard

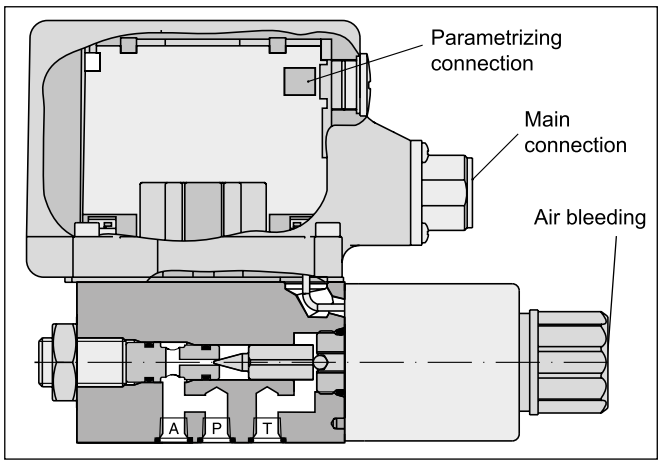
Parker

ENGINEERING YOUR SUCCESS.

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

Bold letters =
Short-term availability

Code	Seals
N	**NBR**
V	**FPM**

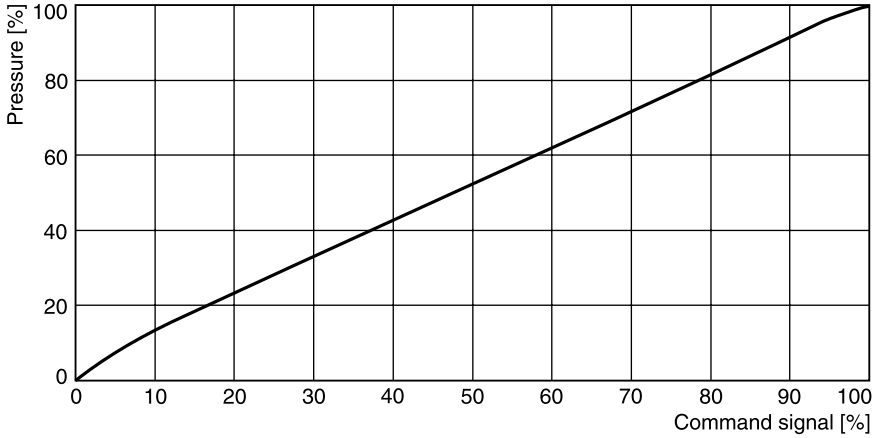
Please order plugs separately, see chapter 4, accessories.
Parametrizing cable OBE → RS232, Item no. 40982923

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 recommended	[cSt] / [mm²/s] [cSt] / [mm²/s]	20 ... 400 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	[mm²]	7 x 1.0 overall braid shield
Cable length max.	[m]	50

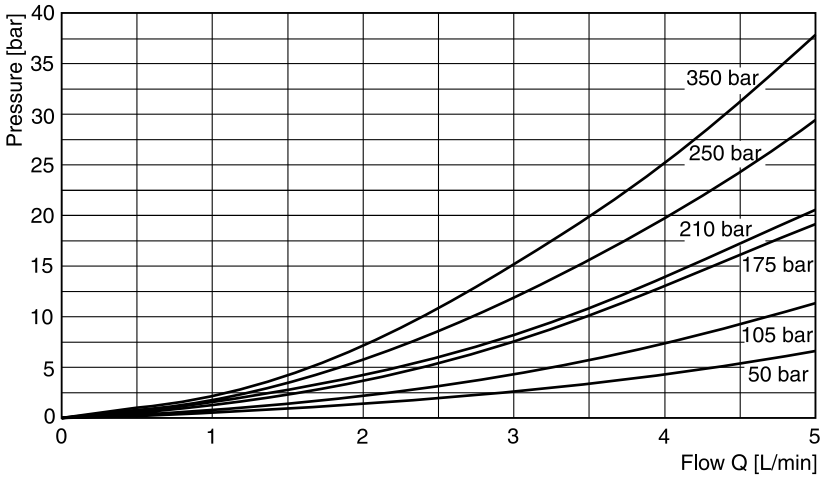
[1] If valves with onboard electronics are used in safety-related parts of control systems, in case the safety function is requested, the valve electronics voltage supply is to be switched off by a suitable switching element with sufficient reliability.

4

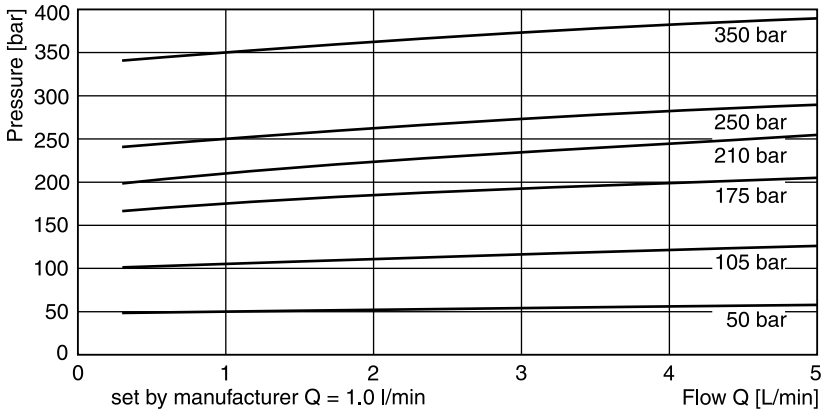
Signal/pressure curve



Min. adjusted pressure



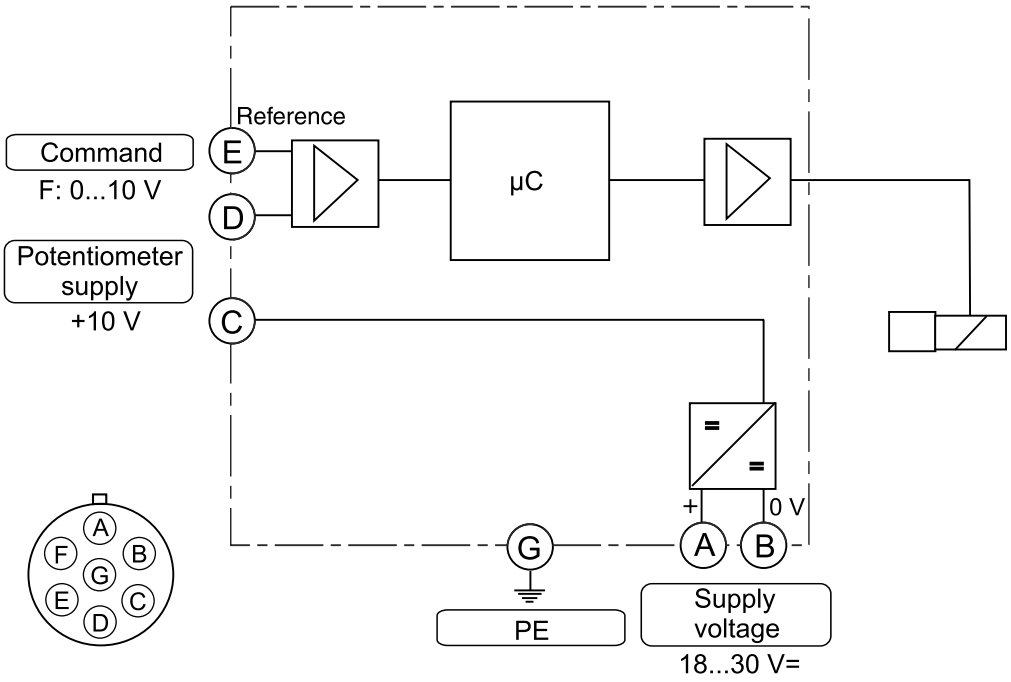
p/Q curve



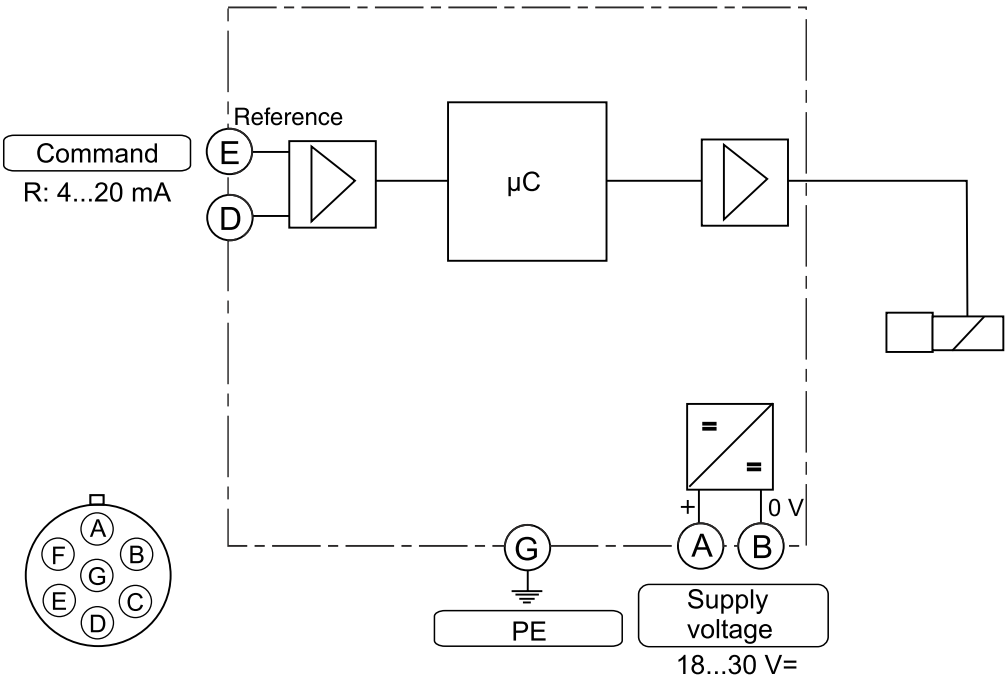
All characteristic curves measured with HLP46 at 50 °C.

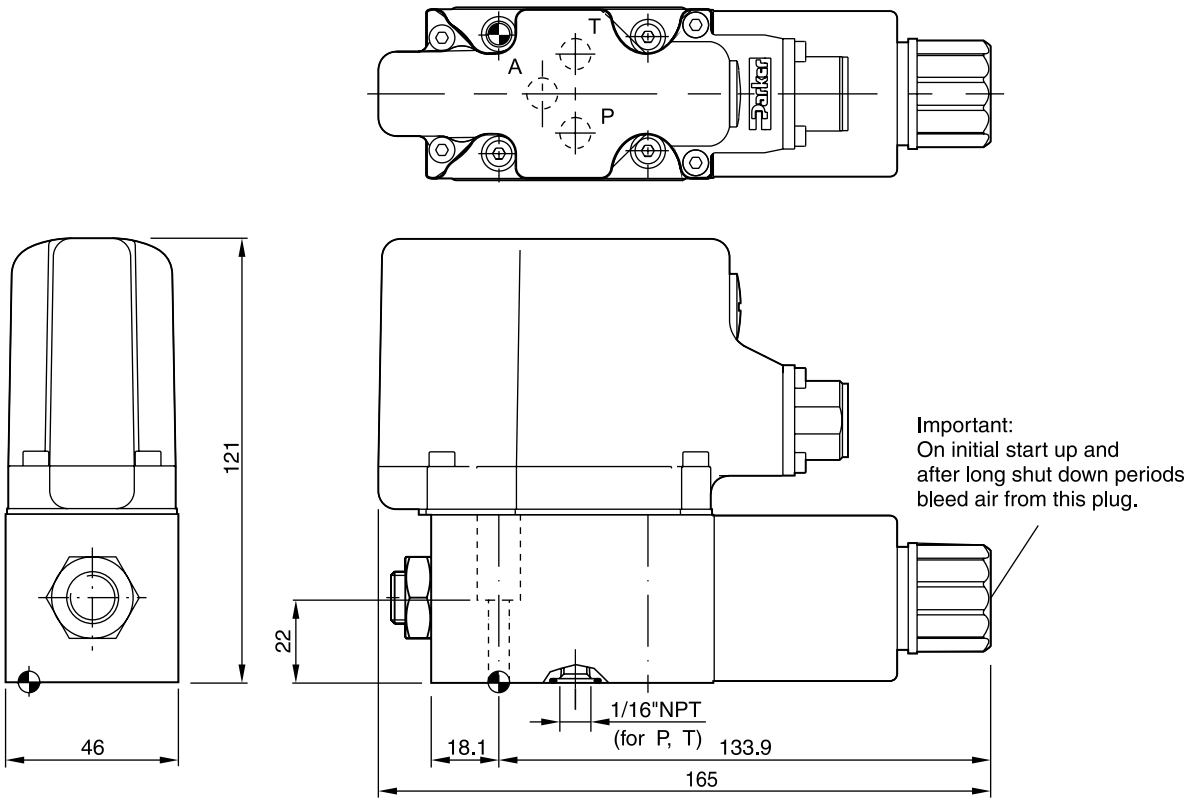
Block diagram

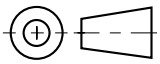
Code F
6 + PE acc. EN 175201-804



Code R
6 + PE acc. EN 175201-804







Surface finish	Bolt kit			Kit NBR	Kit FPM
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