

RE 64 551/05.03

Replaces : 03.00

**Pilot Control Device in Pedal Design for
the Remote Control of Directional Valves,
Pumps and Motors****Type 2 TH6 R, series 1X**

Type 2 TH 6 R

Features

- Progressive, sensitive operation
- Precise control
- Working ports underneath
- Control elements protected by rubber sleeve
- Plungers made of stainless steel, plunger guides made of brass; this prevents corrosion and seizing

Further remote controls and pilot control units :**• Hydraulic remote control**

- Pilot control device type 2TH6 (see RE 64 552) in sandwich plate design
- Pilot control device types 4 TH 6, 4 TH 5 and 4 TH 6N for arm rest installation (see RE 64 555)
- Pilot control device type TH 7, for instrument panel installation or in pedal design (see RE 64 558)
- Pilot control device type 4/5 THF 6 with end position locking (see RE 64 553)

• Electronic remote control

- Electronic remote control type THE6 for direct controlling of electrical or electro-hydraulic pilot operated actuators (see RE 29 771)



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Functional description, section

Hydraulic remote controls of type 2 TH 6 R... operate on the basis of direct operated pressure reducing valves.

They basically consist of foot pedal (1), two pressure reducing valves and housing (6).

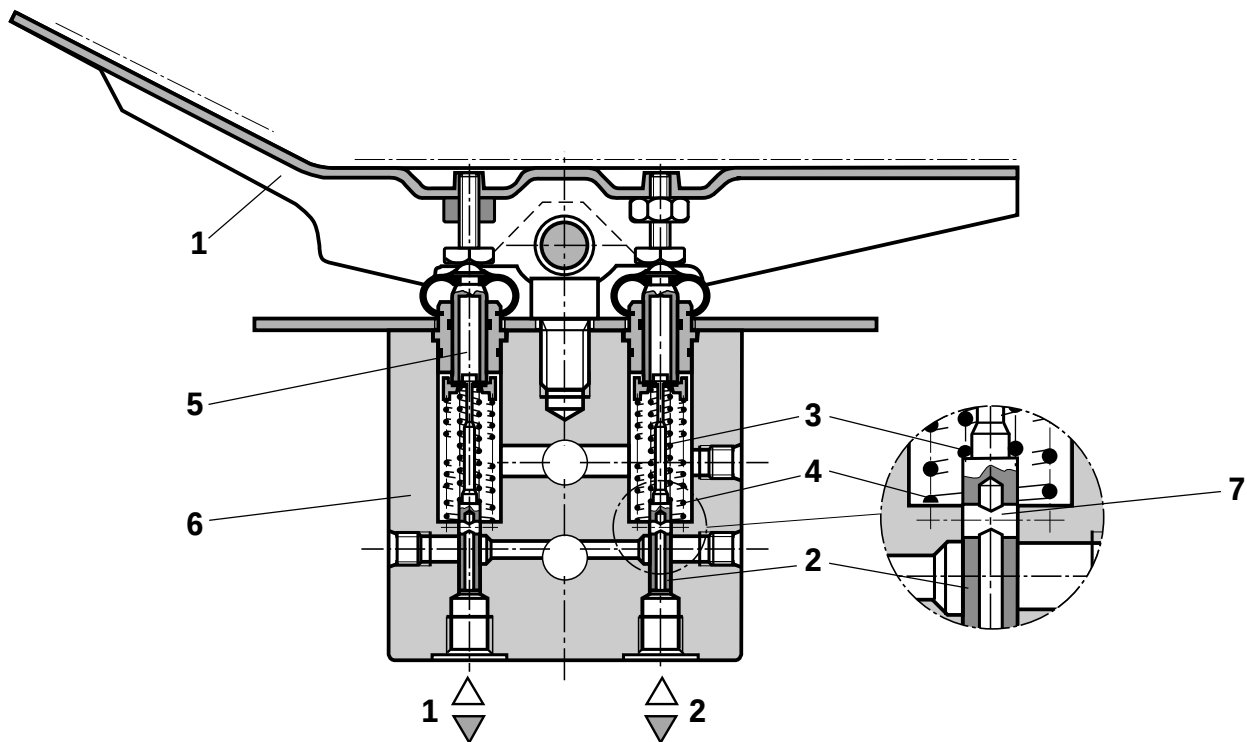
Each pressure reducing valve comprises control spool (2), control spring (3), return spring (4) and plunger (5).

At rest, the pedal is held in the neutral position by return springs (4). Ports (1,2) are connected to the tank port T via bore (7).

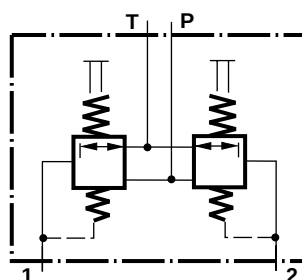
When foot pedal (1) is depressed, plunger (5) is pressed against the return spring (4) and control spring (3). Control spring (3) initially moves control spool (2) downwards and closes the connection between the relevant port and tank port T. At the same time, the relevant port is connected to port P via bore (7). The control phase starts as soon as control spool (2) finds its balance between the force of control spring (3) and the force that results from the hydraulic pressure in the relevant port (port 1 or 2).

Due to the interaction of control spool (2) and control spring (3), the pressure in the relevant ports is proportional to the stroke of plunger (5) and hence to the position of pedal (1).

This closed-loop pressure control in relation to the position of foot pedal (1) and the properties of control spring (3) allows a proportional hydraulic control of directional valves and high-response control valves for hydraulic pumps and motors.



Symbol, hydraulic



Technical data (for applications outside these parameters, please consult us!)

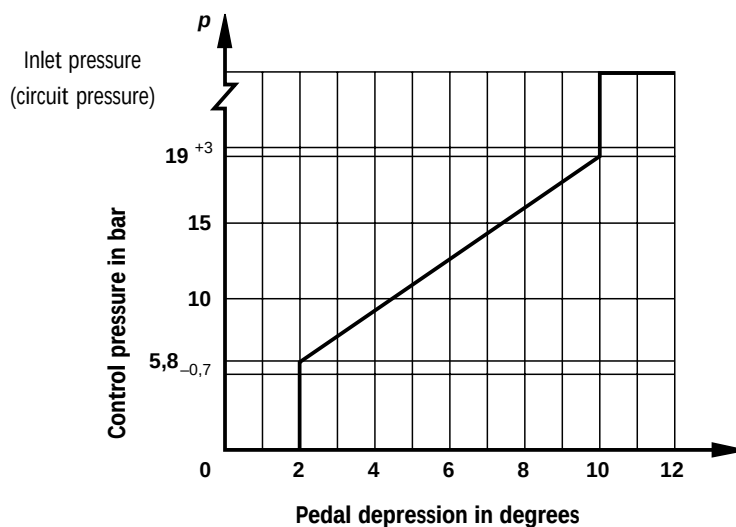
Hydraulic fluid		Mineral oil (HL, HLP) to DIN 51 524; phosphate ester (HFD-R)
Hydraulic fluid temperature range	°C	– 20 to + 80
Viscosity range	mm ² /s	10 to 380
Fluid cleanliness		Max. permissible degree of hydraulic fluid contamination according to NAS 1638 class 9. For this, we recommend a filter with a minimum retention rate of $\beta_{10} \geq 75$.
Max. inlet pressure	bar	max. 50
Counterpressure in port T	bar	max. 3
Pilot flow	l/min	max. 16
Hysteresis	bar	max. 1
Weight	kg	approx. 3,8
Max. permissible operating torque at foot lever	daNm	20

Application guideline

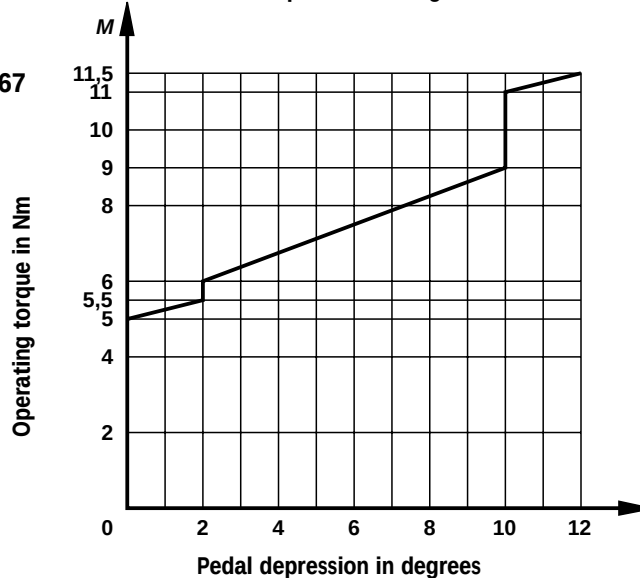
- Do not direct the jet of a pressure washing unit directly at the unit.

Characteristic curves : control ranges, operating torque

06 Control curve, identification no. 06



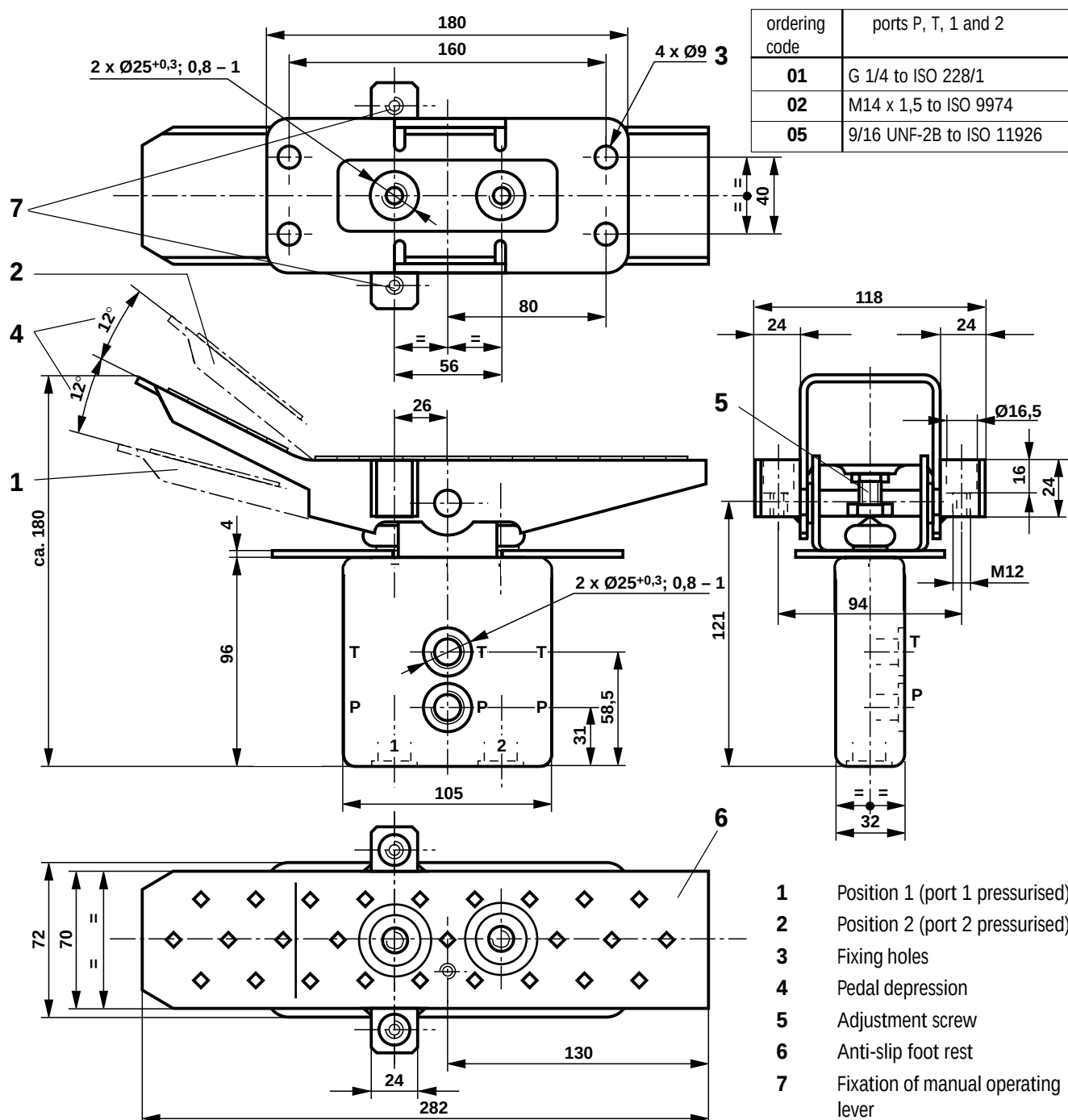
Operating torque for control curve 06, return spring 07199567 and inlet pressure of 50 bar



Ordering details

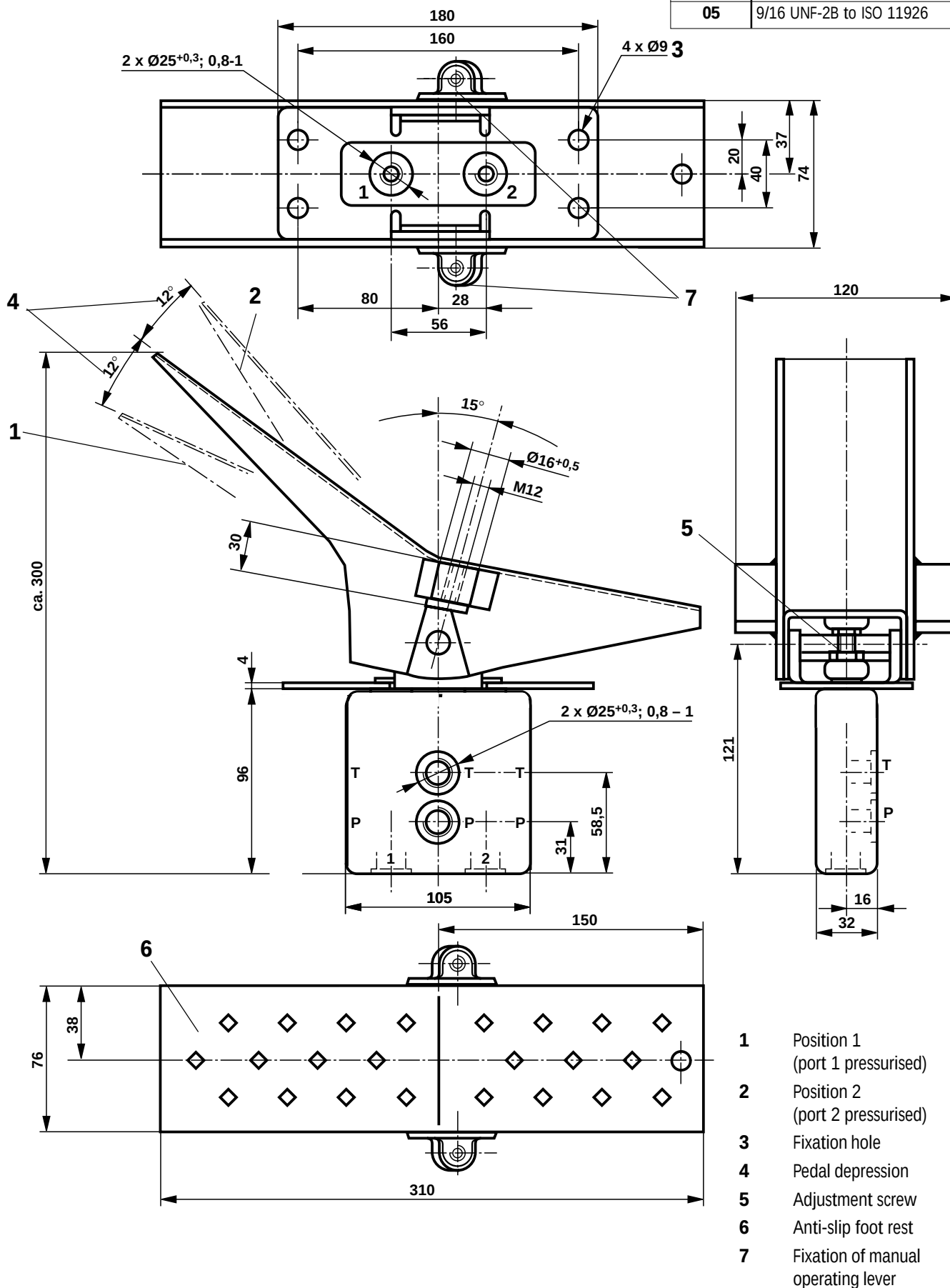
2	TH6	R		-1X		*
2 control ports	= 2					Further details in plain text
Pedal operation		= R				Connecting thread
Pedal version						
Bent pedal			= C			01 = G 1/4 pipe thread to standard ISO 228/1
Flat pedal			= P			02 = M 14 x 1,5 metric to standard ISO 9974
Standard control curve			= 06			05 = 9/16 UNF-2B to standard ISO 11926
Series 10 to 19				= 1X		Seals
(10 to 19: Installation and connection dimensions unchanged)						M = NBR seals, suitable for mineral oil (HL, HLP) to DIN 51 524
						V = FKM seals for phosphate ester (HFD-R)

Unit dimensions : flat pedal type "P" (Dimensions in mm)



Unit dimensions : bent pedal type "C" (Dimensions in mm)

ordering code	ports P, T, 1 and 2
01	G 1/4 to ISO 228/1
02	M14 x 1,5 to ISO 9974
05	9/16 UNF-2B to ISO 11926



Notes

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The details stated do not release you from the responsibility for carrying out your own assessment and verification. It must be remembered that our products are subject to a natural process of wear and ageing.

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