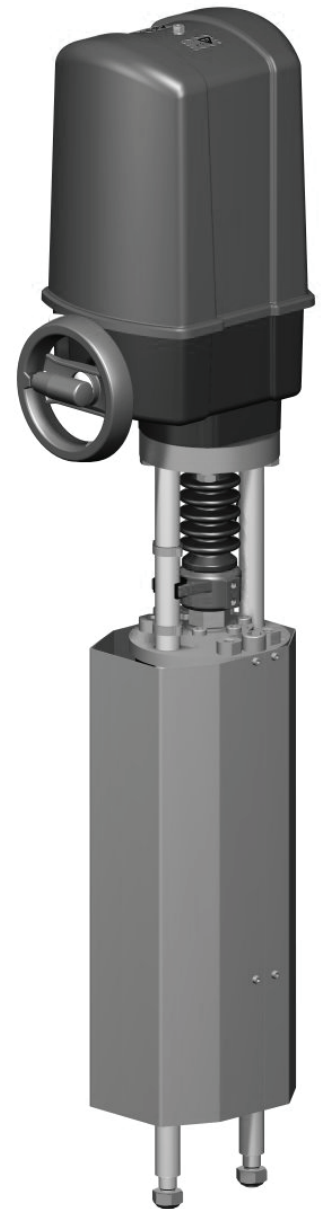
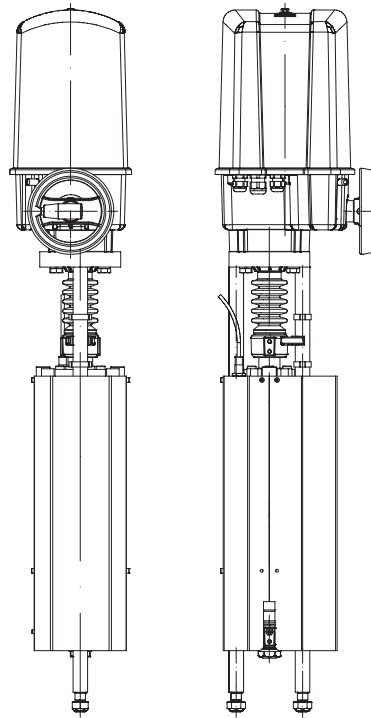


Electric thrust actuator with fail-safe function ARI-PREMIO® Plus 2G

Electric thrust actuator
with fail-safe function
ARI-PREMIO® Plus 2G
9 kN



Features

- 2 torque switches
- Max. permissible ambient temperature
0°C to +50°C (32°F to +122°F)
(other temperatures on request)
- Enclosure IP 65
- Additional devices available
- Travel indicator
- Inductive switch for detecting the triggered fail-safe function
- Automatic clamping of the spring unit to restore the fail-safe function

Working principle

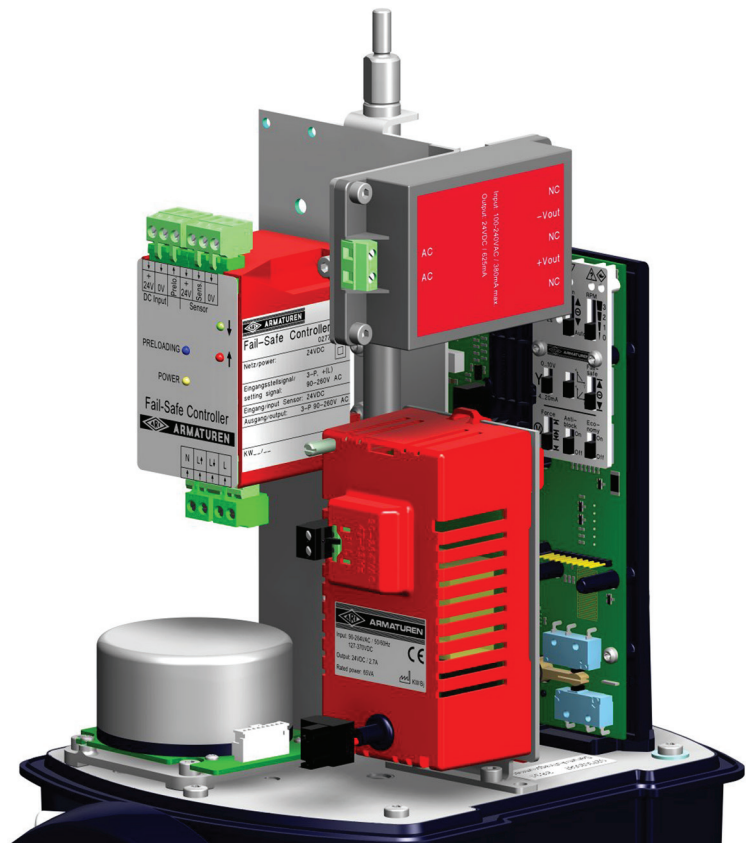
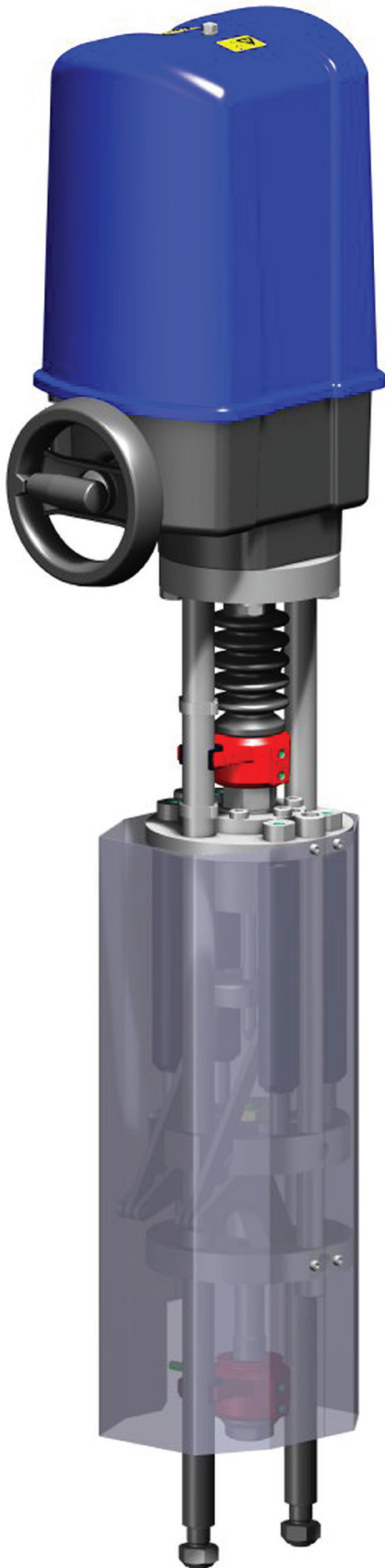
The fail-safe unit, which is located between the actuator and the valve, consists of four gas springs that are held over a toggle mechanism and an electro-adhesive magnet during normal operation. The fail-safe unit works in normal operation without any moving parts and virtually no wear. In control mode the actuator closes up the valve with 15kN thrust force.

Putting into operation / Voltage return

When connecting the power supply, the fail-safe unit is tensioned over the built-in electronics unit. Since the actuator during the clamping process does not follow the control signal, the fail-safe controller provides a signal for the clamping process for the parent control (refer to wiring diagram output "Prelo"). After the fail-safe unit is cocked, the actuator goes to the normal operation. The scope of operation of the actuator and the electronics respectively are available with all the variables. Further informations about the individual functions refer to quick guide or operating and installation instructions.

Power failure / mains interruptions of the fail-safe controller

Upon interruption of power supply for the fail-safe controller triggers the electro-adhesive magnet and the fail-safe unit moves the driving spindle. Depending on the travel and the temperature achieved the fail-safe unit 9 kN closing force (refer to table at "Technical Data").



Technical data

Type		ARI-PREMIO® Plus 2G 9 kN
Thrust force / Closing force	kN	9 kN (at 50 mm)
Closing direction		extending
Travel distance max.	mm	50 mm
Duty classification acc. to EN 60034-1		S3 - 80% ED / max. 1200 c/h (at +70°C)
Control speed	mm/s	0,20 / 0,31 / 0,38 / 0,79 adjustable
Fail-safe speed	mm/s	100 mm/s
Supply voltage	V	24 V AC/DC
Motor type		BLDC (Brushless DC motor)
Power consumption	VA	max. 65 (depends on the operating speed)
Torque switch		2 pcs. included internally
Enclosure EN 60529		IP 65
Max. storage temperature	°C	-20 °C ... +80 °C
Max. permissible ambient temperature	°C	0 °C ... +50 °C other temperatures on request (For outdoor use and sub-zero temperatures, a heating is recommended!)
Hand operating device		Yes (engageable)
Operation		optional: 3-point: 12 V DC/AC to 250 V DC/AC 0 to 10 V DC: load resistance 500 kOhm resolution 12 Bit 4 to 20 mA DC: load resistance 125 Ohm resolution 12 Bit
Max. cable cross section		Supply voltage: 2,5 mm ² 3-step input: 2,5 mm ² Input signals: 2,5 mm ²
Mounting position		Any, except: motor not hanging downwards The actuator must be supported at horizontal orientation!
Characteristics at control signal failure		adjustable with slide switch: OPEN, STOP, CLOSE
Gear lubricant		Molyduval Valenzia H2
Weight	kg	27 kg
Additional voltage		refer to page 4
Accessories		refer to page 4 - 5

Additional voltage

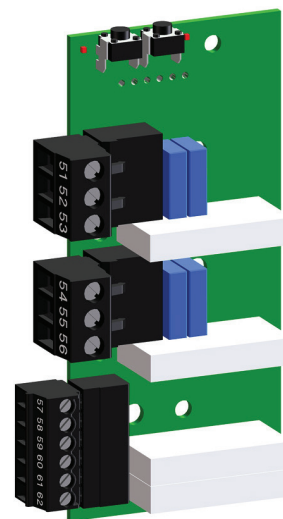
Switching power supply for ARI-PREMIO® Plus 2G 9 kN		
Voltage	V - Hz	90-264 V AC 47-63 Hz 127-370 V DC
Power consumption	VA	max. 65



Accessories

Type	ARI-PREMIO® Plus 2G 9 kN	
Binary feedback	Type Relay board	<ul style="list-style-type: none"> • 2 intermediate positions, <ul style="list-style-type: none"> - to set by switch, - changeover contacts 250 V, 3 A ohm resistive load, 6 A inductive load • 1 failure signal and 1 warning signal, <ul style="list-style-type: none"> - changeover contacts 30 V AC/DC, 2A
Electronic position indicator	Type Analog output card	<ul style="list-style-type: none"> • analogue output for position feedback, • 4-20 mA switchable to 0-10V • invertable • galvanic isolation between the mains voltage and feedback signal • active
Heating	Heating resistor	<ul style="list-style-type: none"> • 230 V AC, 115 V AC, 24 V AC/DC; 15 W automatic switching circuit

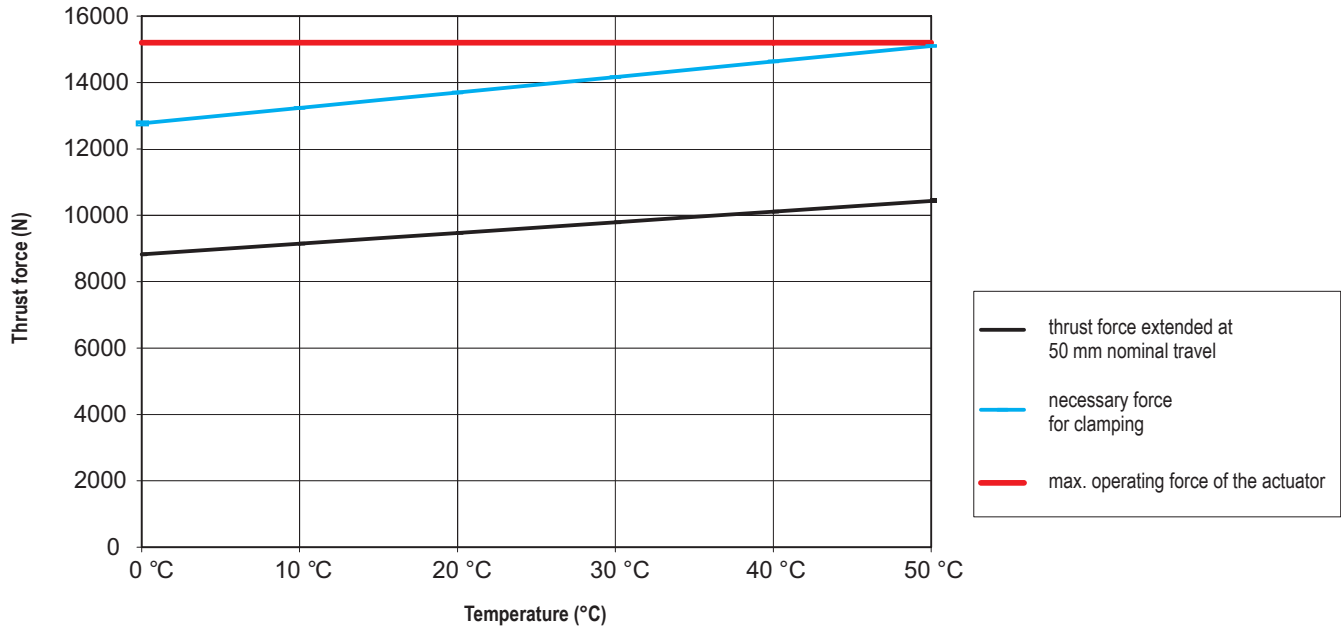
Relay board					
Relais (potential-free changeover contact)		1 (open)	1 (close)	3 warning	4 failure
Operating voltage	U_B max.	250 V, 3 A ohm resistive load, 6 A inductive load		30 V AC/DC, 2A	
max. cable cross section		2,5 mm ²		1,5 mm ²	
Contact material		Gold			
Storage temperature		-40 °C ... +85 °C			
Operating temperature		-40 °C ... +85 °C (Note temperature range for the entire actuator!)			
Features:					
<ul style="list-style-type: none"> • Setting of the switching points over push buttons • zero-potential changeover contacts • 2 intermediate positions or end positions • 1 Collective failure message at: <ul style="list-style-type: none"> - Control signal failure - Position can not be reached (Motor-/gear failure) - Blocking (actual) - Actuator is not initialised - Voltage failure • 1 Collective warning message at: <ul style="list-style-type: none"> - Hand operating device - Blockage (identified) - Position can not be reached - Maintenance - Internal temperature exceeded - ED management active - Silent running - to small travel during initialization 					



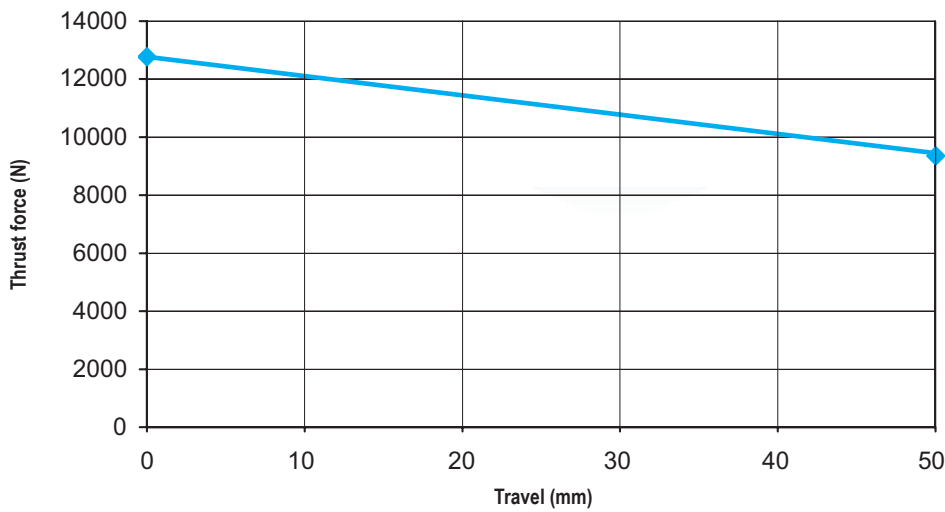
Analog output card			
Output control signal	Y_U	0 -10 V DC Measuring resistance (load resistance) Signal resolution	max. 2 kOhm 12 Bit
Output control signal	Y_I	4 -20 mA DC, active Measuring resistance (load resistance) Signal resolution	max. 500 Ohm 12 Bit
Features:			
• for position transmitter			



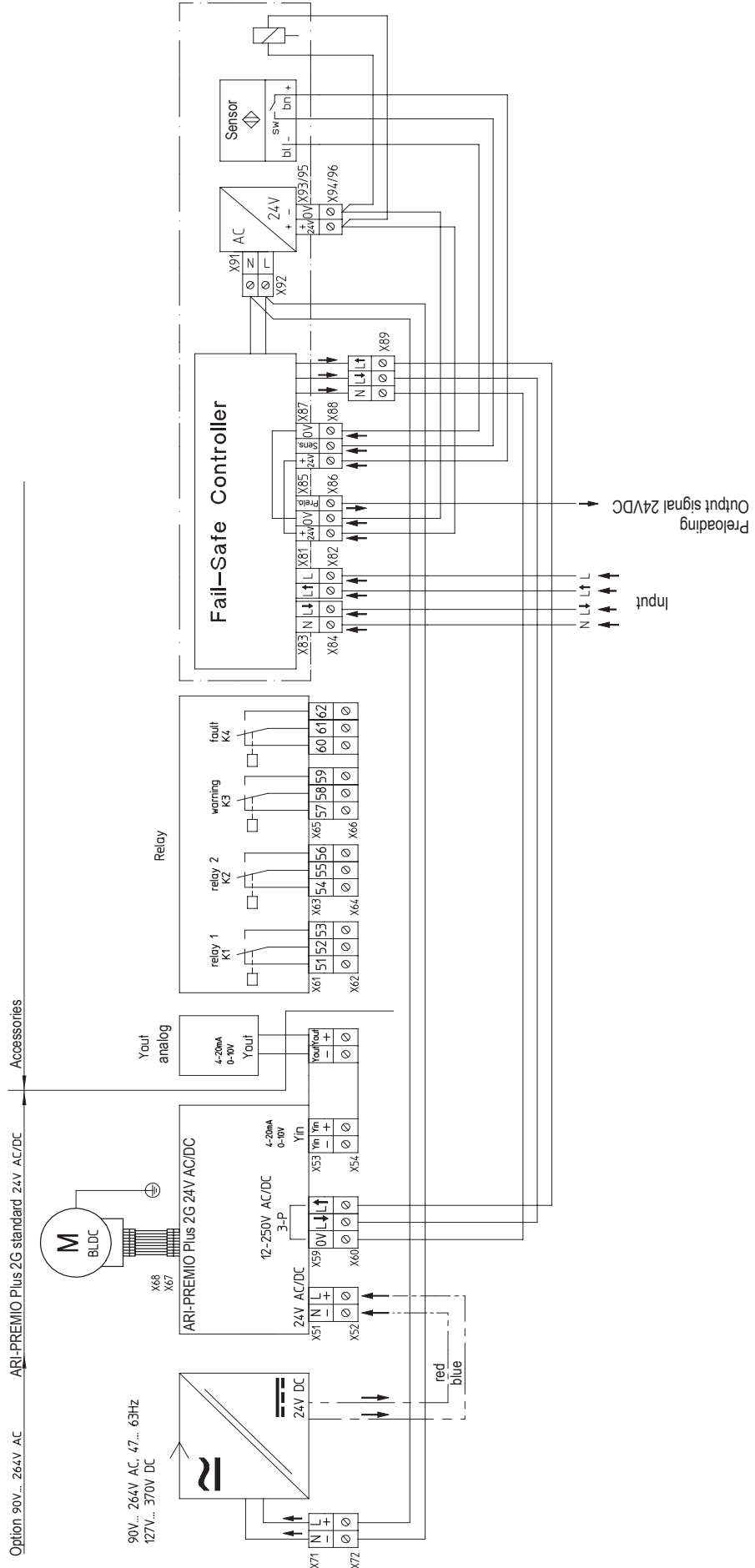
Thermal characteristic: Gas springs of the fail-safe unit



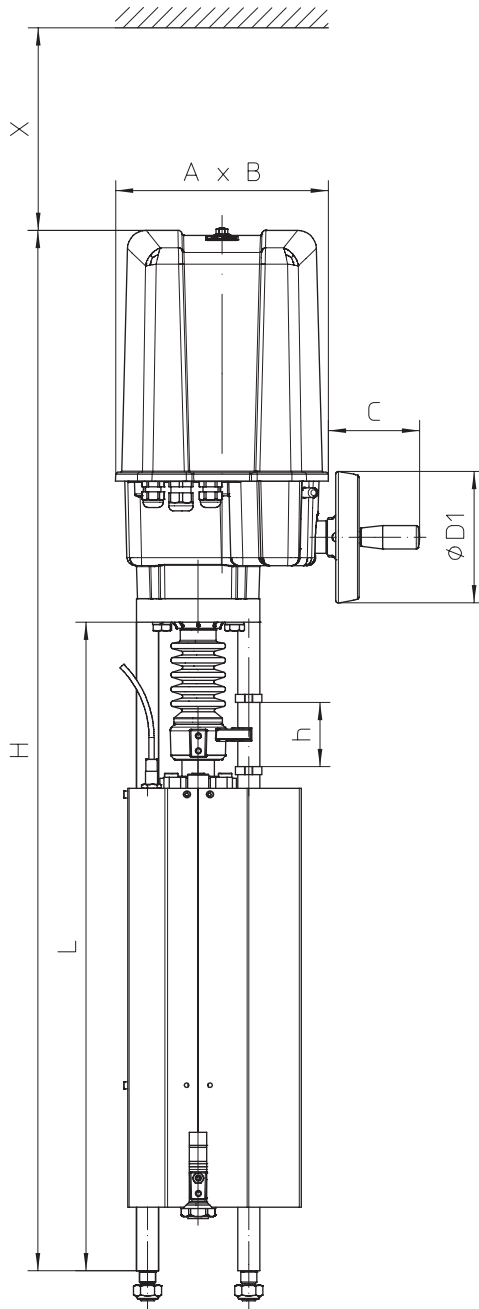
Fail-safe force depending on the travel (at 0°C)



Wiring diagram: ARI-PREMIO® Plus 2G 9 kN



- HZ Heating resistor
- Relay Relay board
- Y out Analog output card



9 kN
with fail-safe function
Nominal travel 50 mm

		9 kN
A	(mm)	210
B	(mm)	184
C	(mm)	90
Ø D1	(mm)	130
X	(mm)	200
H	(mm)	1029
h (Nominal travel)	(mm)	50
L (Column)	(mm)	641



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