

# Bypass Thyristor Market, Global Outlook and Forecast 2022-2028

https://marketpublishers.com/r/B1B5E12CFA96EN.html

Date: April 2022

Pages: 79

Price: US\$ 3,250.00 (Single User License)

ID: B1B5E12CFA96EN

## **Abstracts**

This report contains market size and forecasts of Bypass Thyristor in global, including the following market information:

Global Bypass Thyristor Market Revenue, 2017-2022, 2023-2028, (\$ millions)

Global Bypass Thyristor Market Sales, 2017-2022, 2023-2028, (K Units)

Global top five Bypass Thyristor companies in 2021 (%)

The global Bypass Thyristor market was valued at million in 2021 and is projected to reach US\$ million by 2028, at a CAGR of % during the forecast period 2022-2028.

The U.S. Market is Estimated at \$ Million in 2021, While China is Forecast to Reach \$ Million by 2028.

1000V Segment to Reach \$ Million by 2028, with a % CAGR in next six years.

The global key manufacturers of Bypass Thyristor include Hitachi Energy and Dynex Semiconductor etc. In 2021, the global top five players have a share approximately % in terms of revenue.

MARKET MONITOR GLOBAL, INC (MMG) has surveyed the Bypass Thyristor manufacturers, suppliers, distributors and industry experts on this industry, involving the sales, revenue, demand, price change, product type, recent development and plan, industry trends, drivers, challenges, obstacles, and potential risks.



Total Market by Segment:

Global Bypass Thyristor Market, by Forward Off-state Repetitive Peak Voltage, 2017-2022, 2023-2028 (\$ Millions) & (K Units)
Global Bypass Thyristor Market Segment Percentages, by Forward Off-state Repetitive Peak Voltage, 2021 (%)
1000V
8400V
Global Bypass Thyristor Market, by Application, 2017-2022, 2023-2028 (\$ Millions) & (K Units)
Global Bypass Thyristor Market Segment Percentages, by Application, 2021 (%)
Electrical Industry
Industrial
Others
Global Bypass Thyristor Market, By Region and Country, 2017-2022, 2023-2028 (\$ Millions) & (K Units)
Global Bypass Thyristor Market Segment Percentages, By Region and Country, 2021 (%)
North America
US

Canada

Mexico



## Europe Germany France U.K. Italy Russia **Nordic Countries** Benelux Rest of Europe Asia China Japan South Korea Southeast Asia India Rest of Asia South America Brazil Argentina

Rest of South America



Middle East & Africa
Turkey
Israel
Saudi Arabia
UAE
Rest of Middle East & Africa
Competitor Analysis
The report also provides analysis of leading market participants including:
Key companies Bypass Thyristor revenues in global market, 2017-2022 (Estimated), (\$millions)
Key companies Bypass Thyristor revenues share in global market, 2021 (%)
Key companies Bypass Thyristor sales in global market, 2017-2022 (Estimated), (K Units)
Key companies Bypass Thyristor sales share in global market, 2021 (%)
Further, the report presents profiles of competitors in the market, key players include:
Hitachi Energy
Dynex Semiconductor



### **Contents**

#### 1 INTRODUCTION TO RESEARCH & ANALYSIS REPORTS

- 1.1 Bypass Thyristor Market Definition
- 1.2 Market Segments
  - 1.2.1 Market by Forward Off-state Repetitive Peak Voltage
  - 1.2.2 Market by Application
- 1.3 Global Bypass Thyristor Market Overview
- 1.4 Features & Benefits of This Report
- 1.5 Methodology & Sources of Information
  - 1.5.1 Research Methodology
  - 1.5.2 Research Process
  - 1.5.3 Base Year
  - 1.5.4 Report Assumptions & Caveats

#### 2 GLOBAL BYPASS THYRISTOR OVERALL MARKET SIZE

- 2.1 Global Bypass Thyristor Market Size: 2021 VS 2028
- 2.2 Global Bypass Thyristor Revenue, Prospects & Forecasts: 2017-2028
- 2.3 Global Bypass Thyristor Sales: 2017-2028

#### **3 COMPANY LANDSCAPE**

- 3.1 Top Bypass Thyristor Players in Global Market
- 3.2 Top Global Bypass Thyristor Companies Ranked by Revenue
- 3.3 Global Bypass Thyristor Revenue by Companies
- 3.4 Global Bypass Thyristor Sales by Companies
- 3.5 Global Bypass Thyristor Price by Manufacturer (2017-2022)
- 3.6 Top 3 and Top 5 Bypass Thyristor Companies in Global Market, by Revenue in 2021
- 3.7 Global Manufacturers Bypass Thyristor Product Type
- 3.8 Tier 1, Tier 2 and Tier 3 Bypass Thyristor Players in Global Market
  - 3.8.1 List of Global Tier 1 Bypass Thyristor Companies
  - 3.8.2 List of Global Tier 2 and Tier 3 Bypass Thyristor Companies

#### **4 SIGHTS BY PRODUCT**

#### 4.1 Overview



- 4.1.1 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Market Size Markets, 2021 & 2028
  - 4.1.2 1000V
- 4.1.3 8400V
- 4.2 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Revenue & Forecasts
- 4.2.1 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Revenue, 2017-2022
- 4.2.2 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Revenue, 2023-2028
- 4.2.3 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Revenue Market Share, 2017-2028
- 4.3 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Sales & Forecasts
- 4.3.1 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Sales, 2017-2022
- 4.3.2 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Sales, 2023-2028
- 4.3.3 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Sales Market Share, 2017-2028
- 4.4 By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Price (Manufacturers Selling Prices), 2017-2028

#### **5 SIGHTS BY APPLICATION**

- 5.1 Overview
  - 5.1.1 By Application Global Bypass Thyristor Market Size, 2021 & 2028
  - 5.1.2 Electrical Industry
  - 5.1.3 Industrial
  - 5.1.4 Others
- 5.2 By Application Global Bypass Thyristor Revenue & Forecasts
  - 5.2.1 By Application Global Bypass Thyristor Revenue, 2017-2022
  - 5.2.2 By Application Global Bypass Thyristor Revenue, 2023-2028
  - 5.2.3 By Application Global Bypass Thyristor Revenue Market Share, 2017-2028
- 5.3 By Application Global Bypass Thyristor Sales & Forecasts
  - 5.3.1 By Application Global Bypass Thyristor Sales, 2017-2022
  - 5.3.2 By Application Global Bypass Thyristor Sales, 2023-2028
  - 5.3.3 By Application Global Bypass Thyristor Sales Market Share, 2017-2028
- 5.4 By Application Global Bypass Thyristor Price (Manufacturers Selling Prices),



#### 2017-2028

#### **6 SIGHTS BY REGION**

- 6.1 By Region Global Bypass Thyristor Market Size, 2021 & 2028
- 6.2 By Region Global Bypass Thyristor Revenue & Forecasts
  - 6.2.1 By Region Global Bypass Thyristor Revenue, 2017-2022
  - 6.2.2 By Region Global Bypass Thyristor Revenue, 2023-2028
  - 6.2.3 By Region Global Bypass Thyristor Revenue Market Share, 2017-2028
- 6.3 By Region Global Bypass Thyristor Sales & Forecasts
  - 6.3.1 By Region Global Bypass Thyristor Sales, 2017-2022
  - 6.3.2 By Region Global Bypass Thyristor Sales, 2023-2028
  - 6.3.3 By Region Global Bypass Thyristor Sales Market Share, 2017-2028
- 6.4 North America
  - 6.4.1 By Country North America Bypass Thyristor Revenue, 2017-2028
  - 6.4.2 By Country North America Bypass Thyristor Sales, 2017-2028
  - 6.4.3 US Bypass Thyristor Market Size, 2017-2028
  - 6.4.4 Canada Bypass Thyristor Market Size, 2017-2028
  - 6.4.5 Mexico Bypass Thyristor Market Size, 2017-2028

#### 6.5 Europe

- 6.5.1 By Country Europe Bypass Thyristor Revenue, 2017-2028
- 6.5.2 By Country Europe Bypass Thyristor Sales, 2017-2028
- 6.5.3 Germany Bypass Thyristor Market Size, 2017-2028
- 6.5.4 France Bypass Thyristor Market Size, 2017-2028
- 6.5.5 U.K. Bypass Thyristor Market Size, 2017-2028
- 6.5.6 Italy Bypass Thyristor Market Size, 2017-2028
- 6.5.7 Russia Bypass Thyristor Market Size, 2017-2028
- 6.5.8 Nordic Countries Bypass Thyristor Market Size, 2017-2028
- 6.5.9 Benelux Bypass Thyristor Market Size, 2017-2028

#### 6.6 Asia

- 6.6.1 By Region Asia Bypass Thyristor Revenue, 2017-2028
- 6.6.2 By Region Asia Bypass Thyristor Sales, 2017-2028
- 6.6.3 China Bypass Thyristor Market Size, 2017-2028
- 6.6.4 Japan Bypass Thyristor Market Size, 2017-2028
- 6.6.5 South Korea Bypass Thyristor Market Size, 2017-2028
- 6.6.6 Southeast Asia Bypass Thyristor Market Size, 2017-2028
- 6.6.7 India Bypass Thyristor Market Size, 2017-2028
- 6.7 South America
  - 6.7.1 By Country South America Bypass Thyristor Revenue, 2017-2028



- 6.7.2 By Country South America Bypass Thyristor Sales, 2017-2028
- 6.7.3 Brazil Bypass Thyristor Market Size, 2017-2028
- 6.7.4 Argentina Bypass Thyristor Market Size, 2017-2028
- 6.8 Middle East & Africa
  - 6.8.1 By Country Middle East & Africa Bypass Thyristor Revenue, 2017-2028
  - 6.8.2 By Country Middle East & Africa Bypass Thyristor Sales, 2017-2028
  - 6.8.3 Turkey Bypass Thyristor Market Size, 2017-2028
  - 6.8.4 Israel Bypass Thyristor Market Size, 2017-2028
  - 6.8.5 Saudi Arabia Bypass Thyristor Market Size, 2017-2028
- 6.8.6 UAE Bypass Thyristor Market Size, 2017-2028

#### 7 MANUFACTURERS & BRANDS PROFILES

- 7.1 Hitachi Energy
  - 7.1.1 Hitachi Energy Corporate Summary
  - 7.1.2 Hitachi Energy Business Overview
  - 7.1.3 Hitachi Energy Bypass Thyristor Major Product Offerings
  - 7.1.4 Hitachi Energy Bypass Thyristor Sales and Revenue in Global (2017-2022)
  - 7.1.5 Hitachi Energy Key News
- 7.2 Dynex Semiconductor
  - 7.2.1 Dynex Semiconductor Corporate Summary
  - 7.2.2 Dynex Semiconductor Business Overview
  - 7.2.3 Dynex Semiconductor Bypass Thyristor Major Product Offerings
- 7.2.4 Dynex Semiconductor Bypass Thyristor Sales and Revenue in Global (2017-2022)
- 7.2.5 Dynex Semiconductor Key News

#### 8 GLOBAL BYPASS THYRISTOR PRODUCTION CAPACITY, ANALYSIS

- 8.1 Global Bypass Thyristor Production Capacity, 2017-2028
- 8.2 Bypass Thyristor Production Capacity of Key Manufacturers in Global Market
- 8.3 Global Bypass Thyristor Production by Region

#### 9 KEY MARKET TRENDS, OPPORTUNITY, DRIVERS AND RESTRAINTS

- 9.1 Market Opportunities & Trends
- 9.2 Market Drivers
- 9.3 Market Restraints



#### 10 BYPASS THYRISTOR SUPPLY CHAIN ANALYSIS

- 10.1 Bypass Thyristor Industry Value Chain
- 10.2 Bypass Thyristor Upstream Market
- 10.3 Bypass Thyristor Downstream and Clients
- 10.4 Marketing Channels Analysis
  - 10.4.1 Marketing Channels
- 10.4.2 Bypass Thyristor Distributors and Sales Agents in Global

#### 11 CONCLUSION

#### 12 APPENDIX

- 12.1 Note
- 12.2 Examples of Clients
- 12.3 Disclaimer



## **List Of Tables**

#### LIST OF TABLES

- Table 1. Key Players of Bypass Thyristor in Global Market
- Table 2. Top Bypass Thyristor Players in Global Market, Ranking by Revenue (2021)
- Table 3. Global Bypass Thyristor Revenue by Companies, (US\$, Mn), 2017-2022
- Table 4. Global Bypass Thyristor Revenue Share by Companies, 2017-2022
- Table 5. Global Bypass Thyristor Sales by Companies, (K Units), 2017-2022
- Table 6. Global Bypass Thyristor Sales Share by Companies, 2017-2022
- Table 7. Key Manufacturers Bypass Thyristor Price (2017-2022) & (US\$/Unit)
- Table 8. Global Manufacturers Bypass Thyristor Product Type
- Table 9. List of Global Tier 1 Bypass Thyristor Companies, Revenue (US\$, Mn) in 2021 and Market Share
- Table 10. List of Global Tier 2 and Tier 3 Bypass Thyristor Companies, Revenue (US\$, Mn) in 2021 and Market Share
- Table 11. By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Revenue, (US\$, Mn), 2021 & 2028
- Table 12. By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Revenue (US\$, Mn), 2017-2022
- Table 13. By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Revenue (US\$, Mn), 2023-2028
- Table 14. By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Sales (K Units), 2017-2022
- Table 15. By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Sales (K Units), 2023-2028
- Table 16. By Application Global Bypass Thyristor Revenue, (US\$, Mn), 2021 & 2028
- Table 17. By Application Global Bypass Thyristor Revenue (US\$, Mn), 2017-2022
- Table 18. By Application Global Bypass Thyristor Revenue (US\$, Mn), 2023-2028
- Table 19. By Application Global Bypass Thyristor Sales (K Units), 2017-2022
- Table 20. By Application Global Bypass Thyristor Sales (K Units), 2023-2028
- Table 21. By Region Global Bypass Thyristor Revenue, (US\$, Mn), 2021 VS 2028
- Table 22. By Region Global Bypass Thyristor Revenue (US\$, Mn), 2017-2022
- Table 23. By Region Global Bypass Thyristor Revenue (US\$, Mn), 2023-2028
- Table 24. By Region Global Bypass Thyristor Sales (K Units), 2017-2022
- Table 25. By Region Global Bypass Thyristor Sales (K Units), 2023-2028
- Table 26. By Country North America Bypass Thyristor Revenue, (US\$, Mn), 2017-2022
- Table 27. By Country North America Bypass Thyristor Revenue, (US\$, Mn),



#### 2023-2028

- Table 28. By Country North America Bypass Thyristor Sales, (K Units), 2017-2022
- Table 29. By Country North America Bypass Thyristor Sales, (K Units), 2023-2028
- Table 30. By Country Europe Bypass Thyristor Revenue, (US\$, Mn), 2017-2022
- Table 31. By Country Europe Bypass Thyristor Revenue, (US\$, Mn), 2023-2028
- Table 32. By Country Europe Bypass Thyristor Sales, (K Units), 2017-2022
- Table 33. By Country Europe Bypass Thyristor Sales, (K Units), 2023-2028
- Table 34. By Region Asia Bypass Thyristor Revenue, (US\$, Mn), 2017-2022
- Table 35. By Region Asia Bypass Thyristor Revenue, (US\$, Mn), 2023-2028
- Table 36. By Region Asia Bypass Thyristor Sales, (K Units), 2017-2022
- Table 37. By Region Asia Bypass Thyristor Sales, (K Units), 2023-2028
- Table 38. By Country South America Bypass Thyristor Revenue, (US\$, Mn), 2017-2022
- Table 39. By Country South America Bypass Thyristor Revenue, (US\$, Mn), 2023-2028
- Table 40. By Country South America Bypass Thyristor Sales, (K Units), 2017-2022
- Table 41. By Country South America Bypass Thyristor Sales, (K Units), 2023-2028
- Table 42. By Country Middle East & Africa Bypass Thyristor Revenue, (US\$, Mn), 2017-2022
- Table 43. By Country Middle East & Africa Bypass Thyristor Revenue, (US\$, Mn), 2023-2028
- Table 44. By Country Middle East & Africa Bypass Thyristor Sales, (K Units), 2017-2022
- Table 45. By Country Middle East & Africa Bypass Thyristor Sales, (K Units), 2023-2028
- Table 46. Hitachi Energy Corporate Summary
- Table 47. Hitachi Energy Bypass Thyristor Product Offerings
- Table 48. Hitachi Energy Bypass Thyristor Sales (K Units), Revenue (US\$, Mn) and Average Price (US\$/Unit) (2017-2022)
- Table 49. Dynex Semiconductor Corporate Summary
- Table 50. Dynex Semiconductor Bypass Thyristor Product Offerings
- Table 51. Dynex Semiconductor Bypass Thyristor Sales (K Units), Revenue (US\$, Mn) and Average Price (US\$/Unit) (2017-2022)
- Table 52. Bypass Thyristor Production Capacity (K Units) of Key Manufacturers in Global Market, 2020-2022 (K Units)
- Table 53. Global Bypass Thyristor Capacity Market Share of Key Manufacturers, 2020-2022
- Table 54. Global Bypass Thyristor Production by Region, 2017-2022 (K Units)
- Table 55. Global Bypass Thyristor Production by Region, 2023-2028 (K Units)



- Table 56. Bypass Thyristor Market Opportunities & Trends in Global Market
- Table 57. Bypass Thyristor Market Drivers in Global Market
- Table 58. Bypass Thyristor Market Restraints in Global Market
- Table 59. Bypass Thyristor Raw Materials
- Table 60. Bypass Thyristor Raw Materials Suppliers in Global Market
- Table 61. Typical Bypass Thyristor Downstream
- Table 62. Bypass Thyristor Downstream Clients in Global Market
- Table 63. Bypass Thyristor Distributors and Sales Agents in Global Market



## **List Of Figures**

#### **LIST OF FIGURES**

- Figure 1. Bypass Thyristor Segment by Forward Off-state Repetitive Peak Voltage
- Figure 2. Bypass Thyristor Segment by Application
- Figure 3. Global Bypass Thyristor Market Overview: 2021
- Figure 4. Key Caveats
- Figure 5. Global Bypass Thyristor Market Size: 2021 VS 2028 (US\$, Mn)
- Figure 6. Global Bypass Thyristor Revenue, 2017-2028 (US\$, Mn)
- Figure 7. Bypass Thyristor Sales in Global Market: 2017-2028 (K Units)
- Figure 8. The Top 3 and 5 Players Market Share by Bypass Thyristor Revenue in 2021
- Figure 9. By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Sales Market Share, 2017-2028
- Figure 10. By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Revenue Market Share, 2017-2028
- Figure 11. By Forward Off-state Repetitive Peak Voltage Global Bypass Thyristor Price (US\$/Unit), 2017-2028
- Figure 12. By Application Global Bypass Thyristor Sales Market Share, 2017-2028
- Figure 13. By Application Global Bypass Thyristor Revenue Market Share, 2017-2028
- Figure 14. By Application Global Bypass Thyristor Price (US\$/Unit), 2017-2028
- Figure 15. By Region Global Bypass Thyristor Sales Market Share, 2017-2028
- Figure 16. By Region Global Bypass Thyristor Revenue Market Share, 2017-2028
- Figure 17. By Country North America Bypass Thyristor Revenue Market Share, 2017-2028
- Figure 18. By Country North America Bypass Thyristor Sales Market Share, 2017-2028
- Figure 19. US Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 20. Canada Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 21. Mexico Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 22. By Country Europe Bypass Thyristor Revenue Market Share, 2017-2028
- Figure 23. By Country Europe Bypass Thyristor Sales Market Share, 2017-2028
- Figure 24. Germany Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 25. France Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 26. U.K. Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 27. Italy Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 28. Russia Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 29. Nordic Countries Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 30. Benelux Bypass Thyristor Revenue, (US\$, Mn), 2017-2028



- Figure 31. By Region Asia Bypass Thyristor Revenue Market Share, 2017-2028
- Figure 32. By Region Asia Bypass Thyristor Sales Market Share, 2017-2028
- Figure 33. China Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 34. Japan Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 35. South Korea Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 36. Southeast Asia Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 37. India Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 38. By Country South America Bypass Thyristor Revenue Market Share, 2017-2028
- Figure 39. By Country South America Bypass Thyristor Sales Market Share, 2017-2028
- Figure 40. Brazil Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 41. Argentina Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 42. By Country Middle East & Africa Bypass Thyristor Revenue Market Share, 2017-2028
- Figure 43. By Country Middle East & Africa Bypass Thyristor Sales Market Share, 2017-2028
- Figure 44. Turkey Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 45. Israel Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 46. Saudi Arabia Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 47. UAE Bypass Thyristor Revenue, (US\$, Mn), 2017-2028
- Figure 48. Global Bypass Thyristor Production Capacity (K Units), 2017-2028
- Figure 49. The Percentage of Production Bypass Thyristor by Region, 2021 VS 2028
- Figure 50. Bypass Thyristor Industry Value Chain
- Figure 51. Marketing Channels



#### I would like to order

Product name: Bypass Thyristor Market, Global Outlook and Forecast 2022-2028

Product link: <a href="https://marketpublishers.com/r/B1B5E12CFA96EN.html">https://marketpublishers.com/r/B1B5E12CFA96EN.html</a>

Price: US\$ 3,250.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

## **Payment**

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/B1B5E12CFA96EN.html">https://marketpublishers.com/r/B1B5E12CFA96EN.html</a>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970