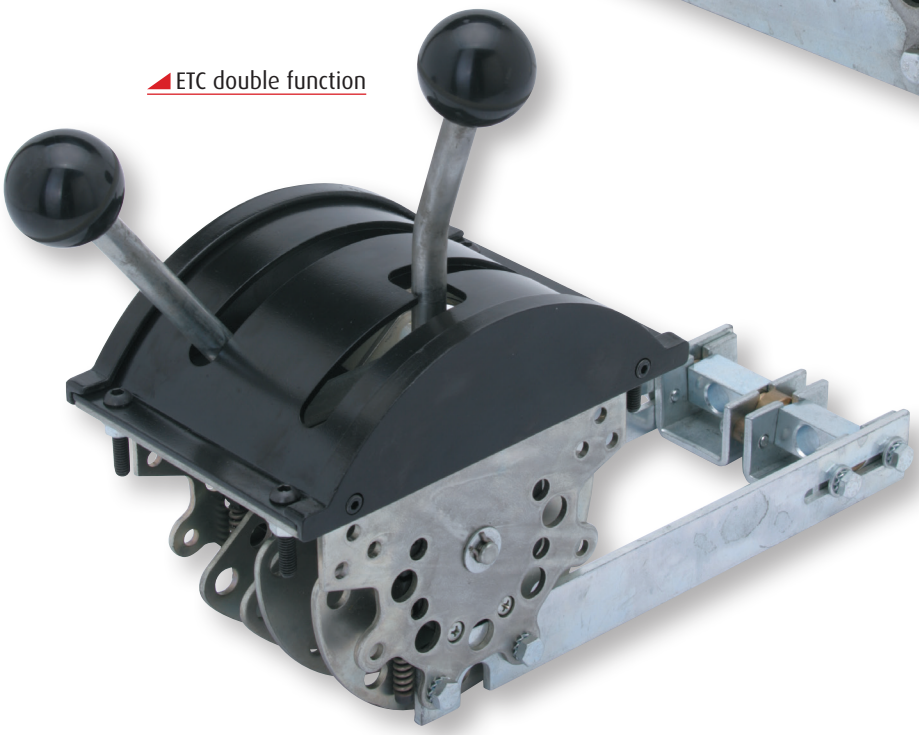
ETC
Mechanical control lever

ETC are robust and versatile levers which can combine multi functions for:

- throttle control
- command of hydrostatic pump
- gear shifter
- speed inversion

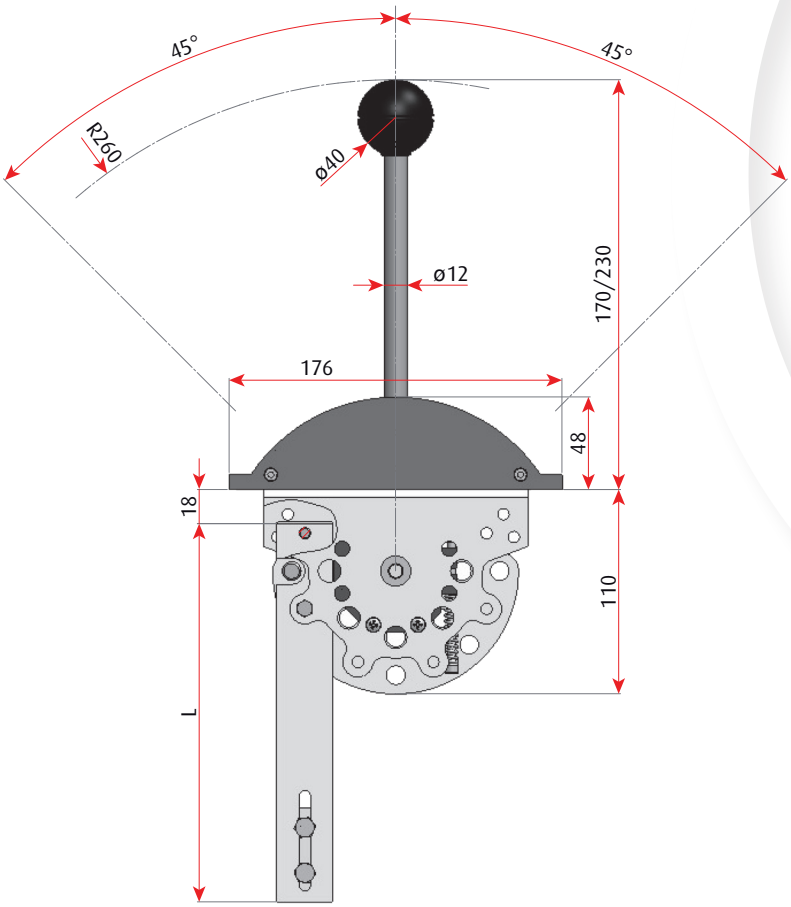
ETC is available in dozens of customizations, such as: single or double configuration, with or without friction. ETC can be plane or swinging. Its lever's movement is guided through a slot, whose paths is specific per each application. More than 25 mask paths are available as standard, furthermore the path can be designed according on specific customer's request.

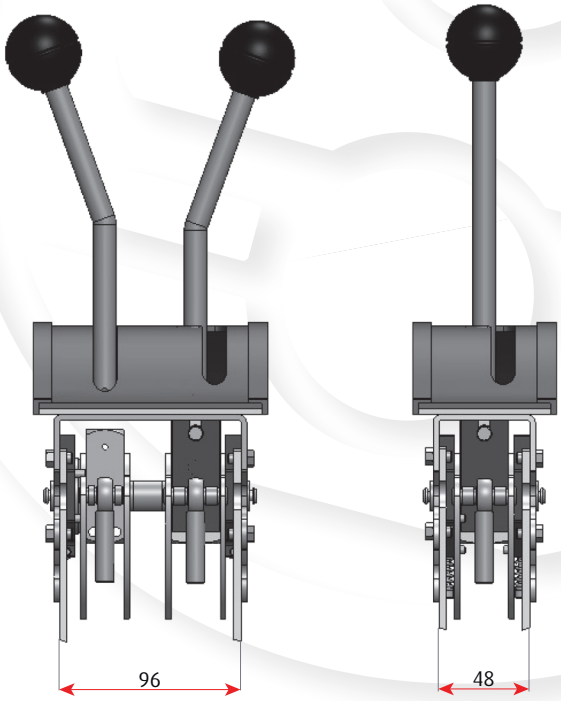
ETC single function

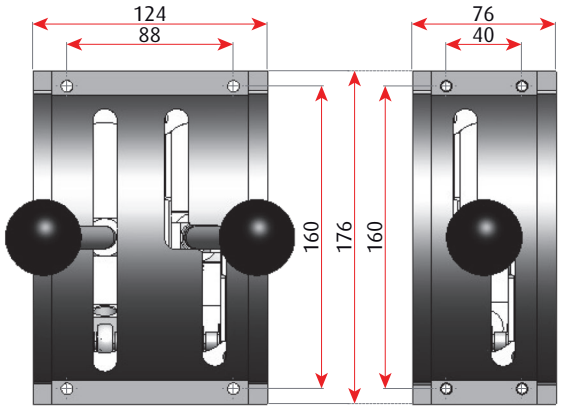


ETC double function

DIMENSIONS





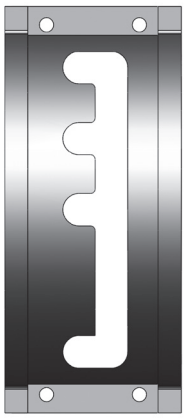


SPECIFICATION

- Lever's maximum bending angle: 45°
- Nominal working force (on the cable): 1500 N
- Gear ratio: 8:1
- Fixing bracket lengths (standard): 200, 252 and 310 mm
- Cables which can be mounted on this lever: V6, V7, V8, 07, Flexball 70, Flexball 95
- Lengths of the lever (standard): 148 or 180 mm

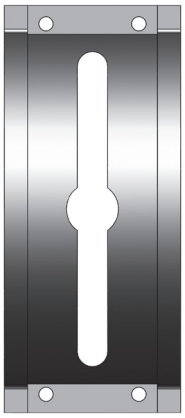
MASK'S PATH AND OTHER OPTIONS

The masks here below schematize different application cases and configurations.

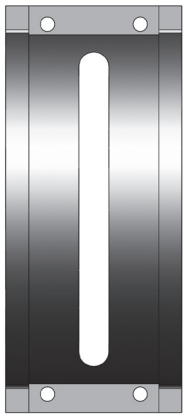


ETC with swinging lever configured for gear shifter application

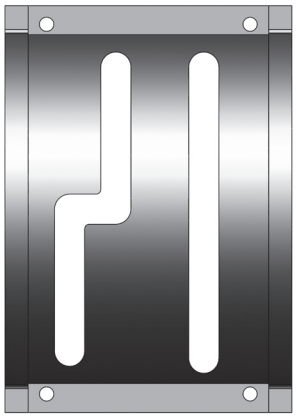
ETC with swinging lever configured for an hydrostatic pump application with speed direction inversion



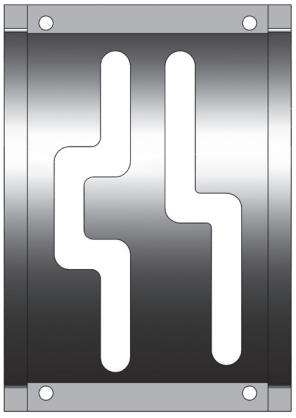
ETC with plane lever configured for an hydrostatic pump application with speed direction inversion and neutral detent



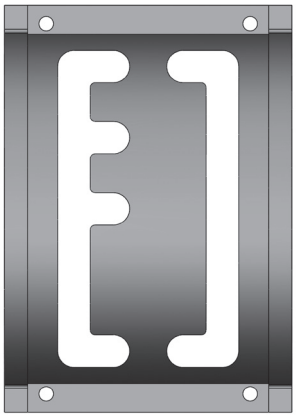
ETC with plane lever configured to command the throttle



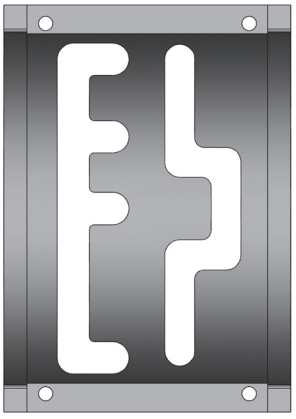
The first swinging lever commands the hydrostatic pump and the second plane lever commands the throttle



The first swinging lever is used to regulate the speed either forward or reverse and the second swinging lever to select the gear



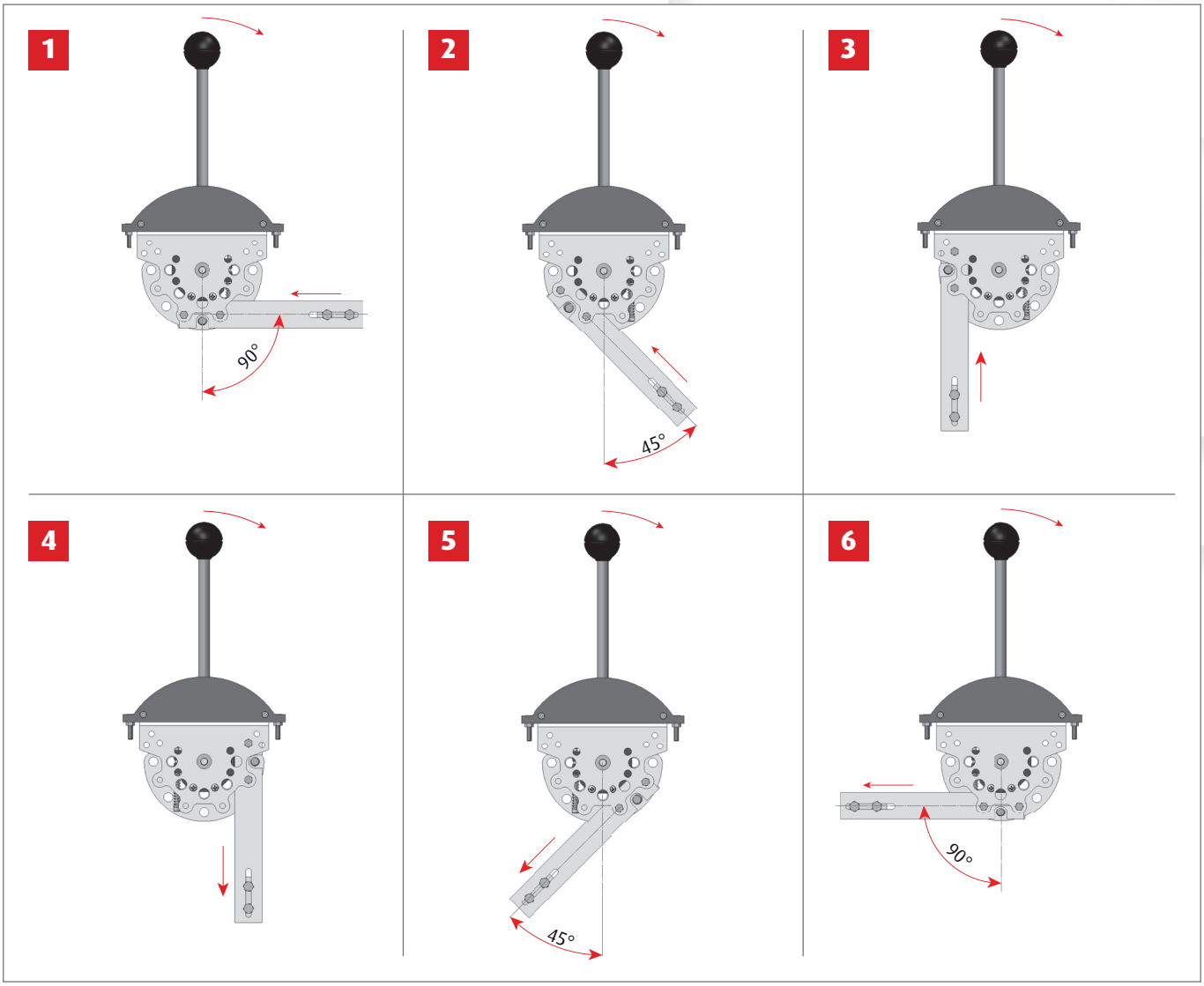
The first swinging lever is used to regulate the speed in one direction and the second swinging lever to select the gear



The first swinging lever is used to regulate the speed either forward or reverse and the second swinging lever to select the gear

POSITION OF FIXING CABLE BRACKET

Thanks to a different setting of the fixing cable bracket, it is possible to determine different mounting positions and different push-pull cable exits with respect to the lever (vertical, horizontal and 45 degrees). It follows here below the possible combinations.



CODES FOR ETC SINGLE FUNCTION WITH PLANE LEVER WITHOUT FRICTION

Length of lever	Eyebolt thread	Type of cable	Position of fixing cable bracket	Length of fixing cable bracket	Code
148 mm	M5	Flexball cable	X	Y	801-1-51XY
		Wire cable	X	Y	801-1-52XY
	M6	Flexball cable	X	Y	801-1-61XY
		Wire cable	X	Y	801-1-62XY
	M7	Flexball cable	X	Y	801-1-71XY
		Wire cable	X	Y	801-1-72XY
	M8	Flexball cable	X	Y	801-1-81XY
		Wire cable	X	Y	801-1-82XY
	M10	Flexball cable	X	Y	801-1-01XY
		Wire cable	X	Y	801-1-02XY
180 mm	M5	Flexball cable	X	Y	801-2-51XY
		Wire cable	X	Y	801-2-52XY
	M6	Flexball cable	X	Y	801-2-61XY
		Wire cable	X	Y	801-2-62XY
	M7	Flexball cable	X	Y	801-2-71XY
		Wire cable	X	Y	801-2-72XY
	M8	Flexball cable	X	Y	801-2-81XY
		Wire cable	X	Y	801-2-82XY
	M10	Flexball cable	X	Y	801-2-01XY
		Wire cable	X	Y	801-2-02XY

Notes:

- "X" (which varies from 1 ot 6) identifies the position of fixing cable bracket. Please refer to "Position of fixing cable bracket" at page 64 of "Industrial Products" catalogue
- "Y" identifies the length of the fixing cable's bracket (see page 62 of "Industrial Products" catalogue). Y can be: 1 = 200 mm, 2 = 252 mm, 3 = 310 mm
- The same control is available with friction. In this case for example:
  - 801-1-5131: ETC single, lever length 148, eyebolt thread M5 for Flexball cable, bracket in position 3 with a length of 120 mm; without friction
  - 802-1-5131: ETC single, lever length 148, eyebolt thread M5 for Flexball cable, bracket in position 3 with a length of 120 mm; with friction

CODES FOR ETC SINGLE FUNCTION WITH SWINGING LEVER WITHOUT FRICTION

Length of lever	Eyebolt thread	Type of cable	Position of fixing cable bracket	Length of fixing cable bracket	Code
148 mm	M5	Flexball cable	X	Y	803-1-51XY
		Wire cable	X	Y	803-1-52XY
	M6	Flexball cable	X	Y	803-1-61XY
		Wire cable	X	Y	803-1-62XY
	M7	Flexball cable	X	Y	803-1-71XY
		Wire cable	X	Y	803-1-72XY
	M8	Flexball cable	X	Y	803-1-81XY
		Wire cable	X	Y	803-1-82XY
	M10	Flexball cable	X	Y	803-1-01XY
		Wire cable	X	Y	803-1-02XY
180 mm	M5	Flexball cable	X	Y	803-2-51XY
		Wire cable	X	Y	803-2-52XY
	M6	Flexball cable	X	Y	803-2-61XY
		Wire cable	X	Y	803-2-62XY
	M7	Flexball cable	X	Y	803-2-71XY
		Wire cable	X	Y	803-2-72XY
	M8	Flexball cable	X	Y	803-2-81XY
		Wire cable	X	Y	803-2-82XY
	M10	Flexball cable	X	Y	803-2-01XY
		Wire cable	X	Y	803-2-02XY

Notes:

- "X" (which varies from 1 ot 6) identifies the position of fixing cable bracket. Please refer to "Position of fixing cable bracket" at page 64 of "Industrial Products" catalogue
- "Y" identifies the length of the fixing cable's bracket (see page 62 of "Industrial Products" catalogue). Y can be: 1 = 200 mm, 2 = 252 mm, 3 = 310 mm
- The same control is available with friction. In this case for example:
  - 803-1-5131: ETC single, lever length 148, eyebolt thread M5 for Flexball cable, bracket in position 3 with a length of 120 mm; without friction
  - 804-1-5131: ETC single, lever length 148, eyebolt thread M5 for Flexball cable, bracket in position 3 with a length of 120 mm; with friction

CODES FOR ETC DOUBLE FUNCTION

First lever	Second lever	Code
Plane	Plane	8811-Z
	Plane + friction	8812-Z
	Swinging	8813-Z
	Swinging + friction	8814-Z
Plane + friction	Plane	8821-Z
	Plane + friction	8822-Z
	Swinging	8823-Z
	Swinging + friction	8824-Z
Swinging	Plane	8831-Z
	Plane + friction	8832-Z
	Swinging	8833-Z
	Swinging + friction	8834-Z
Swinging + friction	Plane	8841-Z
	Plane + friction	8842-Z
	Swinging	8843-Z
	Swinging + friction	8844-Z

Note:

- "Z" is a two digit number (from 01 to 13) which identifies possible configuration of the ETC

CABLES WHICH FIT WITH LEVER ETC

- Both push-pull cables and Flexball cables can be connected to lever ETC
- The connection between the lever ETC and the cable is always through an eyebolt (see page 24 of "Industrial Products" catalogue)
- Cable's engine side can be configured with any shape as shown at page 16 of "Industrial Products" catalogue

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