

ok2phaseout IR470LY(-2)

Phase out notification

Reason for discontinuation

technological

Short description

Due to the discontinuation of the microcontroller A138xxx it is necessary to discontinue the IR470LY(-2) device series. Currently, the isoHV425 with AGH422 is available as successor device. Furthermore, the J410 device series will be available in the future as successor.

1 Exit plan

End of sales	01.01.2020
End of production	01.01.2022
End of service	01.01.2025
End of life	01.01.2025

Table 1.1: Exit plan

2 General information...

In principle, the IR470 can be replaced by the isoHV425. Since the devices have different designs, terminal assignments and technical data, the following must be observed.

2.1 Images

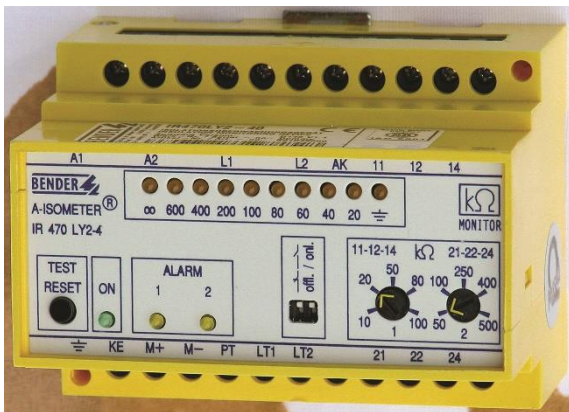


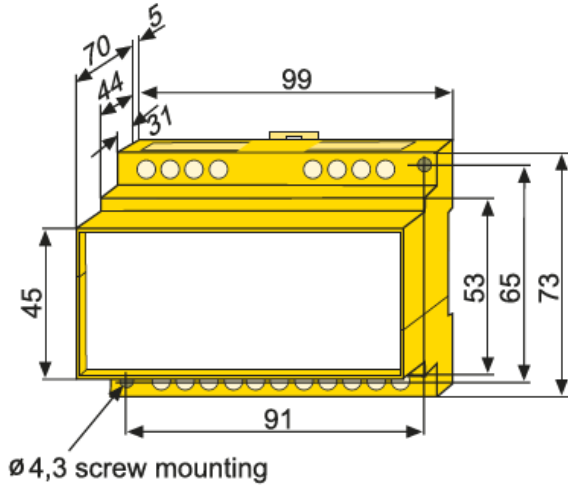
Image IR470



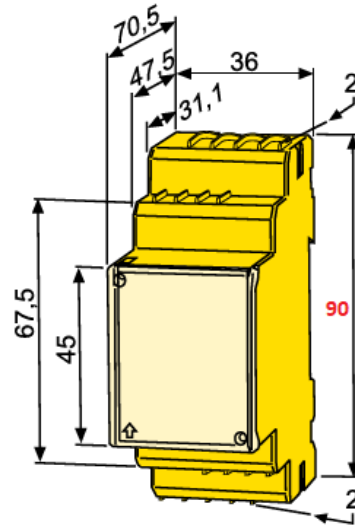
Image isoHV425 with AGH422

2.2 Dimension diagrams

Please observe the deviations marked in red in the following dimension diagrams. For the isoHV425 with AGH422, two enclosures of the specified dimension diagram with a total width of 72 mm must be provided.



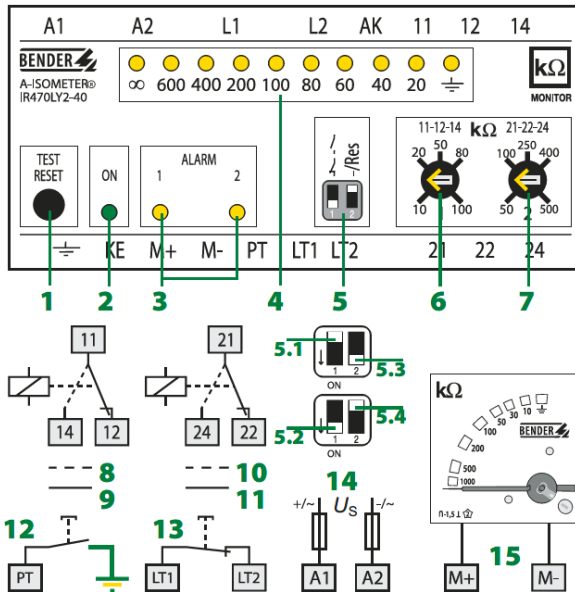
Dimension diagram IR470LY



Dimension diagram
isoHV425 or AGH422

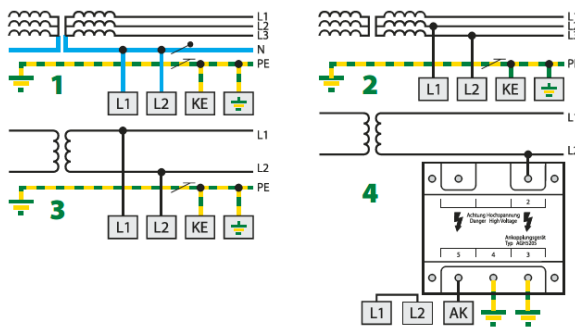
2.3 Terminal assignment and wiring diagram

Wiring diagram – Operating elements



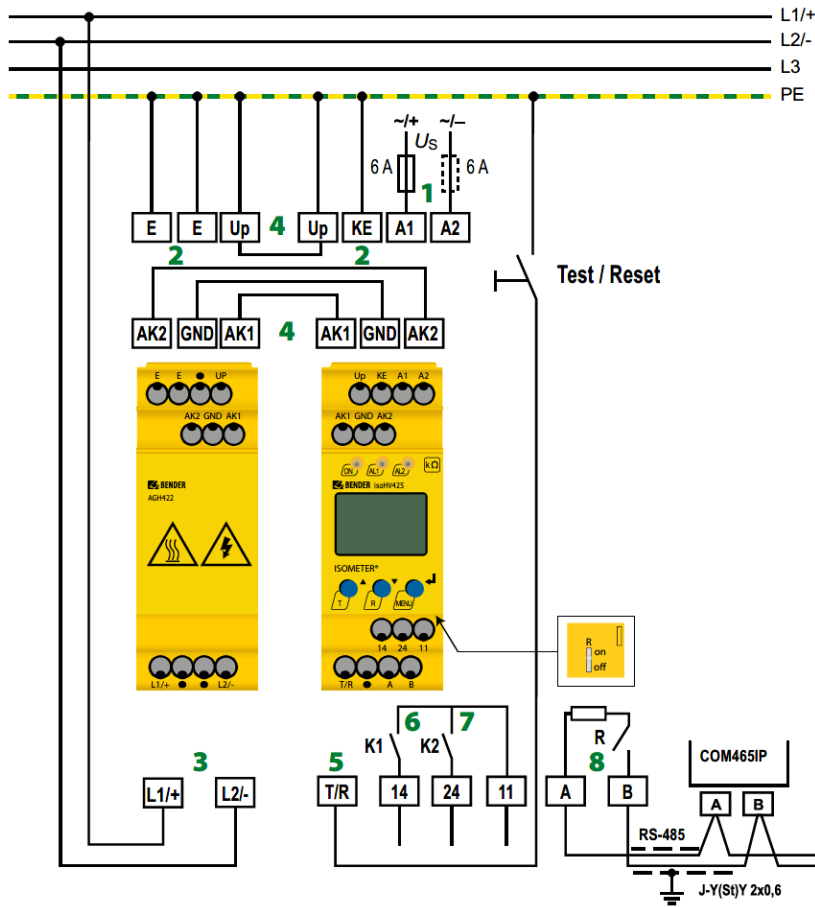
- 1 - Combined test and reset button "TEST/RESET", short-time pressing (< 1 s) = RESET, long-time pressing (> 2 s) = TEST
- 2 - LED Power "ON"
- 3 - Alarm LEDs "1 ALARM 2", yellow; light when the value falls below the set response value and flash in case of interruption of the connecting leads E/KE or L1/L2
- 4 - LED bar graph indicator
- 5 - Operating principle of the alarm relay Fault memory
 - 5.1 - N/O operation
 - 5.2 - N/C operation
 - 5.3 - without fault memory
 - 5.4 - with fault memory
- 6 - Potentiometer to set the response value R_{ALARM1}
- 7 - Potentiometer to set the response value R_{ALARM2}
- 8 - Alarm relay 1: N/O operation
- 9 - Alarm relay 1: N/C operation
- 10 - Alarm relay 2: N/O operation
- 11 - Alarm relay 2: N/C operation
- 12 - External test button "PT"
- 13 - External reset button "LT1, LT2" or bridge for fault memory
- 14 - U_S see ordering information, 6 A fuse recommended
- 15 - External kΩ indicating instrument

Wiring diagram – system connection



- 1 - 3NAC system
- 2 - 3AC system
- 3 - AC system
- 4 - AC system AC 0...7200 V with coupling device AGH520S

Terminal labelling and wiring diagram IR470



- 1 - A1, A2 Connection to the supply voltage via fuse (line protection). If being supplied from an IT system, both lines have to be protected by a fuse.
- 2 - E, KE Connect each terminal separately to PE:
The same wire cross section as for A1, A2 is to be used
- 3 - L1/+, L2/- Connection to the IT system to be monitored
- 4 - Up, AK1, AK2 Connect the terminals of the AGH422 to the corresponding terminals of the ISOMETER®.
- 5 - T/R Connection for the external combined test/reset button
- 6 - 11, 14 Connection to alarm relay K1
- 7 - 11, 24 Connection to alarm relay K2
- 8 - A, B RS-485 communication interface with connectable terminating resistor.

Terminal labelling and wiring diagram isoHV425 with AGH422

2.4 Technical data

The differences in terminal assignment, display/control elements and the main technical data between the IR470LY(-2) and the isoHV425 with AGH422 must be observed.

Terminal assignment					
IR470LY(-2)			isoHV425 with AGH422		
Term	Terminal	Value	Terminal	Value	Note
Nominal voltage Un	L1/L2	AC, 3(N) AC 0...793 V 40...460 Hz	L1/L2	AC 0...1000 V/ DC 0...1000 V AC +10 %, DC +10 % DC, 15...460 Hz	
Supply voltage Us	A1/A2	Different variants AC 24, 42, 90...132, 230, 400, 440, 500, 690 V 0.8...1.15 x US 50...460 Hz DC 9.6...84, 77...286 V	A1/A2	AC 100...240 V/DC 24...240 V -30...+15 %, 47...63 Hz	Observe supply voltage
PE connection	PE symbol, KE		E/KE		
Alarm relay 1	11/12/14	N/O operation	11/14	N/C operation	Adjustable
Alarm relay 2	21/22/24	N/O operation	11/24	N/C operation	Adjustable
External buttons	LT1/LT2	Reset button with activation of a memory function	T/R/E	Combined test and reset button	
	PT/PE symbol	Test button			
Coupling devices	AK	For AGH204S-4, AGH520S	AK1, GND, AK2, Up	For AGH422, cannot be combined with	

				other coupling devices	
RS-485 interface	-	Does not exist	A/B	RS-485 communication interface with BMS protocol	Can be combined with COM465 for isoHV425
Analogue output	M+/M-	External kΩ indicating instrument for 0...400 μA	-	-	
Display/operating elements					
Term	IR470LY(-2)		isoHV425 with AGH422		Note
LEDs	"ON", operation LED		"ON", operation LED		
	Alarm 1 on IR470LY-2 Alarm plus fault on IR470LY		Alarm message response value 1		
	Alarm 2 on IR470LY-2 Alarm minus fault on IR470LY		Alarm message response value 2		
LED line	Display in kΩ				
Buttons	Combined test/reset button		Test button Arrow-up button for the menu		Double function on isoHV425
			Reset button Arrow-down button for the menu		Double function on isoHV425
			Menu button Enter button		Double function on isoHV425
Potentiometer response value setting	1...20 kΩ or 10...200 kΩ for IR470LY				
	10...100 kΩ for IR470LY-2 (Alarm 1)				
	50...500 kΩ for IR470LY-2 (Alarm 2)				
Display	-		For display and adjustment		

Main technical data		
	IR470LY(-2)	isoHV425 with AGH422
Response value	1...20 kΩ or 10...200 kΩ for IR470LY	2 x 10...500 kΩ
	10...100 kΩ for IR470LY-2 (Alarm 1)	
	50...500 kΩ for IR470LY-2 (Alarm 2)	
Internal resistance Ri	≥ 200 kΩ	≥ 390 kΩ
Measuring voltage Um	DC ≤ 40 V (DC measuring principle)	±45 V (AMP measuring principle)
Power consumption max.	≤ 3 VA	≤ 3 W, ≤ 9 VA
Permissible system leakage capacitance	≤ 20 μF	≤ 150 μF
Switching elements	2 changeover contacts	2 x 1 N/O contacts, common terminal 11

3 Observe when replacing

- Note or ask for replacement types in SAP, in most cases the isoHV425-D4-4+AGH422 AC/DC 0-1000V, Art. No.B71036501 can be used
- For device variants IR470LYT... or IR470LYW..., the isoHV425W-D4-4+AGH422 AC/DC 0-1000V, Art. No.B71036501W can be used
- The isoHV425 cannot be connected directly to the mains supply with supply voltages of the device variants IR470...11 (AC 24 V), ...12 (AC 42 V), ...15 (AC 400 V), ...16 (AC 500 V), ...17 (AC 690 V), and ...18 (AC 440 V) since the nominal voltage is only AC 100...240 V, -30...+15 %. Appropriate voltage supplies must be provided here
- In the case of the device variant IR470...21 (DC 9.6...84 V), the isoHV425 cannot be connected directly to the mains supply with a supply voltage < DC 16.8 V (e.g. DC 12 V) since the possible nominal voltage is only DC 24...240 V, -30...+15 %. Appropriate voltage supplies, e.g. DC 24 V, must be provided here.

4 Approvals:

IR470LY(-2)	isoHV425 with AGH422
CE, LR, GL, EAC	CE, more in progress

Table 4.1: Overview of the approvals

5 Overview of discontinued devices incl. successor:

B number	Device name	Successor
B91048001SC	ISOM AS130	B71036501
B91048001SCW	ISOM AS130W	B71036501W
B91048002	IR470LY-4012	B71036501
B91048003SC	ISOM AS130	B71036501
B91048003SCT	ISOM AS130T	B71036501W
B91048003SCW	ISOM AS130W	B71036501W
B91048004SC	ISOM AS130	B71036501
B91048005SC	ISOM AS130	B71036501
B91048006	IR470LY-4021	B71036501
B91048006RB	IR470LYRB-4021	B71036501
B91048006SC	ISOM AM230	B71036501
B91048006T	IR470LYT-4021	B71036501W
B91048006W	IR470LYW-4021	B71036501W
B91048007	IR470LY-40	B71036501
B91048007R	IR470LY-40	B71036501
B91048007RB	IR470LYRB-40	B71036501
B91048007SC	ISOM AM230	B71036501
B91048007SCT	ISOM AM230T	B71036501W
B91048007T	IR470LYT-40	B71036501W
B91048007W	IR470LYW-40	B71036501W
B91048008	IR470LY-4015	B71036501
B91048008RB	IR470LYRB-4015	B71036501
B91048008SC	ISOM AM230	B71036501
B91048008T	IR470LYT-4015	B71036501W
B91048009	IR470LY2-6015	No successor

B91048009SC	ISOM SP001	No successor
B91048010	IR470LY2-60	No successor
B91048010SC	ISOM SP001	No successor
B91048010SCT	ISOM SP001T	No successor
B91048010T	IR470LY2T-60	No successor
B91048011	IR470LY-4013	B71036501
B91048011SC	ISOM AM230	B71036501
B91048011T	IR470LYT-4013	B71036501W
B91048011TRB	IR470LYTRB-4013	B71036501W
B91048011W	IR470LYW-4013	B71036501W
B91048012	IR470LY-4011	B71036501
B91048013	IR470LY2-6013	No successor
B91048013T	IR470LY2T-6013	No successor
B91048014	IR470LY2-6021	No successor
B91048014SC	ISOM SP001	No successor
B91048014SCW	ISOM SP001W	No successor
B91048014T	IR470LYT2-6021	No successor
B91048015	IR470LY-4090	B71036501
B91048015SC	ISOM AS130RA	B71036501
B91048015T	IR470LYT-4090	B71036501W
B91048016SC	ISOM AS130RA	B71036501
B91048017	IR470LY-4017	B71036501
B91048017SC	ISOM AS130RA	B71036501
B91048018	IR470LY-4016	B71036501
B91048018RB	IR470LYRB-4016	B71036501
B91048019	IR478LY-415	B71036501
B91048019SC	ISOM AS130T	B71036501
B91048020	IR478LY-416	B71036501
B91048021	IR478LY-4	B71036501

B91048022	IR478LY-421	B71036501
B91048023	IR478LY-423	B71036501
B91048024	IR470LY-4018	B71036501
B91048024T	IR470LYT-4018	B71036501W
B91048024W	IR470LYW-4018	B71036501W
B91048026	IR470LY-4023	B71036501
B91048026SC	ISOM AM230	B71036501
B91048027SC	ISOM AS130	B71036501
B91048028	IR470LYT-4091	B71036501W
B91048029	IR470LY2-60DB	No successor
B91048030	IR478LYZ-416	B71036501
B91048048	IR478LY-493	B71036501
B91048050	IR470LY2-40	No successor
B91048051	IR478LYZ-4	B71036501
B91048052	IR470LY2-4061	B91067010
B91048052W	IR470LY2W-4061	B91067010W
B91048053	IR470LY2-409	B91067010
B91048054	IR478LY-47	B71036501
B91048055	IR470LY2-6023	No successor
B91048056	IR470LY2-4021	No successor
B91068037	IR475LY-421	B71036501
B91068037SC	ISOM AM475	B71036501
B91068037T	IR475LYT-421	B71036501W
B91068038	IR475LY-4	B71036501
B91068038RB	IR475LYRB-4	B71036501
B91068038SC	ISOM AM475	B71036501
B91068038SCT	ISOM AM475	B71036501W
B91068038T	IR475LYT-4	B71036501W
B91068038W	IR475LYW-4	B71036501W

B91068039SC	ISOM AM475	B71036501
B91068041	IR475LY-413	B71036501
B91068041SC	ISOM AM475	B71036501
B91068041SCT	ISOM AM475T	B71036501W
B91068041T	IR475LYT-413	B71036501W
B91068041TRB	IR475LYTRB-413	B71036501W
B91068042	IR475LY-415	B71036501
B91068042SC	ISOM AM475	B71036501
B91068043	IR475LY-417	B71036501
B91068044	IR475LY-423	B71036501
B91068044SC	ISOM AM475	B71036501
B91068044T	IR475LYT-423	B71036501W
B91068045	IR475LYT-421	B71036501
B91068045SCT	ISOM AM475T	B71036501W
B91068045SCW	ISOM AM475W	B71036501W
B91068046	IR475LYT-429	B71036501W
B91068046SCT	ISOM AM475T	B71036501W
B91068047	IR475LY-416	B71036501
B91068063	IR475YM-421	B71036501
B91068070	IR475LY-418	B71036501
B91068072	IR475LY-P49213	B91067010W
B91068094	IR474LY-421	B71036501
B91068095	IR475YM-4	B71036501
B91068097T	IR475LYT-4921	B91067010
B91068103	IR474LY-4921	B91067010
B91068126	IR475LY-P49221	B71036501W
B91068127	IR475LY-P49229	B71036501W
B91078001	IREH470Y2-6	No successor
B91078001SC	ISOM SP003	No successor

B91078001W	IREH470Y2W-6	No successor
B91078002	IREH470Y2-613	No successor
B91078003	IREH470Y2-615	No successor
B91078003SC	ISOM SP003	No successor
B91078006	IREH470Y2-621	No successor
B91078006SC	ISOM SP003	No successor
B91078006T	IREH470Y2T-621	No successor
B91078006W	IREH470Y2W-621	No successor
B91078007	IREH470Y2-67	No successor
B91078008	IREH470Y2-6723	No successor
B91078012	IREH470Y2-623	No successor
B91078014	IREH470Y2-618	No successor