



	FGR0	FGR1
GENERAL CHARACTERISTICS		
CASE	Self-extinguishing thermoplastic material	Thermoplastic glass fiber reinforced material
PROTECTION CLASS	IP67 - IEC / EN 60529	IP65 - IEC / EN 60529
RATIO	1:12, 1:25, 1:33, 1:50, 1:75, 1:100, 1:150, 1:200, 1:400	1:12, 1:33, 1:50, 1:75, 1:100, 1:150, 1:200, 1:400
DIRECT RATIO	1:25, 1:50	1:50, 1:75, 1:100
SHAFT TYPE	Stainless steel mounted on self-lubricating bush protected by sealing rings on both sides Double overhang shaft version available on request	Stainless steel Double overhang shaft version available on request
FIXING TYPE	Base fixing Front fixing (flanged)	Base fixing Front fixing (flanged)
MICRO SWITCHES	Nr 4 max - micrometric adjustment of roller lever (long life)	Nr 4 max - micrometric adjustment of roller lever (long life)
CAM BLOCK	Self-lubricating with transparent support for easier cam viewing	Self-lubricating with transparent support for easier cam viewing
CABLE ENTRY	M16 (max 2)	M16 or M20 (max 4)
AMBIENTAL TEMPERATURE	Operating: -25°C ... +70°C Storage: -30°C ... +70°C	Operating: -25°C ... +70°C Storage: -30°C ... +70°C
ELECTRICAL CHARACTERISTICS		
MICRO SWITCHES CONNECTIONS	MFI.3 - 6.3 x 0.8 faston terminal MFI.3STP - Screws M3 for wire 1.5 mm ² with plate protection	MFI.7 - 6.3 x 0.8 faston terminal
STANDARD CONFORMITY	IEC / EN 61058-1, UL 1054, EN 60204-1, EN 60947-1, EN 60947-5-1	IEC / EN 61058-1, UL 1054, EN 60204-1, EN 60947-1, EN 60947-5-1
MARKING	CE, cRUus, CCC, EAC	CE, cRUus, CCC, EAC
RATED INSULATION VOLTAGE - U_i	250V	250V
RATED THERMAL CURRENT - I_{th}	8A	8A
RATED OPERATING CURRENT	Resistive Load	8A - 250 V AC
	Inductive Load	3A - 250 V AC
RATED IMPULSE WITHSTAND VOLTAGE - U_{imp}	1500 V	1500 V
POSITIVE OPENING	NC positive opening (⊖)	NC positive opening (⊖)
CONTACT BLOCKS	1NC - 1 NO changeover snap action / silver plated - self cleaning	1NC - 1 NO changeover snap action / silver plated - self cleaning
PROTECTION CLASS	IP40 (IP00 terminals) in according to EN 60529	IP40 (IP00 terminals) in according to EN 60529
OPTIONS		
DOUBLE OVERHANG SHAFT	Available	Available
POTENTIOMETER	According to customer request	-
ENCODER	-	-
CAM SHAPES	5 different cam shapes	5 different cam shapes
PINIONS	On request	20 different pinion shapes on request

Rotary gear limit switch

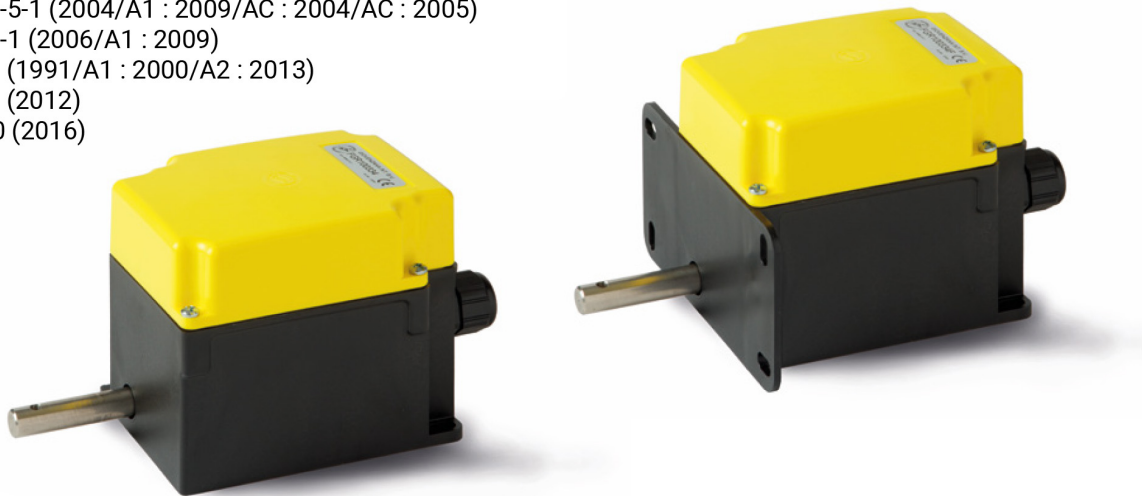
The **FGR1** is a device used to control and measure the movement of industrial machines by measuring the rotation angle and/or counting the number of revolutions of a shaft.

General features

- Different versions available:
 - base fixing;
 - front fixing;
 - with double overhang shaft.
- IP65 Protection class.
- Available in different ratios: 1:12, 1:33, 1:50, 1:75, 1:100, 1:150, 1:200, 1:400 (optional on request).
- Available in direct ratio: 1:50, 1:75, 1:100 (others direct ratio on request).
- Available on request with pinions.
- Micro switches:
 - device available with 4 microswitches;
 - the working point is adjustable with a calibration screw;
 - each switch has 1NO + 1NC inside;
 - positive opening for NC contacts.

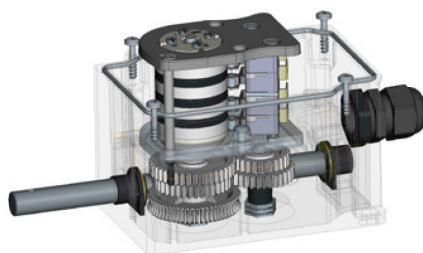
Compliance and certifications

- 2014/35/UE - 2014/33/UE - 2011/65/UE - 2015/863/UE
- EN 60947-1 (2007/A1 : 2011/A2 : 2014)
- EN 60947-5-1 (2004/A1 : 2009/AC : 2004/AC : 2005)
- EN 60204-1 (2006/A1 : 2009)
- EN 60529 (1991/A1 : 2000/A2 : 2013)
- EN 50581 (2012)
- IEC 63000 (2016)

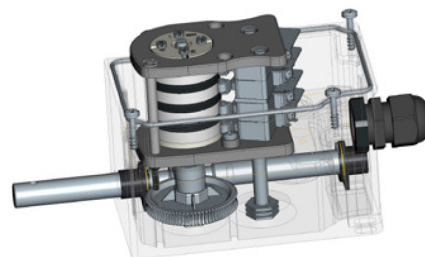


Base Fixing versions

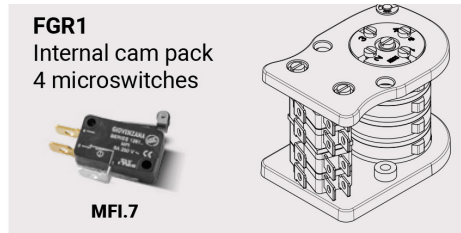
X-ray views



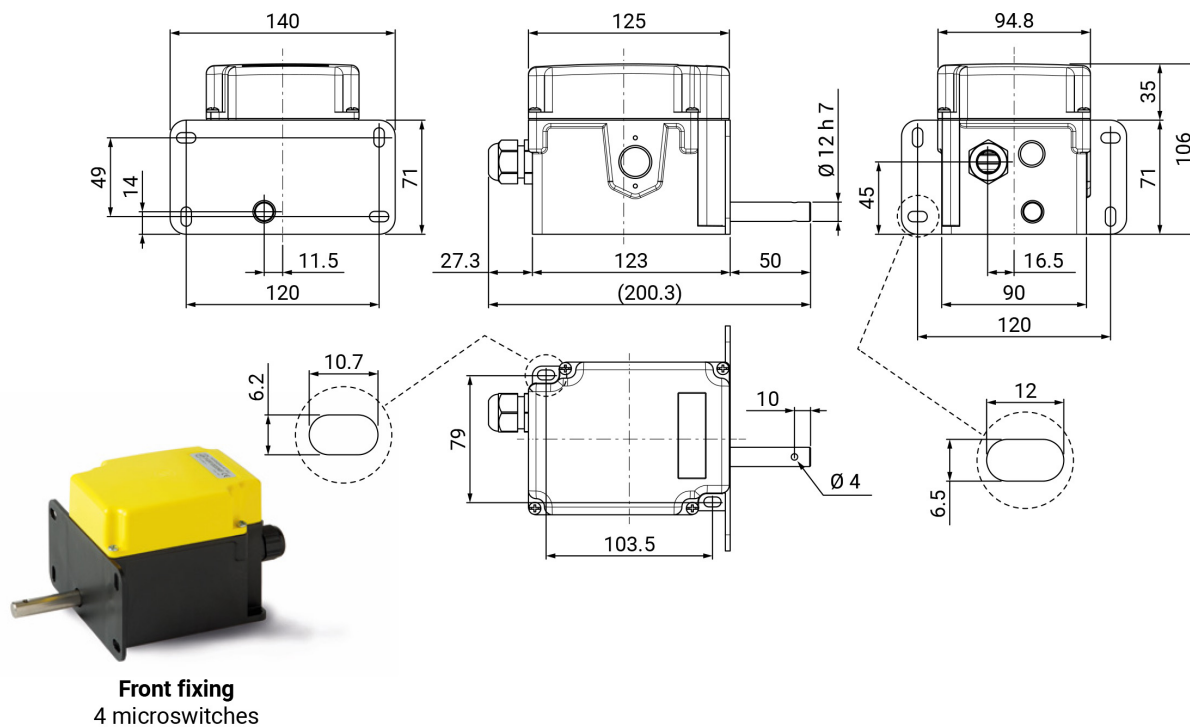
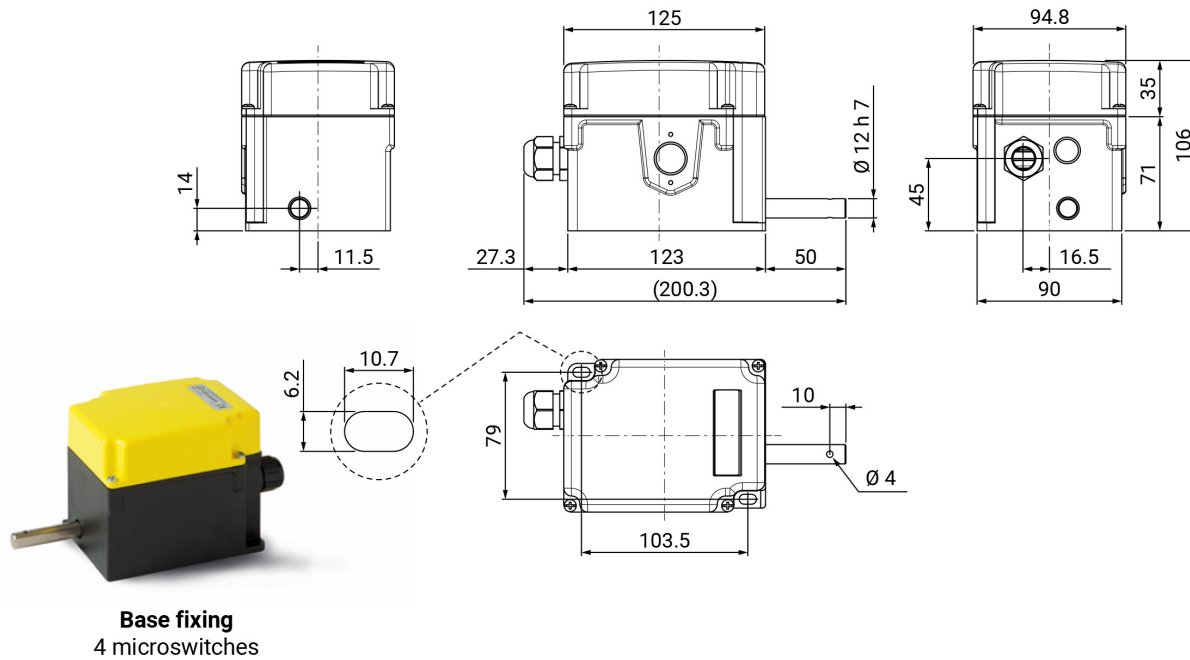
4 microswitches



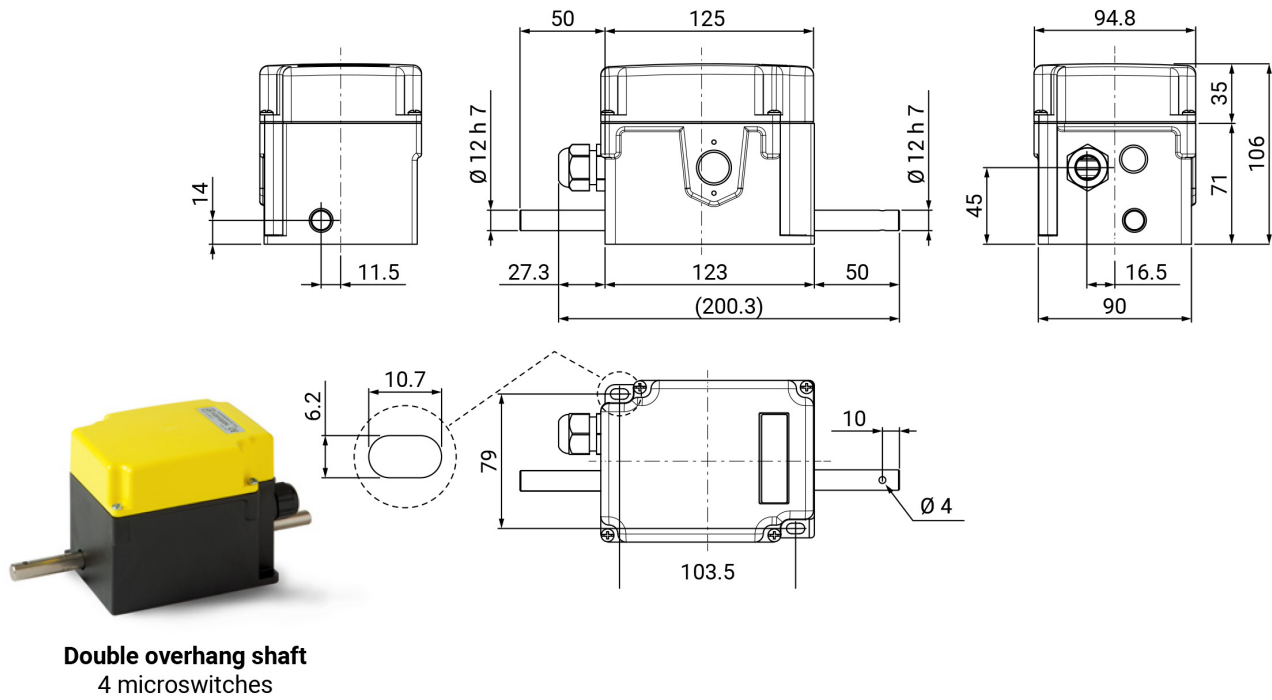
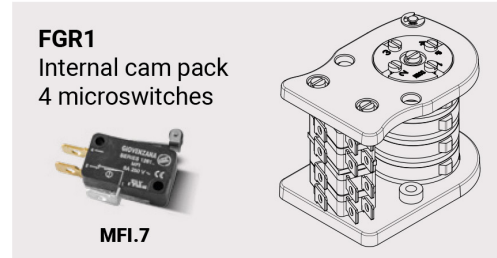
4 microswitches
Direct Ratio



Available codes



Available codes



Coding system

The **FGR1** coding system is very clear: each block of digits identifies a specific function. The code provides all the informations that can be used to specify each customization.

FGR1	0012/0400	0-2-3-4	B	F	-	01
Series	Nr. gear ratio	Micro/cams	Shaft type	Flange	-	Options
	Between shaft and cam pack output.	0 = None 2 = Nr. 2 3 = Nr. 3 4 = Nr. 4	Blank = Single shaft B = Double overhang shaft	Blank = Without F = With flange	-	Progressive versions
STANDARD ENCODING						OPTIONAL ENCODING

Available codes

Base fixing
4 microswitches



FGR100124
FGR100334
FGR100504
FGR100754
FGR101004
FGR101504
FGR102004
FGR104004

Front fixing
4 microswitches



FGR100124F
FGR100334F
FGR100504F
FGR100754F
FGR101004F
FGR101504F
FGR102004F
FFGR104004F

Double overhang shaft
4 microswitches



FGR100124B
FGR100334B
FGR100504B
FGR100754B
FGR101004B
FGR101504B
FGR102004B
FGR104004B

AVAILABLE CONTACT TYPES

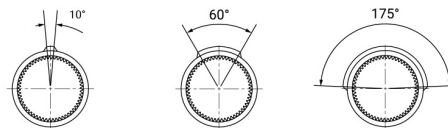


MFI.7

MFI.7STP

On request

AVAILABLE CAM SHAPES



16020081

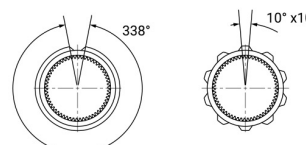
16020097

16020094

A (10°) - STANDARD

B (60°)

C (180°)



16020095

16020093

D (opposite)

E (10 tips)